DRAFT INITIAL STUDY AND
MITIGATED NEGATIVE DECLARATION

PRODUCED WATER PRE-TREATMENT & ADVANCED WATER SOLUTIONS PROJECT

WASCO, CALIFORNIA

AUGUST 2020

NOTICE OF PUBLIC HEARING AND INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

This is to advise that the City of Wasco Community Development Planning Division has prepared a Mitigated Negative Declaration for the Project identified below that is scheduled to be heard at the City of Wasco Planning Commission Meeting on Monday, October 12, 2020

PLEASE BE ADVISED that the City of Wasco will consider adopting the Mitigated Negative Declaration at the Planning Commission's meeting to be held on October 12, 2020. Presentations will be made at approximately 6:00 p.m. Action on items on the commission agenda will occur after the presentations. The meeting will be held in the Wasco City Hall located at 746 8th Street, in Wasco, CA 93280.

Project Name

Produced Water Pre-Treatment & Advanced Water Solutions Project by Blue Water Resources

Project Location

Northwest corner of 6th Street and J Street in Wasco, California.

Project Description

The proposed Project consists of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The wastewater treatment facility is designed to treat industrial, non-hazardous wastewater, which will be brought to the facility by truck transportation.

Process equipment will be installed in an existing industrial building and will be designed to process between 100,000 to 700,000 gallons per day (GPO) of wastewater.

Wastewater received at the facility will be from oilfield operations, including Produced Water and Flow Back Water. The wastewater to be treated will have the following primary ingredients:

- Petroleum oil,
- BOD materials,
- Metals, and
- Suspended solids

Wastewater being received at the site will either be off-loaded directly into the processing facility or held in portable tanks on the property, to be subsequently piped into the processing facility. All processing equipment and process steps will be within the building. Water is treated in a multi-stage treatment process and then pumped to holding tanks. A Blue Water Resource operator will manually initiate operation of the transfer pumps to move Treated water from the product storage tanks will be automatically pumped to tankers that will haul water off the site.

The facility is proposed to operate 7 days a week with 24-hour workdays. The facility will have 15 full-time employees who will work in shifts. There will be 40-75 tanker truck trips and 10-12 water truck trips to the property per day.

The primary objective of the treatment process is to cleanse the water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. Other uses for the treated water include distributing to environmental firms, water resource companies, and other small independent oil and gas producers merchant facilities.

The document and documents referenced in the Initial Study/Mitigated Negative Declaration are available for review at Wasco City Hall located at 764 E Street in Wasco, CA 93280. Any person wishing to testify on the above project may appear before the Planning Commission at their hearing of October 12, 2020, or may submit written comments on or before October 12, 2020.

As mandated by the California Environmental Quality Act (CEQA), the public review period for this document was 30 days (CEQA Section 15073[b]). The public review period began on August 28, 2020, and ended on September 30, 2020. For further information, please contact Jaymie Brauer at 661-616-2600 or jaymie.bruaer@qkinc.com.

If you challenge this proposal or any aspect of it in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or written correspondence delivered to the City of Wasco Planning Department, 764 "E" Street, Wasco, CA 93280, at, or prior to the public hearing.

If you need special assistance to participate in the meetings described in this notice, please contact the City Clerk's Office at (661) 758-7215 to make reasonable arrangements to ensure accessibility to these meetings. Telephone (661) 758-7215 or via California Relay Service (Hearing-Impaired Only). Requests for assistance should be made at least two (2) days in advance whenever possible.

If you have any questions, you may contact the Community Development Department at (661) 758-7200.

Publish on or before: September 16, 2020

2020-08-25
T08:19:14-07:00

Maria Martinez, City Clerk

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Produced Water Pre-Treatment & Advanced Water Solutions Project by Blue Water Resources

Lead Agency: City of Wasco | Contact Person: Keri Cobb

Mailing Address: 764 E Street | Phone: 559-386-5776

City: Wasco | Zip: 93280 | County: Kern

Project Location: County: Kern | City/Nearest Community: Wasco

Cross Streets: Northwest corner of J Street and 6th Street | Zip Code: 93280

Longitude/Latitude (degrees, minutes and seconds): 35 ° 59 ′ 55 ″ N / 119 ° 32 ′ 87 ″ W | Total Acres: 7

Assessor's Parcel No.: 030-020-19 | Section: 7 | Twp.: 27S | Range: 25E | Base: MDB&M

Within 2 Miles: State Hwy #: SR 43, SR 46 | Waterways: N/A

Airports: Wasco-Kern County Airport | Railways: Wasco Station | Schools: Karl Clemens Elementary, James A. Forrest Elementary,\

Document Type:

CEQA: ☐ NOP ☐ Draft EIR | NEPA: ☐ NOI | Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR | ☐ EA | ☐ Final Document
☐ Neg Dec (Prior SCH No.) _____ | ☐ Draft EIS | ☐ Other: _____
☒ Mit Neg Dec Other: _____ | ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☒ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other: _____

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☒ Industrial: Sq.ft. _____ Acres 7 Employees 15
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☒ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☒ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other: _____

Present Land Use/Zoning/General Plan Designation:

Heavy Industrial

Project Description: *(please use a separate page if necessary)*

The proposed project consists of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The wastewater treatment facility is designed to treat industrial, non-hazardous wastewater, which will be brought to the facility by truck transportation.
Process equipment will be installed in an existing industrial building and will be designed to process between 100,000 to 700,000 gallons per day (GPO) of wastewater. The primary objective of the treatment process is to cleanse the water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. The water treatment plant will reduce the need for groundwater extraction.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

x	Air Resources Board		Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
	California Highway Patrol		Pesticide Regulation, Department of
x	Caltrans District # 6		Public Utilities Commission
	Caltrans Division of Aeronautics	x	Regional WQCB # 5
	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	x	SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
x	Fish & Game Region # 4		Tahoe Regional Planning Agency
	Food & Agriculture, Department of	x	Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of	x	Water Resources, Department of
	General Services, Department of		
	Health Services, Department of		Other:
	Housing & Community Development		Other:
x	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date August 28, 2020 Ending Date September 30, 2020

Lead Agency (Complete if applicable):

Consulting Firm: QK Inc.
Address: 5080 California Ave, Suite 220
City/State/Zip: Bakersfield, CA 93309
Contact: Jaymie Brauer
Phone: 661-616-2600

Applicant: BlueWater Resources, LLC
Address: 591 J Street
City/State/Zip: Wasco, CA 93280
Phone: 520-971-4102

Signature of Lead Agency Representative: DocuSigned by: Keri Cobb 892803515BFD4BC... **Date:** 8/26/2020

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

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MITIGATED NEGATIVE DECLARATION

As Lead Agency under the California Environmental Quality Act (CEQA), the City of Wasco Community Development Planning Division has reviewed the Project described below to determine whether it could have a significant effect on the environment because of its development. In accordance with CEQA Guidelines Section 15382, "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Project Name

Produced Water Pre-Treatment & Advanced Water Solutions Project by Blue Water Resources.

Project Location

Northwest corner of 6th Street and J Street in Wasco, California.

Project Description

The proposed Project includes approval of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The wastewater treatment facility is designed to treat industrial, non-hazardous wastewater, which will be brought to the facility by truck transportation. Process equipment will be installed in an existing industrial building and will be designed to process between 100,000 to 700,000 gallons per day (GPO) of wastewater.

Wastewater received at the facility will be from oilfield operations, including Produced Water and Flow Back Water. The wastewater to be treated will have the following primary ingredients:

- Petroleum oil,
- BOD materials,
- Metals, and
- Suspended solids

Wastewater being received at the site will either be off-loaded directly into the processing facility or held in portable tanks on the property, to be subsequently piped into the processing facility. All processing equipment and process steps will be within the building. Water is treated in a multi-stage treatment process and then pumped to holding tanks. A BWR operator will manually initiate operation of the transfer pumps to move Treated water from the product storage tanks to be automatically pumped to tankers that will haul water off the site.

The facility is proposed to operate 7 days a week with 24-hour work days. The facility will have 15 full time employees who will work in shifts. There will be 40-75 tanker truck trips and 10-12 water truck trips to the property per day.

The primary objective of the treatment process is to cleanse the water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. The water treatment plant will reduce the need for groundwater extraction.

Influent water would be delivered in tanker trucks, each containing approximately 100-150 barrels (bbl) per tanker. Upon delivery, the water will be stored in tanks. Each tank can hold 500 bbl per tank. The storage tanks contain double side walls and spill guards. The containers will blend and pre-process oil and water separation and softening. Once the oil and water has been separated, larger tanks will be used to blend homogenous water and "offsetting water." The pre-treatment processes are designed to remove large flocculants (1 micron and above) and provide for a minimal level of treatment and softening for return to the oilfield for additional drilling or stabilization. Effluent water will be clean having been treated by Ultrafiltration, Granulated Activated Carbon, and single or multiple forms of reverse osmosis. Throughout the pre-treatment and advanced water solution operations the process will collect, recirculate and capture concentrated, non-hazardous "produced water" for traditional disposal into an injection well through a licensed and certified service provider. The water treatment plant will consist of the following six major process zones:

Zone 1 will consist of initial testing of the raw water from each truck at a lab located at the job site. If the water is accepted, the contents will be given a storage designation and the truck will be directed to an unloading station. Connection of the tanker to the transfer system is completed by Blue Water Resource personnel. A series of headers and automatic valves are used to divert the untreated water to the designated bulk storage group (A, B or C). A determination is made on whether the contents from various storage tanks groups can be blended. The produced water transfers and blending activities would take place within the tank farm on the Project site. The respective blending ratios are determined and a recipe for treatment of the blended water is developed.

Zone 2 is the clarification system. The primary purpose for clarification is to remove suspended solids and particulate matter from the untreated water, often by adding flocculants and coagulants. The clarification system can also be used to adjust the pH as needed, for precipitation and settling of specific ions, and for removal of oil and grease. This process would take place outside the building. In this process, water is automatically processed through the clarifiers when blended water is available for treatment and there is space in the clarifier filtrate tank. Water is pumped from the blending tanks into the clarifier chemical reaction tanks where chemicals are injected at an automatic dosage based on the chemistry of the blended water. Mixing occurs in the reaction tank and then the water flows into the settling basins for precipitation. Flow from the chemical reaction tank into the settling basins is gravity based and controlled using manual valves.

Zone 3 is the Dissolved Air Flotation (DAF) system which removes suspended solids, oils, greases and non-soluble organics by a process of dissolving air into water under pressure

and then releasing the air at atmospheric pressure in a flotation tank basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device. Clarified filtrate is processed through the DAF automatically in a batch process. When a batch of Clarified filtrate is available (as feed water) and storage space is available in the DAF permeate tank, clarified water will be pumped into the DAF chemical mixing tank. Chemicals and/or organic clay are added in the mixing tank to enhance removal of target constituents. Water flows by gravity from the mixing tank into the dissolved air chamber where the solids are removed by a skimmer. DAF effluent water flows into the DAF filtrate storage tank. The DAF unit will be on the pad directly west of the building.

Zone 4 is the Ultrafiltration (UF) system which is a membrane-based process that is designed to remove colloidal matter, biological matter, large molecular weight organics, and residual oil. Effluent water from the UF system is of adequate quality to process through reverse osmosis membranes. Water is automatically processed through the ultrafiltration system in batches as DAF filtrate is available and there is space in the UF filtrate tank. Each UF skid is equipped with an integrated programmable logic controller (PLC)-based controller and human machine (HMI). All operating conditions will be automatically monitored and controlled by the local PLC. The UF skid will turn on and off automatically based on water levels and automatically enter a backwash based on trans-membrane pressure. The UF systems will complete an automatic startup sequence, enter online operation, and remain in operation until a backwash is required, feed water is no longer available, product water storage is unavailable, or an alarm condition occurs.

Zone 5 is Reverse Osmosis Process that will remove greater than ninety percent of all dissolved solids, organics, particulate and bacteria. The product (permeate) water from the reverse osmosis systems is of good quality and is stored for reuse or resale. The concentrate water from the first pass RO has high levels of TDS and is also stored for reuse or resale. There are three Reverse Osmosis systems in the Water Treatment Plant; RO1, RO2 & RO3. RO1 is for treating water that has a dissolved solids level below 5,000-mg/l. RO2 is for treating water that has a dissolved solids level greater than 5,000-mg/l and below 18,000-mg/l TDS. RO3 is a second-pass RO for treating the product (permeate) water from RO1 and RO2. Each RO skid is equipped with an integrated PLC-based controller and HMI. All operating conditions will be automatically monitored and controlled by the local PLC. The RO skid will turn on and off automatically when water is available in the UF filtrate tank and as space is available in the RO permeate storage tank. The RO systems will complete an automatic startup sequence, enter online operation, and remain in operation until feed water is no longer available, product water storage is unavailable, or an alarm condition occurs.

Zone 6 is Product Storage. This zone is for bulk storage and pumping of individual product waters that are for reuse or resale. There are no treatment steps in this zone. Control of the product water storage tanks is a semi-automatic process that involves operator interaction. Filling the product tanks will be completed in batches as treated water is available at the various takeoff points and there is adequate product storage space. Water level in the product storage tanks is continuously monitored.

The document and documents referenced in the Initial Study/Mitigated Negative Declaration are available for review at Wasco City Hall located at 746 8th Street, in Wasco, CA 93280.

As mandated by the California Environmental Quality Act (CEQA), the public review period for this document was 30 days (CEQA Section 15073[b]). The public review period began on August 28, 2020 and ended on September 30, 2020. For further information, please contact Jaymie Brauer at 661-616-2600 or jaymie.bruaer@qkinc.com.

Mailing Address and Phone Number of Contact Person

City of Wasco Community Development Planning Division
764 E Street
Wasco, CA 93280
Contact Person: Keri Cobb
Phone: (559) 386-5776

Findings

As Lead Agency, the City of Wasco Community Development Planning Division finds that the Project will not have a significant effect on the environment. The Environmental Checklist (CEQA Guidelines Appendix G) or Initial Study (IS) *(see Section 3 - Environmental Checklist)* identified one or more potentially significant effects on the environment, but revisions to the Project have been made before the release of this Mitigated Negative Declaration (MND) or mitigation measures would be implemented that reduce all potentially significant impacts less than significant levels. The Lead Agency further finds that there is no substantial evidence that this Project would have a significant effect on the environment.

Mitigation Measures Included in the Project to Avoid Potentially Significant Effects

MM BIO-1: a) If construction is planned outside the nesting period for raptors (other than the western burrowing owl) and migratory birds (February 15 to August 31), no mitigation shall be required. If construction is planned during the nesting season for migratory birds and raptors, a preconstruction survey to identify active bird nests shall be conducted by a qualified biologist to evaluate the site and a 250-foot buffer for migratory birds, a 500-foot buffer for raptors and ½ miles for Swainson's hawk. If nesting birds are identified during the survey, active raptor nests shall be avoided by 500 feet and all other migratory bird nests shall be avoided by 250 feet. Avoidance buffers may be reduced if a qualified on-site monitor determines that encroachment into the buffer area is not affecting nest building, the rearing of young, or otherwise affecting the breeding behaviors of the resident birds. Because nesting birds can establish new nests or produce a second or even third clutch at any time during the nesting season, nesting bird surveys shall be repeated every 30 days as construction activities are occurring throughout the nesting season.

In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m

Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (left the nest) and have attained sufficient flight skills to avoid Project construction areas. Once the migratory birds or raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can cease.

b) The following buffer distances to be established prior to construction activities:

- San Joaquin kit fox or American badger potential den: 50 feet;
- San Joaquin kit fox known den: 100 feet;
- San Joaquin kit fox or American badger pupping den: contact CDFG and USFWS;
- Burrowing owl burrow outside of breeding season: 160 feet;
- Burrowing owl burrow during breeding season: 250 feet;
- Swainson's hawk nest during breeding season: 1/2 mile;
- Other protected raptor nests during the breeding season: 300 feet;
- Other protected nesting migratory bird nests during the breeding season: 50 feet;
- Other special-status wildlife species: as recommended by qualified biologist.

c) The following measures shall be implemented if Swainson's hawk nests are observed within ½ miles of the project site. If no nests are observed, no further action is required.

Nesting surveys for the Swainson's hawks shall be conducted in accordance with the protocol outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). If potential Swainson's hawk nests or nesting substrates are located within 0.5 mile of the Project site, then those nests or substrates must be monitored for activity on a routine and repeating basis throughout the breeding season, or until Swainson's hawks or other raptor species are verified to be using them. The protocol recommends that the following visits be made to each nest or nesting site: one visit during January 1-March 20 to identify potential nest sites, three visits during March 20-April 5, three visits during April 5-April 20, and three visits during June 10-July 30. A fewer number of visits may be permissible if deemed adequate by the City after consultation with a qualified biologist. To meet the minimum level of protection for the species, surveys shall be completed for at least the two survey periods immediately prior to Project-related ground disturbance activities. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted.

If Swainson's hawks are found to nest within the survey area, active Swainson's hawk nests shall be avoided by 0.5 mile during the nesting period, unless this avoidance buffer is reduced through consultation with the CDFW and/or a qualified biologist with expertise in Swainson's hawk issues. If a construction area falls within this nesting site, construction

must be delayed until the young have fledged (left the nest). The 2,500- foot-radius no-construction zone may be reduced in size but in no case shall be reduced to less than 500 feet except where a qualified biologist concludes that a smaller buffer area is sufficiently protective. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors.

MM BIO-2: During all construction-related activities, the following mitigation shall apply:

a. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or Project site.
b. Construction-related vehicle traffic shall be restricted to established roads and predetermined ingress and egress corridors, staging, and parking areas. Vehicle speeds should not exceed 20 miles per hour (mph) within the Project site.
c. To prevent inadvertent entrapment of kit fox or other animals during construction, the contractor shall cover all excavated, steep-walled holes or trenches more than two feet deep at the close of each workday with plywood or similar materials. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks shall be installed in the trench. Before such holes or trenches are filled, the contractor shall thoroughly inspect them for entrapped animals. All construction-related pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored on the Project site shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If at any time an entrapped or injured kit fox is discovered, work in the immediate area shall be temporarily halted and USFWS and CDFW shall be consulted.
d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
e. No pets, such as dogs or cats, shall be permitted on the Project sites to prevent harassment, mortality of kit foxes, or destruction of dens.
f. Use of anti-coagulant rodenticides and herbicides in Project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the USFWS and CDFW. If rodent control

must be conducted, zinc phosphide shall be used because of the proven lower risk to kit foxes.

g. A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
h. The Sacramento Fish and Wildlife Office of USFWS and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact can be reached at ~~1701~~ (559) 243-4014 and R4CESA@wildlifeca.gov.
i. All sightings of the San Joaquin kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the Service at the address below.
j. Any Project-related information required by the USFWS or questions concerning the above conditions, or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W 2605, Sacramento, California 95825-1846, phone (916) 414-6620 or (916) 414-6600.

k. If burrowing owl are found to occupy the Project site and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement or occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect Burrowing owl, if they return.

MM CUL-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

MM CUL-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the

California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

MM GEO-1: Prior to the issuance of grading or building permits, the Project geotechnical engineer, structural engineer, civil engineer, general contractor, the earthwork contractor shall meet with the Lead Agency to discuss the grading plan and grading requirements as outlined in the final Geotechnical Report.

MM GEO-2: If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects, or such effects must be mitigated. Construction in that area shall not resume until the resource appropriate measures are recommended or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

MM HAZ-1: Prior to the issuance of building permits, the Project proponent shall prepare a Hazardous Materials Business Plan (HMBP) and submit it to the CERS for approval and Kern County Public Health Services Department/Environmental Health Services Division/Hazardous Materials Section for review.

1. The Hazardous Materials Business Plan shall:

    a. Delineate hazardous material and hazardous waste storage areas;
    b. Describe proper handling, storage, transport, and disposal techniques, including which routes will be used to transport hazardous materials;
    c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill;

d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction;
e. Establish public and agency notification procedures for spills and other emergencies including fires; and
f. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site.

2. The project proponent/operator shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.
3. A copy of the approved Hazardous Materials Business Plan shall be submitted to the City of Wasco Planning and Natural Resources Department

MM HYD-1: Prior to commencement of operations, the developer shall provide proof that the stormwater retention basin has capacity to hold the Project site's stormwater. Any water that cannot be handled by the basin shall either 1) to be retained on-site, or 2) the developer shall increase the capacity of the stormwater retention basin under direction and approval of the Public Works Department.

MM NSE-1: During construction, the contractor shall situate and implement the following measures:

1. All stationary construction equipment on the Project site shall be located so that noise emitting objects or equipment faces away from any potential sensitive receptors.

2. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

3. Noise associated with construction activities shall take place during daylight hours, when feasible.

MM TRA-1 The applicant will pay the City's Traffic Impact Fee to offset the costs of off-site traffic improvements.

SECTION 1 - INTRODUCTION

1.1 - Overview

The City of Wasco Community Development Planning Division (City) is considering approval of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building (Project) by Blue Water Resources. The Project is located within the City of Wasco (City) in Kern County in the San Joaquin Valley, California. Figure 1-1 is a map of the regional location and Figure 1-2 shows the Project location.

1.2 - California Environmental Quality Act

The City is the Lead Agency for this Project pursuant to the CEQA Guidelines (Public Resources Code Section 15000 et seq.). The Environmental Checklist (CEQA Guidelines Appendix G) or Initial Study (IS) (see *Section 3 – Initial Study*) provides analysis that examines the potential environmental effects of the construction and operation of the Project. Section 15063 of the CEQA Guidelines requires the Lead Agency to prepare an IS to determine whether a discretionary Project will have a significant effect on the environment. A Mitigated Negative Declaration (MND) is appropriate when an IS has been prepared and a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented that reduce all potentially significant impacts to less than significant levels. The content of an MND is the same as a Negative Declaration, with the addition of identified mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP) (see *Section 6 – Mitigation Monitoring and Reporting Program*).

Based on the IS, the Lead Agency has determined that the environmental review for the proposed application can be completed with an MND.

1.3 - Impact Terminology

The following terminology is used to describe the level of significance of impacts.

- A finding of "no impact" is appropriate if the analysis concludes that the Project would not affect a topic area in any way.
- An impact is considered "less than significant" if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered "less than significant with mitigation incorporated" if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments that have been agreed to by the applicant.
- An impact is considered "potentially significant" if the analysis concludes that it could have a substantial adverse effect on the environment.

1.4 - Document Organization and Contents

The content and format of this IS/MND is designed to meet the requirements of CEQA. The report contains the following sections:

- *Section 1 – Introduction:* This section provides an overview of CEQA requirements, intended uses of the IS/MND, document organization, and a list of regulations that have been incorporated by reference.
- *Section 2– Project Description:* This section describes the Project and provides data on the site's location.
- *Section 3 – Initial Study:* This section contains the evaluation of 21 different environmental resource factors contained in Appendix G of the CEQA Guidelines. Each environmental resource factor is analyzed to determine whether the proposed Project would have an impact. One of four findings is made which include: no impact, less than significant impact, less than significant with mitigation, or significant and unavoidable. If the evaluation results in a finding of significant and unavoidable for any of the 21 environmental resource factors, then an Environmental Impact Report will be required.
- *Section 4 – List of Preparers:* This section identifies the individuals who prepared the IS/MND.
- *Section 5 – Bibliography:* This section contains a full list of references that were used in the preparation of this IS/MND.
- *Section 6 – Mitigation Monitoring and Reporting Program:* This section contains the Mitigation Monitoring and Reporting Program.

1.5 - Incorporated by Reference

The following documents and/or regulations are incorporated into this IS/MND by reference:

- City of Wasco General Plan 2040
- City of Wasco General Plan FEIR (2016)
- Wasco Municipal Code - Title 17 Zoning Ordinance
- California Title 24 Code of Regulations (2019)
- Kern County Airport Land Use Compatibility Plan
- Kern County Emergency Operations Plan (2008)

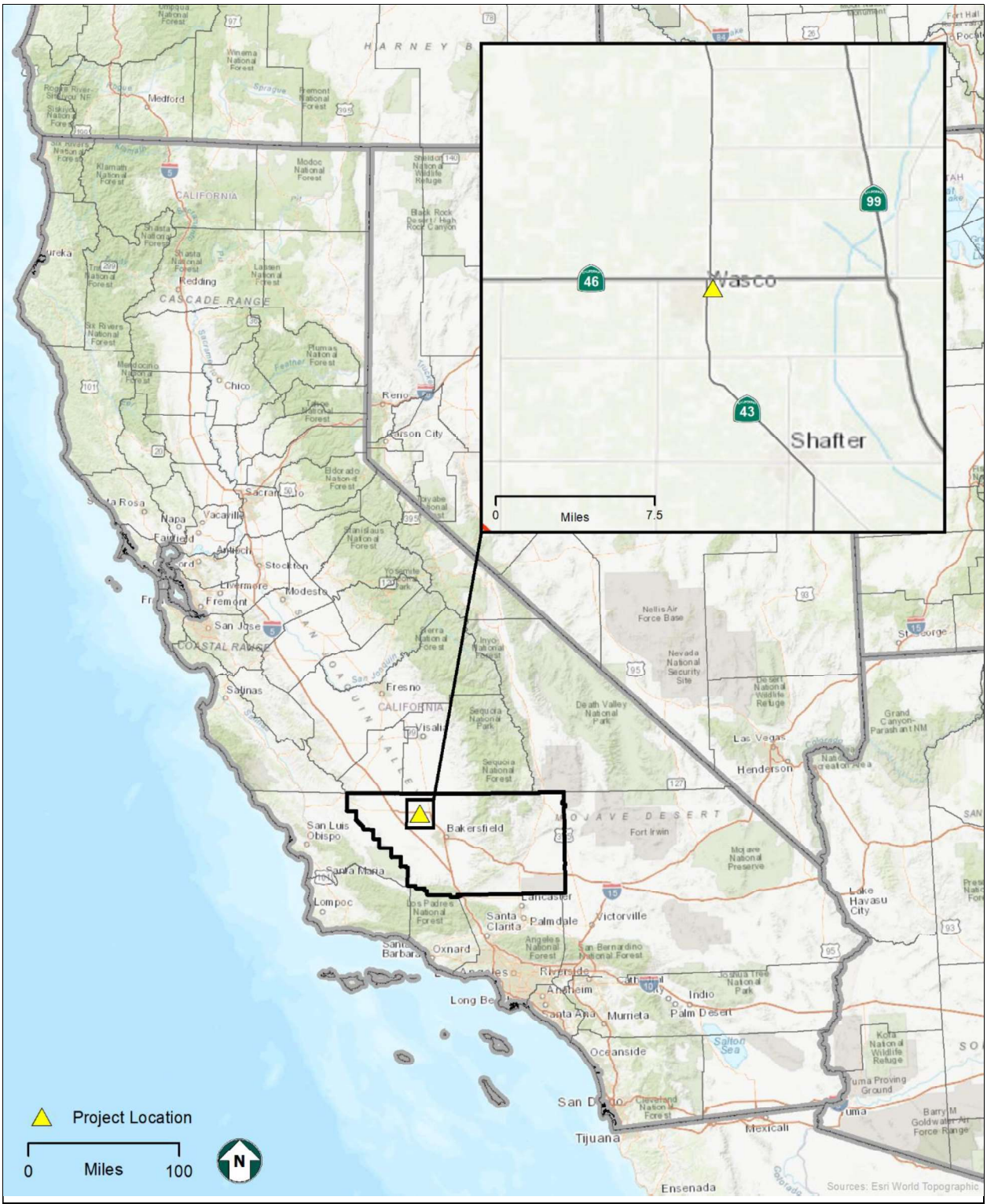


Figure 1-1
Regional Location

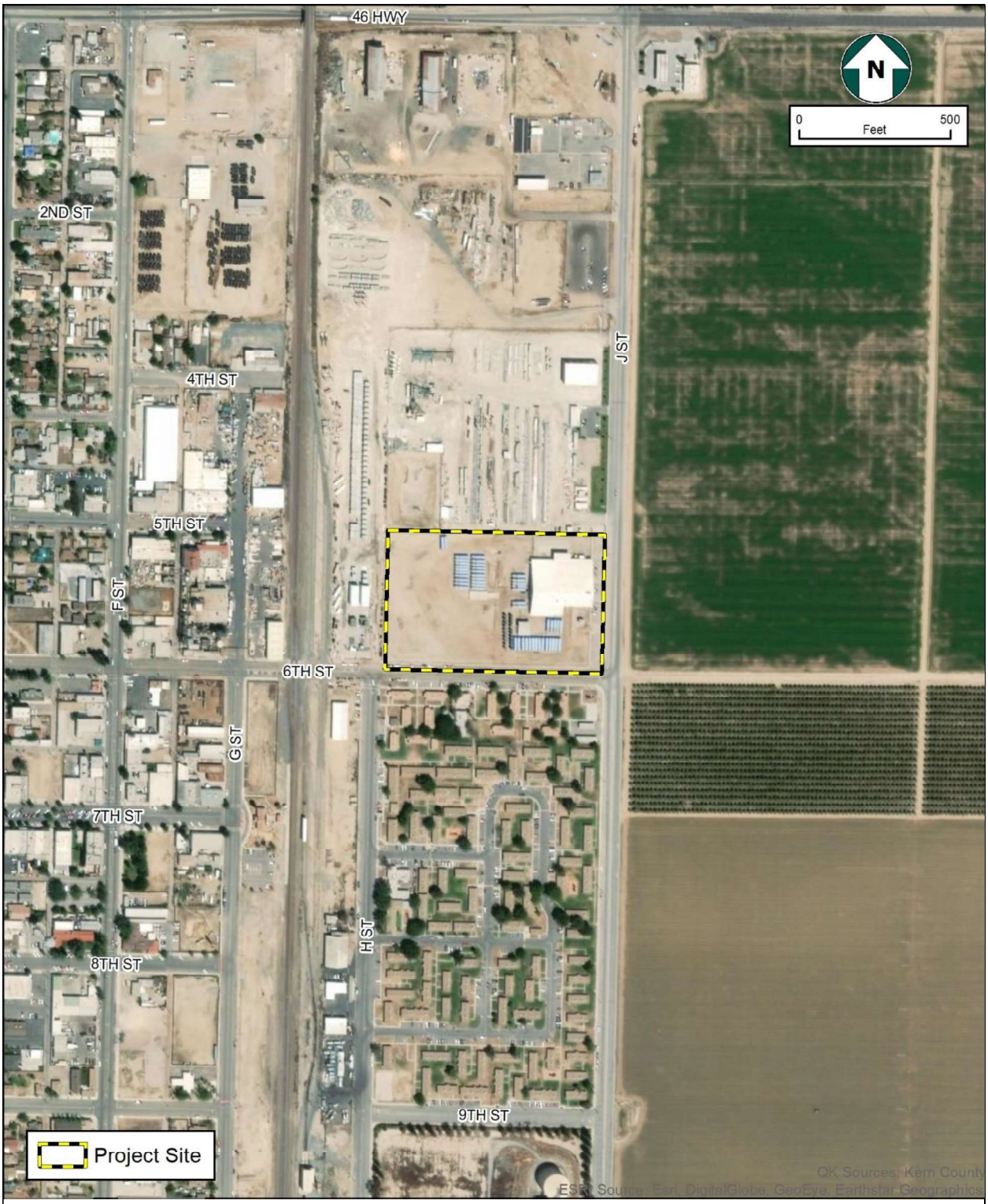


Figure 1-2
Aerial Location

SECTION 2 - PROJECT DESCRIPTION

2.1 - Introduction

The City of Wasco Community Development Planning Division (City, as Lead Agency) will consider for approval a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building (Project) within the City of Wasco, in the northwest portion of Kern County, California. Figure 1-1 shows the Project's regional location and Figure 1-2 shows the aerial location of the Project site.

2.2 - Project Location

The Project site is located within Section 7, Township 27 South, Range 25 East, Mount Diablo Base and Meridian (MDB&M), within the Wasco U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. The site will be on a 7-acre parcel within an existing 33,000 square foot industrial building within Assessor's Parcel Number (APN) 030-020-19. The Project site is located on the northwest corner of J Street and 6th Street.

2.3 - Project Environment

The Project site is characterized as a flat developed parcel zoned Heavy Industrial (IH). Currently the site is partially developed with a 33,000 square foot warehouse that has previously been used for various heavy industrial uses over the last 50 years.

The surrounding properties are all zoned I-H and are developed with industrial uses. The east side of the property is also zoned I-H but is currently in agricultural use.

Police and fire service will be served by the City of Wasco. Sanitation and garbage collection will be provided by the City's Sanitation Division with waste being disposed of at the Shafter-Wasco Landfill.

2.4 - Proposed Project

The proposed Project consists of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The wastewater treatment facility is designed to treat industrial, non-hazardous wastewater, which will be brought to the facility by truck transportation. Process equipment will be installed in an existing industrial building and will be designed to process between 100,000 to 700,000 gallons per day (GPO) of wastewater.

Wastewater received at the facility will be from oilfield operations, including Produced Water and Flow Back Water. The wastewater to be treated will have the following primary ingredients:

- Petroleum oil,

- BOD materials,
- Metals, and
- Suspended solids

Wastewater being received at the site will either be off-loaded directly into the processing facility or held in portable tanks on the property, to be subsequently piped into the processing facility. All processing equipment and process steps will be within the building. Water is treated in a multi-stage treatment process and then pumped to holding tanks. A BWR operator will manually initiate operation of the transfer pumps to move Treated water from the product storage tanks to be automatically pumped to tankers that will haul water off the site.

The facility is proposed to operate 7 days a week with 24-hour work days. The facility will have 15 full time employees who will work in shifts. There will be 40-75 tanker truck trips and 10-12 water truck trips to the property per day.

The primary objective of the treatment process is to cleanse the water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. The water treatment plant will reduce the need for groundwater extraction.

Influent water would be delivered in tanker trucks, each containing approximately 100-150 barrels (bbl) per tanker. Upon delivery, the water will be stored in tanks. Each tank can hold 500 bbl per tank. The storage tanks contain double side walls and spill guards. The containers will blend and pre-process oil and water separation and softening. Once the oil and water has been separates, larger tanks will be used to blend homogenous water and "offsetting water." The pre-treatment processes are designed to remove large flocculants (1 micron and above) and provide for a minimal level of treatment and softening for return to the oilfield for additional drilling or stabilization. Effluent water will be clean having been treated by Ultrafiltration, Granulated Activated Carbon, and single or multiple forms of reverse osmosis. Throughout the pre-treatment and advanced water solution operations the process will collect, recirculate and capture concentrated, non-hazardous "produced water" for traditional disposal into an injection well through a licensed and certified service provider. The water treatment plant will consist of the following six major process zones:

Zone 1 will consist of initial testing of the raw water from each truck at a lab located at the job site. If the water is accepted, the contents will be given a storage designation and the truck will be directed to an unloading station. Connection of the tanker to the transfer system is completed by Blue Water Resource personnel. A series of headers and automatic valves are used to divert the untreated water to the designated bulk storage group (A, B or C). A determination is made on whether the contents from various storage tanks groups can be blended. The produced water transfers and blending activities would take place within the tank farm on the Project site. The respective blending ratios are determined and a recipe for treatment of the blended water is developed.

Zone 2 is the clarification system. The primary purpose for clarification is to remove suspended solids and particulate matter from the untreated water, often by adding flocculants and coagulants. The clarification system can also be used to adjust the pH as needed, for precipitation and settling of specific ions, and for removal of oil and grease. This process would take place outside the building. In this process, water is automatically processed through the clarifiers when blended water is available for treatment and there is space in the clarifier filtrate tank. Water is pumped from the blending tanks into the clarifier chemical reaction tanks where chemicals are injected at an automatic dosage based on the chemistry of the blended water. Mixing occurs in the reaction tank and then the water flows into the settling basins for precipitation. Flow from the chemical reaction tank into the settling basins is gravity based and controlled using manual valves.

Zone 3 is the Dissolved Air Flotation (DAF) system which removes suspended solids, oils, greases and non-soluble organics by a process of dissolving air into water under pressure and then releasing the air at atmospheric pressure in a flotation tank basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device. Clarified filtrate is processed through the DAF automatically in a batch process. When a batch of Clarified filtrate is available (as feed water) and storage space is available in the DAF permeate tank, clarified water will be pumped into the DAF chemical mixing tank. Chemicals and/or organic clay are added in the mixing tank to enhance removal of target constituents. Water flows by gravity from the mixing tank into the dissolved air chamber where the solids are removed by a skimmer. DAF effluent water flows into the DAF filtrate storage tank. The DAF unit will be on the pad directly west of the building.

Zone 4 is the Ultrafiltration (UF) system which is a membrane-based process that is designed to remove colloidal matter, biological matter, large molecular weight organics, and residual oil. Effluent water from the UF system is of adequate quality to process through reverse osmosis membranes. Water is automatically processed through the ultrafiltration system in batches as DAF filtrate is available and there is space in the UF filtrate tank. Each UF skid is equipped with an integrated programmable logic controller (PLC)-based controller and human machine (HMI). All operating conditions will be automatically monitored and controlled by the local PLC. The UF skid will turn on and off automatically based on water levels and automatically enter a backwash based on trans-membrane pressure. The UF systems will complete an automatic startup sequence, enter online operation, and remain in operation until a backwash is required, feed water is no longer available, product water storage is unavailable, or an alarm condition occurs.

Zone 5 is Reverse Osmosis Process that will remove greater than ninety percent of all dissolved solids, organics, particulate and bacteria. The product (permeate) water from the reverse osmosis systems is of good quality and is stored for reuse or resale. The concentrate water from the first pass RO has high levels of TDS and is also stored for reuse or resale. There are three Reverse Osmosis systems in the Water Treatment Plant; RO1, RO2 & RO3. RO1 is for treating water that has a dissolved solids level below 5,000-mg/l. RO2 is for treating water that has a dissolved solids level greater than 5,000-mg/l and below 18,000-mg/l TDS. RO3 is a second-pass RO for treating the product (permeate) water from RO1 and

RO2. Each RO skid is equipped with an integrated PLC-based controller and HMI. All operating conditions will be automatically monitored and controlled by the local PLC. The RO skid will turn on and off automatically when water is available in the UF filtrate tank and as space is available in the RO permeate storage tank. The RO systems will complete an automatic startup sequence, enter online operation, and remain in operation until feed water is no longer available, product water storage is unavailable, or an alarm condition occurs.

Zone 6 is Product Storage. This zone is for bulk storage and pumping of individual product waters that are for reuse or resale. There are no treatment steps in this zone. Control of the product water storage tanks is a semi-automatic process that involves operator interaction. Filling the product tanks will be completed in batches as treated water is available at the various takeoff points and there is adequate product storage space. Water level in the product storage tanks is continuously monitored.

SECTION 3 - INITIAL STUDY

3.1 - Environmental Checklist

1. **Project Title:**

   Produced Water Pre-Treatment & Advanced Water Solutions Project by Blue Water Resources

2. **Lead Agency Name and Address:**

   City of Wasco Community Development Planning Division
   764 E Street
   Wasco, CA 93280

3. **Contact Person and Phone Number:**

   Keri Cobb

   (661) 758-7211

4. **Project Location:**

   Northwest corner of 6th Street and J Street in Wasco, California.

5. **General Plan Designation:**

   Heavy Industrial

6. **Zoning:**

   Heavy Industrial (I-H)

7. **Description of Project:**

   Please See Section 2.4.

8. **Surrounding Land Uses and Setting:**

   The west side of the property is zoned I-H, Heavy Industrial, and contains an unused industrial building.

   The north side of the property is zoned I-H Heavy Industrial and is under development for a concrete casting facility.

   The east side of the property is zoned I-H Heavy Industrial and is currently in agriculture use.

The south side of the property is zoned I-H Heavy Industrial.

9. Other Public Agencies Whose Approval May be Required:

- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District
- Kern County Environmental Health

3.2 - Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

3.3 - 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 (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENT 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: 8/24/2020

Date: 8/24/2020

Printed Name: Keri Cobb

For

3.4 - Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to Projects like the one involved (e.g., the Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on Project-specific factors as well as general standards (e.g., the Project will not expose sensitive receptors to pollutants, based on a Project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as Project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a Project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

a. the significance criteria or threshold, if any, used to evaluate each question; and

b. the mitigation measure identified, if any, to reduce the impact to less than significance.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.1 - AESTHETICS					
Except as provided in Public Resources Code Section 21099, would the Project:					
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 area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

Impact #3.4.1a – Would the Project have a substantial adverse effect on a scenic vista?

The proposed Project site is located within a partially developed industrial parcel with little topography. The areas surrounding the site are primarily industrial, developed areas. No known aesthetic resources exist on or near the site. The site is not within or in the vicinity of a city, County, or State identified scenic vista. Furthermore, development of the Project would not block or preclude views to any area containing important or what would be considered visually appealing landforms. Therefore, no scenic resources or vistas that will be affected.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

Impact #3.4.1b – Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

See Impact #3.4.1a, above.

The Project does not lie near or within a State Designated or Eligible State Scenic Highway (California Department of Transportation, 2011). The Project does not include the removal of trees determined to be scenic or of scenic value, the destruction of rock outcroppings or degradation of any historic building(s). Therefore, the Project would have *no impact.*

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

Impact #3.4.1c – In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

The Project is in an area that is predominantly industrial with similar surrounding land use. The Project will not result in development that is substantially different than surrounding land uses. The Project site is developed, however, there will be tanks constructed on the site. The Project's appearance would not substantially degrade the visual character of the site and would be similar to the existing developments surrounding the Project site. Therefore, the Project would result in a less than significant impact to the visual quality of the area.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.1d – Would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of the proposed Project would generally occur during daytime hours, typically from 7:00 a.m. to 6:00 p.m. All lighting would be directed downward and shielded to focus illumination on the desired work areas only and prevent light spillage onto adjacent properties. Because lighting used to illuminate work areas would be shielded, focused downward, and turned off by 6:00 p.m., the potential for lighting to affect any residents adversely is minimal. Increased truck traffic and the transport of construction materials to the

Project site would be minimal, and temporary in nature. Construction activity would focus on specific areas on the sites, and any sources of glare would not be stationary for a prolonged period of time. Therefore, construction of the proposed Project would not create a new source of substantial glare that would affect daytime views in the area.

Once constructed, the Project will be in operation 24 hours. The Project will comply with City of Wasco Title 17 Section 50.020.G and 17.51.020.K.8 relating to light and glare. The ordinance prohibits light trespass from the Project site onto neighboring properties. Outdoor lighting will also be approved by the City prior to installation.

With compliance of Wasco Zoning Ordinance and other applicable State or local development standards, the proposed Project would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

3.4.2 - AGRICULTURE AND FORESTRY RESOURCES

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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:

a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use or a Williamson Act Contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

Impact #3.4.2a – Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

The Project is not designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance (Figure 3.4.2-1) (California Department of Conservation, 2020). The Project and surrounding area are currently zoned for non-agricultural uses, and as such would have been previously analyzed when the land was originally converted. Therefore, there would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.2b – Would the Project conflict with existing zoning for agricultural use or a Williamson Act Contract?

The Project site is currently zoned for Heavy Industrial (I-H) and is not subject to a Williamson Act land use contract (City of Wasco, 2016). Therefore, the construction of the Project would not result in a conflict with existing zoning for agricultural use or a Williamson Act contract (Figure 3.4.2-2).

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***no impact***.

Impact #3.4.2c – Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The Public Resources Code Section 12220 (g) and Section 4526 defines "Forest land" as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

There are no forest lands identified on the Project site or within its vicinity; therefore, there would be no conflict with or impacts to zoning for forest land or timber land. The Project would not result in the loss or conversion of forest land to a non-forest use.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.2d – Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

See discussion of Impact #3.4.2c, above.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.2e – Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

See discussion of Impacts #3.4.2a, #3.4.2b, and #3.4.2c, above.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***no impact***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

3.4.3 - 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:

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 odor) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

Impact #3.4.3a – Would the Project Conflict with or obstruct implementation of the applicable air quality plan?

The Project is within the San Joaquin Valley Air Basin (SJVAB) and under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The adopted Air Quality Attainment Plans for the San Joaquin Valley Air Basin set forth comprehensive programs that will lead the SJVAB into compliance with federal and state ambient air quality standards. The Attainment Plans control measures and related emission reduction estimates are based on projections for a future development scenario derived from land use, population and employment characteristics assumptions by the Kern Council of Governments (KernCOG).

The Project will not cause an exceedance of Kern COG's population growth projection for the City of Wasco and is subject to San Joaquin Valley Air Pollution Control District regulations. As such, the Project is not anticipated to conflict with or obstruct implementation of the applicable air quality plan. Therefore, the impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.3b – Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Using Project type and size categories, the SJVAPCD has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. This Project was determined to qualify under the Small Project Analysis Level (SPAL).

The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to the GAMAQI, the SJVAPCD "pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds" (San Joaquin Valley Air Pollution Control District, 2012). The proposed Project consists of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The SJVAPCD has indicates a Heavy Industrial Project under 920,000 square feet would be deemed to have a less than significant impact under SPAL. Additionally, because the site is already graded and flat, ground disturbance will be minimal.

Therefore, the Project will not exceed the established SPAL threshold. As indicated in the SJVAPCD GAMAQI, projects that fall within the SPAL analysis levels are "deemed to have a less than significant impact on air quality due to criteria pollutant emissions and as such are excluded from quantifying criteria pollutant emissions for CEQA purposes. " (San Joaquin Valley Air Pollution Control District, 2012).

Based on the above analysis, the proposed Project does not have the possibility of exceeding the criteria pollutant emissions threshold and is under the reporting limit for recommendations and guidelines emissions estimates prepared pursuant to the SPAL assessment. The Project does not conflict with or obstruct implementation of an applicable air quality plan or exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations. Therefore, this Project would not pose a significant impact to the San Joaquin Valley Air Basin. The proposed Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.3c – Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside. The following locations are where several sensitive receptors are likely to reside and be affected by substantial pollutant concentrations: schools, hospitals, nursing homes, and daycare centers. The closest schools are Karl Clemens Elementary School, which is approximately 0.7 miles to the west and Thomas Jefferson Middle School, approximately 1 mile to the northwest. The closest hospital is Adventist Health Medical Office, approximately 0.7 miles to the west. The closest daycare facility is Las Rosas Migrant and Seasonal Start approximately 0.6 miles southwest of the Project.

Hazardous Pollutants or Odors

The GAMAQI guidelines introduce two types of Projects that should be assessed when considering hazardous air pollutants (HAPs) which includes: 1) placing a toxic land use in an area where it may have an adverse health impact on an existing sensitive land use and 2) placing a sensitive land use in an area where an adverse health impact may occur from an existing toxic land use. Some examples of Projects that may include HAPs are:

- Agricultural products processing;
- Bulk material handling;
- Chemical blending, mixing, manufacturing, storage, etc.;
- Combustion equipment (boilers, engines, heaters, incinerators, etc.);
- Metals etching, melting, plating, refining, etc.;
- Plastics & fiberglass forming and manufacturing;
- Petroleum production, manufacturing, storage, and distribution; and
- Rock & mineral mining and processing.

The proposed Project is located on a site that is currently developed and was previously used for industrial purposes. During the temporary construction period some odors could result from vehicles and equipment using diesel fuels. However, vehicles and equipment using diesel fuels at the proposed Project would have to comply with the California Air Resources Board (CARB) guidelines, which limit idling time to five minutes with the Airborne Toxic Control Measure (ATCM). These impacts are localized and temporary in nature and therefore are considered less than significant

Once operational, the Project will comply with all SJVAPCD rules and regulations, and therefore it would not expose sensitive receptors to substantial concentrations of localized PM_{10}, carbon monoxide, diesel particulate matter, hazardous air pollutants, or naturally occurring asbestos, as discussed below.

The Project is not expected to expose sensitive receptors to substantial pollutant concentrations. Therefore, the Project will have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.3d Would the Project result in emissions (such as those leading to odors) adversely affecting a substantial number of people?

As discussed in Impact #3.4.3c above, some odors could result from vehicles and equipment using diesel fuels during the construction phase. The emissions associated with the construction of the Project would be temporary in nature and are not anticipated to result in the generation of a substantial amount of hazardous air pollutants. The operation of the proposed Project will not result in emissions or odors. Therefore, the Project will have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.4 - BIOLOGICAL RESOURCES				
Would the Project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, 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?	☐	☐	☐	☒

Discussion

A desktop review of biological resources was completed. A literature review of the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife, 2020) California Native Plant Society (California Native Plant Society, 2020), and United States Fish and Wildlife Service Endangered Species List (US

Fish and Wildlife Service, 2020) was conducted to identify special-status plant and wildlife species with the potential to occur within the Project site and vicinity (the surrounding nine quads and a 10-mile radius). Information on the potential presence of wetlands and waters was obtained from the National wetlands Inventory (NWI), National Hydrography database (NHD) and Federal Emergency Management Agency (FEMA). Information regarding the presence of Critical Habitat in the Project vicinity was obtained from the United States Fish and Wildlife Service's Critical Habitat Mapper database. The results of the database inquiries were subsequently reviewed to evaluate the potential for occurrence of special-status species and other sensitive biological resources known to occur on or near the Project site.

General Site Conditions

The Project site is completely disturbed with existing infrastructure, and has previously been used for various heavy industrial uses over the last 50 years including furniture manufacturing, garlic processing, packaging, and pallet storage and distribution (Porter & Associates, 2017). As such, the entire Project site has experienced significant historical as well as ongoing ground disturbance from construction and operation of the facility. There is no suitable habitat or trees on the site. However, there is active agricultural uses to the east.

Impact #3.4.4a – Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Project site and surrounding area has been disturbed for years. The area to the north, south and west is predominantly urbanized, with active industrial, commercial and residential uses. The land to the east is under cultivation and may provide foraging for several species, such as San Joaquin kit fox, Western burrowing owl, Swainson's hawk and American badger. However, the Project site itself is buffered from the crop land by Wasco Avenue. While species may be in the area, individuals would be acclimated to human activities. It is unlikely the site would be inhabited or used for foraging given the complete lack of suitable trees or other plants for protection or food sources. San Joaquin kit fox are known in the area and may move through the Project site as a transient. Implementation of MM BIO-1 would reduce impacts to San Joaquin kit fox, Western burrowing owl, Swainson's hawk and American badger to less than significant levels.

There is no suitable nesting or foraging Swainson's hawk habitat present on or adjacent to the Project site. However, there is foraging habitat for this species on the nearby agricultural fields. It is highly unlikely that the species inhabit be on site, however it may be found in the area. With implementation of MM BIO 1, impacts to Swainson's hawk would be considered less than significant.

Construction would be short-term and construction equipment would stay within the Project site. The Project site and vicinity does not provide suitable habitat for any special-status species, and it is highly unlikely that special status species would inhabit the site or use it for foraging. Implementation of mitigation measures MM BIO-1 and MM BIO-2 during

construction would reduce potential impacts to migratory bird, raptors and other species utilizing off site properties during construction to less than significant.

MITIGATION MEASURE(S)

MM BIO-1: a) If construction is planned outside the nesting period for raptors (other than the western burrowing owl) and migratory birds (February 15 to August 31), no mitigation shall be required. If construction is planned during the nesting season for migratory birds and raptors, a preconstruction survey to identify active bird nests shall be conducted by a qualified biologist to evaluate the site and a 250-foot buffer for migratory birds, a 500-foot buffer for raptors and ½ miles for Swainson's hawk. If nesting birds are identified during the survey, active raptor nests shall be avoided by 500 feet and all other migratory bird nests shall be avoided by 250 feet. Avoidance buffers may be reduced if a qualified on-site monitor determines that encroachment into the buffer area is not affecting nest building, the rearing of young, or otherwise affecting the breeding behaviors of the resident birds. Because nesting birds can establish new nests or produce a second or even third clutch at any time during the nesting season, nesting bird surveys shall be repeated every 30 days as construction activities are occurring throughout the nesting season.

In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (left the nest) and have attained sufficient flight skills to avoid Project construction areas. Once the migratory birds or raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can cease.

b) The following buffer distances to be established prior to construction activities:

- San Joaquin kit fox or American badger potential den: 50 feet;
- San Joaquin kit fox known den: 100 feet;
- San Joaquin kit fox or American badger pupping den: contact CDFG and USFWS;

- Burrowing owl burrow outside of breeding season: 160 feet;
- Burrowing owl burrow during breeding season: 250 feet;
- Swainson's hawk nest during breeding season: 1/2 mile;
- Other protected raptor nests during the breeding season: 300 feet;
- Other protected nesting migratory bird nests during the breeding season: 50 feet;
- Other special-status wildlife species: as recommended by qualified biologist.

c) The following measures shall be implemented if Swainson's hawk nests are observed within ½ miles of the project site. If no nests are observed, no further action is required.

Nesting surveys for the Swainson's hawks shall be conducted in accordance with the protocol outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). If potential Swainson's hawk nests or nesting substrates are located within 0.5 mile of the Project site, then those nests or substrates must be monitored for activity on a routine and repeating basis throughout the breeding season, or until Swainson's hawks or other raptor species are verified to be using them. The protocol recommends that the following visits be made to each nest or nesting site: one visit during January 1-March 20 to identify potential nest sites, three visits during March 20-April 5, three visits during April 5-April 20, and three visits during June 10-July 30. A fewer number of visits may be permissible if deemed adequate by the City after consultation with a qualified biologist. To meet the minimum level of protection for the species, surveys shall be completed for at least the two survey periods immediately prior to Project-related ground disturbance activities. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted.

If Swainson's hawks are found to nest within the survey area, active Swainson's hawk nests shall be avoided by 0.5 mile during the nesting period, unless this avoidance buffer is reduced through consultation with the CDFW and/or a qualified biologist with expertise in Swainson's hawk issues. If a construction area falls within this nesting site, construction must be delayed until the young have fledged (left the nest). The 2,500- foot-radius no-construction zone may be reduced in size but in no case shall be reduced to less than 500 feet except where a qualified biologist concludes that a smaller buffer area is sufficiently protective. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors.

MM BIO-2: During all construction-related activities, the following mitigation shall apply:

a. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or Project site.

b. Construction-related vehicle traffic shall be restricted to established roads and predetermined ingress and egress corridors, staging, and parking areas. Vehicle speeds should not exceed 20 miles per hour (mph) within the Project site.
c. To prevent inadvertent entrapment of kit fox or other animals during construction, the contractor shall cover all excavated, steep-walled holes or trenches more than two feet deep at the close of each workday with plywood or similar materials. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks shall be installed in the trench. Before such holes or trenches are filled, the contractor shall thoroughly inspect them for entrapped animals. All construction-related pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored on the Project site shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If at any time an entrapped or injured kit fox is discovered, work in the immediate area shall be temporarily halted and USFWS and CDFW shall be consulted.
d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
e. No pets, such as dogs or cats, shall be permitted on the Project sites to prevent harassment, mortality of kit foxes, or destruction of dens.
f. Use of anti-coagulant rodenticides and herbicides in Project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the USFWS and CDFW. If rodent control must be conducted, zinc phosphide shall be used because of the proven lower risk to kit foxes.
g. A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
h. The Sacramento Fish and Wildlife Office of USFWS and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact can be reached at ~~1701~~ (559) 243-4014 and R4CESA@wildlifeca.gov.

i. All sightings of the San Joaquin kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the Service at the address below.
j. Any Project-related information required by the USFWS or questions concerning the above conditions, or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W 2605, Sacramento, California 95825-1846, phone (916) 414-6620 or (916) 414-6600.

K. If burrowing owl are found to occupy the Project site and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement or occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect Burrowing owl, if they return.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.4b – Would the Project 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?

The Project site is highly disturbed and does not provide habitat to maintain these communities. There are no anticipated impacts to sensitive natural communities as a result of the proposed Project. The Project site contains an existing industrial warehouse that has been used for several years for industrial purposes. The Project site is surrounded by disturbed land designated for heavy industrial use.

The proposed Project would not have any adverse effect to a riparian habitat or sensitive natural communities.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.4c – Would the Project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The United States Army Corps of Engineers (USACE) has regulatory authority over the Clean Water Act (CWA), as provided for by the EPA. The USACE has established specific criteria for the determination of wetlands based upon the presence of wetland hydrology, hydric soils, and hydrophilic vegetation. There are no federally protected wetlands or vernal pools that occur within the Project site.

Wetlands, streams, reservoirs, sloughs, and ponds typically meet the criteria for federal jurisdiction under Section 404 of the CWA and State regulatory authority under the Porter-Cologne Water Quality Control Act. Streams and ponds typically meet the criteria for State regulatory authority under Section 1602 of the California Fish and Game Code. There are no features on the Project site that would meet the criteria for either federal jurisdiction or State regulatory authority. There would be no impact to federally protected wetlands or waterways or State wetlands or waters.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***no impact.***

Impact #3.4.4d – Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife migratory corridors are described as a linear stretch of land that connects two open pieces of habitat that would otherwise be unconnected. These routes provide shelter and sufficient food resources to support wildlife species during migratory movements. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat and are important elements of resident species' home ranges.

Given the Project is within an existing disturbed area and the areas surrounding the Project site are developed with industrial land uses, the use of connectivity habitat by sensitive wildlife is unlikely. The proposed Project does not occur within terrestrial migration route, significant wildlife corridor, or wildlife linkage area as identified in the Recovery Plan for Upland Species in the San Joaquin Valley (US Fish and Wildlife Service, 1998).

The Project would not substantially affect migrating birds or other wildlife. The Project will not restrict, eliminate, or significantly alter a wildlife movement corridor, wildlife core area, or Essential Habitat Connectivity area, either during construction or after the Project has been constructed. Project construction will not substantially interfere with wildlife movements or reduce breeding opportunities.

The proposed Project would not interfere 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. Therefore, there would be no impacts to wildlife movements, would not affect movement corridors, or impeded a nursery site.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

Impact #3.4.4e – Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

There are no adopted local policies or ordinances protecting biological that would apply to this Project site. Therefore, implementation of the proposed Project would have no conflict related to an adopted local policies or ordinances protecting biological resources.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

Impact #3.4.4f – Would the Project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

The Project site is not located within any Natural Community Conservation Plan area or any other local, regional, or State habitat conservation plan.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

3.4.5 - CULTURAL RESOURCES

Would the Project:

a.	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

Impact #3.4.5a – Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

As defined by CEQA Guidelines Section 15064.5, "historical resources" are:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resource Code Section 5024.1, Title 14 California Code of Regulations, Section 4850 et seq.).

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

Any: object, building, structure, site, area, place, record, or manuscript which a Lead Agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the Lead Agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the Lead Agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4852) including the following:

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

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a Lead Agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

The Project site currently contains an existing 33,000 square foot industrial building, and any construction would be within the disturbed parcel. The area is not within an area designated to be historic by the City's General Plan (City of Wasco, 2016).

Although there is no obvious evidence of historical or archaeological resources on the Project site, there is the potential during construction to unearth cultural resources. Grading and trenching, as well as other ground-disturbing actions, have the potential to damage or destroy these previously unidentified and potentially significant cultural resources within the Project area, including historical resources. Although unlikely, the disturbance of any deposits that have the potential to provide significant cultural data would be considered a significant impact under CEQA. However, implementation of MM CUL-1 would *r*educe potential impacts to cultural resources to less than significant levels.

MITIGATION MEASURE(S)

MM CUL-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

LEVEL OF SIGNIFICANCE

Impact would be ***less than significant with mitigation incorporated***.

Impact #3.4.5b – Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

See discussion of Impact #3.4.5a, above

On June 4, 2020 pursuant to Public Resources Code § 21080.3.1 and Government Code § 65300 *et seq*, letters were sent to each of the 15 Native American tribes within the geographic area as identified by the NAHC (see Appendix A). The letters included a Project description and location maps. On July 9, 2020, Jessica Mauck, the Director of Cultural Resources Management for the San Manuel Band of Mission Indians indicated that the proposed Project was outside of Serrano ancestral territory and the San Manuel Band of Mission Indians would not elect to consult on the Project with the Lead Agency. To date, no other response has been received from the other Tribes that were contacted.

MITIGATION MEASURE(S)

Implementation of Mitigation Measure MM CUL-1

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.5c – Would the Project disturb any human remains, including those interred outside of formal cemeteries?

There are no known cemeteries or burials on or near the Project. Although unlikely, subsurface construction activities, such as trenching and grading, associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites. The cultural resources and Sacred Lands File records searches did not indicate the presence of human remains, burials, or cemeteries within or in the vicinity of the Project site. No human remains have been discovered at the Project site, and no burials or cemeteries are known to occur within the area of the site. However, construction would involve earth-disturbing activities, and it is still possible that human remains may be discovered, possibly in association with archaeological sites. Implementation of the below mitigation measure would ensure that the proposed Project would not directly or indirectly destroy previously unknown human remains. It is unlikely that the proposed Project would disturb any known human remains, including those interred outside of formal cemeteries. However, with implementation of MM CUL-2, the Project would have a *less than significant impact*.

MITIGATION MEASURE(S)

MM CUL-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of

communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

LEVEL OF SIGNIFICANCE

Impact would be ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.6 - ENERGY				
Would the Project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

Impact #3.4.6a – Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Construction

Energy demand during the construction phase would result from the transportation of materials, construction equipment, and construction worker vehicle trips. Construction equipment includes a tractor, loaded truck, forklift, generator, crane, paver, roller, compactor and an air compressor. Given that the Project is within Heavy Industrial land use, the energy use will use be consistent with other facilities with the same land use. The Project would comply with the SJVAPCD requirements regarding the use of fuel-efficient vehicles and equipment, to the extent feasible. The Project will not use natural gas during the construction phase. Compliance with standard regional and local regulations, the Project would minimize fuel consumption during construction. By complying with standard regional and local regulations, the Project would minimize fuel consumption during construction.

There are no unusual Project characteristics that would cause construction equipment to be less energy efficient compared with other similar construction sites in other parts of the State. Thus, construction-related fuel consumption at the Project would not result in inefficient, wasteful, or unnecessary energy use.

Post-Construction

The Project facility will comply with 2019 Building Code requirements and energy efficiency requirements that are applicable. Equipment used at the facility will be designed to be energy efficient and will not result in unnecessary energy use.

Construction related fuel consumption is not expected to result in inefficient, wasteful, or unnecessary energy use. The Project will comply with all applicable standards and building codes included in the 2019 California Green Building Standards Code. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.6b – Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Project must comply with Title 24, Chapter 4 of the California Green Building Standards Code and Part 6, of the California Energy Code (CEC) the California Code of Regulations (CCR), Title 20 with adoptions of the California Energy Commission (California Building Standards Commission, 2020).

Energy saving strategies will be implemented where feasible to reduce the Project's energy consumption during the construction and post-construction phases. Strategies being implemented include those recommended by the California Air Resources Board (CARB) that may reduce both the Project's construction energy consumption, including diesel anti-idling measures, light-duty vehicle technology, usage of alternative fuels such as biodiesel blends and ethanol, and heavy-duty vehicle design measures to reduce energy consumption. Additionally, as outlined in the SJVAPCD's GAMAQI, the Project includes recommendations to reduce energy consumption by shutting down equipment when not in use for extended periods, limiting the usage of construction equipment to eight cumulative hours per day, usage of electric equipment for construction whenever possible in lieu of diesel or gasoline powered equipment, and encouragement of employees to carpool to retail establishments or to remain on-site during lunch breaks.

Based on this analysis, the Project would be consistent and not conflict with or obstruct a State of local plan related to renewable energy or energy consumption. Impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.7 - GEOLOGY AND SOILS				
Would the Project:				
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?	☐	☐	☒	☐
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 offsite 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 wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Discussion

The following analysis is based primarily on the Wasco General Plan for 2040, the General Plan Final Environmental Impact Report and the Geotechnical Investigation prepared for the Project (Soils Engineering, Inc, 2020), which is included as Appendix B of this document.

Impact #3.4.7a(i) – Would the Project Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving – Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

According to the Geologic Atlas of California, Bakersfield Sheet, the project site is situated on Quaternary alluvium deposits within the San Joaquin Valley. Although the site is not located in an Alquist-Priolo Special Study Zone, there are various earthquake faults in the vicinity (Soils Engineering, Inc, 2020). Nearby faults are shown in the table below:

Table 3.4.7-1 Faults in Project Vicinity

Fault Name	Distance (miles)
Kern Front	8.5
San Andreas	35.6
White Wolf	37.7
Pleito Thrust	43.6
Great Valley West 14	44.6
San Juan	46.9

Wasco is in a seismically active region but is not at risk for high magnitude earthquake destruction. The city is in the middle of San Joaquin Valley which experiences moderate to severe ground shaking. There is a designated Alquist-Priolo Special Studies Zone directly north of Wasco which is attributed to the Pond-Poso Fault. The USGS lists the Pond-Poso fault as capable of experiencing a magnitude 7 but it has not historically shown greater than a magnitude 4 in the Pond Alquist-Priolo Special Studies Zone (City of Wasco, 2016).

The lack of mapped active and potentially active faults notwithstanding, the Project could be subjected to strong ground shaking during an earthquake on a nearby fault (Soils Engineering, Inc, 2020). The safety risk to people resulting from seismic activity would be significantly decreased by mandatory adherence to all relevant building codes, including the California Building Code.

By adhering to the most recent California building Standard Codes, the Project will have a less than significant impact of endangering people and structures associated with this Project. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impact would be *less than significant*.

Impact #3.4.7a(ii) – Would the Project Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving – strong seismic ground shaking?

See discussion of Impact #3.4.7a(i) above.

There are no known active earthquake faults or Alquist-Priolo Fault Zones that traverse the City. However, Southern California is considered to be a seismically active area. The Project site lies within the vicinity of six earthquake fault lines. In the event of an earthquake on one of the nearby faults, it is likely that the Project would experience ground shaking and expose people and structures associated with the Project.

While such seismic shaking would be less severe from an earthquake that originates at a greater distance from the Project site, the side effects could potentially be damaging to buildings and supporting infrastructure. In light of this local building codes require all new structures to be constructed to California Building Code standards to minimize risks associated with seismic activity. The Project shall adhere to all applicable local and State regulations to reduce any potentially significant impacts to structures resulting from strong seismic ground shaking at the Project site. Therefore, Project impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.7a(iii) – Would the Project Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving – seismic-related ground failure, including liquefaction?

See discussion of Impact #3.4.7a(i) above.

Liquefaction is defined as a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure When this occurs, the soil can completely lose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative

density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: "low density", coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large magnitude earthquake.

Most cities in Kern County as susceptible to adverse secondary effects of seismic activities resulting in ground failure which includes liquefaction (City of Wasco, 2016). The Project subsurface area soils generally consist of sandy silt, silty sand, and sandy clay with occasional layers of poorly-graded sand. Ground water in this area is approximately 370 feet below the ground surface (Soils Engineering, Inc, 2020). Because the depth of the groundwater at the Project site is much greater than 50 feet, there is a negligible risk of liquefaction occurring at the Project site during a seismic event.

Based on this analysis, the Project would less than significant impact exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure including liquefaction. Structures constructed as part of the Project would be required by State law to be constructed in accordance with all applicable IBC CBC, Title 24 construction standards. Adherence to all applicable regulations would reduce or avoid any potential impacts to structures resulting from liquefaction at the Project site and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.7a(iv) – Would the Project Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving – landslides?

The Project site is relatively flat with no significant topological features. As such, there is no potential for rock fall and landslides to impact the Project in the event of a major earthquake, as the area has no dramatic elevation changes. The property is flat and there is a low potential for landslides. The Project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving, landslides. Therefore, the Project will have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.7b – Would the Project result in substantial soil erosion or the loss of topsoil?

The Project site and surroundings are mostly flat. Construction activities for the Project may disturb minimal amount soils during construction and would expose these disturbed areas to erosion by wind and water. However, since the Project is anticipated to disturb less than one acre of land, the Project is not subject to National Pollutant Discharge Elimination System (NPDES) Program requirements. As such, it will not have to develop a Stormwater Pollution Prevention Plan (SWPPP) to be used during construction activities. Once operational, the Project would be required to retain all stormwater runoff within the existing City-owned retention basin adjacent to the north of the site and implement various types of Best Management Practices to prevent erosion and sedimentation from occurring during construction. See also Impact 3.4.10 *Hydrology and Water Quality.*

All temporary erosion control measures required by the City Grading Code would be included as BMPs in the proposed Conditional Use Permit. The Project would be required to submit grading plans accompanied by a soils engineering report, engineering geology report, and drainage calculations pursuant to the City Grading Code to obtain required grading permits.

Typical BMPs intended to control erosion include sandbags, silt fencing, street sweeping, etc. The Project will comply with all the grading requirements as outlined in Title 24 and Appendix J of the California Building Code (UpCodes, 2016). The Project is not expected to result in substantial soil erosion or the loss of topsoil with the implementation of the BMPs. Overall, the Project would not result in conditions where substantial surface soils would be exposed to wind and water erosion.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.7c – Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

See discussion in Impact #3.4.7a(iii) and 3.4.7a(iv) above.

There are no slopes on or near the property and the Project would not expose the people or structures to significant risks from landslides.

Groundwater in the area is approximately 370 feet below the ground surface (Soils Engineering, Inc, 2020). Therefore, the potential for liquefaction is less than significant.

The proposed Project shall comply to all City and State regulations pertaining to construction including California Building Codes and the Wasco Municipal Code. In addition, the City is not in an area which is at a high risk for landslides due to the low levels of elevation change (City of Wasco, 2016). Therefore, by complying to the existing regulatory framework would be adequate to reduce any potential impacts to less than significant levels. Moreover, the Project will be designed by an engineer as to resist potential side-effects of spreading, subsidence, liquefaction or collapse.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.7d – Would the Project 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?

Soils are considered to be expansive when the Expansion Index result is higher than 20, per ASTM D4829, Expansion Index of Soils (Soils Engineering, Inc, 2020). Testing performed on the soils from the Project area showed an Expansion Index ranging from 13 to 30 which indicates a low expansion potential for the subsurface soils (Soils Engineering, Inc, 2020).

The Project shall comply with all applicable requirements of the California Code of Regulations, and the most recent California Building Standards Code that provides criteria for the appropriate design of buildings and other structures. In order to reduce potential impacts related to expansive soils to less than significant levels, the Project must comply with Mitigation Measures GEO-1 .

MITIGATION MEASURE(S)

MM GEO-1: Prior to the issuance of grading or building permits, the Project geotechnical engineer, structural engineer, civil engineer, general contractor, the earthwork contractor shall meet with the Lead Agency to discuss the grading plan and grading requirements as outlined in the final Geotechnical Report.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant. with mitigation incorporated***.

Impact #3.4.7e – Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

The proposed Project will not use septic systems and there is an existing sewer connection to the site for septage disposal. The Project will not connect to the existing city sewer line or

the sewer system for the disposal of other wastewater generated during operations. Therefore, the Project would have no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.7f – Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The City's General Plan FEIR indicates there is potential to discover paleontological resources in the City (City of Wasco, 2016). However, the Project is already developed and has previously had ground disturbing activities. If further ground disturbing activities are done during construction, there is potential impacts related to damage to, or destruction of previously undiscovered paleontological resources or unique geologic features.

Implementation of MM GEO-2 would reduce potential impacts to a less than significant level. In addition, the Wasco General Plan FEIR policies and guidelines direct the City to require construction to stop immediately if cultural resources, including tribal, archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, until appropriate mitigation is implemented. Therefore, with MM GEO-1 the Project will have a *less than significant impact.*

Mitigation Measure(s)

MM GEO-2: If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects, or such effects must be mitigated. Construction in that area shall not resume until the resource appropriate measures are recommended or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an

accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***..

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.8 - GREENHOUSE GAS EMISSIONS				
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

Impact #3.4.8a – Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Although construction of the proposed Project would result in temporary emissions of GHGs, the Project as a whole is not expected to generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment. The Project GHG emissions are primarily from mobile source activities. The Project would not generate a cumulatively considerable GHG impact nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, the Project would have a less than significant impact.

See also Impact 3.4.3a.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.8b – Would the Project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

See Impact #3.4.8a above. The proposed Project will not exceed the SPAL GHG thresholds established by the SJVAPCD. The Project will not cause an exceedance of Kern COG's population growth projection for the City of Wasco and is subject to San Joaquin Valley Air

Pollution Control District regulations. As such, the Project is not anticipated to conflict with or obstruct implementation of the applicable air quality plan. Therefore, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.9 - HAZARDS AND HAZARDOUS MATERIALS				
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site that 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?	☐	☒	☐	☐

Discussion

This section is based on the Hazardous Material Business Plan and Consolidated Contingency Plan completed for the Project (BlueWater, 2020), which is included as Appendix C.

Impact #3.4.9a – Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of the Project would involve the temporary transport and use of minor quantities of hazardous materials such as fuels, oils, lubricants, hydraulic fluids, paints and solvents. The types and quantities of hazardous materials to be used and stored onsite would not be of a significant amount to create a reasonably foreseeable upset or accident condition. The handling and transport of all hazardous materials onsite would be performed in accordance with all applicable federal, State, and local laws and regulations. State Route (SR) 43 and SR 46 would be the main Hazardous Materials Shipping Routes that would be utilized during the construction and operation of the Project (Kern County, 2009).

Hazardous and non-hazardous wastes would likely be transported to and from the Project site during the construction phase of the proposed Project. Construction would involve the use of some hazardous materials, such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products. These materials are commonly used during construction activities and would not be disposed of on the Project site. These materials are stored in appropriate storage locations and containers in the manner specified by the manufacturer and disposed of in accordance with local, federal, and State regulations.

Once operational, the proposed water treatment facility will accept produced water from area oil extraction activities. The goal of the Project is to cleanse the produced water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. The water will go through a multiple stage filtration process to remove colloidal matter, biological matter, large molecular weight organics, and residual oil. Effluent water from the UF system is of adequate quality to process through reverse osmosis membranes. Residual water or byproducts of the filtration system will be taken and disposed of at an appropriate Class II nonhazardous materials landfill. No treated water will be released into the City's sewer system.

All chemicals stored in greater than 55-gal drums are stored in product compatible bulk tanks with secondary containment to catch any leakage that could result from accidental damage. Workers would be trained to properly identify and handle all hazardous materials, and will be instructed to follow guidelines in the Blue Water Material and Chemical Handling Safety Manual (Blue Water Resources, 2020). There will be procedures and guidelines to prevent and minimize hazardous emergencies throughout all stages of construction and operation. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. Any hazardous waste or debris that is generated during construction of the proposed Project would be collected and transported away from the site and disposed of at an approved off-site landfill or other such facility. In addition,

sanitary waste generated during construction would be managed through the use of portable toilets, which would be located at reasonably accessible on-site locations.

If the project maintains more than 55 gallons of a liquid, 500 pounds of a solid, 200 cubic feet of a compressed gas, and/or the applicable State/federal threshold quantity for an extremely hazardous material, a Hazardous Materials Business Plan (HMBP) is required by Kern County Public Health Services Department, who acts as Kern County's Certified Unified Program Agency (CUPA). Mitigation Measure MM HAZ-1 requires the Project to submit a HMBP to the California Environmental Reporting System (CERS) and show proof of the approved Plan to the CUPA.

During operation, operation personnel will perform a visual daily inspection of all bulk chemical locations for tank, line, and pump leaks. Interlock schemes are designed into the Human Machine Interface (HMI) to safely shut down the system in event of an emergency. The HMI will also automatically shut down the system if the other process equipment fails or is forced off-line (BlueWater, 2020). Employees will comply with the Bluewater Emergency Response Plan in order to prevent and minimize hazardous spills. During operation, different chemicals will be used at the water treatment plant. The Safety Data Sheets will be posted for each chemical used that will include precautionary statements for each chemical, first aid measures, firefighting measures, accidental release measures, handling and storage, exposure controls, physical and chemical properties, stability and reactivity, disposal considerations, and transport information. The products from the water treatment plant will not be hazardous. Throughout the pre-treatment and advanced water solution operations the process will collect, recirculate, and capture concentrated, non-hazardous produced water for traditional disposal. In the instance that there is release of a hazardous material, measures based on the approved HMBP and Bluewater Emergency Response Plan would be implemented. Therefore, impacts would be *less than significant*.

MITIGATION MEASURE(S)

MM HAZ-1: Prior to the issuance of building permits, the Project proponent shall prepare a Hazardous Materials Business Plan (HMBP) and submit it to the CERS for approval and Kern County Public Health Services Department/Environmental Health Services Division/Hazardous Materials Section for review.

4. The Hazardous Materials Business Plan shall:

    a. Delineate hazardous material and hazardous waste storage areas;
    b. Describe proper handling, storage, transport, and disposal techniques, including which routes will be used to transport hazardous materials;
    c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill;
    d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction;
    e. Establish public and agency notification procedures for spills and other emergencies including fires; and

f. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site.

5. The project proponent/operator shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.
6. A copy of the approved Hazardous Materials Business Plan shall be submitted to the City of Wasco Planning and Natural Resources Department

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.9b – Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

See discussion on Impact #3.4.8a, above.

There are no active Geologic Energy Management Division (CalGEM) identified oil or gas fields in the Project vicinity and there are no known existing or historical oil wells on the Project site (CalGEM, 2020). Consequently, it is not expected that any wells would be impacted by the Project.

With the implementation of MM HAZ-1, which requires the approval of a HMBP, the Bluewater Emergency Response Plan, the Blue Water Material and Chemical Handling Plan, and mandatory staff training, the completed Project's potential to create significant hazards to the public or the environment through a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less likely. Therefore, the Project impacts would be less than significant.

MITIGATION MEASURE(S)

Implementation of MM HAZ-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.9c – Would the Project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

See Impact #3.4.8a and b, above.

The nearest school is Karl Clemens Elementary School, located approximately 0.7 miles west of the Project site. Construction activities of the proposed Project will result in the temporary use of hazardous materials and or substances, such as lubricant, diesel fuel during construction. Exhaust from construction and related activities are expected to be minimal and would not create a significant impact.

Once constructed, the byproducts from the water treatment plant would not be considered hazardous. As noted above, the implementation of the approved HMBP, the Bluewater Emergency Response Plan, the Blue Water Material and Chemical Handling Plan, and mandatory staff training, the Project's potential to create significant hazards to a school would be less than significant.

MITIGATION MEASURE(S)

No mitigation required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.9d – Would the Project be located on a site that 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?

An online search was conducted to identify hazardous waste locations on or near the Project site. The search indicated that there are two hazardous or toxic sites within one mile of the Project site (Cal EPA, 2020). There is one active cleanup site, Sandoz Corp Protection Inc at 720 5th St, Wasco, CA, within one mile of the Project that continues to be under investigation and one certified site, Santa Fe Railway Property at 7th and H Street, Wasco, CA.

Available data indicates there is one open remediation cleanup site within a mile of the Project site at 541 Hwy 46, Wasco, CA (California Water Resources Board, 2020). These sites will not be impacted by the construction or operation of the Project and would not create a significant hazard to the public or the environment.

The Project is not located on a site that is included on a list of hazardous materials sites with the City's General Plan FEIR (City of Wasco, 2016) and would not impact a listed site. There is no data identifying any facilities in the vicinity that might reasonably be anticipated to emit hazardous air emissions or handle hazardous materials, substances, or wastes that might affect the proposed residential development. Therefore, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.9e – For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

The Wasco-Bakersfield airport approximately 3 miles north west of the Project. The Project is not within the airport influence area or where there would be safety hazard or noise impacts from the airport (County of Kern, 2012). Therefore, the Project would not result in a safety hazard or excessive noise for people working in the Project area and there would be a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *less than significant impact.*

Impact #3.4.9f – Would the Project Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The 2008 Kern County Emergency Operations Plan (EOP) establishes an emergency management organization and assigns functions and tasks consistent with California's Standardized Emergency Management System and the National Incident Management System. The EOP includes goals and framework for implementing effective emergency response (County of Kern, 2008). The Project will comply with all local regulations as stated in the EOP. The Project would also comply with the appropriate local and State requirements regarding emergency response plans and access. The proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.9g – Would the Project Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

According to available data from Cal Fire, the entire City of Wasco including the Project site is within a Local Responsibility Area (LRA) (Cal Fire, 2007). The General Plan includes policies that would protect the Project and the community from fire dangers that would be followed during construction and operation of the Project.

Construction activities and the Project is not expected to increase the risk of wildfires on and adjacent to the Project site. The Project will comply with all applicable State and local building standards as required by local fire codes. Therefore, the Project would have less than significant impacts.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.10 - HYDROLOGY AND WATER QUALITY				
Would the Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water 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 through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
ii. Substantially increase the rate of amount of surface runoff in a manner which would result 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?	☐	☐	☒	☐

Discussion

Impact #3.4.10a – Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality?

Construction of the Project would involve repaving roadways and onsite areas and constructing the tanks within the existing building. There is potential for accidental spills or disposal of potentially harmful materials used during construction possibly washing into and polluting surface water runoff. Materials that could potentially contaminate the construction area, or spill or leak, include lead-based paint flakes, diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and other fluids. In order to reduce potential impacts to water quality during construction activities, BMPs targeted at minimizing and controlling construction runoff and erosion to the maximum extent practicable would be implemented. The following types of BMPs would be applied to minimize the potential for pollution related to material spills:

- Vehicles and equipment will be cleaned.
- Vehicle and equipment fueling, and maintenance requirements will be established.
- A spill containment and clean-up plan will be in place prior to and during construction activities.

With implementation of BMPs, the proposed Project would not violate any water quality standards or degrade surface water quality, and impacts would be less than significant.

As noted in Impact 3.4.9 *Hazards and Hazardous Materials*, Mitigation Measure MM HAZ-1 requires the Project to submit a HMBP to the California Environmental Reporting System (CERS) and show proof of the approved Plan to the CUPA. The HMBP contains measures and outline processes in case of accidental leakage or release of hazardous materials stored on site.

Stormwater runoff will be directed to an existing City-owned retention basin adjacent to the Project site. The Project developer will ensure that there is sufficient holding capacity for the retention basin to contain stormwater runoff from the Project site. If the basin has insufficient holding capacity, the developer will increase the dimensions of the basin under the direction of the City. With the implementation of MM HYD-1 and MM HAZ-1 would a reduce potential impacts to water quality to less than significant levels. the Project impacts would be less than significant.

Mitigation Measure(s)

Implementation of MM HAZ-1.

MM HYD-1: Prior to commencement of operations, the developer shall provide proof that the stormwater retention basin has capacity to hold the Project site's stormwater. Any water

that cannot be handled by the basin shall either 1) to be retained on-site, or 2) the developer shall increase the capacity of the stormwater retention basin under direction and approval of the Public Works Department.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significan***t ***with mitigation incorporated.***

Impact #3.4.10b – Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

See also Impact #3.4.19b.

The Kern County Subbasin is located in Southern San Joaquin Valley and includes the Kern County Groundwater Subbasin. The depth of the groundwater in the area is approximately 370 feet below the ground surface (Soils Engineering, Inc, 2020).

The City of Wasco extracts water from the Kern County Groundwater Subbasin, as its sole water source for the City. The Kern River is the primary groundwater recharge source. Artificial recharge also occurs at groundwater recharge facilities. The Kern County Groundwater Subbasin is bordered by Kern, King, and Tulare Counties to the North, the Sierra Nevada and Tehachapi Mountains to the east and southeast, and the San Emigdio Mountains and Coast Ranges to the south and southwest (City of Wasco, 2016).

The proposed water treatment facility will not use potable groundwater in its treatment process. The primary objective of the treatment process is to cleanse the produced water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. The water will go through a multiple stage filtration process to remove colloidal matter, biological matter, large molecular weight organics, and residual oil. Effluent water from the UF system is of adequate quality to process through reverse osmosis membranes. The product (permeate) water from the reverse osmosis systems is of good quality and is stored for reuse or resale. The water treatment plant will reduce the need for groundwater extraction. Residual water or byproducts of the filtration system will be taken and disposed of at an appropriate Class II nonhazardous materials landfill. No treated water will be released into the City's sewer system. As noted above, stormwater runoff will be directed to an existing City-owned retention basin adjacent to the Project site.

Therefore, the Project will not impact groundwater levels or the production rates of local wells. With the implementation of MM HYD-1 and MM HAZ-1, the Project impacts would be considered to be less than significant.

MITIGATION MEASURE(S)

Implementation of MM HAZ-1 and MM HYD-1

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.10c(i) –Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

The disturbance of soils on-site during construction could cause erosion, resulting in temporary construction impacts. Impacts from construction and operation are discussed below.

As discussed in Impact #3.4.10a. above, potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary during construction. Construction-related erosion and sedimentation impacts as a result of soil disturbance would be less than significant. There are no water bodies present on the Project site, and therefore, the proposed Project would not change the course of any such drainages.

Existing drainage pattern of the site and area would be affected by Project development because of the increase in impervious surfaces at the site. However, there will be an addition in impervious surfaces (tanks, pads, parking lot, etc.), which could increase the potential for stormwater runoff and soil erosion. The Project will comply with all applicable local building codes and regulations in order to minimize impacts during construction and post-construction of the Project. The Project site currently drains stormwater into the City owned retention basin north of the site. The Project will not alter a stream or river. The Project will comply with all applicable local building codes and regulations in order to minimize impacts during construction and post-construction of the Project. With implementation of HYD-1, impacts would be less than significant.

MITIGATION MEASURE(S)

Implementation of MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.10c(ii) – Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate of amount of surface runoff in a manner which would result flooding on- or offsite?

See also Impact #3.4.9c.i, above.

The Project site is flat, and grading would be minimal. Grading permits would be obtained to ensure that stormwater is maintained on site. The site does not contain any water features,

streams or rivers. The Project site currently drains via street curb and gutter to an existing stormwater retention basin. The construction and operation of the Project will not change the existing drainage pattern.

The Project is within a 1% Annual Chance Flood Hazard Zone (see Figure 3.4.10-1). The Project site is located within Special Flood Hazard Zone AH. However, the City is at a minor risk for a 100-year flood and does not have a significant history flood events associated with severe weather.

The State of California Building Code (CBC) contains requirements for constructing structures in flood hazard zones. These requirements are consistent with FEMA requirements for non-residential development in a 100-year flood plain. Wasco is in compliance with the State of California Uniform Building code (City of Wasco, 2016). The Project would comply with all City codes and regulations related to flooding.

Once constructed, stormwater would continue to flow into the stormwater retention basin north of the site. Therefore, with implementation of MM HYD-1, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

Implementation of MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.10c(iii) – Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Please see Impacts #3.4.10a through c (ii), above.

The Project would comply with all applicable State and local codes and regulations. The proposed Project will not alter the existing drainage pattern. Impacts would be less than significant.

The Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, nor provide additional sources of polluted runoff. As required by MM HYD-1, prior to operations, the developer would determine if the off-site retention basin had sufficient capacity to handle site stormwater. If it was not sufficient, the retention basin capacity would be increased to hold the anticipated stormwater. Therefore, with implementation of MM HYD-1, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

Implementation of MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.10c(iv) – Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The Project site is currently developed, and the Project will not result in any change in the existing drainage patterns. The Project site currently drains into the basin north of the Project site. BMPs would be implemented throughout construction activities to prevent any degradation of water quality. The Project does not include the alteration of the course of a stream or a river. Therefore, with the implementation of MM HYD-1, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

Implementation of MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.10d – Would the Project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

The Project site is not located near the ocean or a steep topographic feature (i.e., mountain, hill, bluff, etc.). Tsunamis are waves generated in oceans from seismic activity. Due to the inland location of the site, tsunamis are not considered a hazard for the site. Therefore, there is no potential for the site to be inundated by tsunami or mudflow.

A seiche is a wave generated by the periodic oscillation of a body of water whose period is a function of the resonant characteristics of the containing basin as controlled by its physical dimensions. There is no body of water within the vicinity of the Project site. There is no potential for inundation of the Project site by seiche.

See also Impact #3.4.10 c(ii).

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.10e – Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

See response to Impact #3.4.10b above.

The Project site will continue to drain into the City basin north of the Project site. The Project will comply with all applicable local and State standards during construction and operation. This Project is not anticipated to use or substantially deplete groundwater supplies or conflict with any future adopted groundwater management plan. Therefore, with the implementation of MM HYD-1, impacts would be less than significant.

MITIGATION MEASURE(S)

Implementation of MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

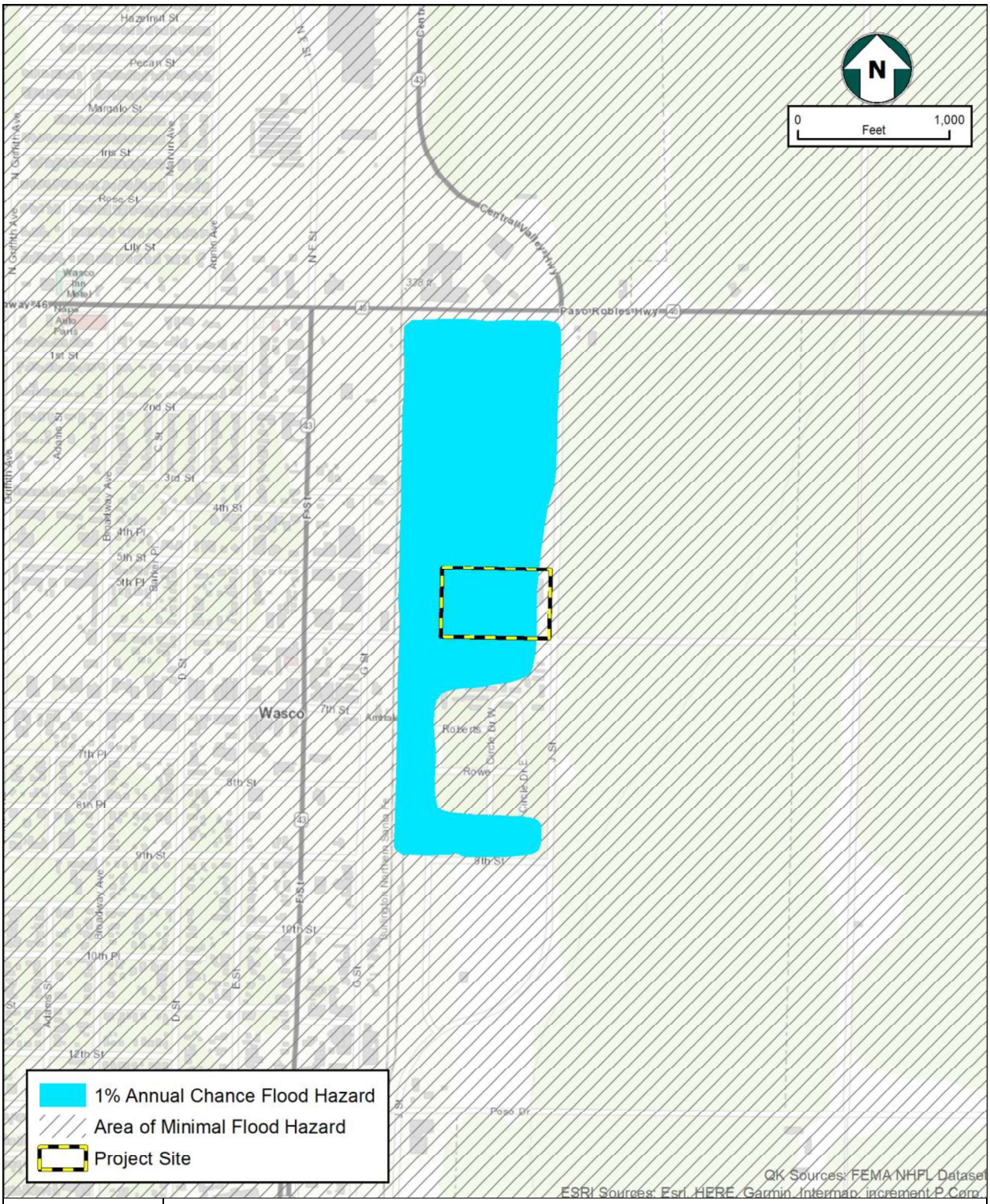


Figure 3.4.10-1
FEMA Flood Hazards

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

Discussion

Impact #3.4.11a – Would the Project physically divide an established community?

The proposed Project site contains a developed industrial building and is surrounded by similar industrial lands. Surrounding agricultural lands in the area are zoned as Heavy Industrial land (Figure 3.4.11-1). The proposed Project would not physically divide an established community. Therefore, the Project will have a no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.11b – Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project is within the jurisdictional boundaries of the City of Wasco General Plan, which designates the Project site as Heavy Industrial (Figure 3.4.11-2). The proposed Project submitted a Conditional Use Permit for consideration by the City to ensure compatibility with the surrounding land uses in the area. As such, the proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

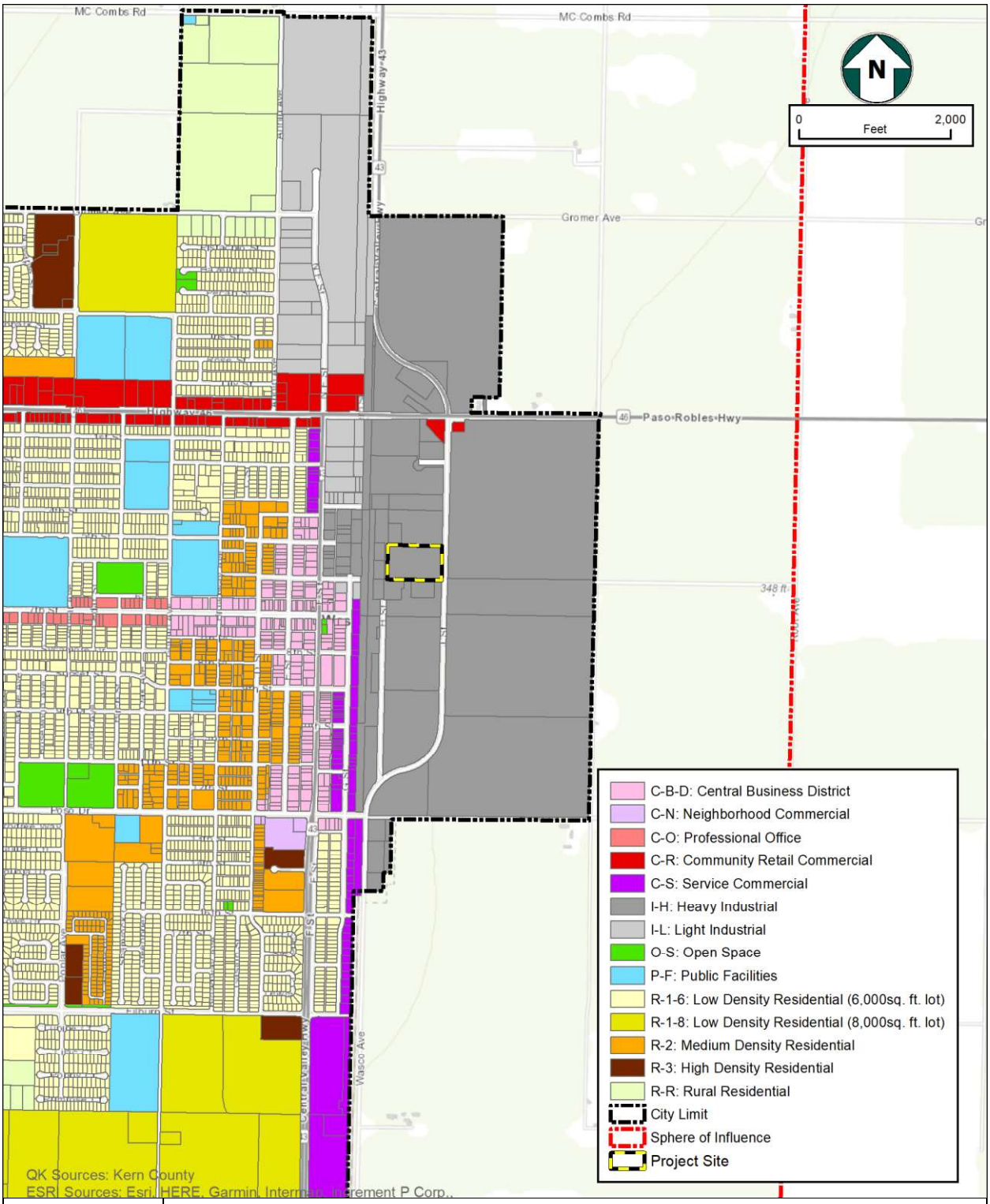


Figure 3.4.11-1
Project Vicinity Zoning

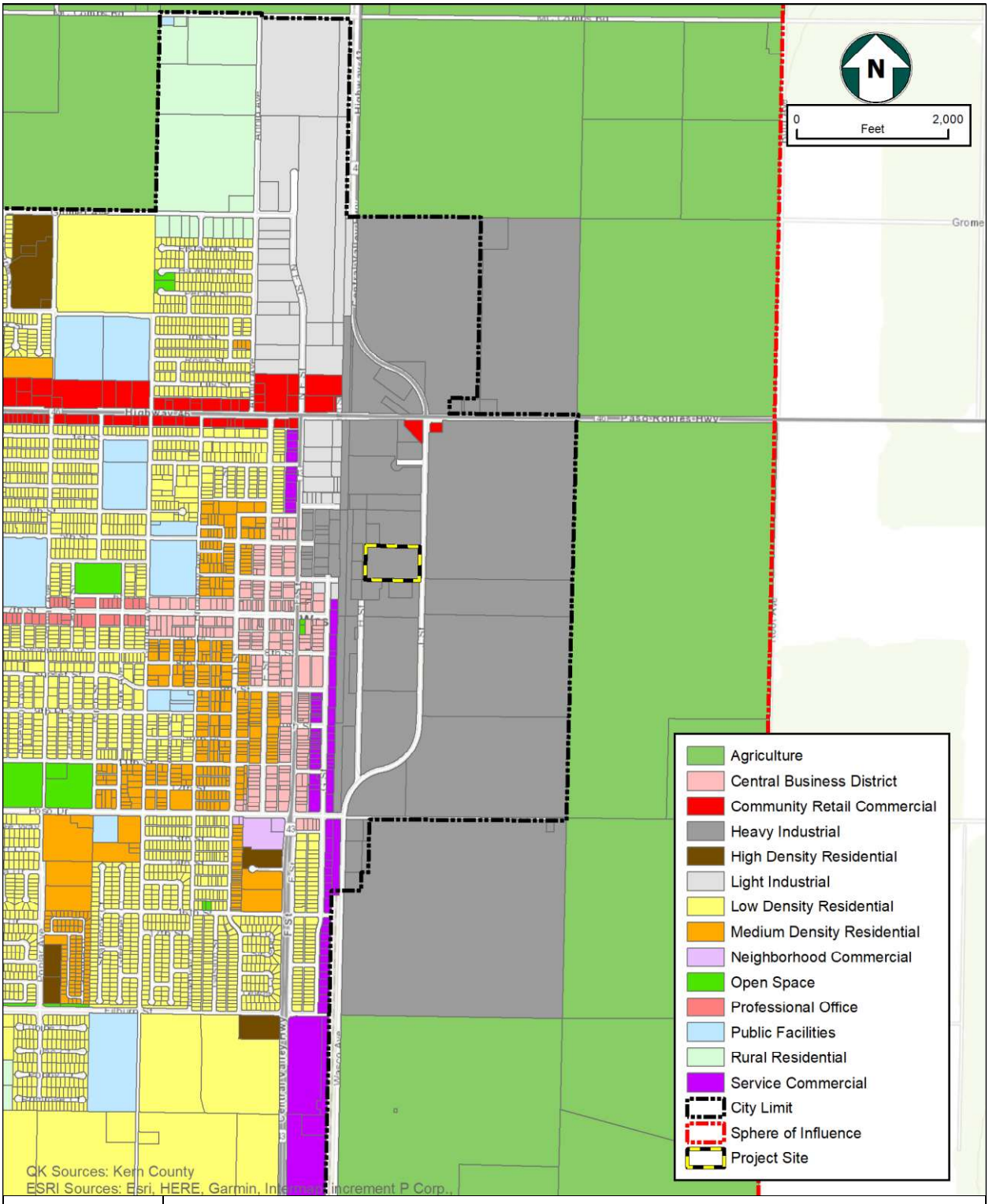


Figure 3.4.11-2
Project Vicinity General Plan Land Use

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less–than-Significant Impact	No Impact
3.4.12 - MINERAL RESOURCES					
Would the Project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☒	☐

Discussion

Impact #3.4.12a – Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The California Department of Conservation, Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans. The State has not identified any mineral resources zones within the Wasco planning area (City of Wasco, 2016).

The Project site is not located in a Geologic Energy Management Division (CalGEM) oilfield and there are no known wells located on the site. The closest oil well is located approximately 1.25 miles east of the Project. The proposed Project would not result in the loss of availability of mineral resources as the Project does not propose the extraction of mineral resources. Additionally, the proposed Project would not restrict the ability of mineral rights' holders in the area to exercise their legal rights to access surrounding sites for the exploration and/or extraction of underlying oil research or other natural resources.

The proposed Project would not 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. Therefore, impacts would be *less than significant.*

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.12b – Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The proposed Project is not designated as a mineral recovery area (City of Wasco, 2016). The Project would not alter any existing plans that protect mineral resources. As a result, the proposed Project would not interfere with known mining operations but would not result in the loss of land designated for mineral and petroleum.

The proposed Project would not 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. Therefore, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

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

Discussion

Impact #3.4.13a – Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

The General Plan provides direction for the noise environment for the Project and identifies the policy for land uses that may generate noise and sensitive land uses that may be affected by noise generated elsewhere. The General Plan Policy is to provide noise considerations into the land use decision-making process.

The existing major sources of noise within the City are SR 43, SR 46, and railroad operations. The Project is approximately 0.5 miles away from SR 46 and SR 43. According to the General Plan's Existing Railroad Noise Contour Map, the Project is currently within Noise Level 70 dBA CNEL (City of Wasco, 2016). The land uses surrounding the Project is Heavy Industrial and is not a land use that has been identified in the General Plan as sensitive to noise. The nearest sensitive receptor would be Karl Clemens Elementary School approximately 0.7 miles away.

Construction related noise levels and activities will be temporary and intermittent. The proposed Project will generate noise from the following construction equipment: tractor, loaded truck, forklifts, generator, crane, paver, roller, compactor and an air compressor. Additionally, traffic and the various other noises generally associated with construction activities will be temporary and only take place during daylight hours. In addition, the construction-related noise will be intermittent and cease once the proposed Project is completed.

Operation

Proposed industrial operation will be conducted within the existing building and will be consistent with City noise criteria in its General Plan. Truck traffic will generate related noise levels which vary greatly and are generally intermittent and limited in duration. Truck related noise impact is intermittent in nature, of limited duration, and will only be heard during daylight hours and as such is determined to be less than significant.

Implementation of the Mitigation Measure MM NSE-1 will reduce the temporary noise impacts from construction related activities to levels that will be less than significant.

MITIGATION MEASURE(S)

MM NSE-1: During construction, the contractor shall implement the following measures:

1. All stationary construction equipment on the Project site shall be located so that noise emitting objects or equipment faces away from any potential sensitive receptors.

2. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

3. Construction activities shall take place during daylight hours, when feasible.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.13b – Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Construction activities in general can have the potential to create groundborne vibrations. It is unlikely that any blasting or pile-driving would be required in connection with construction of the Project. Therefore, the potential for groundborne vibrations to occur as part of the construction of the Project is considered minimal.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations (Federal Highway Administration (FHWA), U.S. Department of Transportation, 2017). In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inch/second) appears to be conservative even for sustained pile driving. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The typical vibration produced by construction equipment is illustrated in Table 3.4.13-1.

Table 3.4.13-1. Typical Vibration Levels for Construction Equipment

Equipment	Reference peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 100 feet (inches/second)[2]
Loaded trucks	0.076	0.010
Vibratory compactor/roller	0.210	0.026

Notes:

1 – Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006. Table 12-2.

2 – Calculated using the following formula:

$PPV_{equip} = PPVref \times (25/D)1.5$
where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA Transit Noise and Vibration Impact Assessment Guidelines

D = the distance from the equipment to the receiver

As indicated in Table 3.4.13-1, based on the FTA data, vibration velocities from typical heavy construction equipment that would be used during Project construction range from 0.076 to 0.210 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. With regard to the proposed Project, ground-borne vibration would be generated during site clearing activities on-site facilitated by implementation of the proposed Project. As demonstrated in Table 3.4-13-1, vibration levels at 100 feet would range from 0.010 to 0.026 PPV. Therefore, the anticipated vibration levels would not exceed the 0.2 inch-per-second PPV significance threshold during construction operations at the nearest receptors, which are approximately half a mile to the west. It should be noted that 0.2 inch-per-second PPV is a conservative threshold, as that is the construction vibration damage criteria for non-engineered timber and masonry buildings (Kern County Planning Department, 2013). Buildings within the Project area would be better represented by the 0.5 inch-per-second PPV significance threshold (construction vibration damage criteria for a reinforced concrete, steel or timber buildings) (Kern County Planning Department, 2013). Therefore, vibration impacts associated with construction are anticipated to be less than significant.

Operation

Once constructed, the Project would not result in any activities that would create ground-borne vibrations. The Project is near the railroads that are a common source of ground-borne vibration and intermittent noise exposure. However, the General Plan FEIR states the railway does not generate noise in excess pf 80VdB, which is the FTA standard (City of Wasco, 2016). Thus, the proposed Project would not result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels. Therefore, the Project would have a less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.13c – 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?

There are no private airstrips or airstrip land use plans within the city limits. The Project would not expose people residing or working in the Project area to excessive noise levels.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.14 - POPULATION AND HOUSING				
Would the Project				
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?	☐	☐	☐	☒

Discussion

Impact #3.4.14a – Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed Project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The Project would not introduce new housing or infrastructure. The Project is an industrial use in an existing building that would create approximately 15 jobs. It is anticipated that the majority of new jobs would be filled by residents of the City or nearby area. Therefore, impacts of the Project would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.14b – Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

See Impact#3.4.14a above.

Any construction needed for the Project would likely be done by construction workers residing in the City or the surrounding area and would not require new housing. The Project site is presently developed and will not displace existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the Project would have no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

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

Discussion

Impact #3.4.15a(i) – Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services - Fire Protection?

Fire protection for the Project is provided by the Kern County Fire Department. The County maintains Fire Station 31 at 2424 7th Street in Wasco. The station is staffed with three personnel every day. The station houses a Type 1 Fore Engine, a Type 4 Patrol unit, and a Type 1 Office of Emergency Services Water Tender. The average response time is less than 10 minutes (City of Wasco, 2016).

The Project site is currently zoned for heavy industrial uses and would have been analyzed as such in the General Plan EIR. The construction and the operation of the proposed Project is not expected to increase the risk of fires on and adjacent to the Project site. The Project

site is existing and would therefore not create a need for additional fire protection. Therefore, the impact would be less than significant.

MITIGATION MEASURE(S)

No mitigation measures required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*

Impact #3.4.15a(ii) – 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 to other performance objectives for any of the public services – Police Protection?

The Kern County Sheriff's Department provides law enforcement services to the City of Wasco. The Wasco substation is located at 748 F Street in Wasco and is located approximately a half mile from the Project site. The substation is staffed by 25 officers (two sergeants, 18 deputies, four senior deputies, and the area commander), six clerks, and an aide who handles civil process. (City of Wasco, 2016).

The Project will not increase the local population and would not result in significant environmental impacts related to acceptable service ratios, response times, or to other performance objectives police protection services. Therefore, impacts related to police protection would be less than significant.

MITIGATION MEASURE(S)

No mitigation measures required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*

Impact #3.4.15a(iii) – 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 to other performance objectives for any of the public services – Schools?

The Project is within the Wasco Union Elementary School District (District), which includes five school facilities and the Wasco Union High School District, which includes two school facilities that service the City. Karl Clemens Elementary School is the nearest school to the site and is located 0.7 miles west of the Project.

The Project is developed and will be used for industrial uses. It will not increase the population or require changes to the school facilities. Therefore, the Project will not impact the local school district.

MITIGATION MEASURE(S)

No mitigation measures.

LEVEL OF SIGNIFICANCE

There would be ***no impact.***

Impact #3.4.15a(iv) – 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 to other performance objectives for any of the public services – Parks?

The proposed Project would not increase the use of existing neighborhood and regional parks. The closest public park is Cormack Park, which is approximately one mile west of the Project site. The proposed Project would not result in an increase in the local population.

The proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. Therefore, the Project would have a less-than-significant impact.

MITIGATION MEASURE(S)

No mitigation measure required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.15a(v) – 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 to other performance objectives for any of the public services – Other Public Facilities?

See Impact #3.4.15a, above.

MITIGATION MEASURE(S)

No mitigation measure required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less–than-Significant Impact	No Impact
3.4.16 - RECREATION				
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion

Impact #3.4.16a – Would the Project Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed Project would not increase the use of existing neighborhood and regional parks. The closest public park is Cormack Park, which is approximately one mile west of the Project site. The proposed Project would not result in an increase in the local population. Therefore, the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities. There will not be physical deterioration of the facilities and the Project will not require the construction or expansion of recreational facilities. Therefore, the Project would have a *less than significant impact.*

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.16b – Would the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

See Impact #3.4.16a, above.

The Project would not include recreational facilities or require the construction or expansion of recreational facilities that would have any adverse physical effect on the environment. There would a *less than significant* impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

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

Discussion

The analysis below is based on the City's General Plan Environmental Impact Report and the Trip Generation Analysis Report prepared for the Project (Porter & Associates, 2017), which is included as Appendix D.

Impact #3.4.17a – Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The existing roadways providing the main circulation in the vicinity of the Project include the following:

J Street is classified as a truck route by the General Plan Circulation Element. Access to the Project would be taken from J Street. In the vicinity of the Project J Street is developed as a two-lane roadway with curb and gutter.

6th Street is classified as local street by the General Plan Circulation Element. It is also a Proposed Class II Bike Lane. In the vicinity of the Project 6th Street is a two-lane roadway with curb and gutter.

According to the Trip Generation Analysis, an average of 1.3 persons per passenger car is typical for general light industrial facilities, which will continue to be the use of this Project

area. With 20 employees, 16 entering vehicle trips are anticipate with 16 exiting trips for a total of 32 Average Daily Trips (ADT).

The routes used by Project trucks is illustrated in Figure 3.4.17-1, below. A total of 26 truck trips will enter the facility from SR 46. Trucks will turn south from SR 46 onto J Street to enter the facility. A total of 49 trucks will enter the facility from SR 43. Trucks will turn east onto Poso Ave then north onto H Street or J Street to enter the facility. The trucks will bypass the majority of the controlled intersections along SR 43 within the City thereby reducing impacts to the street network. Upon leaving SR 43, the truck traffic from this facility will use City maintained streets to enter the site.

Thirty-seven trucks loaded with clean water and brine water will exit the facility each day and deliver to Holloway Class II landfill in Lost Hills via SR 46. The clean and brine water will be stored in tanks on site and then hauled off during the day. Timing of the removal of the clean and brine water is not critical and can be completed at non-peak times.

Seventy-five trucks are proposed to enter the facility each day with untreated oilfield wastewater. Together with the 37 different trucks removing clean and brine water from the facility, there are proposed a total of 112 trucks coming to and leaving the facility for a total of 224 Average Daily Truck Trips (ADTT). The facility will operate in shifts with 24-hour work days. The majority of truck trips are expected to occur in three windows between 5:00 am to 7:00 am, 10:00 am to 12:00 pm and 6:00 pm to 8:00 pm. Typical peak hours of adjacent street traffic in the morning and evening are between 7:00 am to 9:00 am and 4:00 pm and 6:00 pm, respectively.

Based on the expected delivery windows of the trucks delivering the majority of the unprocessed wastewater, it is likely that most of the truck traffic will not occur during normal peak hours of the adjacent street traffic. Assuming one-third of the trucks enter the site in the 5:00 am to 7:00 am window, it is likely that the maximum peak hour truck traffic generated by this facility during peak hour of adjacent street traffic will be exiting truck trips during the 7:00 am to 9:00 am peak hour. For this analysis, a conservative assumption of 25 exiting truck trips during the 7:00 am to 9:00 am peak hour has been utilized. Less peak hour trips are expected to be generated during the normal pm peak hour because of the employee shifts and the anticipated delivery window for the evening waste water occurring from 6:00 pm to 8:00 pm after the normal adjacent street peak hour traffic (Porter & Associates, 2017).

Table 3.4.17-1 summarizes the estimated equivalent ADT for the facility and peak hour trips:

Table 3.4.17-1
Project Trip Generation

Category	Estimated Number of Vehicles	Average Daily Trips	A.M. Peak Hour Trips (7:00 AM – 9:00 AM)	P.M. Peak Hour Trips (4:00 PM – 6:00 PM)	Non-Peak Hour Trips

			In	Out	In	Out	In	Out
Passenger Cars	16	32	11	0	0	11	5	5
Truck Deliveries	112	224	0	25	0	10	112	77
Total Trips	128	256	11	25	0	21	117	82

Source: (Porter & Associates, 2017)

The Project conservatively generates a maximum of 36 peak hour trips during the morning peak and 256 average daily trips (Porter & Associates, 2017). The Project is expected to generate less traffic than traffic generated by historic uses of the site and the existing facility (Porter & Associates, 2017).

Vehicle Miles Traveled (VMT) Evaluation

The new CEQA Guidelines section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas, and shifts the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. Vehicle miles traveled, or VMT, is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person.

The newly adopted guidance provides that a Lead Agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply Statewide. To date, the City has not yet formally adopted its transportation significance thresholds or its transportation impact analysis procedures. Since the regulations of SB 743 have not been finalized or adopted by the City, traffic delay remains the measure used to determine the significance of a traffic impact. Therefore, impacts related to CEQA Guidelines section 15064.3, subdivision (b) would be less than significant

Based on the information presented in the Traffic Generation Analysis, the proposed Project will have a less than significant impact on or conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The Project will comply with the City's Municipal Code and pay the Traffic Impact Fee to offset the costs of off-site traffic improvements. Therefore, the Project will have a less than significant impact with implementation of MM TRA-1.

MITIGATION MEASURE(S)

MM TRA-1 The applicant shall pay the required City of Wasco Traffic Impact Fee to offset the costs of off-site traffic improvements.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.17b – Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

See Impact #3.4.17a, above.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.17c – Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project is currently developed and will not include any changes to any design features that could create a hazard. Therefore, the Project will have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.17d – Would the Project result in inadequate emergency access?

The proposed Project would be required to comply with all emergency access requirements adopted and set forth in the City of Wasco Municipal Code. The Project site is currently developed and will not impact emergency access.

As described above, increased project-related traffic would not cause a significant increase in congestion and or significantly worsen the existing service levels at intersections on area roads; therefore, Project-related traffic would not affect emergency access to the project site or any other surrounding location. The proposed Project would not require closures of public roads, which

could inhibit access by emergency vehicles. For these reasons construction and operation would have a less-than-significant impact on emergency access.

Therefore, emergency access impacts will be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

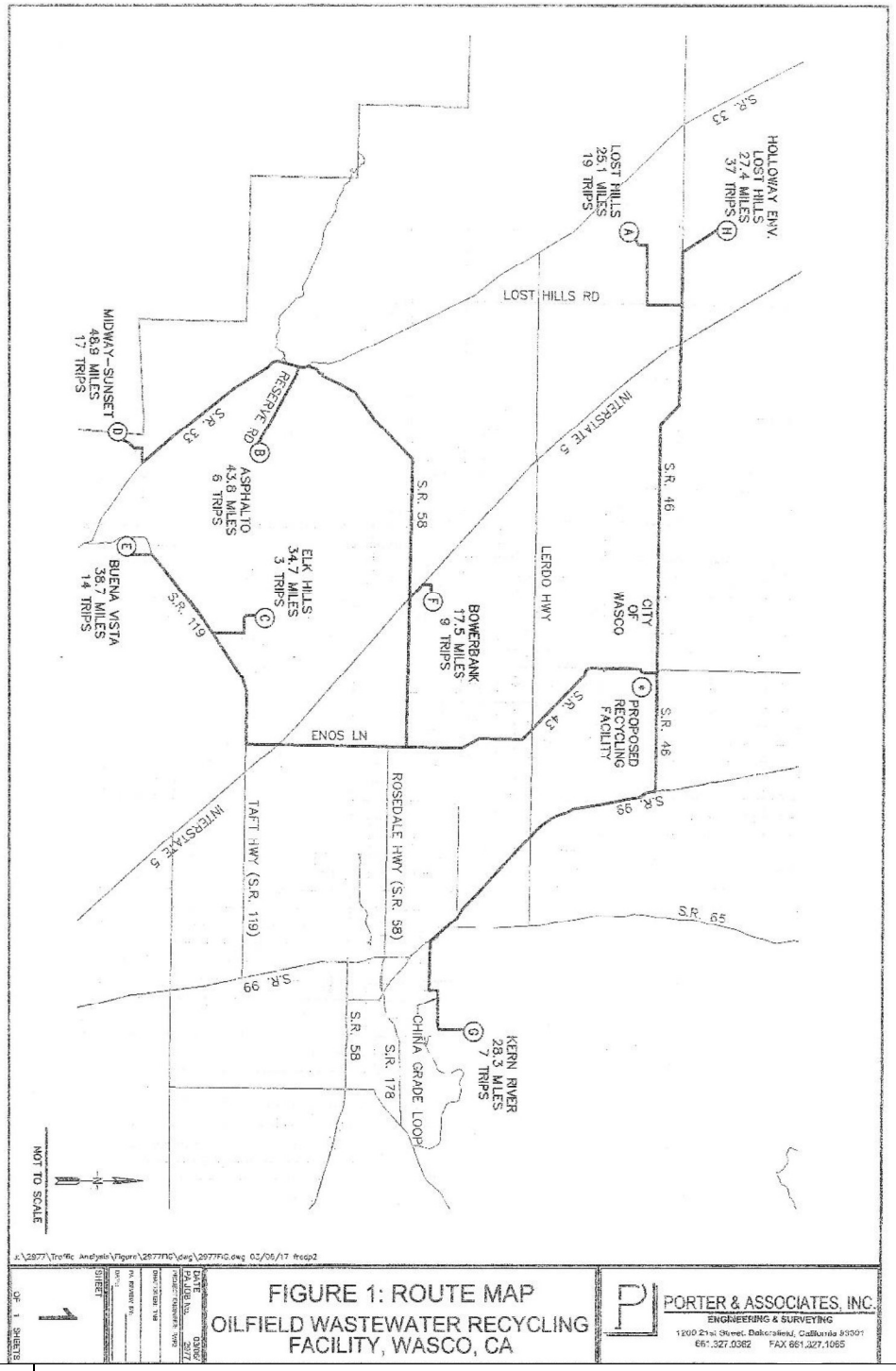


Figure 3.4.17-1
Project Truck Routes

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less–than-Significant Impact	No Impact
3.4.18 - TRIBAL CULTURAL RESOURCES				
Would the Project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☒	☐	☐
Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion

Impact #3.4.18a(i) – Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is – listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

See the discussion presented in Section 3.4.5 - *Cultural Resources,* Impacts #3.4.5a through 3.4.5c.

The Project is within a developed area that has previously been disturbed. The Project is within an industrial setting that has been in industrial use for several decades. On June 4, 2020 pursuant to Public Resources Code § 21080.3.1 and Government Code § 65300 *et seq*,

letters were sent to each of the 15 Native American tribes within the geographic area as identified by the NAHC (see Appendix A). The letters included a Project description and location maps. On July 9, 2020, Jessica Mauck, the Director of Cultural Resources Management for the San Manuel Band of Mission Indians indicated that the proposed Project was outside of Serrano ancestral territory and the San Manuel Band of Mission Indians would not elect to consult on the Project with the Lead Agency. To date, no other response has been received from the other Tribes that were contacted.

Upon any ground-breaking activity, there is the possibility of uncovering an object of cultural value. Mitigation measures CUL-1 and CUL-2 must be incorporated if any artifacts or human remains are discovered. Therefore, the Project would have a *less than significant impact with mitigation incorporated.*

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM CUL-1 and MM CUL-2.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.18a(ii) – Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is – a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe?

See discussion for Impacts #3.4.5a through#3.4.5c and Impact #3.4.18a(i), above.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM CUL-1 and MM CUL-2.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.19 - UTILITIES AND SERVICE SYSTEMS				
Would the Project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐

Discussion

This analysis relied upon review of applicable requirements of the California Region Water Quality Control Board (CRWQCB) and by the Wasco General Plan.

Impact #3.4.19a – Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The Project would be constructed on land that has already been designated for industrial development by the General Plan, and has existing industrial infrastructure and uses

currently in operation. The City has indicated that the infrastructure necessary to serve the Project is available and sufficient to meet the needs of the Project. As noted previously, the Project site will connect to the City's existing water and sewer systems. The City's wastewater treatment plant has a current capacity of 3.0 million gallons per day (mgp). Current peak demand on the facility approximates 1.7 mgp. As such, the Project will not require any new or expanded treatment facilities.

The Project will not discharge into the City's wastewater treatment system. As such, the Project is not expected to violate any water quality standards or waste discharge requirements.

The Pacific Gas and Electric Company (PG&E) provides electricity to the City. The Project will include a PG&E power upgrade, which will include installation of a new transformer. The Project site is currently developed and would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, natural gas, or telecommunications facilities. As a result, the Project is considered to be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.19b – Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

The City provides domestic water from six active wells (City of Wasco, 2016). These wells have a pumping delivery capacity of 11,060-acre feet per year (AFY). The City estimates water use demand to be 6,661 AFY in 2015, indicating that there is a substantial excess water delivery capacity of 4,399 AFT. The Project area has been planned as an industrial development based on existing water delivery infrastructure. The potential for increased demand from the Project due to the proposed use is considered to be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.19c – Would the Project result in a determination by the wastewater treatment provider that 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?

See #3.4.19a and b.

The proposed Project will continue to serve the Project site and therefore would not increase the demand. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant impact***.

Impact #3.4.19d – Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Implementation of the proposed Project would result in the generation of solid waste on the Project site, which would increase the demand for solid waste disposal. During construction these materials, which are not anticipated to contain hazardous materials, would be collected and transported away from the site.

Solid waste that is collected is disposed of at the Shafter/Wasco Landfill and the Bakersfield Metropolitan (Bena) Landfill. These landfills are owned and operated by the Kern County Waste Management Department. The Shafter/Wasco Landfill is the City's primary landfill, while the Bena Landfill accepts some refuse from industrial uses within the City. Both of these facilities are designated as a Class III landfills and have the capacity to serve projected solid waste disposal needs through December 2053 and April 2046, respectively (CalRecycle, 2020). As noted previously, residual water or byproducts of the filtration process will be taken and disposed of at an appropriate Class II nonhazardous materials landfill.

The Project, in compliance with federal, State, and local statutes and regulations related to solid waste, would dispose of all waste generated on-site at an approved solid waste facility. The Project does not, and would not conflict with federal, State, or local regulations related to solid waste. The proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs in compliance with federal, State, and local statutes and regulations related to solid waste. Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant impact.***

Impact #3.4.19e – Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

See discussion for Impact #3.4.19d.

As stated above, the Wasco-Shafter Landfill has available capacity to accommodate solid waste generated by the proposed Project. Therefore, the proposed Project would not be expected to significantly impact Kern County landfills. The proposed Project would be required to comply with all federal, State, and local statues and regulations related to solid waste. Therefore, implementation of the proposed Project would result in a less than significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.20 - WILDFIRE				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
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 concentration from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion

Impact #3.4.20a – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

See also Impact #3.4.9f regarding emergency response.

The City of Wasco is not within close proximity to High Fire Hazard Zones (City of Wasco, 2016).

As noted previously, Kern County Emergency Operations Plan (EOP) establishes emergency procedures and policies and identifies responsible parties for emergency response in the County (County of Kern, 2008). The EOP includes policies that would prevent new development from interfering with emergency response of evacuation plans. The Project will

comply with all local regulations related to the construction of new development that is consistent with the EOP. The Project will adhere to the standards set forth in City of Wasco Municipal Codes. The Project would also comply with the appropriate local and State requirements regarding emergency response plans and access. The proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities.

The proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the Project would have a *less than significant impact.*

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.20b – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentration from a wildfire or the uncontrolled spread of a wildfire?

The Project will be constructed and operated in an existing developed area. The City's General Plan does not identify the Project site as an area with high fire threat (City of Wasco, 2016). The Project area is generally flat. Prevailing winds in the city typically occur from the Northwest at an average speed of 5 to 10 miles per hour (City of Wasco, 2016). By implementing state and the local fire code requirements, the Project would not exacerbate the risk of exposure of Project occupants to wildfire. Therefore, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.20c – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

See Impacts # 3.4.9a and g, #3.4.20a and b above.

The Project is not located near state responsibility areas or lands classified as very high fire hazard severity zones. The site is not within 350 feet of high voltage transmission lines. Based on available data, the nearest electric transmission line is along SR 46 (California Energy Commission, 2020). The Project would not require the installation or maintenance of additional distribution lines. Therefore, the Project would not exacerbate fire risk or result in temporary or ongoing impacts to the environment and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.20d – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

See Impacts # 3.4.9a and g, #3.4.20a, b and c, above.

The Project is not located near state responsibility areas or lands classified as very high fire hazard severity zones. The site is topographically flat land. There are no slopes on or near the property and the Project would not expose the people or structures to significant risks from downslope or downstream flooding or landslides due to a result of runoff, post fire instability or drainage changes.

Therefore, the Project would have a less than significant impact.

MITIGATION MEASURE(S)

No mitigation required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3.4.21 - MANDATORY FINDINGS OF SIGNIFICANCE				
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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are significant 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 would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

Impact #3.4.21a – 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As evaluated in this IS/MND, the proposed Project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. With implementation of the mitigation measures recommended in this

document, the proposed Project would not have the potential to degrade the quality of the environment, significantly impact biological resources, or eliminate important examples of the major periods of California history or prehistory. Therefore, with the following mitigation measures the Project would have a less than significant impact.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM BIO-1 through MM BIO-2 and MM CUL-1 and MM CUL-2.

LEVEL OF SIGNIFICANCE

The Project would have a ***less than significant impact with mitigation incorporated***.

Impact #3.4.21b - Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are significant when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)?

As described in the impact analyses in Sections 3.4.1 through 3.4.20 of this IS/MND, any potentially significant impacts of the proposed Project would be reduced to a less than significant level following incorporation of the mitigation measures listed. The proposed Project would not otherwise combine with impacts of related development to add considerably to any cumulative impacts in the region. With mitigation, the proposed Project would not have impacts that are individually limited, but cumulatively considerable. Therefore, the Project would have a less than cumulatively considerable impact with mitigation incorporated.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM BIO-1 and MM BIO-2, MM CUL-1 through MM CUL-2, MM GEO-1 through MM GEO-2, MM HAZ-1, MM HYD-1, MM NSE-1, MM TRAF-1.

LEVEL OF SIGNIFICANCE

The Project would have a ***less than significant impact with mitigation incorporated***.

Impact #3.4.21c - Does the Project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

All of the Project's impacts, both direct and indirect, that are attributable to the Project were identified and mitigated. The Project mitigation measures will substantially reduce or eliminate impacts of the Project. Therefore, the proposed Project would not either directly or indirectly cause substantial adverse effects on human beings because all potentially adverse direct impacts of the proposed Project are identified as having no impact, less than significant impact, or less than significant impact with mitigation.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM BIO-1 and MM BIO-2, MM CUL-1 through MM CUL-2, MM GEO-1 through MM GEO-2, MM HAZ-1, MM HYD-1, MM NSE-1, MM TRA-1.

LEVEL OF SIGNIFICANCE

The Project would have a ***less than significant impact with mitigation incorporated***.

SECTION 4 - LIST OF PREPARERS

Lead Agency- City of Wasco

Keri Cobb- Community Development Department – Community Development Director

Consultant - QK

Jaymie Brauer – Project Manager QA/QC

Karla Topete – Lead Author

SECTION 5 - BIBLIOGRAPHY

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SECTION 6 - MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
3.4.1	**Aesthetics**				
	No Mitigation required.				
3.4.2	**Agriculture and Forest Resources**				
	No Mitigation required.				
3.4.3	**Air Quality**				
	No Mitigation required.				
3.4.4	**Biological Resources**				
#1	**MM BIO-1**: If construction is planned outside the nesting period for raptors (other than the western burrowing owl) and migratory birds (February 15 to August 31), no mitigation shall be required. If construction is planned during the nesting season for migratory birds and raptors, a preconstruction survey to identify active bird nests shall be conducted by a qualified biologist to evaluate the site and a 250-foot buffer for migratory birds and a 500-foot buffer for raptors. If nesting birds are identified during the survey, active raptor nests shall be avoided by 500 feet and all other migratory bird nests shall be avoided by 250 feet. Avoidance buffers may be reduced if a qualified on-site monitor determines that encroachment into the buffer area is not affecting nest building, the rearing of young, or otherwise affecting the breeding behaviors of the resident birds. Because nesting birds can establish new nests or produce a second or even third clutch at any time during the nesting season, nesting bird surveys shall be repeated every 30 days as construction activities are occurring throughout the nesting season. In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or	During Construction activities, if during nesting season	Community Development Planning Division Qualified Biologist		
		Steps to Compliance: A. A qualified biologist must conduct a pre-activity nesting bird within seven days prior to the start of construction at the construction site plus a 250-foot buffer for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). B. The project proponent shall submit evidence of implementation of compliance with practices as outlined in mitigation. C. If necessary, implement site-specific recommendations under the guidance of a qualified biologist.			

<table>
<tr><th colspan="6">Mitigation Monitoring Program</th></tr>
<tr><th>Impact</th><th>Mitigation Measure</th><th>Time Frame for Implementation</th><th>Responsible Monitoring Agency</th><th>Date</th><th>Initials</th></tr>
<tr><td></td><td>2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

<table>
<tr><td rowspan="2">Location</td><td rowspan="2">Time of Year</td><td colspan="3">Level of Disturbance</td></tr>
<tr><td>Low</td><td>Med</td><td>High</td></tr>
<tr><td>Nesting sites</td><td>April 1-Aug 15</td><td>200 m*</td><td>500 m</td><td>500 m</td></tr>
<tr><td>Nesting sites</td><td>Aug 16-Oct 15</td><td>200 m</td><td>200 m</td><td>500 m</td></tr>
<tr><td>Nesting sites</td><td>Oct 16-Mar 31</td><td>50 m</td><td>100 m</td><td>500 m</td></tr>
</table>

No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (left the nest) and have attained sufficient flight skills to avoid Project construction areas. Once the migratory birds or raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can cease.</td><td></td><td></td><td></td><td></td></tr>
<tr><td>#2</td><td>MM BIO-2: During all construction-related activities, the following mitigation shall apply:
a. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or Project site.</td><td>During all construction phases</td><td>Community Development
Planning Division
Qualified Biologist
USFWS and CDFW (if necessary)</td><td></td><td></td></tr>
<tr><td></td><td></td><td colspan="4">Steps to Compliance:
A. The project proponent shall submit evidence of implementation of compliance with practices as outlined in mitigation.</td></tr>
</table>

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
	b. Construction-related vehicle traffic shall be restricted to established roads and predetermined ingress and egress corridors, staging, and parking areas. Vehicle speeds should not exceed 20 miles per hour (mph) within the Project site. c. To prevent inadvertent entrapment of kit fox or other animals during construction, the contractor shall cover all excavated, steep-walled holes or trenches more than two feet deep at the close of each workday with plywood or similar materials. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks shall be installed in the trench. Before such holes or trenches are filled, the contractor shall thoroughly inspect them for entrapped animals. All construction-related pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored on the Project site shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If at any time an entrapped or injured kit fox is discovered, work in the immediate area shall be temporarily halted and USFWS and CDFW shall be consulted. d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
	moved until the USFWS and CDFW has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. e. No pets, such as dogs or cats, shall be permitted on the Project sites to prevent harassment, mortality of kit foxes, or destruction of dens. f. Use of anti-coagulant rodenticides and herbicides in Project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the USFWS and CDFW. If rodent control must be conducted, zinc phosphide shall be used because of the proven lower risk to kit foxes. g. A representative shall be appointed by the Project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the USFWS. h. The Sacramento Fish and Wildlife Office of USFWS and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during Project-related activities. Notification must				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
	include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact can be reached at (559) 243-4014 and R4CESA@wildlifeca.gov. i. All sightings of the San Joaquin kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the Service at the address below. j. Any Project-related information required by the USFWS or questions concerning the above conditions, or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W 2605, Sacramento, California 95825-1846, phone (916) 414-6620 or (916) 414-6600. k. If burrowing owl are found to occupy the Project site and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement or occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect Burrowing owl, if they return.				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
3.4.5	**Cultural Resources**				
#3	**MM CUL-1**: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.	Before or during grading activities	Community Development Planning Division Qualified Archaeologist, if applicable.		
		Steps to Compliance: A. If previously unknown historical resources are encountered, construction shall stop and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. B. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources. C. If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the qualified archaeologist and recommended to the City. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the City approves the measures to protect these resources. D. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.			
		Steps to Compliance: A. If a Cannabis License application is submitted on a parcel of land that has not previously been graded, a field survey and literature search for			

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
		prehistoric archaeological resources shall be conducted by a qualified historical resources specialist. B. A copy of the report shall be submitted to the Community Development Planning Division.			
#4	**MM CUL-2**: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.	During construction and operations	Community Development Planning Division		
		Steps to Compliance: **A.** In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. **B.** If required, the project proponent shall contact the County Coroner to assess the find. **C.** If required, the County Coroner shall contact the Native American Heritage Commission to assess the find. **D.** The Community Development Planning Division shall verify compliance with the mitigation measure.			
3.4.6	**Energy**				
	No Mitigation required.				
3.4.7	**Geology and Soils**				
#5	**MM GEO-1:** Prior to the issuance of grading or building permits, the Project geotechnical engineer, structural engineer, civil engineer, general contractor, the earthwork contractor shall meet with the Lead Agency to discuss the grading plan and grading requirements as outlined in the final Geotechnical Report.	Prior to issuance of grading or building permits	Community Development Planning Division Project Geotechnical engineer, structural engineer, civil engineer, general contractor, the earthwork contractor		
		Steps to Compliance:			

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
		A. This mitigation measure shall be incorporated as a condition of approval for a grading permit.			
#6	**MM GEO-2:** If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or other appropriate facility regarding any discoveries of paleontological resources. If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects, or such effects must be mitigated. Construction in that area shall not resume until the resource appropriate measures are recommended or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.	During ground disturbance activities	Community Development Planning Division Qualified paleontologist, if applicable		
		A. In the event that paleontological resources are encountered during ground disturbance activities, all work within 25 feet shall halt. B. If required, the project proponent shall contact the qualified paleontologist to assess the find. C. If required, the paleontologist shall contact the Natural History Museum of Los Angeles assess the find. D. The Community Development Planning Division shall verify compliance with the mitigation measure.			
3.4.8	**Greenhouse Gases**				
	No mitigation is required.				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
3.4.9	**Hazards and Hazardous Materials**				
#7	**MM HAZ-1:** Prior to the issuance of building permits, the Project proponent shall prepare a Hazardous Materials Business Plan (HMBP) and submit it to the CERS for approval and Kern County Public Health Services Department/Environmental Health Services Division/Hazardous Materials Section for review. 1. The Hazardous Materials Business Plan shall: a. Delineate hazardous material and hazardous waste storage areas; b. Describe proper handling, storage, transport, and disposal techniques, including which routes will be used to transport hazardous materials; c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill; d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; e. Establish public and agency notification procedures for spills and other emergencies including fires; and f. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site. 2. The project proponent/operator shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times. 3. A copy of the approved Hazardous Materials Business Plan shall be submitted to the City of Wasco Planning and Natural Resources Department	Prior to issuance of building permit	Community Development Planning Division		
		Steps to Compliance: A. Submit final hazardous material business plan to the Wasco Community Development Planning Division for review and approval. B. The Project proponent shall provide the hazardous materials business plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.			
3.4.10	**Hydrology and Water Quality**				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
#8	**MM HYD-1:** Prior to commencement of operations, the developer shall provide proof that the stormwater retention basin has capacity to hold the Project site's stormwater. Any water that cannot be handled by the basin shall either 1) to be retained on-site, or 2) the developer shall increase the capacity of the stormwater retention basin under direction and approval of the Public Works Department.	Prior to commencement of operations	Public Works Department		
		Steps to Compliance: A. Proof will be provided that the stormwater retention basin has capacity to hold the Project site's stormwater to the Public Works Department.			
3.4.11	**Land Use and Planning**				
	No Mitigation required.				
3.4.12	**Mineral Resources**				
	No Mitigation required.				
3.4.13	**Noise**				
#9	**MM NSE-1:** During construction, the contractor shall situate and implement the following measures: 1. All stationary construction equipment on the Project site shall be located so that noise emitting objects or equipment faces away from any potential sensitive receptors. 2. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. 3. Noise associated with construction activities shall take place during daylight hours, when feasible.	During construction activities	Community Development Planning Division Project contractor		
		Steps to Compliance: A. This mitigation measure shall be incorporated as a condition of approval for issuance of conditional use permit. B. The project proponent shall comply with the mitigation measure throughout construction.			
4.14	**Population and Housing**				
	No Mitigation required.				

Mitigation Monitoring Program					
Impact	**Mitigation Measure**	**Time Frame for Implementation**	**Responsible Monitoring Agency**	**Date**	**Initials**
4.15	**Public Services**				
	Implement Mitigation Measure MM 4.9-1 through MM 4.9-3, and MM 4.10-1.				
4.16	**Recreation**				
	No Mitigation required.				
4.17	**Traffic and Transportation**				
#10	**MM TRAF-1:** The applicant will pay the City's Traffic Impact Fee to offset the costs of off-site traffic improvements.	Prior to building permit	Community Development Planning Division		
		Steps to Compliance: A. Pay the City's Community Development Planning Division the Traffic Impact Fee			
4.18	**Tribal Cultural Resources**				
	Implement Mitigation Measures MM CUL-1 through MM CUL-2.				
4.19	**Utilities and Service Systems**				
	No Mitigation is Required.				
4.20	**Wildfire**				
	No Mitigation is Required.				

APPENDIX A
NATIVE AMERICAN TRIBES LETTER

Community Development Department (661) 758-7250 Fax (661) 758-7239

764 E Street, Wasco, CA 93280

RECEIVED
JUN 10 2020
By

June 4, 2020

FROM: City of Wasco

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). A Formal Notification of a Decision to Undertake a Project and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).

Dear Chairsperson:

The City of Wasco has decided to undertake the Produced Water Pre-Treatment & Advanced Water Solutions Project (Project). The City of Wasco is designated as Lead Agency under the California Environmental Quality Act (CEQA).

The proposed project consists of a Conditional Use Permit for a wastewater processing facility on a 7-acre parcel within an existing 33,000 square foot industrial building. The wastewater treatment facility is designed to treat industrial, non-hazardous wastewater, which will be brought to the facility by truck transportation. Process equipment will be installed in an existing industrial building and will be designed to process between 100,000 to 700,000 gallons per day (GPO) of wastewater.

Wastewater received at the facility will be from oilfield operations, including produced water and flow back water. Wastewater being received at the site will either be off-loaded directly into the processing facility or held in portable tanks on the property, to be subsequently piped into the processing facility. All processing equipment and process steps will be within the building. Water is treated in a multi-stage treatment process and then pumped to holding tanks.

The facility is proposed to operate five days a week (Monday through Friday) with 20-hour workdays. The facility will have 15 full time employees who will work in shifts starting at 4:00 am and finishing at 12:00 am.

The primary objective of the treatment process is to cleanse the water so that it can be sold back to the oil field service companies and re-used in oil extraction operations. Secondary uses for the treated water will be for agriculture irrigation use for non-human consumption crops and then any water not purchased for use will be disposed of into the City sewer system. The location of the Project is illustrated on the attached Figures 1-3.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the City of Wasco.

Should you have any comments or questions please contact our designated representative, Jaymie L. Brauer at (661) 616-2600 or at jaymie.brauer@QKinc.com

Very Respectfully,

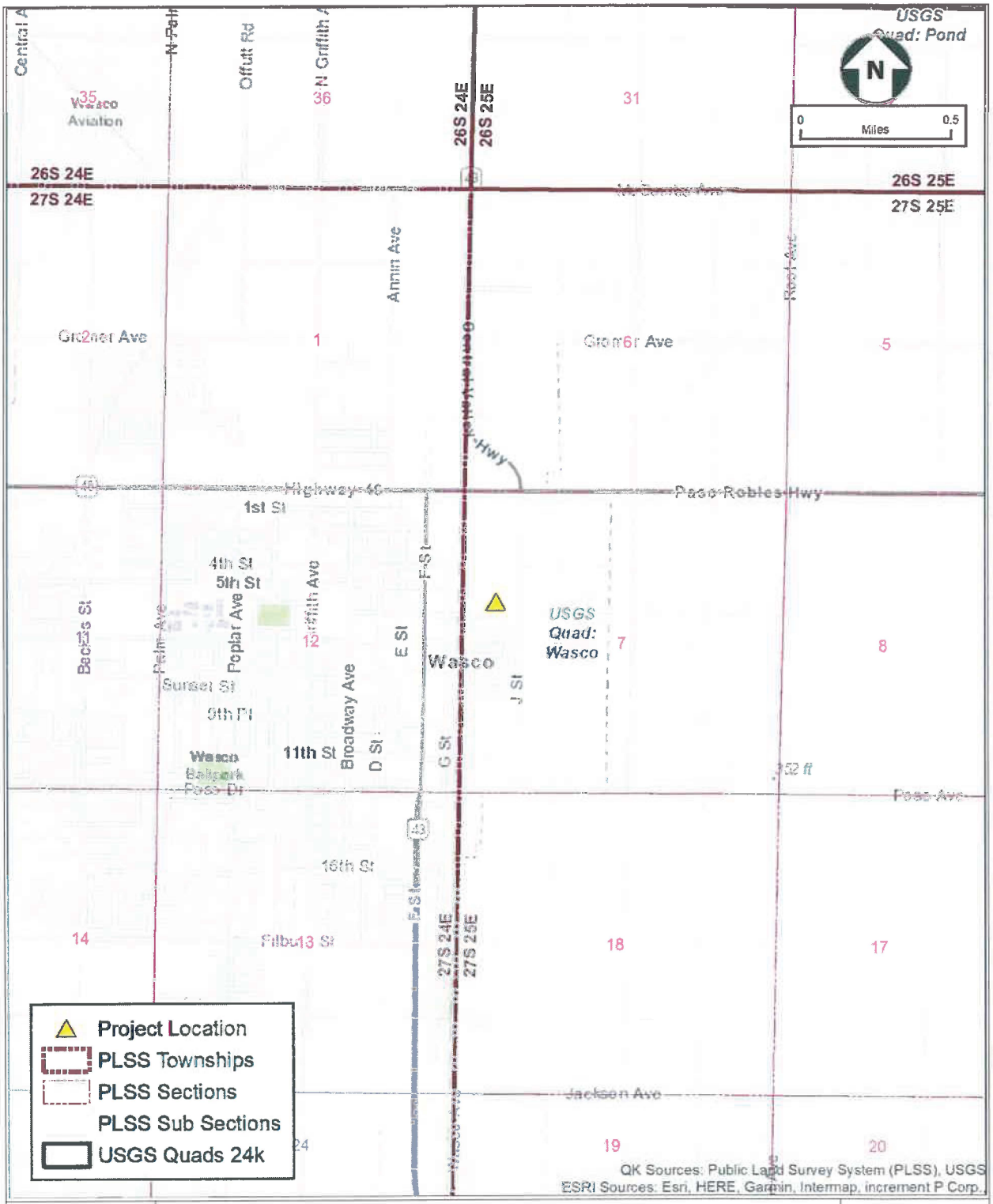
Keri Cobb
Enclosures: Figures 1-3



QK	Regional Location	Figure 1



QK	Project Area	Figure 1



QK	USGS Map	Figure 3

APPENDIX B
GEOTECHNICAL INVESTIGATION

SOILS ENGINEERING, INC.

GEOTECHNICAL INVESTIGATION

FOR

PRODUCED WATER PRE-TREATMENT

& ADVANCED WATER SOLUTIONS PROJECT

591 J STREET

WASCO, KERN COUNTY, CA

Prepared for:

Blue Water Resources, LLC
1201 24th Street, B-110
Bakersfield, CA 93301

By:

SOILS ENGINEERING, INC.
SEI File No. 19-1752
April 1, 2020



Tony M. Frangie, P.E.
Vice President

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GEOTECHNICAL INVESTIGATION

FOR

THE BLUE WATER WASCO

WATER TREATMENT PROJECT

591 J STREET

WASCO, KERN COUNTY, CA

SOILS ENGINEERING, INC.
SEI File No. 19-17523
April 9, 2020

INTRODUCTION

At your request, Soils Engineering, Inc. has prepared this Geotechnical Investigation for the subject site. This report includes recommendations for the site preparation and grading and for foundation design.

Appendix A, "Guide Specifications for Earthwork," is providing as supplement to Section I, "Earthwork," in the recommendations of the report.

Appendix B, "Field Investigation," contains a Boring Location Map, Figure 1, and the Log of Test Boring, Figures 2 through 11.

Appendix C, "Soils Test Data," contains tabulations of laboratory test data.

Appendix D, "Seismic Investigation," contains information provided by EQFAULT, and the SEAOC.

We hope this provides the information you require. If you have any questions regarding the contents of our report, or if we can be of further assistance, please contact us.

Respectfully submitted,
SOILS ENGINEERING, INC.

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SITE INFORMATION

A. SITE LOCATION AND CONDITIONS

The project site is located at 591 J Street in Wasco, CA and consists of one (1) large building, a small building and a loading dock surrounded by asphalt and dirt surfaces. The site is relatively level with surface drainage gradually flowing to the northeastern portion of the site. This site was last utilized for the treatment of oil field production water on a limited basis with multiple temporary water storage tanks and filtration systems. The eastern border is J Street, the southern border is 6th Street, to the north and west are industrial businesses. A fence surrounds the property.

The proposed tanks have a diameter of 38.07' and a height of 24' with an approximate weight of 38,000 lbs. The roof load and all the perimeter wall load, including 2' thick (max.) of gravel under the tank, and the weight of 24' high of liquid on a 1 ft. wide strip is 2040 psf (max). The interior load is 1790 psf (max). The secondary containment areas below all the tanks will be in cut.

B. GEOLOGIC SETTING

According to the Geologic Atlas of California, Bakersfield Sheet, the project site is situated on Quaternary alluvium deposits (Q) within the San Joaquin Valley. Although the site is not located in an Alquist-Priolo (earthquake fault) Special Study Zone, there are various earthquake faults in the vicinity. Nearby faults, with distances from the site, are tabulated below.

Kern Front	8.5	miles/	13.6	kilometers
San Andreas	35.6	miles/	57.3	kilometers
White Wolf	37.7	miles/	60.6	kilometers
Pleito Thrust	43.6	miles/	70.2	kilometers
Great Valley West 14	44.6	miles/	71.8	Kilometers
San Juan	46.9	miles/	75.5	Kilometers

C. SUBSURFACE CONDITIONS

Earth materials encountered during our field investigation consisted mostly of interbedded layers of Sandy Silt, Silty Sand and Sandy Clay with occasional layers of Poorly-Graded Sand. These soils are described as ML, SM, CL and SP respectively, in the Unified Soils Classification System (USCS).

Testing performed in our laboratory showed an Expansion Index (EI) ranging from 13 to 30 which indicates a low expansion potential for the subsurface soils. Expansive soils are defined in the 2019 California Building Code (CBC), Section 1803.5.3. Soils are considered to be expansive when the EI result is greater than 20, per ASTM D4829, Expansion Index of Soils. Design of foundations for structures shall be designed in accordance with the 2019 CBC, Section 1808.6.1, & 1808.6.2

Permeability tests were also performed on the subsurface soils and showed a coefficient of permeability ranging from 1.7 x^{-4} cm/sec to 7.05 x^{-7} cm/sec. in the top 3 feet layer. Below that the subsurface soils showed no flow.

Detailed descriptions of the various soils encountered during our field investigation are shown on Figures 2 through 11 in Appendix B, "Field Investigation." A "Key to Symbols" legend describing the symbols in the boring logs is also attached.

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D. GROUNDWATER

Groundwater was not encountered in the field exploration test borings, which extended to a maximum depth of 21.5 feet. The latest depth to groundwater in this area was approximately 370 feet below the ground surface in the Fall of 2018 according to the State GICIMA. It is our opinion that groundwater will remain below the zone of influence of the project foundations and that it will not affect the foundation stability of the project.

E. SEISMIC DESIGN VALUES

The seismic design values presented in the table on page 6 are based on the 2019 California Building Code (CBC). The Site Class for the proposed project was determined using standard penetration test data obtained at the site. The site is not located in an Alquist-Priolo (earthquake fault) Special Study Zone.

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SEISMIC DESIGN CRITERIA		VALUE	SOURCE
Risk Category		**II**	2019 CBC Table 1604.5 or 1604*A*.5
Site Class		**D**	2019 CBC § 1613.2.2 or 1613*A*.2.2; ASCE 7-16 Table. 20.3-1; Site Specific Soils Report
Mapped MCE_R Spectral Response Acceleration, short period	**S_S**	**0.809g**	SEAOC-OSHPD software; 2019 CBC Figure 1613.2.1(1)
Mapped MCE_R Spectral Response Acceleration, at 1-sec. Period	**S_1**	**0.305g**	SEAOC-OSHPD software; 2019 CBC Figure 1613.2.1(2)
Site Coefficient	**F_a**	**1.176**	SEAOC- OSHPD software; 2019 CBC Table 1613.2.3(1) or 1613*A*.2.3(1)
Site Coefficient	**F_v***	**1.950***	2019 CBC Table 1613.2.3(2) or 1613*A*.2.3(2)
Adjusted MCE_R Spectral Response Acceleration, short period, $F_a * S_s$	**S_{MS}**	**0.952g**	SEAOC- OSHPD software; 2019 CBC §1613.2.3 or 1613*A*.2.3
Adjusted MCER Spectral Response Acceleration, 1-sec. period, Fv * S_1	**S_{M1}***	**0.595g***	2019 CBC §1613.2.3 or 1613A.2.3
Design Spectral Response Acceleration, short period, 2/3 * S_{MS}	**S_{DS}**	**0.634g**	SEAOC- OSHPD software; 2019 CBC §1613.2.4 or 1613A.2.4
Design Spectral Response Acceleration, 1-sec. period, 2/3 * S_{MI}	**S_{D1}***	**0.397***	2019 CBC §1613.2.4 or 1613A.2.4
Peak Ground Acceleration for Max. Considered Earthquake (MCE_G)	**PGA**	**0.354g**	SEAOC- OSHPD software; ASCE 7-16 Fig 22-9
Adjusted PGA; F_{PGA} = 1.246, F_{PGA}* PGA=	**PGA_M**	**0.441g**	SEAOC- OSHPD software; ASCE 7-16 §11.8.3.2
Mapped Risk Coefficient at 0.2 second Spectral Response Period	**C_{RS}**	**0.923**	SEAOC- OSHPD software; ASCE 7-16 Figure 22-18A
Mapped Risk Coefficient at 1 second Spectral Response Period	**C_{R1}**	**0.919**	SEAOC- OSHPD software; ASCE 7-16 Figure 22-19A
Seismic Design Category, short period		**D**	2019 CBC §1613.2.5
Seismic Design Category, 1second period		**D***	2019 CBC §1613.2.5
MCE_R = Maximum Considered Earthquake (risk targeted) MCE_G = Maximum Considered Earthquake (geometric mean)			
** The project Structural Engineer shall confirm that a ground motion hazard analysis is not required in accordance with ASCE7-16 §11.4.8/Exception 2. The values tabulated above for S_{M1}, S_{D1}, and the Seismic Design Category/1-second period are based on the site coefficient, F_v, which was interpolated from 2019 CBC Table 1613.2.3(2) or 1613A.2.3(2). Where the above referenced Exception 2 does not apply, the values for F_v, S_{M1}, S_{D1}, and for the Seismic Design Category/1-second period may not be applicable for the site.*			

Major fault systems and their distances from the site are given in the EQFault Summary attached in Appendix D. The largest estimated maximum site acceleration, based on deterministic methods, is 0.244g from a magnitude 6.3 earthquake on the Kern Front Fault. See Appendix D for copies of the computer modeling data.

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EARTHWORK RECOMMENDATIONS

"Earthwork Specifications," in Appendix A are provided for general guidance in preparing site grading plans. In addition, the following specific recommendations are provided and supersede the latter wherever discrepancies may exist:

A. COMPACTION AND OPTIMUM MOISTURE

Unless otherwise specified herein, the terms, "Compaction," or "Compacted," wherever used or implied within this report should be interpreted as compaction to 90 percent of the maximum density obtainable by ASTM Test Method D1557. The term, "Optimum Moisture," wherever used or implied within this report, should be interpreted as that obtained by the above described test method.

B. STRIPPING

Prior to soil compaction, existing ground surfaces should be stripped of surface vegetation. A stripping depth of one inch should be adequate. In no instance should stripped material be used as engineered fill or blended with and compacted in original ground.

C. GROUND SURFACE PREPARATION

Proposed Structure Areas:

Ground surfaces in the proposed structure areas shall be compacted in accordance with the following procedures:

1. Excavate earth material in the proposed tank areas to a minimum depth of two (2) feet below bottom of proposed foundation elevation.
2. The excavation shall be reviewed by the soil engineer or his or her representative prior to any foundation construction. The top twelve inches of materials exposed at the foundation bottom shall be scarified and compacted to a minimum of 90 percent of ASTM D-1557.
3. Moisten soils to near the optimum moisture or to a moisture consistent with effective compaction and soil stability. Compact moistened soils to a minimum of 90 percent of the maximum density obtained by ASTM Test Method D1557.
4. Work to lines at least five (5) feet beyond the outside edges of exterior footings and two feet beyond pavement edges.

Review of Excavation Bottoms:

Prior to placement of backfill, excavation bottoms shall be reviewed for indications of loose-fill, discoloration, or loose, compressible, native materials. Where these are encountered, they should be excavated and removed, or excavated and compacted as directed by the geotechnical engineer. Excavation of native soils shall continue in vertical increments of one foot until relative compaction tests taken at the bottom of the working surface (excavation bottom) equal or exceed 80 percent relative compaction. Fill placement in excavations shall not proceed until the geotechnical engineer or his or her representative on the site has reviewed, tested as described above and accepted materials exposed at the bottom of the excavation.

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Pavement Areas:

Ground surfaces to receive concrete driveway and bituminous pavements should be scarified and compacted to a minimum depth of 12 inches below the grading plane in cut areas or to 12 inches in areas to receive fill. Engineered fill placed in proposed pavement areas should conform to the requirements of section 5.4, "Placing, Spreading and Compacting Fill Materials," of Appendix A.

Compaction in proposed pavement areas should be a minimum of 90 percent of the maximum density as obtained to ASTM Test Method D1557 and should extend to a minimum of two feet beyond the outside edges of pavements.

Utility Lines:

Backfill for utility lines traversing areas proposed for facilities, pavements, concrete slabs-on-grade, or areas to receive engineered fill for future construction should be compacted in accordance with the same requirements for adjacent and/or overlying fill materials.

Compaction should include haunch area, spring line and from top of pipe to finished subgrade. The haunch area up to one foot above the top of the pipe should be backfilled with "cohesionless" material.

Cohesionless native materials may be used for trench and pipe or conduit backfill. The term "cohesionless," as used herein, is defined as material which, when dry, will flow readily in the haunch areas of the pipe trench.

Pipe backfill materials should not contain rocks larger than two inches in maximum dimension. Where adjacent native materials exposed on the trench bottoms contain protruding rock fragments larger than two inches in maximum dimension, conduits and pipelines should be laid on a bedding consisting of clean, cohesionless sand (SP), in the Unified Soils Classification System.

Compaction Requirements – where not otherwise specified in our plans or in these recommendations, the following compaction requirements are applicable to all electrical, gas or water conduits:

TABLE A
COMPACTION DEPTH

Area	Haunch to 1 ft. Above Top Of Pipe	1 ft. Above Top of Pipe to 2'6" Below Finished Grade	2'6" Below Finished Grade to Finished Subgrade
Structural	90%	90%	90%
Pavements	90%	90%	90%
Non-Structural	90%	90%	90%

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D. ENGINEERED FILL

Earth materials obtained on site are acceptable for use as engineered fill provided that all grasses, weeds and other deleterious debris are first removed.

Engineered fill materials should be placed in thin layers (less than ten inches uncompacted thickness), brought to near the optimum moisture content or to a moisture content commensurate with effective compaction and soil stability, and compacted to a minimum of 90 percent of the maximum density obtainable by ASTM Test Method D1557, "Placing, Spreading and Compacting Fill Materials," in Appendix A.

E. IMPORTED FILL

The table shown below provides general guidelines for acceptance of import engineered fill. Materials of equal or better quality than on-site material could be reviewed by the Geotechnical Engineer on a case-by-case basis. No soil materials shall be imported onto the project site without prior approval by the Geotechnical Engineer. Any deviation from the specifications given below shall be approved by the Geotechnical Engineer prior to import operations.

Maximum Percent Passing #200 Sieve	40
Maximum Percent Retained 3" Sieve	0
Maximum Percent Retained 1½" Sieve *for building areas*	15
Maximum Percent Retained ¾" Sieve *for landscape areas*	*5*
Maximum Liquid Limit	0
Maximum Plasticity Index	15
Maximum Expansion Index	20

Furthermore, the soils proposed for import shall be generally homogenous and shall not contain cemented or clayey and/or silty lumps larger than one inch. When such lumps are present, they shall not represent more than ten percent (10%) of the material by dry weight.

Where a proposed import source contains obviously variable soils, such as clay and/or silt layers, the soils which do not meet the above requirements shall be segregated and not used for this project or the various layers shall be thoroughly mixed prior to acceptance testing by the Geotechnical Engineer. The contractor shall provide sufficient advance notice, prior to import operations, to allow testing and evaluation of the proposed import materials. Because of the time needed to perform the above tests, the contractor shall provide a means by which the Geotechnical Engineer or others can verify that the soil(s) which was sampled and tested is the same soil(s) which is being imported to the project.

F. DRAINAGE

Finished ground grades adjacent to the proposed structures should be sloped to provide positive free drainage away from the foundations. No areas should be constructed that would allow drainage generated on the site, or water impinging upon the site from outside sources, to pond near footings and slabs or behind curbs.

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Where ground surfaces adjacent to subsurface walls are to be landscaped, walls should be waterproofed. Installation of gravel-filled drains to route subsurface drainage away from walls will reduce the thickness of damp-proofing resulting in a considerable savings.

G. SLOPES

Both fill and cut slopes should be constructed at 2:1 (horizontal to vertical) in accordance with the 2019 California Building Code.

Finished slopes nearer than five feet from building foundations should be graded no steeper than five horizontal to one vertical (5:1). A slope ratio of two horizontal to one vertical (2:1) should provide adequate stability for slopes farther than five feet from footing lines.

The fill slopes shall be compacted to a minimum of 90% of ASTM D1557 and in accordance with the Guide Specifications for Earthwork, Appendix A. This may be achieved by overfilling the constructed slope and trimming to a compacted finished surface, rolling the slope face with a sheepsfoot as the level of the fill is raised, or any method that achieves the desired product.

The cut portion of the slope should be constructed first. Prior to construction of the fill slope, incompetent surface soils should be removed from the top of the cut.

Areas to receive fill or to support structures, slabs or pavements should be removed of all vegetation, debris and disturbed soils. All existing uncertified fill soils should be excavated to expose competent native soils.

Existing underground pipelines, private sewage disposal systems and any water or oil wells, if encountered during grading, should be removed or capped in accordance with procedures considered acceptable by the appropriate governing agency. Tree roots to 2 inches in diameter should be removed.

Both fill and cut slopes will be subject to erosion immediately after grading and should be designed to reduce surficial sloughing by implementing a permanent slope maintenance program as soon as practical after completion of slope construction.

Slope maintenance should include proper care of erosion and drainage control devices, rodent control, and immediate planting with deep-rooting, lightweight, drought-resistant vegetation. An erosion control geotextile may also be used in combination with vegetation to control erosion. Experience has shown that slope performance is largely dependent upon proper slope maintenance (i.e., planting, proper watering, clearing of drainage devices, etc.). Slopes properly placed and conscientiously maintained are not expected to display excessive raveling or sloughing.

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FOUNDATION RECOMMENDATIONS

Spread Footings – The proposed foundation could be supported on continuous spread and isolated footings in accordance with the following Table B:

TABLE B
FOUNDATION DESIGN CRITERIA

Footing Type	Minimum Width (ft.)	Minimum Depth Below Lowest Adjacent Subgrade (ft.)	Maximum Allowable Soil Bearing Pressure (lbs./sq.ft.)
Continuous	1	1	2400
Isolated	1	1	2200

Bearing pressures given are for the minimum widths and depths shown above.

Bearing pressures given above are for dead and sustained (loads acting most of the time) live loads; they may be increased by one-third for wind and/or seismic loading conditions.

The proposed foundations shall be reinforced in accordance with the structural engineer's recommendations.

Settlement:

Provided maximum allowable soil bearing pressures given above are not exceeded, total settlement should not exceed one inch. A major portion two-thirds to one-half of total settlement should occur before the end of construction. Differential settlements should occur before the end of construction. Differential settlements should, accordingly, be less than one-half of an inch for a horizontal span of twenty feet.

Cast-In-Place Drilled Piers – The proposed structures may also be supported on straight-shafted drilled piers. Casing may be needed to stabilize the shaft for the proposed piers due to the *cohesionless* nature of the subsurface soils. Pier design criteria are given below:

1. Friction Values: We recommend a friction value or skin friction (fs) of 300 psf. This value is for dead load plus live loads and can be increased by 1/3 for the total of all loads, including wind or seismic forces. Uplift pressure may be taken as three fourths (3/4) of the downward capacity.

   The top one foot (1.0') of the below-grade portion of the pier shall be excluded when determining the pier frictional resistance.

   In the event that steel casing is required to drill the piers and the casing is to remain in place, the friction values above shall be reduced by one third.

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2. Minimum Penetration: The piers should extend a minimum of eight (8) feet below adjacent subgrade or per the structural engineer's recommendations. Minor deviations from the recommended caisson depths may be necessary upon field review of the drilled caissons.

3. Minimum Diameter: The recommended minimum diameter for friction piers is 24 inches.

4. Concrete Placement: All concrete should be placed in one continuous operation. Vibration to consolidate concrete should be provided. When a casing is used to stabilize the shaft, an adequate height of concrete should be maintained above the bottom of the casing while it is gradually withdrawn. Concrete should be placed as quickly as possible following review, by the Geotechnical Engineer or his representative, of the completed excavation and cleaning.

   Uncased excavations should not be permitted to remain open overnight. Adequate devices should be used to guide the fall of concrete in the pier and prevent it from striking the shaft walls, entraining soil or promoting sloughing during placement.

5. Construction Review and Observations: The Geotechnical Engineer should provide continuous review of pier drilling and concrete placement. The Geotechnical Engineering should also retain the option of reviewing individual piers and requesting minor depth variations when warranted by changes in soil conditions from those assumed during the preparation of this Geotechnical Investigation Report.

MODULUS OF SUBGRADE REACTION

Modulus of subgrade reaction for use in design of foundations is based on ranges of values for soil types provided by Foundation Analysis and Design by Joseph E Bowles.[1] Equation 1 should be used for footings on sandy soils.

Foundations on clay soils should employ Equation 2. Equation 3 is for rectangular footings having dimensions w= **b** (width) and l = **mb** (length) the variable "m" being the ratio of the length to the width of the foundation**.** **K_s1** is the modulus of subgrade reaction from the source referenced above based on a 1 foot x 1 foot square plate. For general guidance K_s1 of 100 kcf may be used for the subsurface soils.

Equation (1) $$k_{sf} = K_{s1} \times \left(\frac{B+1}{2B}\right)^2$$

Equation (2) $$k_{sf} = K_{s1} \times B$$

Equation (3) $$k_{sf} = K_{s1} \times \frac{m+.5}{1.5 \times m}$$

Values given above should be used for guidance. Local values may be higher or lower and should be based on results of in-situ plate bearing tests performed in accordance with ASTM Test Method D1195.

[1] Bowles, Joseph E; FOUNDATION ANALYSIS AND DESIGN; McGraw-Hill Book Company (1977); Table 9-1 pg 269

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LATERAL EARTH PRESSURES

Lateral earth pressures and friction coefficients for determining the passive lateral resistance of foundations against lateral movement and the active lateral forces against retaining walls and subsurface walls, expressed as equivalent fluid pressures, are given below in Table C. Lateral earth pressures were computed assuming that backfill materials are essentially free draining and level; and that no surcharge loads, or sloping backfills are present within a distance from the wall equal to or less than the height (H)* of the wall.

(H)* = the height of backfill above the lowest adjacent ground surface.

TABLE C
LATERAL EARTH PRESSURES

Case	Lateral Earth Pressures
Active	38 P.C.F.
Passive	350 P.C.F.
At-Rest	55 P.C.F.

Active Case: Active lateral earth pressures should be used when computing forces against free standing retaining walls, unrestrained at the tops. Active pressures should not be used where tilting outward of the walls is greater than .002H would not be desirable.

Passive Case: Passive lateral earth pressures should be used when computing the lateral resistance provided by undisturbed or compacted native soils against the movement of footing. When computing passive resistance, the upper one foot of embedment depth should be discounted.

At-Rest Case: At-rest pressures should be used for subsurface walls restrained at their tops by floor diaphragms or tie-backs and for retaining walls where tilting outward greater than .002 H would not be desirable.

Frictional Resistance: A friction coefficient of **0.39** may be used when computing the frictional resistance to sliding of footings, grade beams, and slabs-on-grade. Frictional resistance and passive lateral soil resistance may be combined without reduction.

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SOIL CORROSIVITY

Soluble Sulfates (SO4)

The highest Sulfate (SO4) concentration measured 170 ppm. Generally, sulfate concentrations greater than 1,500 ppm are considered to be corrosive to foundation elements. (Ref: ACI 318, Section 4.3, Table 4.3.1)

Chlorides (Cl)

The highest Chloride (Cl) concentration measured was 420 ppm. Generally, chloride concentrations greater than 500 ppm are considered to be corrosive to foundation elements. (Ref: Caltrans Corrosion Guidelines / Version 1.0)

pH

The soil pH was between 7.91 and 8.18. Generally, a pH level less than 5.5 are considered to be corrosive to foundation elements. (Ref: Caltrans Corrosion Guidelines/ Version 1.0).

Preliminary test results indicate that soil corrosivity at the locations and depths tested is low to negligible. If site grading operations will result in a blend of native and/or imported materials at finished subgrade elevations, additional tests should be performed after rough grading has been completed and prior to concrete design.

PAVEMENT FIELD INVESTIGATION & DESIGN DATA

A total of four (4) borings were drilled to a maximum depth of five (5) feet below existing grade. Bore locations are shown on the attached Boring Location Map, Figure 1.

Hot Mix Asphalt (HMA) pavement shall be designed based on the lowest Resistant (R) Value test result of R=22. The results ranged from 22 through 45 according to our testing program. The laboratory test reports are provided as Figures D-1 through D-4.

HMA design should meet the requirements of the 2010 or newer, State of California, Standard Specifications Manual (SSM), Section 39. Aggregate Base should also meet the Class 2 requirements of the SSM, Section 26.

PCC design should meet the requirements of the American Concrete Institute (ACI) 330R, Guide for the Design and Construction of Concrete.

Ground surfaces to receive HMA or Portland Cement Concrete (PCC) pavements should be scarified and compacted to a minimum depth of 12 inches below the grading plane in cut areas or to 12 inches in areas to receive fill. Engineered fill placed in proposed pavement areas should conform to the requirements of section 5.4, “Placing, Spreading and Compacting Fill Materials,” of Appendix A.

Compaction in proposed pavement areas should be a minimum of 90 percent of the maximum density as obtained to ASTM Test Method D1557 and should extend to a minimum of two feet beyond the outside edges of pavements.

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These recommendations are valid only if the pavement is properly drained and shoulder areas are graded to prevent water ponding at pavement edges. All construction should be subject to adequate tests and observations to verify conformance with these recommendations.

SLABS-ON-GROUND

Slabs-on-ground may be supported on earth materials prepared in accordance with the recommendations of the Geotechnical Investigation.

We recommend that moisture protection be provided for interior concrete slabs-on-ground that will receive moisture-sensitive floor coverings, or where moisture-sensitive equipment, products, or environments may be present. For exceptions to slab moisture protection, refer to the 2019 California Building Code, Section 1907.1. The project designer should provide specific details regarding construction of the concrete slab-on-ground, including a moisture barrier or vapor retarder/barrier, capillary break (if included), and blotter material (if included). The American Concrete Institute recommends a minimum moisture vapor retarder of 10 mil thick polyethylene. The vapor retarder should be protected from damage and punctures and tears should be repaired prior to concrete placement. It is our opinion that existing soil conditions do not warrant the inclusion of a capillary break.

It has been common local practice to use a sandy material as a blotter layer between the moisture barrier and the concrete to absorb some of the bleed water and to potentially reduce slab curling. Because the blotter layer may act as a moisture reservoir and all apparent advantages of its use negated, it should not be incorporated into the section design for moisture-sensitive slabs if it cannot be kept dry prior to concrete placement or if water may migrate into the layer after slab construction (eg. wet curing, rainfall). If the slab-on-ground section is to include a blotter layer between the moisture barrier and the concrete, it is our recommendation that the blotter material consist of crusher fines (rock dust) or sand with angular, interlocking grains. The material should be easily compacted and should be screened so that 100% of the material is finer than ¼". Do not use blotter material which may be potentially reactive with the alkalis in the concrete or which has high sulfate content. At the time of concrete placement, the blotter material should be dry to damp, compact, and smooth. For slabs which are to be water-cured, a blotter layer should not be used. For further consideration, refer to the American Concrete Institute *Manual of Concrete Practice 302.1R and 360.*

Slab thicknesses, reinforcing, and the concrete characteristics should be in accordance with the project designer's recommendations. The 2019 California Building Code, Section 1907.1 requires that the slab thickness be not less than 3½".

Pressurized water lines should not be installed beneath slabs-on-ground. Where pressurized water lines must be routed beneath the slab, they should be routed entirely inside continuous sleeves which are open to the atmosphere above the slab surface. Gravity flow sewer lines may underlie slabs-on-ground, but they should be routed to the point of connection by the shortest feasible path.

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LIMITATIONS, OBSERVATION AND TESTING

Conclusions and recommendations in this report are given for the Blue Water Wasco Water Treatment Project, located within APN 030-020-19, in Wasco, Kern County, CA, and are based on the following:

a. The information retrieved from ten (10) exploratory boring drilled at the subject site to a maximum depth of 22.5 feet below the existing ground surface.

b. Our laboratory testing program results;

c. Our engineering analysis based on the information defined in this report;

d. Our experience in the Kern County area.

Variations in soil type, strength and consistency may exist between specific boring locations. These variations may not become evident until after the start of construction. If such variations appear, a re-evaluation of the soils test data and recommendations may be necessary.

Unless a Geotechnical Engineer of this firm is afforded the opportunity to review plans and specifications, we accept no responsibility for compliance with design concepts or interpretations made by others with regard to foundation support, fill selection, fill placement or other recommendations presented in this report.

Changes in conditions of the subject property can occur with time because of natural processes or the works of man on the subject site or on adjacent properties. Changes in applicable engineering and construction standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the finding of this report may be invalidated, wholly or in part, by changes beyond our control. Therefore, this report is subject to review and should not be relied upon without review after a period of two years or after any modifications to the site.

REVIEW OF EARTHWORK OPERATIONS

Review of earthwork operations relating to site clearing, ground stabilization, placement and compaction of fill materials, and finished grading is critical to the structural integrity of building foundation and floor systems.

While the preliminary Geotechnical investigation and report provide guidelines which are used by the design team, i.e., architects, grading engineers, structural engineers, landscape engineers, etc., in completing their respective tasks, review of plans and site review and testing during earthwork operations are vital adjuncts to the completion of the Geotechnical engineer's tasks.

The most prevalent cause of failure of a structure foundation system is lack of adequate review and testing during the earthwork phase of the project. Projects rarely reach completion without some alteration being required such as may result from a change in subsurface conditions, an amendment in the size and scope of the project, a revision of the grading plans or a variation in structural details. Occasionally, even minor changes can significantly affect the performance of foundations. The most prevalent secondary cause for foundation failure is inadequate implementation of Geotechnical

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recommendations during the formulation of foundation designs and grading plans. The error in a foundation design or an omission of a key element from a grading plan occurs most often as a result of inadequate communication between the various project consultants and -- when a change in consultants occurs -- improper transfer of authority and responsibility[2].

It is imperative, therefore, that any revisions to the project scope, any change in structural detail, or change in consultant, be brought to the attention of Soils Engineering, Inc. to allow for timely review and revision of recommendations and for an orderly transfer of responsibility and approval.

It is the responsibility of the owner or his representative to ensure that a representative of our firm is present at all times during earthwork operations relating to site preparation and grading, so that relative compaction tests can be performed, earthwork operations can be observed and compliance with the recommendations provided herein can be established.

This engineering report has been prepared within the limits prescribed to us by the client or his representative, in accordance with the generally accepted principles and practices of Geotechnical engineering. No other warranty, expressed or implied, is included or intended in this report.

Respectfully submitted,

SOILS ENGINEERING, INC.

[2] If the civil engineer, the soils engineer, the engineering geologist or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of his technical competence for approval upon completion of the work.

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APPENDIX A

GENERAL GUIDE SPECIFICATIONS FOR EARTHWORK

1. GENERAL

1.1 Scope

These specifications and plans include all earthwork pertaining to site rough grading including, but not limited to, furnishing all labor and equipment necessary for clearing and grubbing; stripping; preparation of ground surfaces to receive fill; excavation; placement and compaction of structural and non-structural fill; disposal of excess materials and products of clearing, grubbing, and stripping; and any other work necessary to bring ground elevations to the lines and grades shown on the project plans. Wherever discrepancies between these guide-specifications and the earthwork recommendations in Section I of the above geotechnical report, the most stringent recommendations shall supersede.

1.2 Performance:

It shall be the responsibility of the contractor to complete all earthwork in accordance with project plans and specifications. No variance from plans and specifications shall be permitted without written approval of the Engineer-of-Record, hereinafter referred to as the "Engineer" or his designated representative, hereinafter referred to as the "Soils Engineer." Earthwork shall not be considered complete until the "engineer" has issued a written statement confirming substantial compliance of earthwork operations to these specifications and to the project plans. The contractor shall assume sole responsibility for job site conditions during earthwork operations on the project, including safety of all persons and preservation of all property. This requirement shall apply continuously and not be limited to normal working hours. The contractor shall defend, indemnify, and hold harmless the owners, engineer, and soils engineer from all liability and claims, real or alleged, arising out of performance of earthwork on this project, except from liability incurred through sole negligence of the owner, engineers, or soils engineers.

2. DEFINITIONS

2.1 Excavations:

Excavation shall be defined within the content of these specifications as earth material excavated for constructing fill embankment; grading the site to elevations shown on project plans; or placing underground pipelines, conduits, or other subsurface utilities or minor structures. Excavations shall be made true to the lines shown on project plans and to within plus or minus one-tenth (0.1) of a foot, of grades shown on the accepted site grading plans.

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2.2 Engineered Fill:

Engineered fill shall be construed within the body of these specifications as earth materials conforming to specifications provided in the soils or geotechnical report placed to raise the grade of the site, to backfill excavations, or to construct asphaltic concrete or Portland cement concrete pavement; and upon which the soils engineer has performed sufficient tests and has made sufficient observation during placement and compaction to enable him to issue a written statement confirming substantial conformance of the work to project earthwork specifications.

2.3 On-Site Material:

On-site material is earth material obtained in excavation made on the project site.

2.4 Imported Material:

Imported materials are earth materials obtained off the site, hauled in, and placed as fill.

2.5 "Compaction" or "Compacted:"

Wherever expressed or implied within the context of these specifications shall be interpreted as compaction to ninety (90) percent of the maximum density obtainable by ASTM Test Method D1557.

2.6 Grading Plane:

The grading Plane is the surface of the basement material upon which the lowest layer of subbase, base, asphaltic or Portland cement concrete, surfacing, or another specified layer is placed.

3. SITE CONDITIONS

3.1 The contractor shall visit the site, prior to bid submittal, to explore existing subsurface conditions; to survey site topographic, and to define the nature of materials that may be encountered while performing its work under this contract. Moreover, the contractor shall make his own interpretation of the contents of the Geotechnical Report, as they pertain to said conditions. The contractor shall assume all liability under the contract for any loss sustained as a result of variations which may exist between specific soil boring locations or changed conditions resulting from natural or man-made circumstances occurring after the date of the Preliminary Field Investigations.

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4. CLEARING AND GRUBBING

4.1 Clearing and Grubbing

Clearing and grubbing shall consist of removing all debris such as metal, broken concrete, trash, vegetation growth and other biodegradable substances, from all areas to be graded. Existing obstructions below shall be removed in accordance with the following procedures:

4.1.1 Slabs and Pavements - Shall be completely removed. Asphaltic or Portland Cement, concrete fragments may be used in engineered fills provided they are broken down to a maximum dimension of six (6.0) inches and thoroughly dispersed within a friable soil matrix. Engineered fill containing said fragments should not be placed above the elevation of the bottom of the lowest structure footing.

4.1.2 Foundations - Existing at the time of grading shall be removed to a depth not less than two (2.0) feet below the bottom of the lowest structure footing.

4.1.3 Basements, Septic Tanks – Buried concrete containers of similar construction located within areas destined to receive pavements, structures, or engineered fills should be completely removed and disposed of off the site. Basements, septic tanks, etc., situated outside structures, or structural fill areas shall be disposed of by breaking an opening in bottoms to permit drainage, and by breaking walls down to not less than two (2.0) feet below finished subgrade.

4.1.4 Buried Utilities – Such as sewer, water and gas lines or electrical conduits to remain in service shall be re-routed to pass no closer than four (4.0) feet to the outside edge of proposed exterior footings of structures. Lines to be abandoned shall be completely removed to a minimum depth of two (2.0) feet below finished building pad grade. Concrete lines deeper than two (2.0) feet below finished building pad grade and having diameters less than six (6.0) inches can be crushed in place.

4.1.5 Root Systems – Shall be completely removed to a minimum depth of two (2.0) feet below the bottom of the lowest proposed structure footing or to two (2.0) feet below finished subgrade, whichever depth is lower. Root systems deeper than the elevation indicated above shall be excavated to allow no roots larger than two (2.0) inches in diameter.

4.1.6 Cavities – Resulting from clearing and grubbing or cavities existing on the site because of man-made or natural activity shall be backfilled with earth materials placed and compacted in accordance with Sections 5.3 and 5.4 of these specifications.

4.1.7 Preservation or Monuments, Construction Stakes, Property Corner Stakes, or other temporary or permanent horizontal or vertical control reference points shall be the responsibility of the contractor. Where these markers are disturbed, they shall be replaced at the contractor's expense.

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5. SITE GRADING

Site grading shall consist of excavation and placement of fills to lines and grades shown on the project plans and in accordance with project specifications and recommendations of the Preliminary Soils Report, whichever is more stringent. The following are recommendations issued in this report:

5.1 Areas to Receive Fill:

5.1.1 Surfaces to receive fill shall be scarified to a depth of at least six (6.0) inches, or as recommended in this report, whichever is greater, until the surface is free from ruts, hummocks or other uneven features which would tend to prevent uniform compaction by the equipment to be used.

5.1.2 After the area to receive fill has been cleared and scarified, it shall be moistened and compacted to a depth of at least six (6.0) inches in accordance with specifications for compacting fill material in paragraph 5.4, below.

5.2 Excavation:

5.2.1 Excavations shall be cut to elevations plus or minus 0.1 foot of the grades shown on the accepted plans.

5.2.2 When excavated materials are to be used in engineered fill, the excavation shall be made in a manner to produce as much mixing of the excavated materials as practicable.

5.2.3 When excavations are to be backfilled, and where surfaces exposed by excavation are to support structures or concrete floor slabs, the exposed surfaces shall be scarified, moistened and compacted, as stated above, for areas to receive fill. Over excavation below specified depths will not eliminate the requirement for exposed surface compaction.

5.3 Fill Materials:

5.3.1 Materials obtained from on-site excavations will be considered satisfactory for construction of on-site engineered fills, unless otherwise stated in the Soils Report or Foundation Investigation. If unexpected pockets of poor or weak materials are encountered in excavations, and they cannot be upgraded by mixing with other materials or by other means, they may be rejected by the soils engineer for use in engineered fill. Rocks larger than 12 inches in size in any dimension shall not be allowed in the proposed building area. If a large amount of rocks greater than 12 inches in size in any dimension is encountered, a rock disposal area shall be located on the grading plan. Rocks shall be mixed with well-graded soils to assure that the voids in these areas will fill properly.

5.3.2 When imported fill materials are necessary to bring the site up to planned grades, no material shall be imported prior to its approval and acceptance by the soils engineer.

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5.3.3 The soils engineer shall be given notice of the proposed source of imported materials with adequate time allowance for his testing of the proposed materials. The time required for testing will vary with different types of materials, job conditions, and ultimate function of filled areas. Under best conditions the time requirement will not be less than 48 hours.

5.4 Placing, Spreading, and Compacting Fill Material:

5.4.1 The fill materials shall be placed in layers which, when compacted, shall not exceed six (6.0) inches in thickness. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to insure uniformity of material in each layer. Increased thickness of layers may be approved by the soils engineer when conditions warrant.

5.4.2 All fills shall be placed in level layers; layers shall be continuous over the area of any structural unit, and all portions of the fill shall be brought up simultaneously within the area of any structural unit. When imported material is used, it must be placed so that its thickness is as uniform as possible within the area of any structural unit.

5.4.3 When materials are to be excavated and replaced in a compacted condition, segmented, or leap-frogging of cut-fill operations within the area of any structural unit will not be permitted unless the method is specifically described by the soils engineer.

5.4.4 When the moisture content of fill material is below the lower limit specified by the Soils Engineer, water shall be added until the moisture content is as specified; and when it is above the upper limit specified, the material shall be aerated by blading or other satisfactory methods until the moisture content is as specified.

5.4.5 After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted to not less than ninety (90) percent of maximum density in accordance with ASTM Density Test Method D1557. Compaction shall be by equipment of such design that it will be able to compact the fill to specified density. When the soils engineer specifies a specific type of compaction equipment to be used, such equipment shall be used as specified.

5.4.6 Compaction of each layer shall be continuous over its entire area and the equipment shall make sufficient trips to ensure that the desired density has been obtained.

5.4.7 Field density tests shall be made by the soils engineer. The compaction of each layer of fill shall be subject to testing. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches.

Density tests shall be taken in the compacted material below the disturbed surface. When tests indicate the density of any layer of fill or portion thereof is

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below the required ninety (90) percent density, the layer or portion shall be re-worked until the required density has been obtained.

5.4.8 When the soils engineer specifies compaction to other standards or to percentages other than ninety (90) percent, such specification, with respect to the items, shall supersede these specifications.

5.4.9 The fill operation shall be continued in six (6) inch compacted layers, as specified above, until the fill has been brought to within 0.1 foot, plus or minus, of the finished slopes and grades, as shown on the accepted plans.
The finished surface of fill areas shall be graded or bladed to a smooth and uniform surface and no loose material shall be left on the surface.

5.4.10 No fill materials shall be placed, spread, or compacted while it is frozen or thawing or during unfavorable weather conditions. When work is interrupted by weather conditions, fill operations shall not be resumed until the soils engineer indicates that moisture content and density of previously placed fill are satisfactory.

5.5 Observations and Testing:

5.5.1 The soils engineer shall be provided with a 48-hour notice, in order that he may be present at the site during all earthwork activities related to excavation, tree root removal, stripping, backfill, and compaction and filling of the site and to perform periodic compaction tests so that substantial conformance to these recommendations can be established.

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APPENDIX B

FIELD INVESTIGATION

Ten (10) test borings were drilled at the subject site and terminated at a maximum depth of 22.5 feet below the existing ground surface. The bore was advanced using an eight (8.0) inch hollow-stem auger. Test data and descriptions from this hole form the basis of the conclusions and recommendations contained in this report.

Undisturbed samples and disturbed bulk samples were obtained. Undisturbed samples were taken using either a 2-3/8" (inside diameter) split-barrel sampler or a 1-3/8" (inside diameter), 2" (outside diameter) Standard Penetration Sampler (SPT). Penetration resistance of undisturbed soils was obtained by driving the above described sampler using a one-hundred-forty-pound hammer falling thirty inches (30"). Blow counts for each six inch (6") driven increment was recorded and are reported on the Test Borings Logs. In addition, bulk soil samples, selected as most representative of near surface soils encountered, were taken for laboratory testing.

As drilling progressed, earth materials encountered were logged and classified in accordance with the Unified Soils Classification System and presented graphically on Log of Test Boring, Figures 2 through 11, along with the Legend. The approximate location of the test bore is shown on the Boring Location Map, Figure 1.

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Boring Location Map

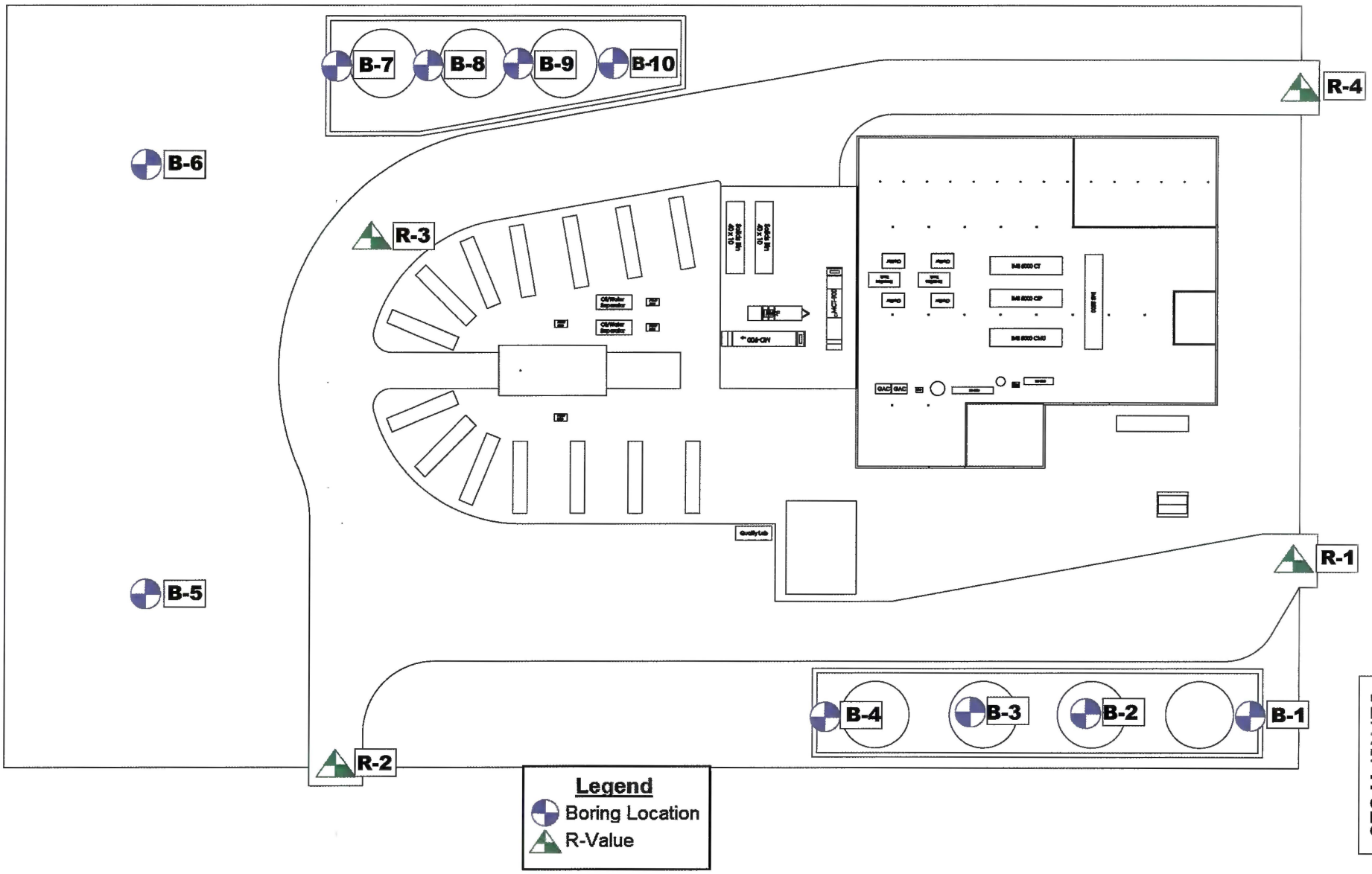


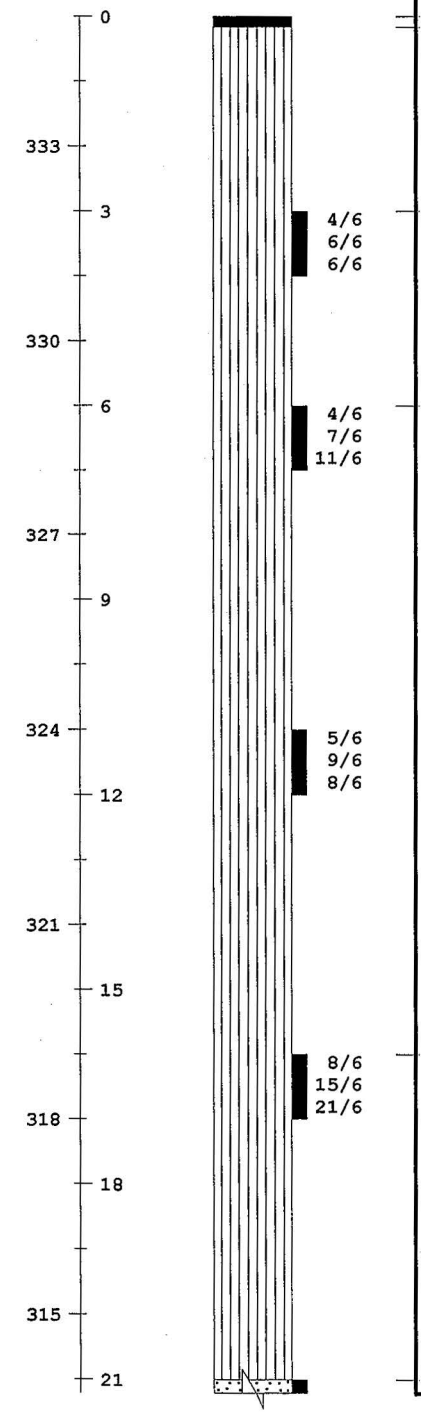
Figure 1

SEI No. 17523

LOG OF TEST BORING
BORING B-1

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	Approx. 2" asphaltic concrete.			
333			SANDY SILT; brown, damp, low plasticity.			
3	4/6 6/6 6/6		Stiff.		119.6	12.1
330						
6	4/6 7/6 11/6		Light brown, very stiff.		109.3	20.1
327						
9						
324	5/6 9/6 8/6				115.0	18.2
12						
321						
15						
318	8/6 15/6 21/6		Hard, traces of clay.		125.6	11.2
18						
315						
21						

Figure Number 2

LOG OF TEST BORING
BORING B-1

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
312 / 24	5/6, 14/6, 24/6	SP	POORLY GRADED SAND; light yellowish brown, dry, dense, fine.		124.9	3.9
			BOTTOM.			

312 — 24
309 — 27
306 — 30
303 — 33
300 — 36
297 — 39
294 — 42

Figure Number 2

LOG OF TEST BORING
BORING B-2

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*

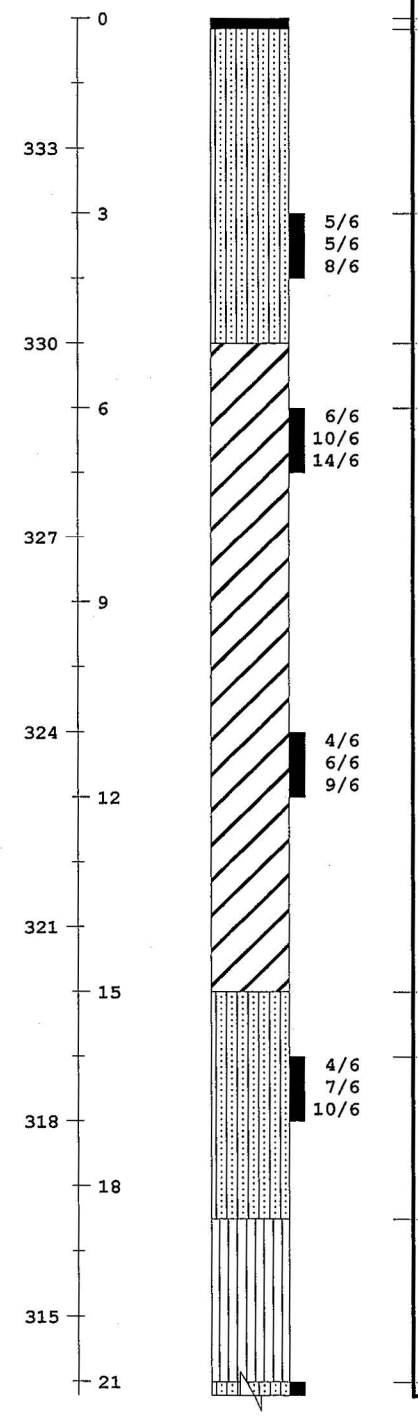
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0 / 335		SM	Approx. 2" asphaltic concrete.			
			SILTY SAND; brown, damp, low plasticity.			
3 / 333	4/6, 4/6, 4/6		loose.		113.4	12.1
6 / 330	5/6, 11/6, 10/6		Light brown, damp, medium dense, traces of clay.		112.7	18.0
9 / 327						
12 / 324	4/6, 5/6, 6/6				119.6	11.1
15 / 321						
18 / 318	5/6, 10/6, 14/6		BOTTOM.		121.3	10.2
21 / 315						

Figure Number 3

LOG OF TEST BORING
BORING B-3

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
		SM	Approx. 2" asphaltic concrete.			
			SILTY SAND; yellowish brown, damp, fine.			
			Medium dense.		111.8	9.2
		CH	SANDY CLAY; light brown, with silt, damp, high plasticity.		110.6	19.2
			Very stiff.			
					108.8	21.5
		SM	SILTY SAND; yellowish brown, damp, fine.			
			Medium dense.		106.8	14.7
		ML	SANDY SILT; brown, damp, low plasticity.			

Figure Number 4

LOG OF TEST BORING
BORING B-3

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➧ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*

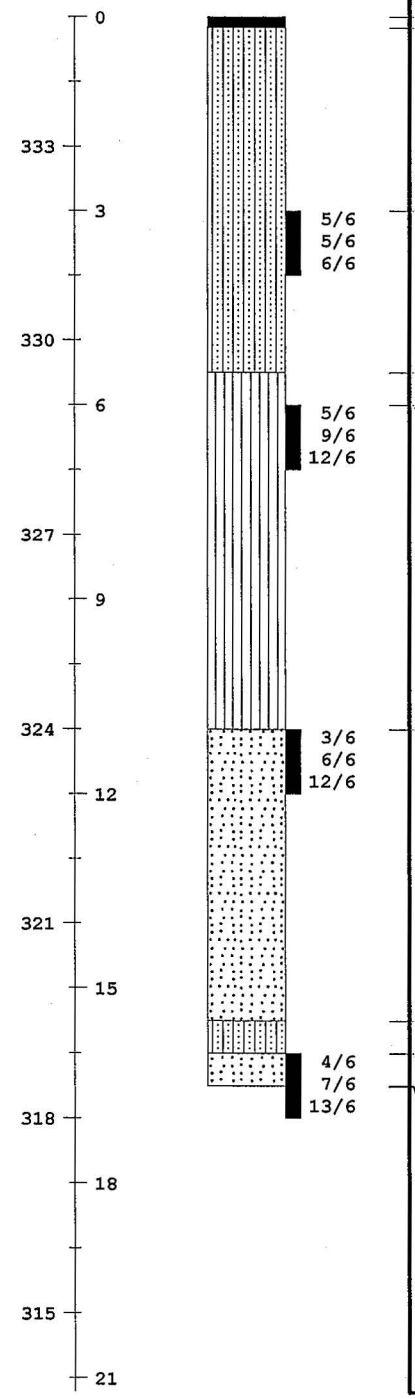
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
312 — 24	6/6 11/6 18/6	SM	SILTY SAND; brown, damp, medium dense, fine.		118.9	9.7
309 — 27			BOTTOM.			
306 — 30						
303 — 33						
300 — 36						
297 — 39						
294 — 42						

Figure Number 4

LOG OF TEST BORING
BORING B-4

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/26/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/26/20*
FINISH: *2/26/20*
LOGGER: *M. WATTS*



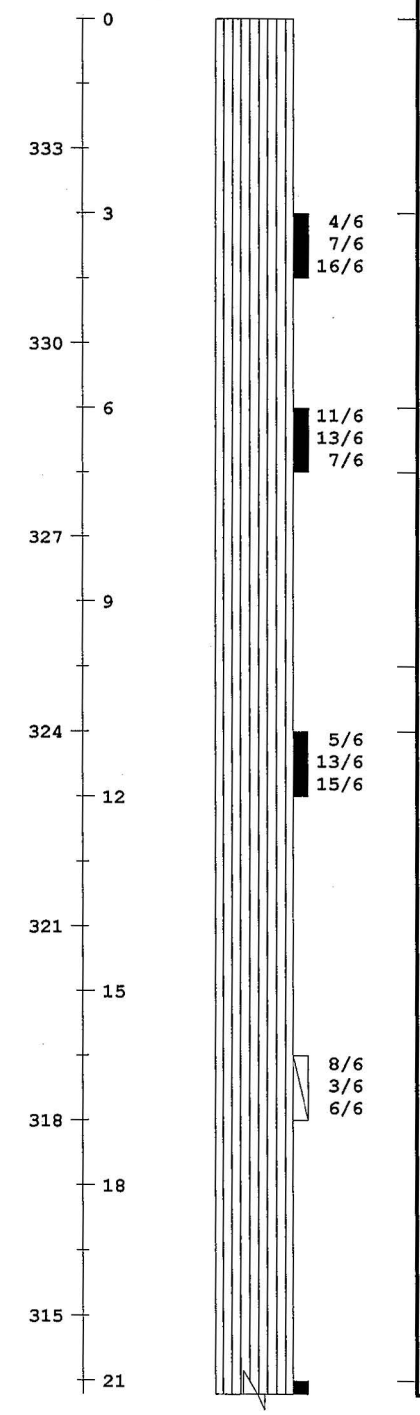
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		SM	Approx. 2" asphaltic concrete.			
			SILTY SAND; yellowish brown, damp, fine.			
333 / 3	5/6 5/6 6/6		Medium dense.		104.7	9.3
330 / 6	5/6 9/6 12/6	ML	SANDY SILT; brown, damp, low plasticity.		115.6	12.8
			Very stiff.			
327 / 9						
324 / 12	3/6 6/6 12/6	SP	POORLY GRADED SAND; light yellowish brown, dry, medium dense, fine.		119.5	3.1
321 / 15						
	4/6 7/6 13/6	SM	SILTY SAND; yellowish brown,			
318 / 18		SP	damp, fine.		122.2	3.8
			POORLY GRADED SAND; light yellowish brown, dry, medium dense, fine.			
315 / 21			BOTTOM.			

Figure Number 5

LOG OF TEST BORING
BORING B-5

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	SANDY SILT; brown, damp, low plasticity.			
3	4/6 7/6 16/6		Very stiff.		114.2	10.0
6	11/6 13/6 7/6		Very stiff, Concrete chunks, asphaltic concrete, class, trash.		113.1	4.1
9			Slow drilling due to trash.			
			Light brown, dry.			
12	5/6 13/6 15/6		Wire, concrete chunks, brick.		105.5	7.2
15	8/6 3/6 6/6			No recovery.		7.8
18						
21						

Figure Number 6

LOG OF TEST BORING
BORING B-5

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➧ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*

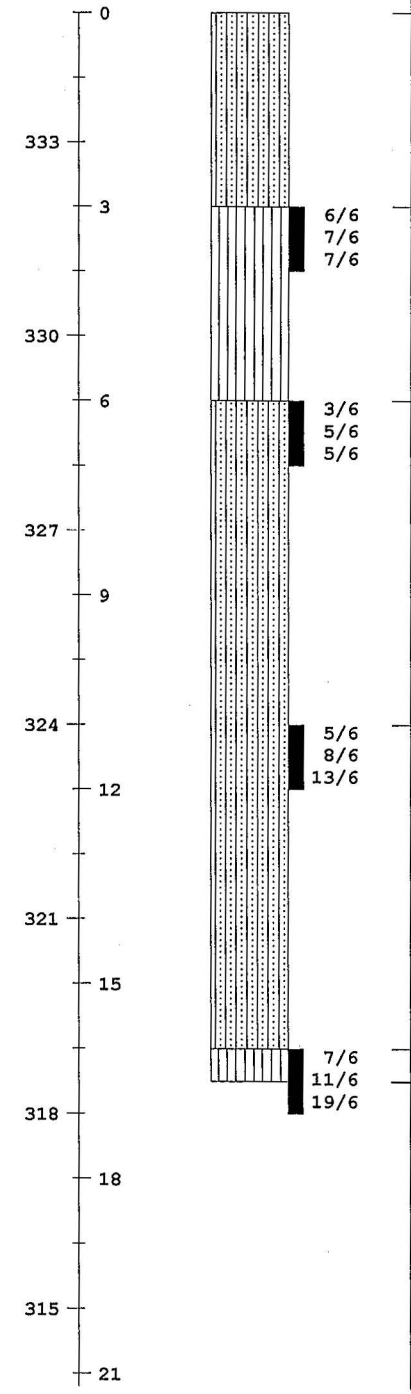
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
312 / 24	4/6 11/6 19/6		Hard, with asphaltic concrete chunks.		103.6	10.4
			Slow drilling due to trash and debris.			
309 / 27			Refusal due to debris. BOTTOM.			
306 / 30						
303 / 33						
300 / 36						
297 / 39						
294 / 42						

Figure Number 6

LOG OF TEST BORING
BORING B-6

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➡ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



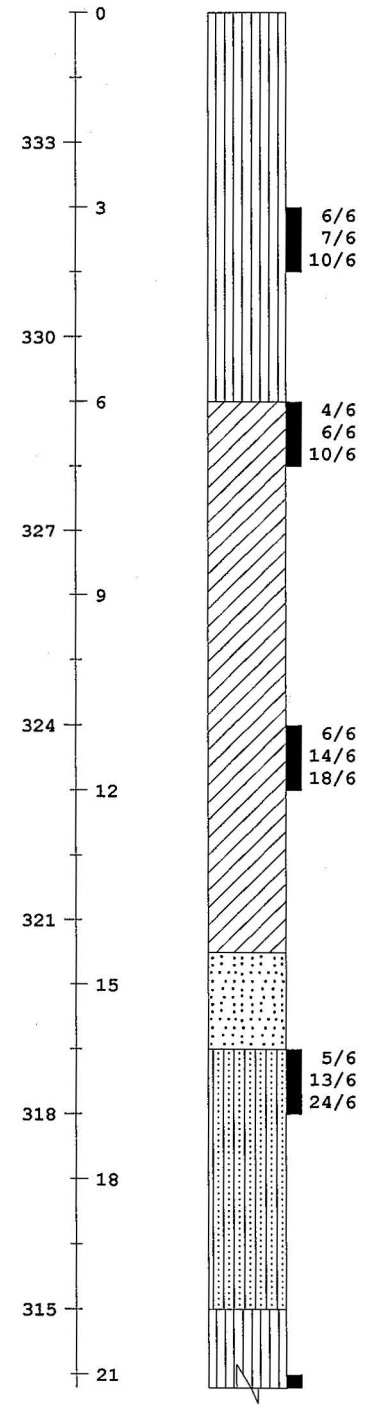
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		SM	SILTY SAND; yellowish brown, dry to damp, fine.			
3	6/6 7/6 7/6		SANDY SILT; brown, damp, stiff, low plasticity.		116.2	9.4
6	3/6 5/6 5/6	SM	SILTY SAND; reddish brown, dry to damp, loose, fine. Trash, wire, metal, plastic.		96.2	5.3
12	5/6 8/6 13/6		Medium dense.		122.3	10.4
15	7/6 11/6 19/6	ML	SANDY SILT; light brown, damp, hard, low plasticity. BOTTOM.		113.2	16.4

Figure Number

LOG OF TEST BORING
BORING B-7

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➡ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	SANDY SILT; light brown, dry to damp, low plasticity.			
3	6/6 7/6 10/6		Very stiff.		116.1	11.7
6	4/6 6/6 10/6	CL	SANDY CLAY; light brown, dry to damp, very stiff, low plasticity.		111.2	13.5
12	6/6 14/6 18/6		Hard, brown.		113.9	17.0
15		SP	POORLY GRADED SAND; light yellowish brown, dry, fine.			
18	5/6 13/6 24/6	SM	SILTY SAND; light brown, dry to damp, dense, fine.		114.8	7.9
21		ML	SANDY SILT; light brown, damp, low plasticity.			

Figure Number 8

LOG OF TEST BORING
BORING B-7

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*

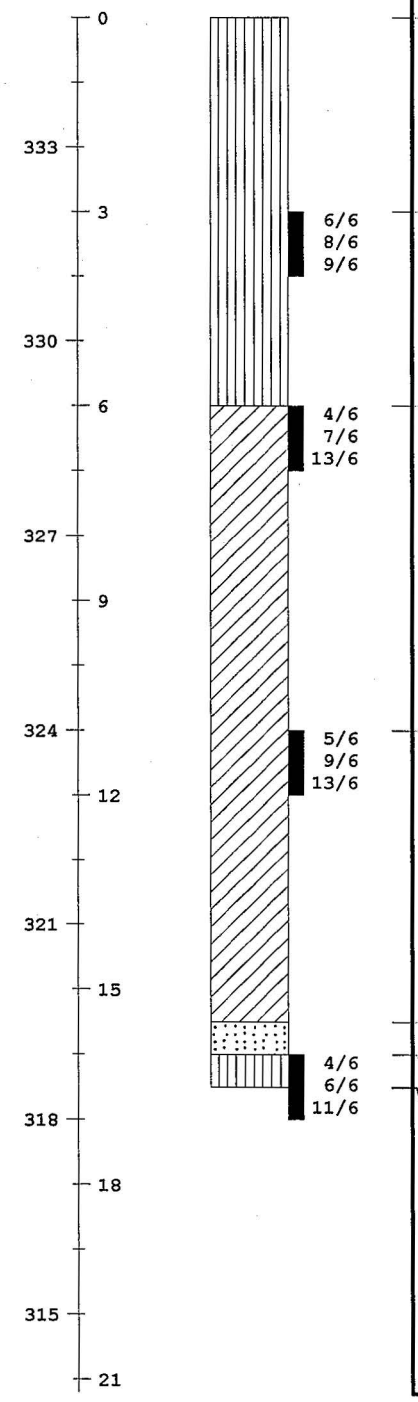
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
312 / 24	5/6, 11/6, 25/6		Hard.		117.8	12.3
309 / 27			BOTTOM.			
306 / 30						
303 / 33						
300 / 36						
297 / 39						
294 / 42						

Figure Number 8

LOG OF TEST BORING
BORING B-8

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➡ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



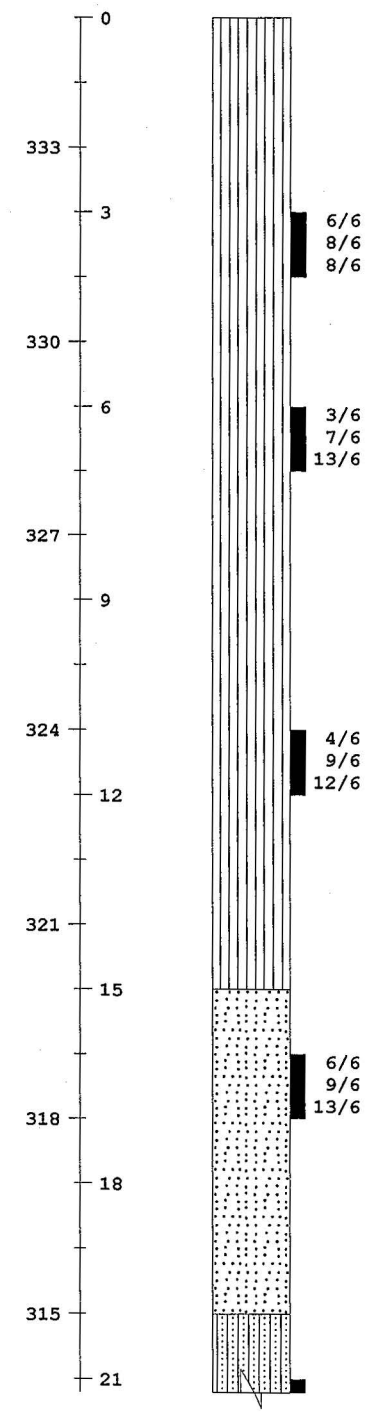
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	SANDY SILT; light brown, damp, fine, with medium plasticity clay.			
3	6/6 8/6 9/6		Very stiff.		120.6	8.4
6	4/6 7/6 13/6	CL	SANDY CLAY; light brown, damp, very stiff, low plasticity.		116.1	14.6
12	5/6 9/6 13/6		Brown, damp, very stiff.		107.0	17.1
15	4/6 6/6 11/6	SP	POORLY GRADED SAND; light yellowish brown, dry, fine.		113.0	1.7
		ML	SANDY SILT; light brown, damp, very stiff, low plasticity.			
21			BOTTOM.			

Figure Number 9

LOG OF TEST BORING
BORING B-9

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▼ : *N/A* **CAVING - ➡ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	SANDY SILT; brown, damp, fine, with medium plasticity clay.			
3	6/6 8/6 8/6		Stiff.		118.9	8.0
6	3/6 7/6 13/6		Very stiff.		113.5	13.2
9			SANDY SILT; brown, dry to damp, low plasticity.			
12	4/6 9/6 12/6				115.2	15.9
15	6/6 9/6 13/6	SP	POORLY GRADED SAND; light yellowish brown, dry, fine. Medium dense.		103.7	2.9
18						
21		SM	SILTY SAND; yellowish brown, damp, fine.			

Figure Number 10

LOG OF TEST BORING
BORING B-9

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*

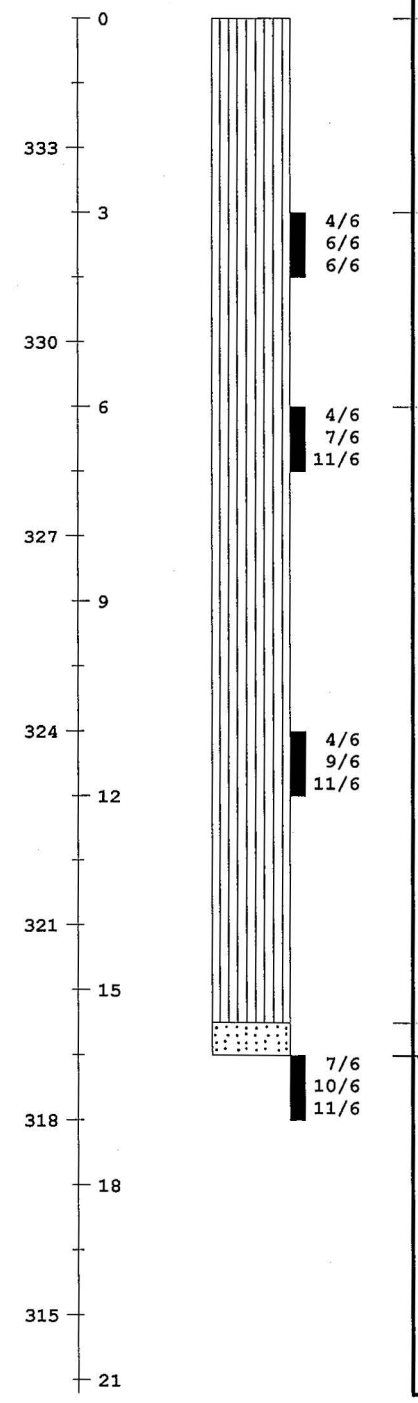
ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
312 / 24	9/6 22/6 28/6		Very dense. BOTTOM.		125.5	8.4
309 / 27						
306 / 30						
303 / 33						
300 / 36						
297 / 39						
294 / 42						

Figure Number 10

LOG OF TEST BORING
BORING B-10

PROJECT: *Blue Water Resources, LLC*
BORING DATE: *2/27/20*
BORING LOCATION: *See Boring Location Map, Figure 1*
DRILL METHOD: *4.25" I.D. Hollow-Stem Auger*
DESCRIPTION: *Geotechnical Engineering and Environmental Services*
DEPTH TO WATER - ▽ : *N/A* **CAVING - ▶ :** *N/A*

FILE NO: *17523*
ELEV.: *335'*
START: *2/27/20*
FINISH: *2/27/20*
LOGGER: *M. WATTS*



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Description	Remarks	Density pcf	Moisture %
0		ML	SANDY SILT; light brown, damp, fine, with medium plasticity clay.			
3	4/6, 6/6, 6/6		Stiff.		119.8	8.8
6	4/6, 7/6, 11/6		wet, very stiff.		109.0	16.2
12	4/6, 9/6, 11/6				107.2	24.7
15	7/6, 10/6, 11/6	SP	POORLY GRADED SAND; light yellowish brown, dry to damp, fine. Medium dense.		107.0	1.4

Figure Number 11

KEY TO SYMBOLS

Symbol Description

Strata symbols

- Paving
- Silt
- Poorly graded sand
- Silty sand
- High plasticity clay
- Low plasticity clay

Misc. Symbols

- Boring continues
- Drill rejection

Soil Samplers

- California sampler
- No recovery

Notes:

1. Ten (10) exploratory borings were drilled between 02/26/2020 and 02/27/2020 using an 8-inch outside diameter hollow-stem auger.
2. No free groundwater was encountered to the maximum depth drilled of 22'.
3. Boring locations are shown on the Boring Location Map, Figure 1.
4. These logs are subject to the limitations, conclusions, and recommendations in this report.
5. Results of tests conducted on samples recovered are reported on the logs.

APPENDIX C

SOIL TEST DATA

SIEVE ANALYSES (ASTM D422 and/or ASTM D1140)

Grain size distributions for specimens retrieved from various subsurface elevations were tested to classify the materials. Test results are presented on Figures A-1 through A-13.

IN-SITU DENSITY & MOISTURE RELATIONSHIPS (ASTM D2216 & D2937)

Moisture & density data for undisturbed native soils was obtained by use of a 2-3/8-inch (inside diameter) split-barrel sampler. Test results are given on the Logs of Test Borings, Figures 2 through 11.

CONSOLIDATION TESTS (ASTM D2435)

Compressibility of soils was determined on saturated, undisturbed samples of native materials. Consolidation Test Diagrams, Figures B-1 through B-3, graphically express the relationship of vertical strain vs. applied vertical (normal) load for earth materials selected as most representative of the soil strata within the anticipated zone of influence of foundation loads.

DIRECT SHEAR TESTS (ASTM D3080)

Quick-consolidated direct shear tests were performed on undisturbed, saturated samples of native earth materials. This test provides information on soil shear strength vs. normal load and is used to determine the angle of internal friction and cohesion of earth materials under essentially drained conditions. Test results are presented on Figures C-1 and C-2.

R-VALUE TESTS (CTM-301)

R-value tests were performed to obtain flexible pavement design data. Test results are presented on Figures D-1 through D-4.

EXPANSION INDEX (ASTM D4829)

The Expansion Index test is designed to measure a basic index property of soil and in this respect is comparable to other index tests such as the Atterberg Limits. In formulating the test procedures, no attempt has been made to duplicate any particular moisture or loading conditions which may occur in the field. Rather, an attempt has been made to control all variables which influence the expansive characteristics of a particular soil and still retain a practical test for general engineering usage. Near surface soils were obtained and tested for expansiveness. Test results are presented on the Laboratory Testing Recap Table 1.

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SOIL CORROSIVITY (SO_4 / pH / Chlorides)

Tests for Soluble Sulfates (SO_4), Soluble Chlorides (Cl), and pH values were performed on one (1) sample retrieved from the upper three (3) feet to determine the corrosion potential of the soils. Corrosion prevention measures and the extent to which measures should be taken (if any) should be addressed with the corrosion engineer. Soluble Sulfates and Soluble Chlorides values were determined according to EPA 300.0M. The pH values were determined according to EPA 9045C. Results of all the constituents are discussed in the Soil Corrosivity section.

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Blue Water Resources, LLC

Geotechnical Engineering Services
Blue Water Resources, LLC
591 J Street, Wasco, CA

SEI File No. 20-17523
March 31, 2020

TABLE 1

TEST LOCATION	USCS	% < # 200	CONSOLIDATION				DIRECT SHEAR		UNCONFINED COMPRESSION		S.G.	E.I.	PERM.	R-VALUE @ 300 psi			
			C_C	C_S	S.P. (pcf)	HV %	C, (ksf)	F.A.	Q_U, (ksf)	C, (ksf)			K	R.V.	E.P. (psi)		
B-1 @ 3'	ML	50					0.74	35.6									
B-1 @ 6'	ML												NO FLOW				
B-2 @ 0-5'	SM	45										18					
B-2 @ 3'	SM		0.11	0.01	0	-0.8											
B-3 @ 6'	CH	77															
B-4 @ 3'	SM	46											1.07×10^{-4}				
B-6 @ 3'	SM	49	0.10	0.01	0	-0.7											
B-7 @ 3'	ML	57											7.05×10^{-7}				
B-8 - B-10 @ 0-3'	ML	50										30					
B-8 @ 3'	ML						0.62	30.6									
B-9 @ 0-5'	ML											13					
B-9 @ 3'	ML	50	0.08	0.01	0	-0.6											
B-10 @ 6'	ML	68											NO FLOW				
R-1 @ 0-5'	SM	49												22	0.02		
R-2 @ 0-5'	SM	43												45	0.02		
R-3 @ 0-5'	SM	47												31	0.02		
R-4 @ 0-5'	SM	41												38	0		

CONSOLIDATION
Cc - Compression Index
Cs - Swell Index
S.P. (pcf) - Swell Pressure
HV % - Heave Precentage / Collapase

DIRECT SHEAR
C (ksf) - Cohesion
F.A. - Friction Angle
S.G. - Specfic Gravity

E.I. - EXPANSION INDEX

UNCONFINED COMPRESSION
QU (ksf) - Unconfined Compression Strength
C, (ksf) - Cohesion

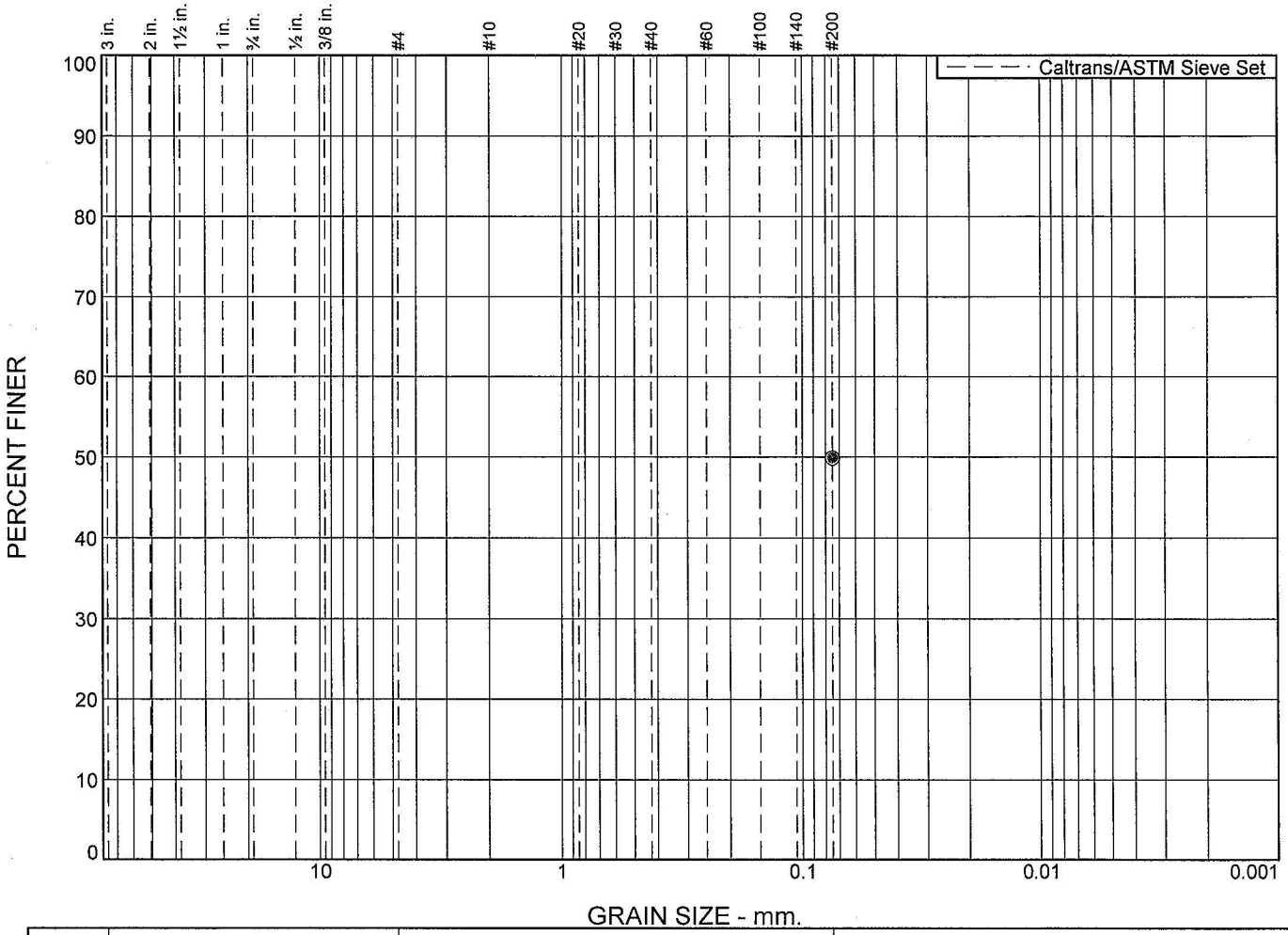
(R)ESISTANCE VALUE
RV - R-Value @ 300 psi
EV - Expansion Press @ 300 psi

CONSTANT HEAD PERMEABILITY
K - Coefficient of Permeability (cm/sec)

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Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							50	

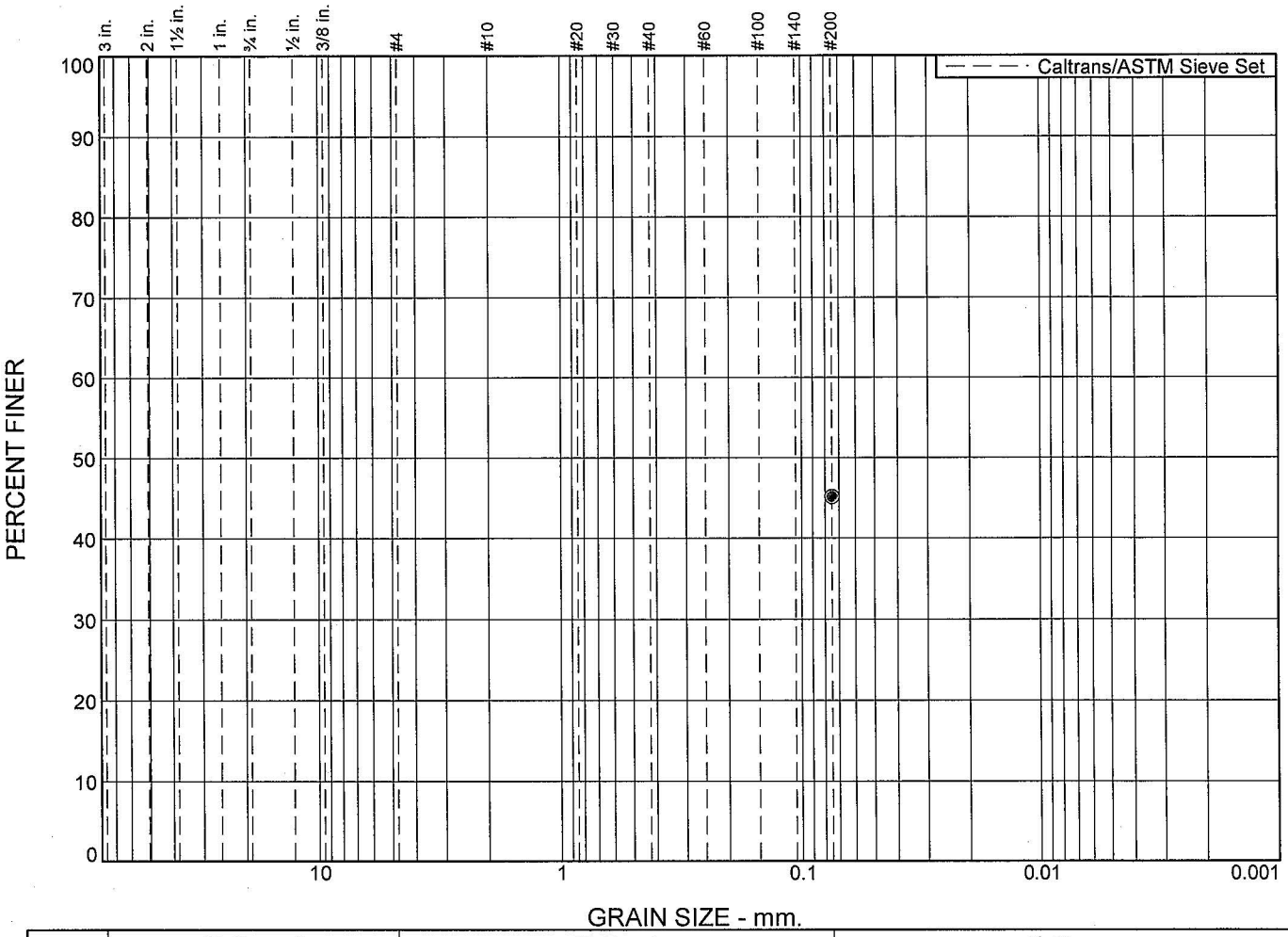
SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-1		3'	SANDY SILT	ML

SOILS ENGINEERING, INC.

Client: Blue Water Resources, LLC
Project: Blue Water Resources, LLC
Project No.: 17523
Figure A-1

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							45	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73305	0-5'	SILTY SAND	SM
				Location: B-2 @ 0-5'	

SOILS ENGINEERING, INC.

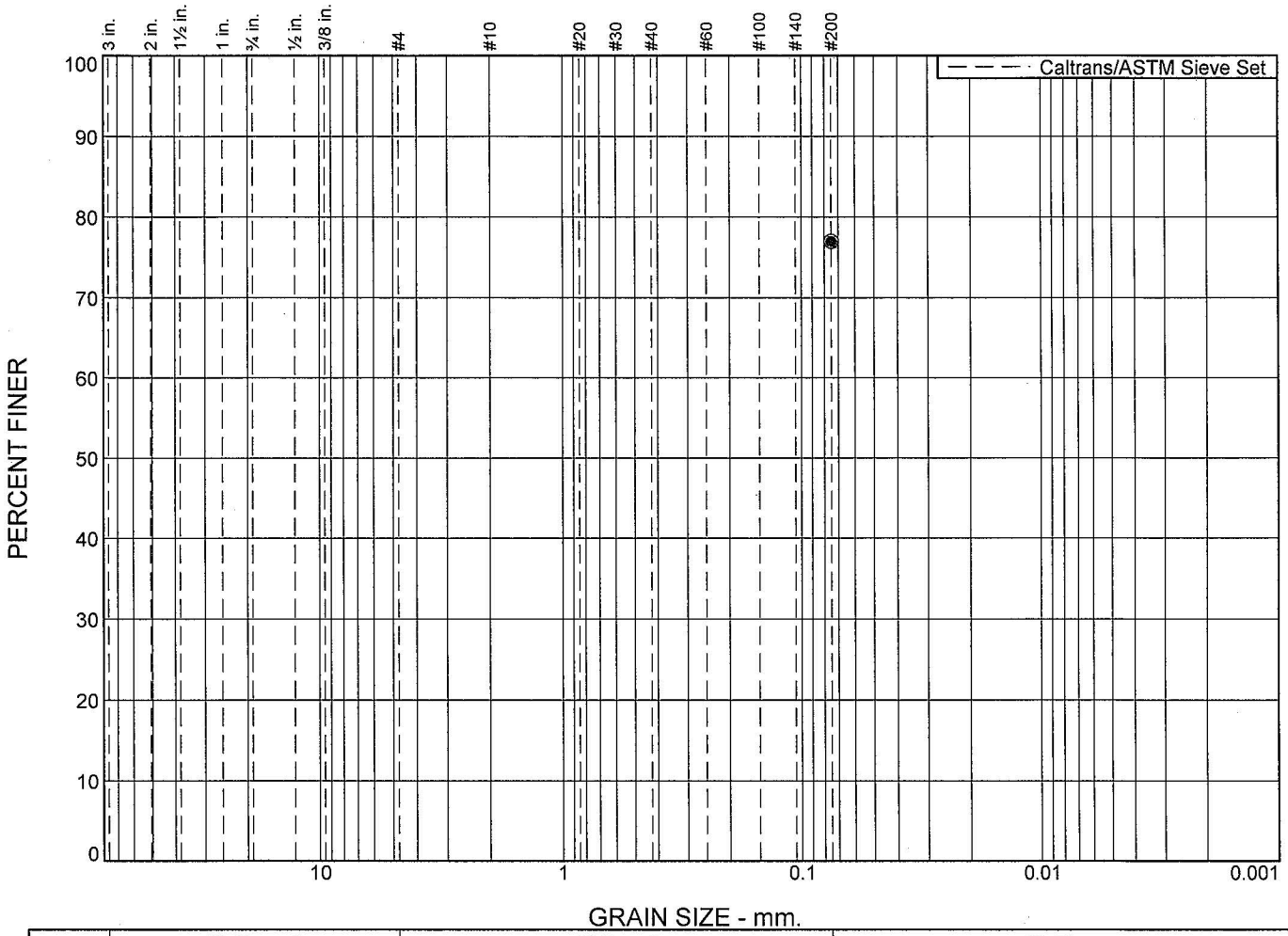
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-2

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							77	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-3		6'	SANDY CLAY	CH

SOILS ENGINEERING, INC.

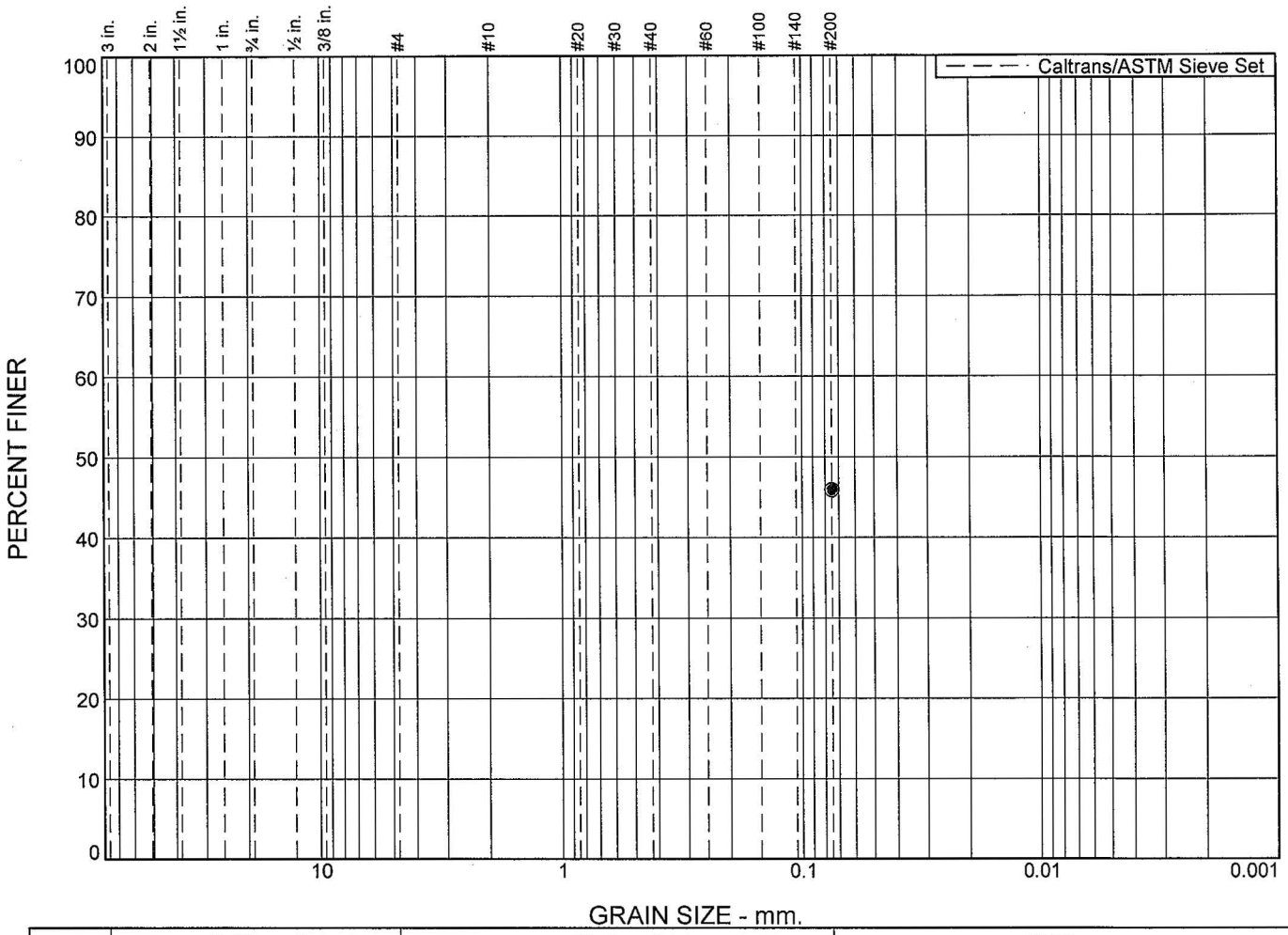
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-3

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							46	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-4		3'	SILTY SAND	SM

SOILS ENGINEERING, INC.

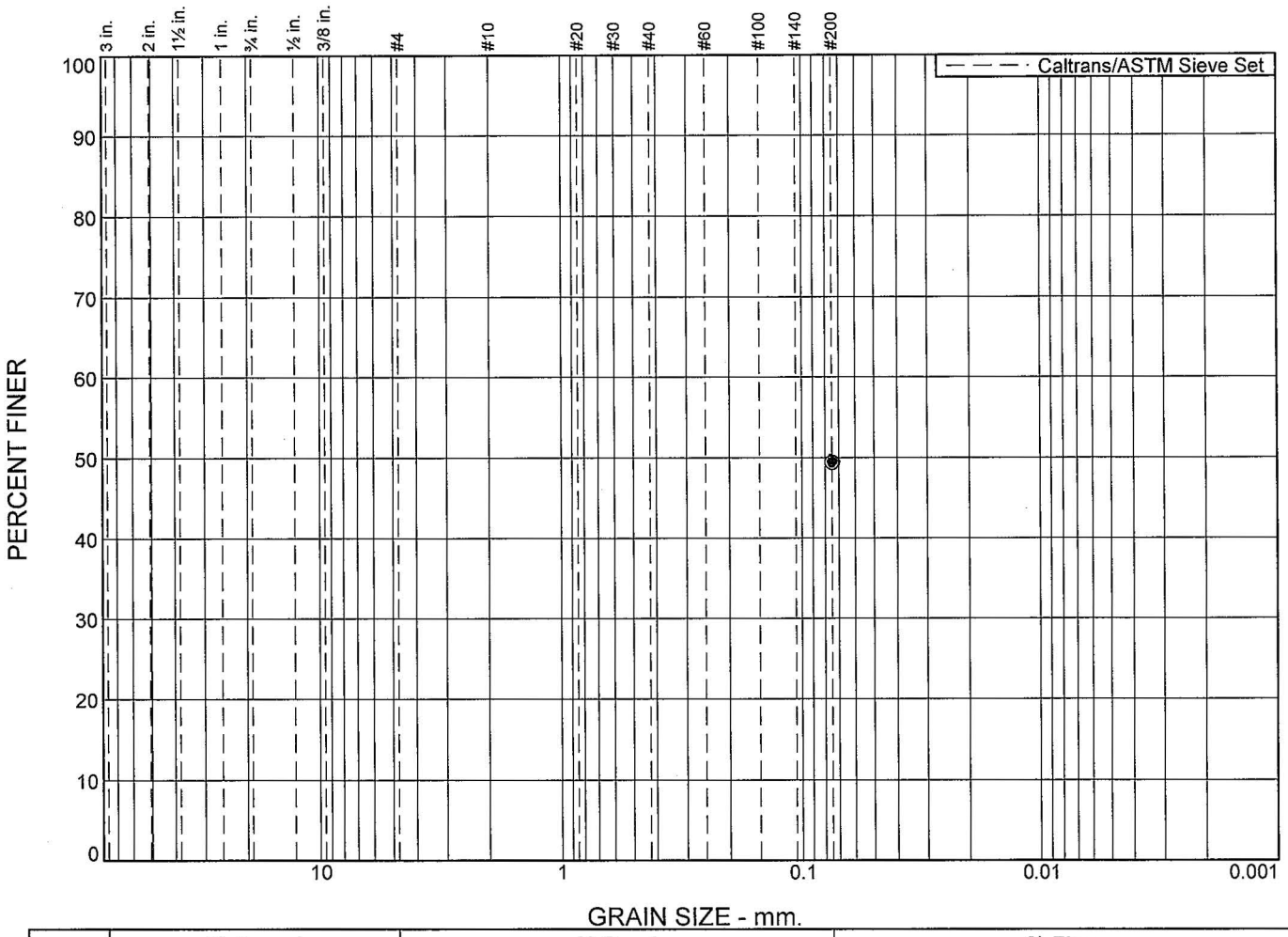
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-4

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							49	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-6		3'	SILTY SAND	SM

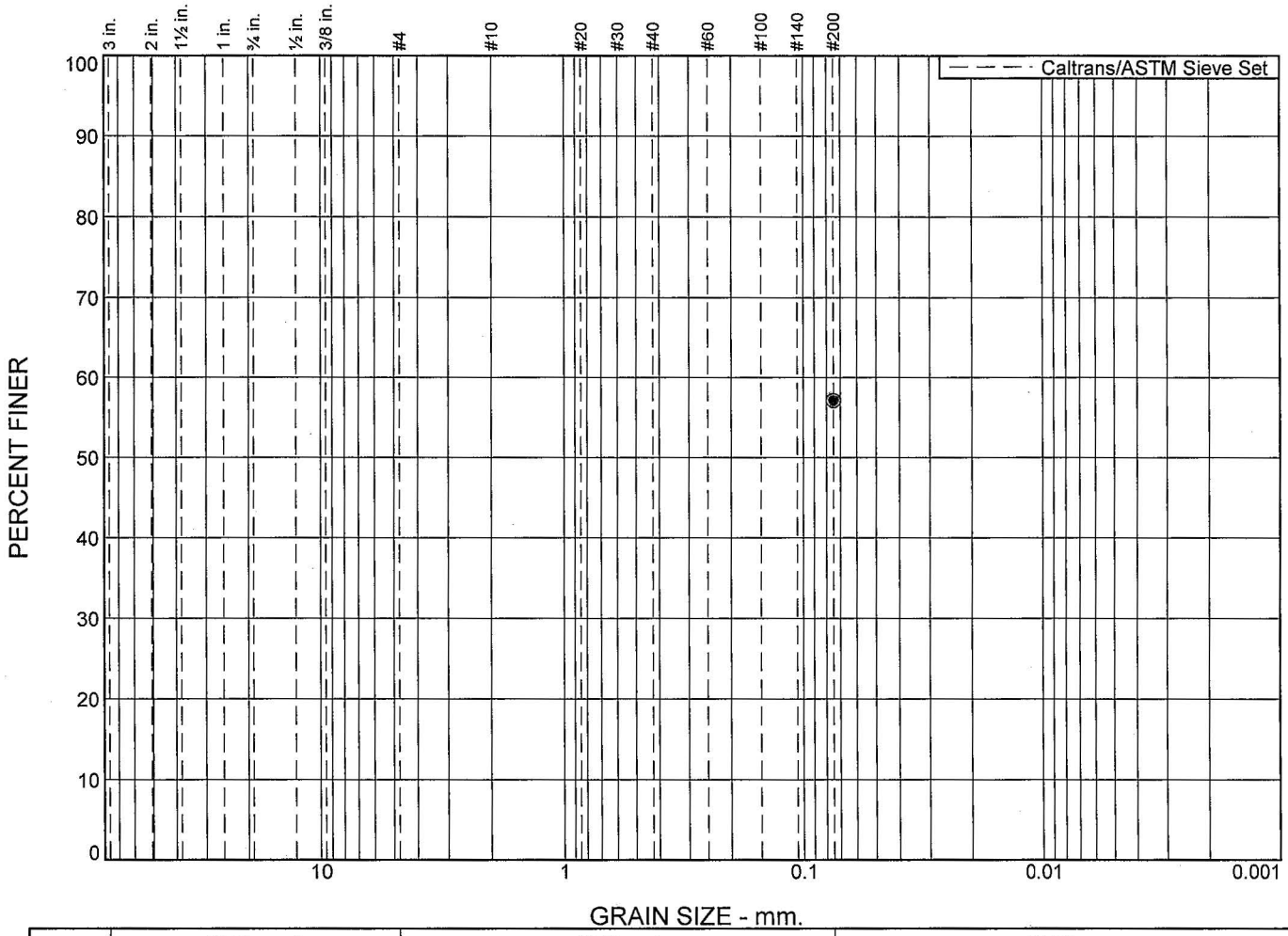
SOILS ENGINEERING, INC.

Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523 **Figure** A-5

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							57	

SOIL DATA

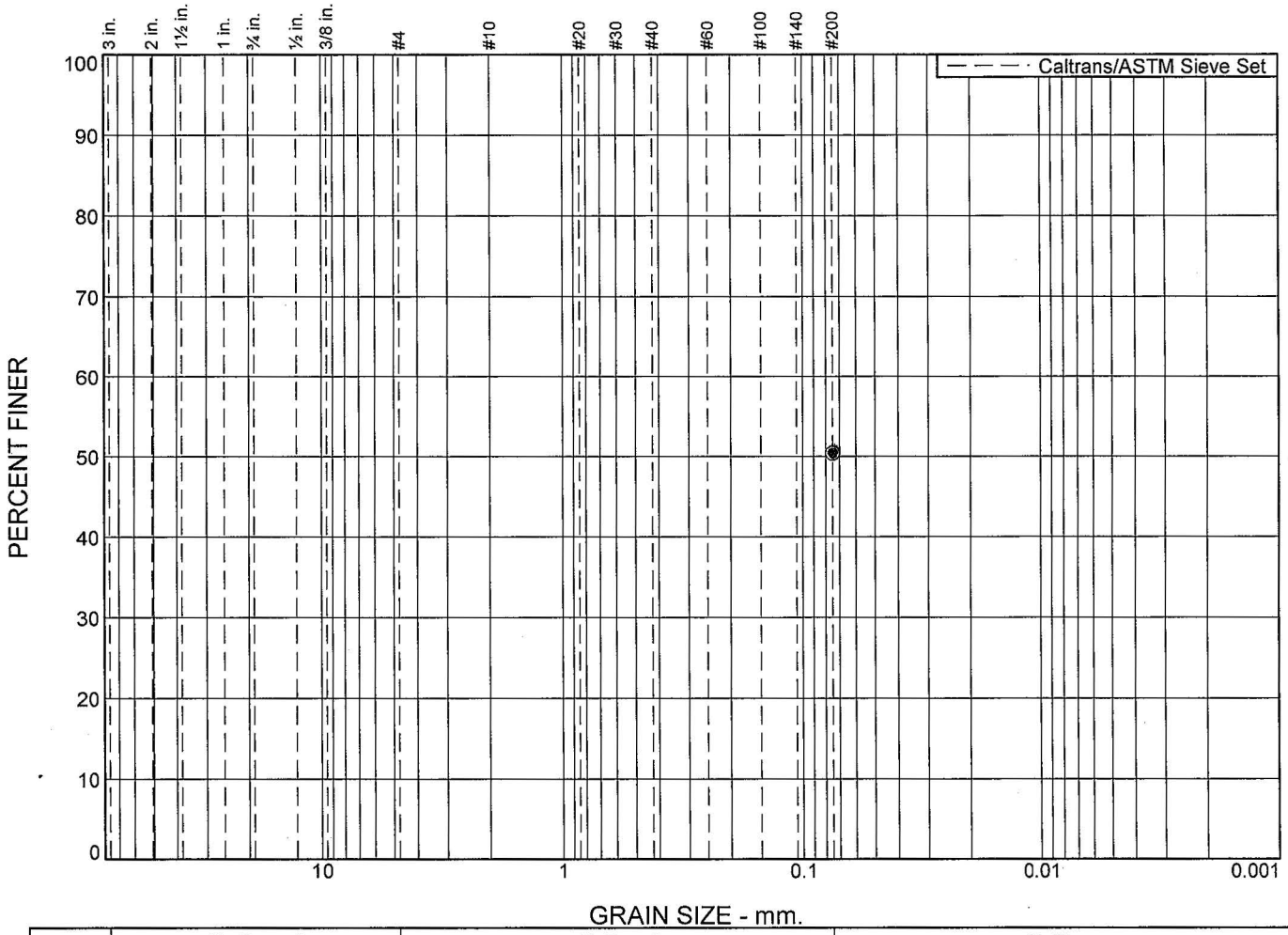
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-7		3'	SANDY SILT	ML

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Client: Blue Water Resources, LLC
Project: Blue Water Resources, LLC

Project No.: 17523 **Figure** A-6

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							50	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73333	0-3'	SANDY SILT	ML
				Location: B-8 - B-10 @ 0-3'	

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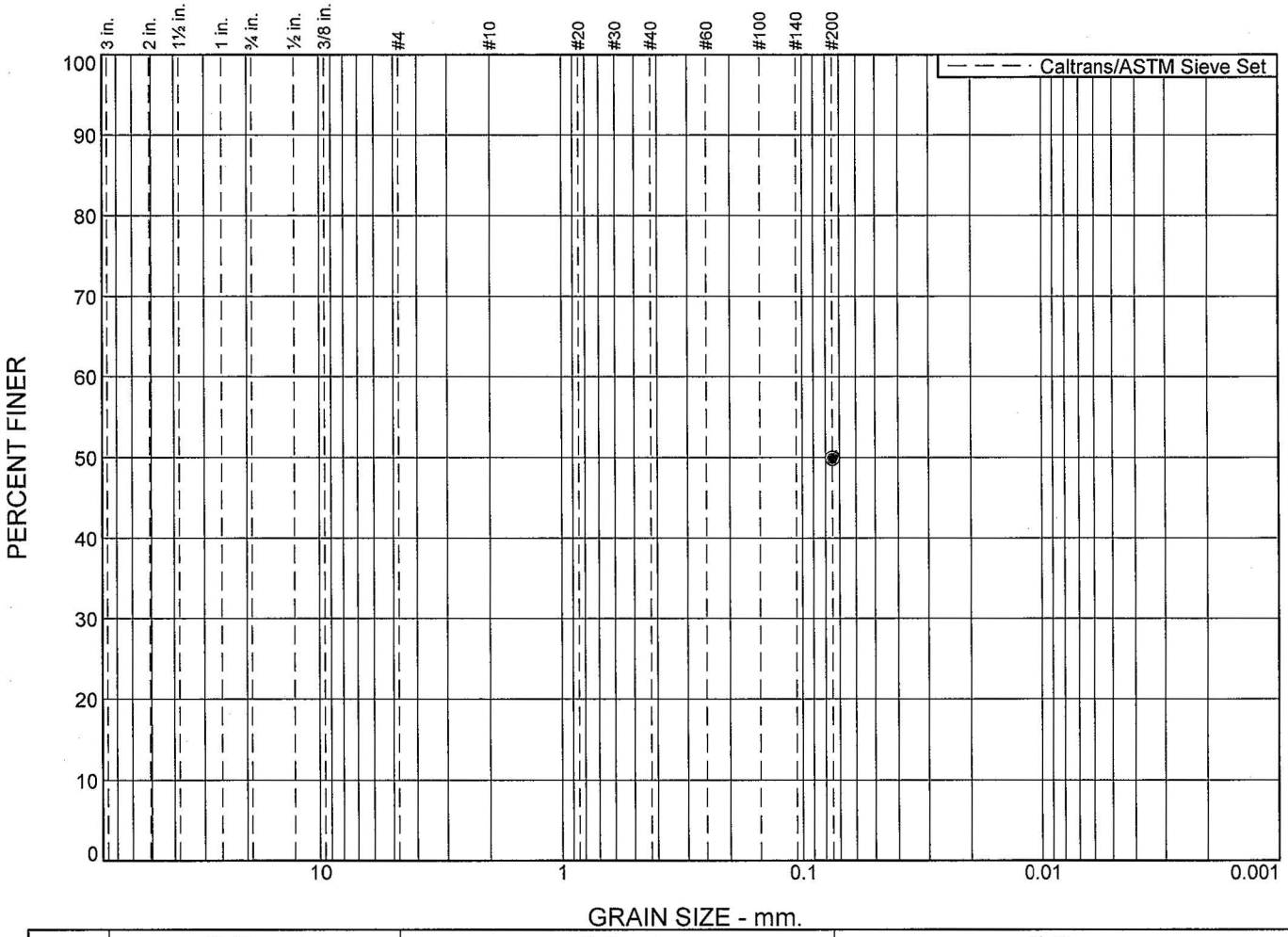
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-7

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							50	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-9		3'	SANDY SILT	ML

SOILS ENGINEERING, INC.

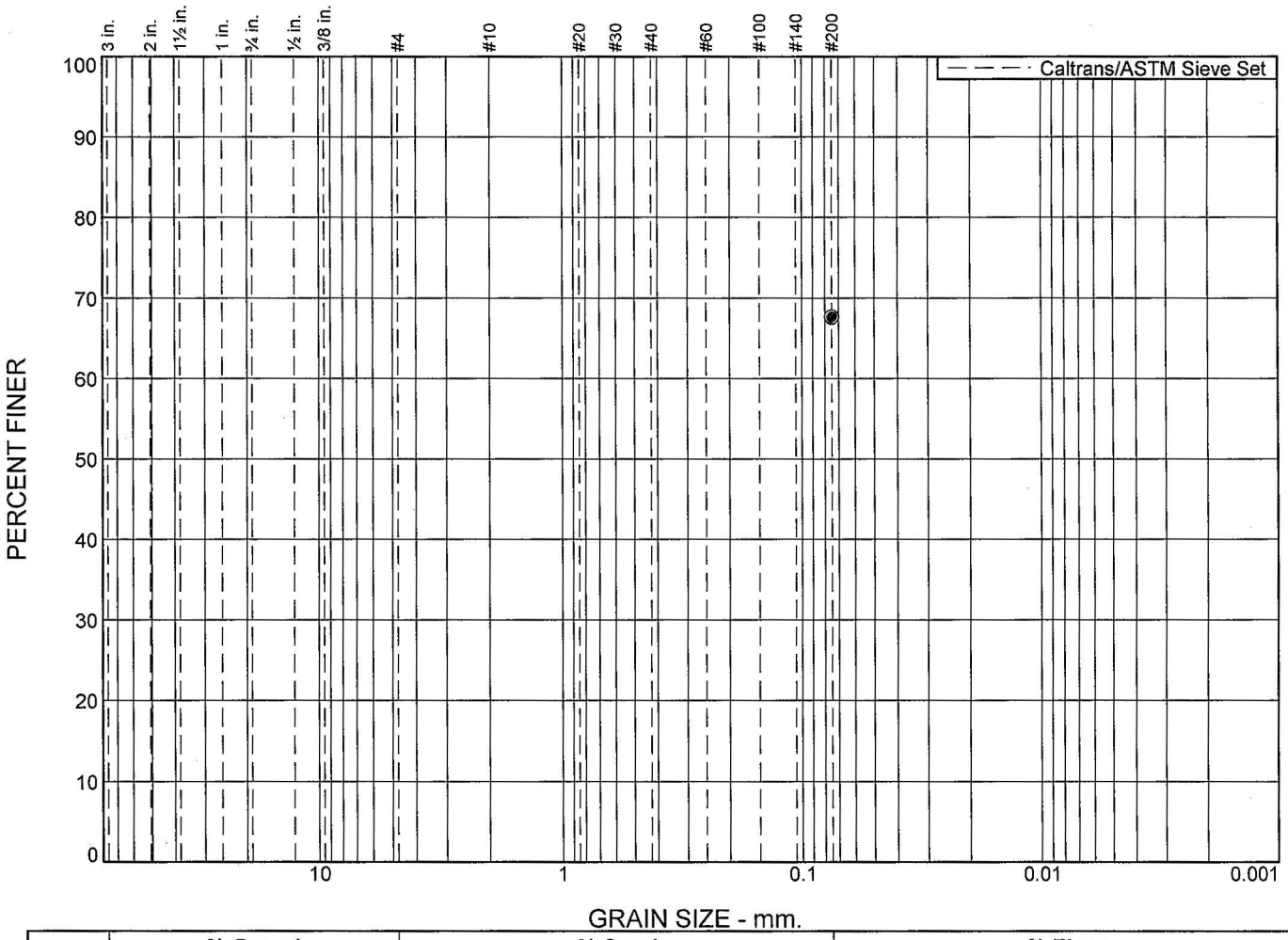
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-8

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							68	

SOIL DATA

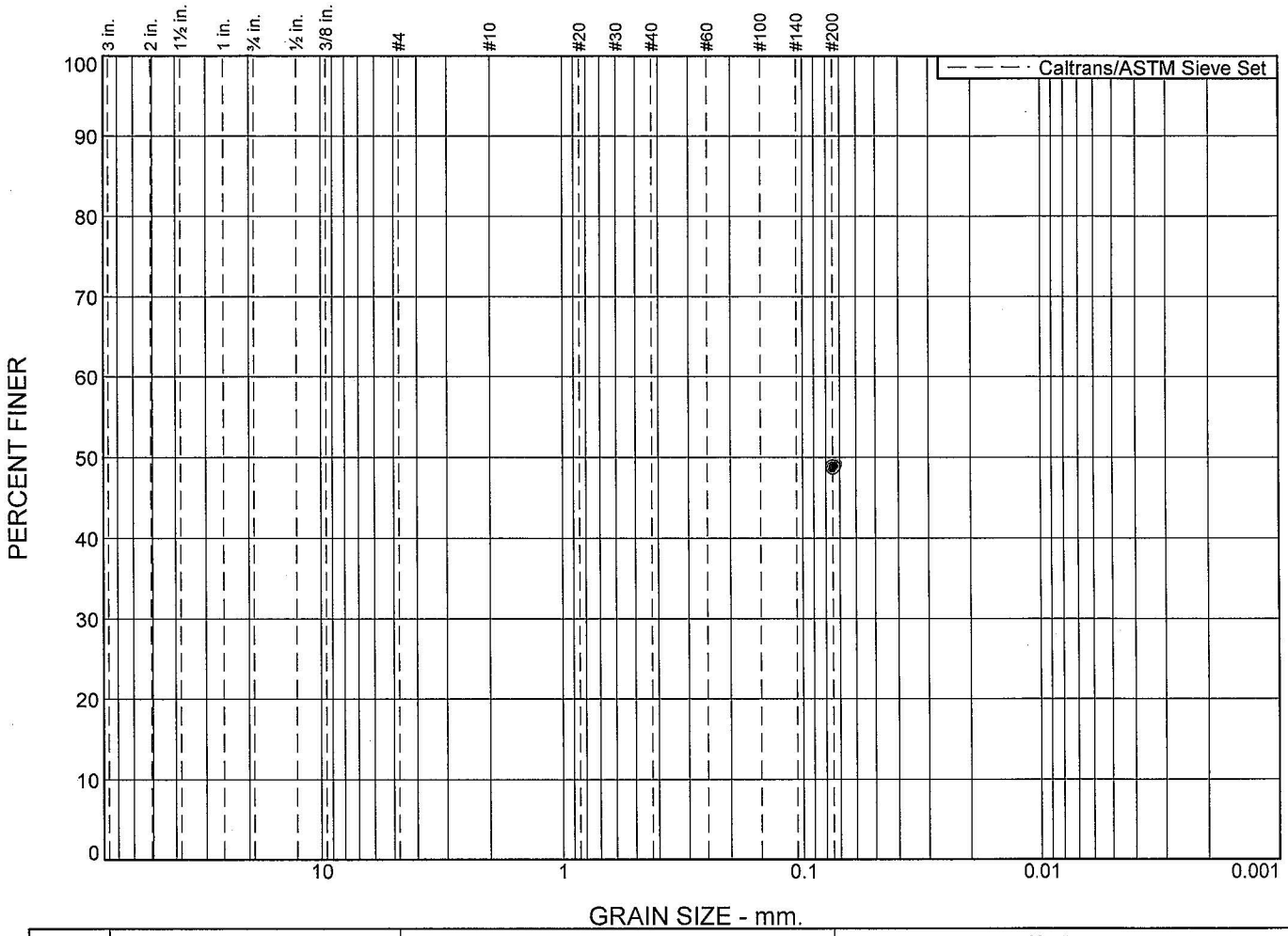
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-10		6'	SANDY SILT	ML

SOILS ENGINEERING, INC.

Client: Blue Water Resources, LLC
Project: Blue Water Resources, LLC

Project No.: 17523 **Figure** A-9

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							49	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73348	0-5'	SILTY SAND	SM
				Location: R-1 @ 0-5'	

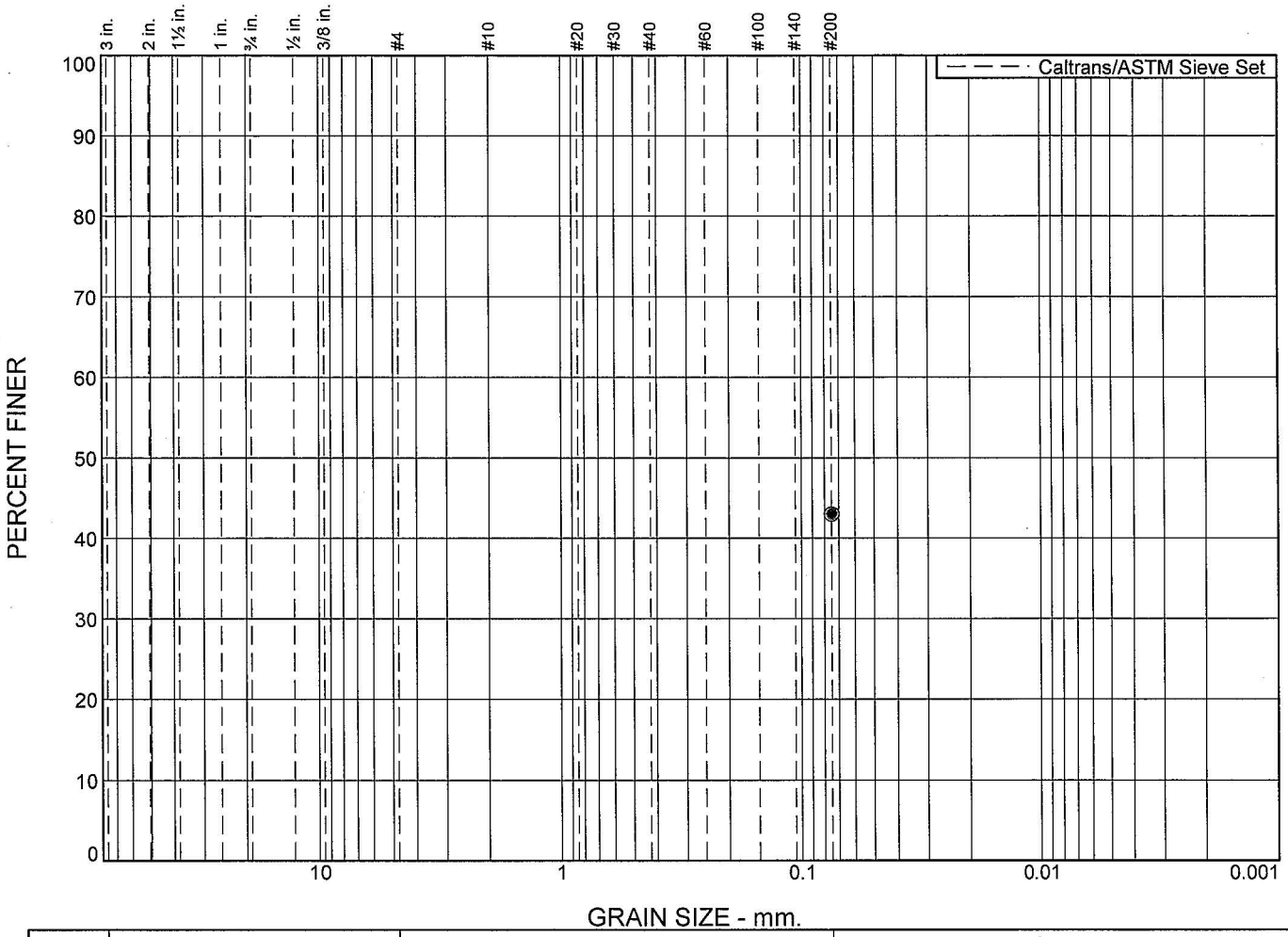
SOILS ENGINEERING, INC.

Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523 **Figure** A-10

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							43	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73349	0-5'	SILTY SAND	SM
				Location: R-2 @ 0-5'	

SOILS ENGINEERING, INC.

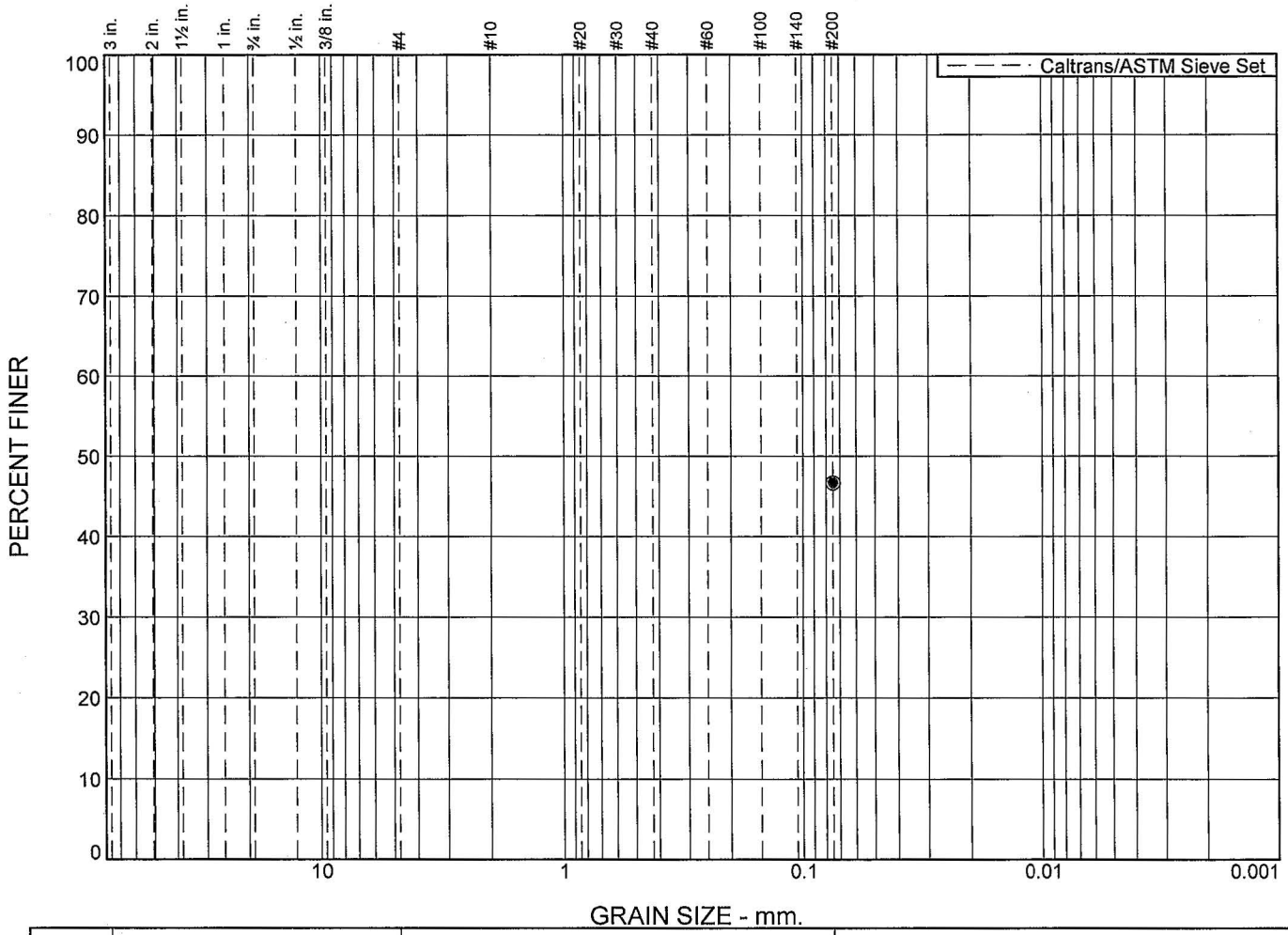
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-11

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							47	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73350	0-5'	SILTY SAND	SM
				Location: R-3 @ 0-5'	

SOILS ENGINEERING, INC.

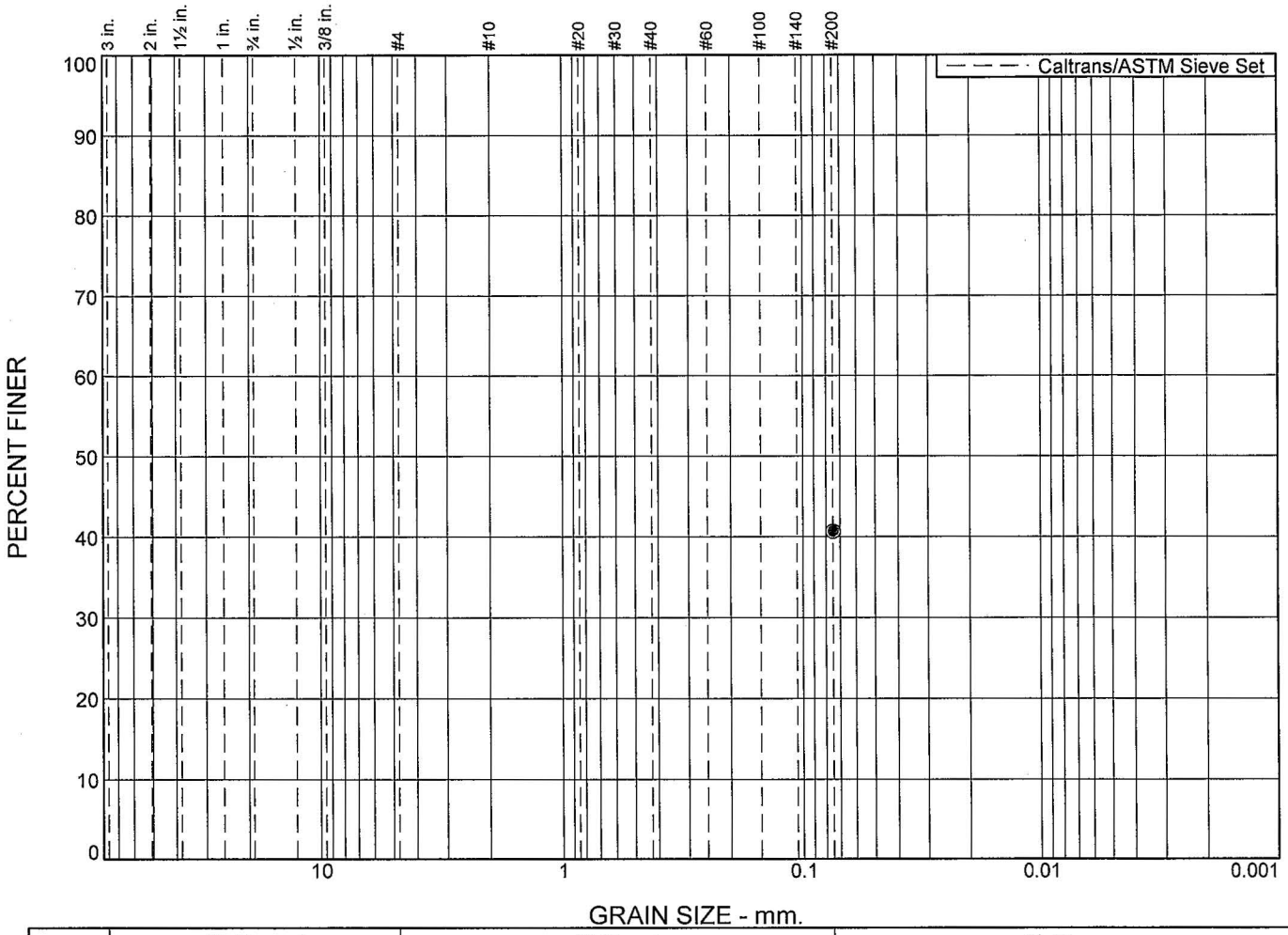
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-12

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							41	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○		73351	0-5'	SILTY SAND	SM
				Location: R-4 @ 0-5'	

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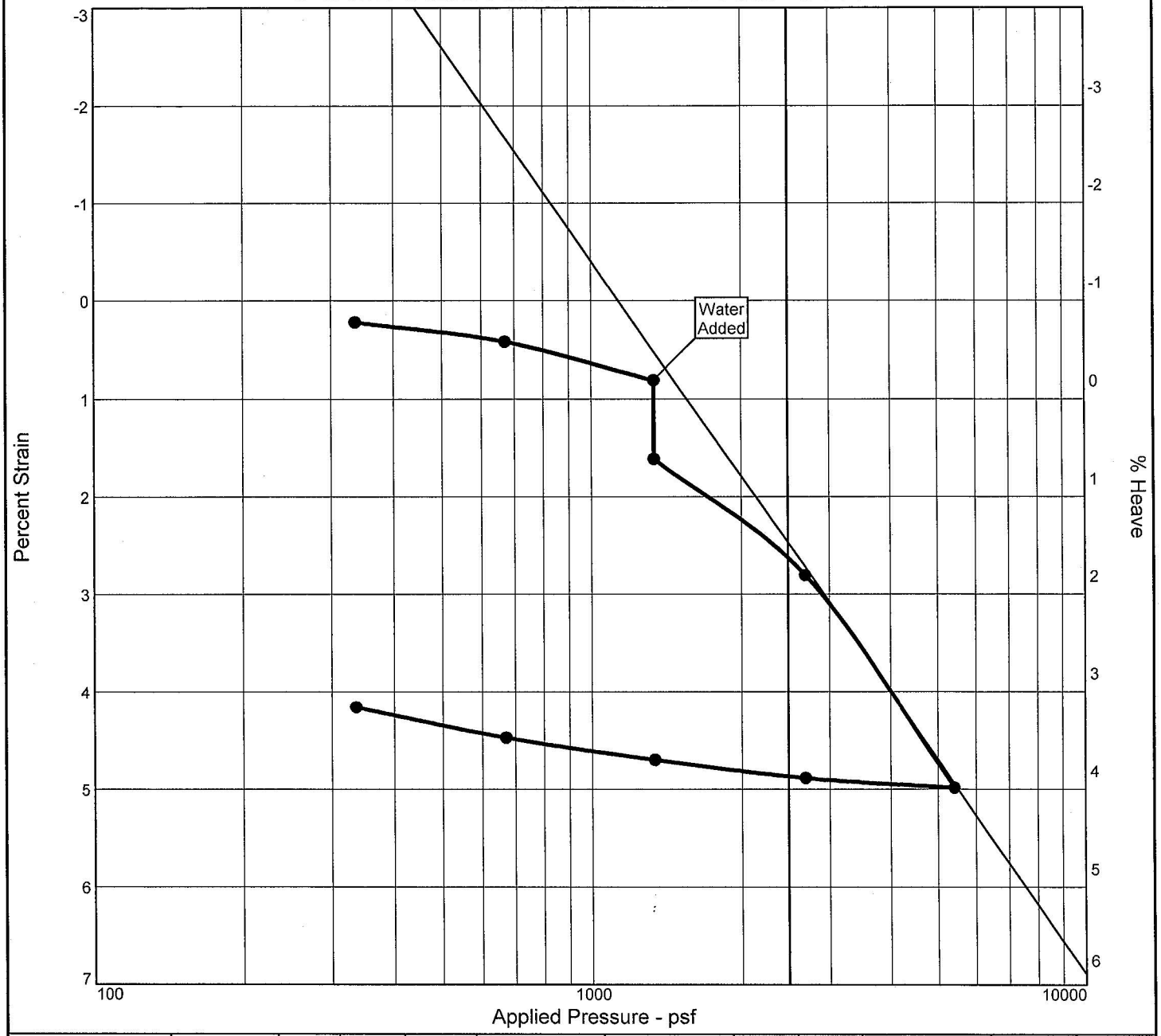
Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Project No.: 17523

Figure A-13

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_s	Swell Press. (psf)	Heave %	e_o
Sat.	Moist.											
46.6 %	9.9 %	105.9	N/A	N/A	2.65	336	2667	0.11	0.01		-0.8	0.562

MATERIAL DESCRIPTION	USCS	AASHTO
SILTY SAND	SM	N/A

Project No. 17523 **Client:** Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Source of Sample: B-2 **Depth:** 3'

Remarks:

Test Date: 03/12/20

Sample No: 73306

SOILS ENGINEERING, INC.

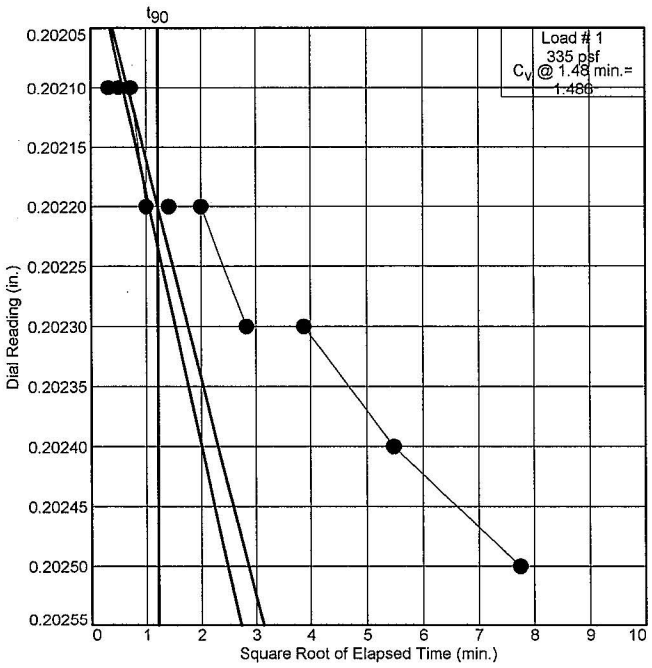
Figure B-1

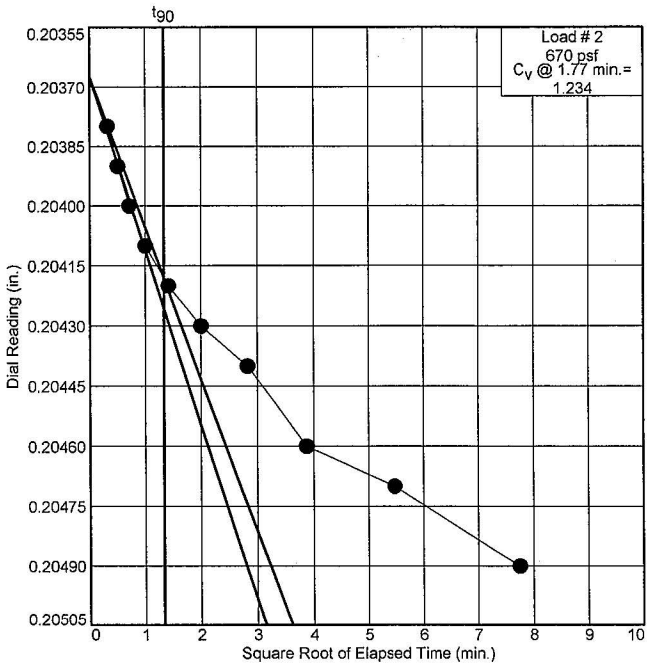
Tested By: CE **Checked By:** AL

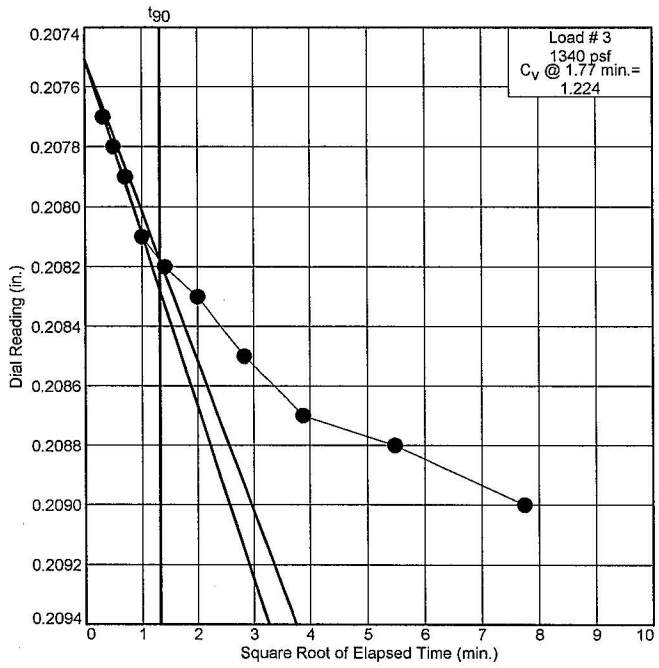
Dial Reading vs. Time

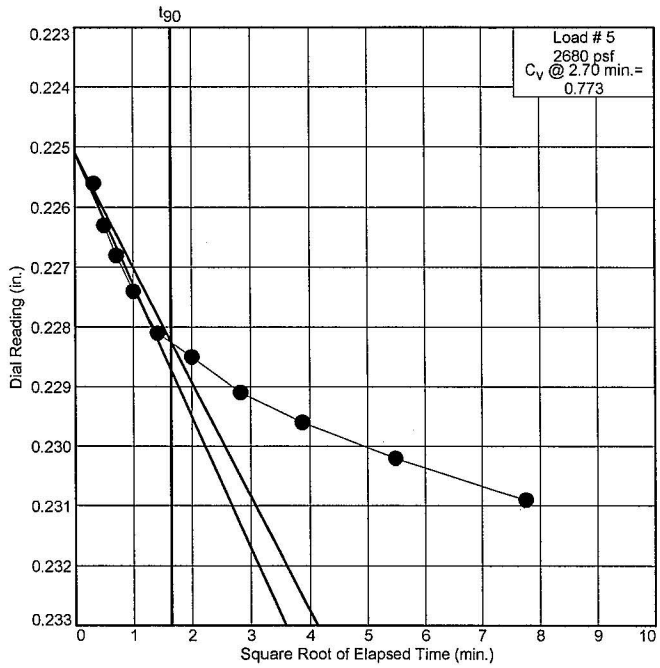
Project No.: 17523
Project: Blue Water Resources, LLC

Source of Sample: B-2 Depth: 3'









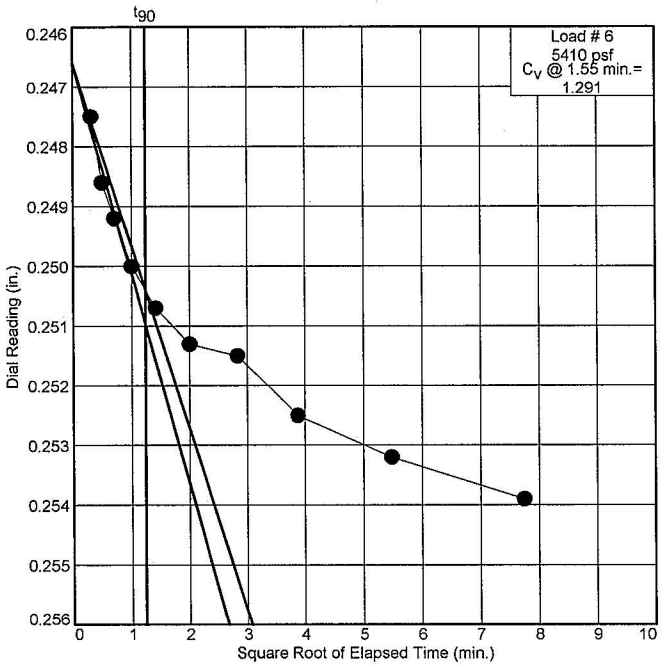
SOILS ENGINEERING, INC.

Figure B-1

Dial Reading vs. Time

Project No.: 17523
Project: Blue Water Resources, LLC

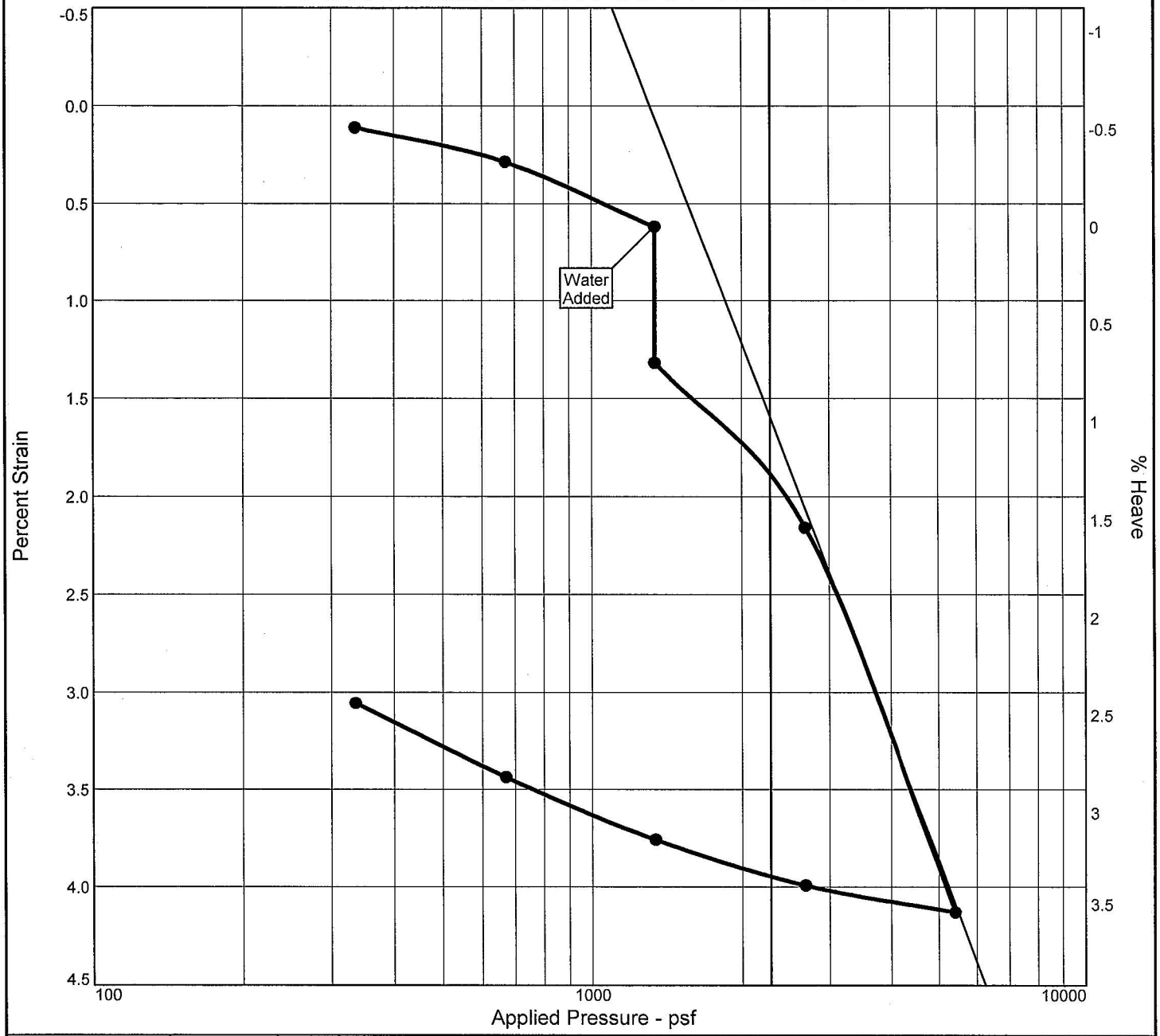
Source of Sample: B-2 Depth: 3'



SOILS ENGINEERING, INC.

Figure B-1

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_s	Swell Press. (psf)	Heave %	e_o
Sat.	Moist.											
49.1 %	10.3 %	106.3	N/A	N/A	2.65	336	2603	0.10	0.01		-0.7	0.556

MATERIAL DESCRIPTION	USCS	AASHTO
SILTY SAND	SM	N/A

Project No. 17523 **Client:** Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Source of Sample: B-6 **Depth:** 3'

Remarks:

Test Date: 03/12/20

Sample No: 73324

SOILS ENGINEERING, INC.

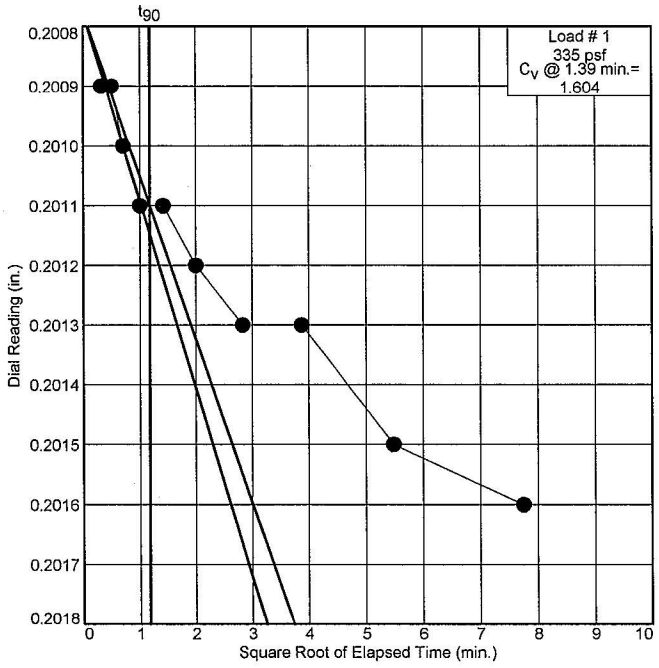
Figure B-2

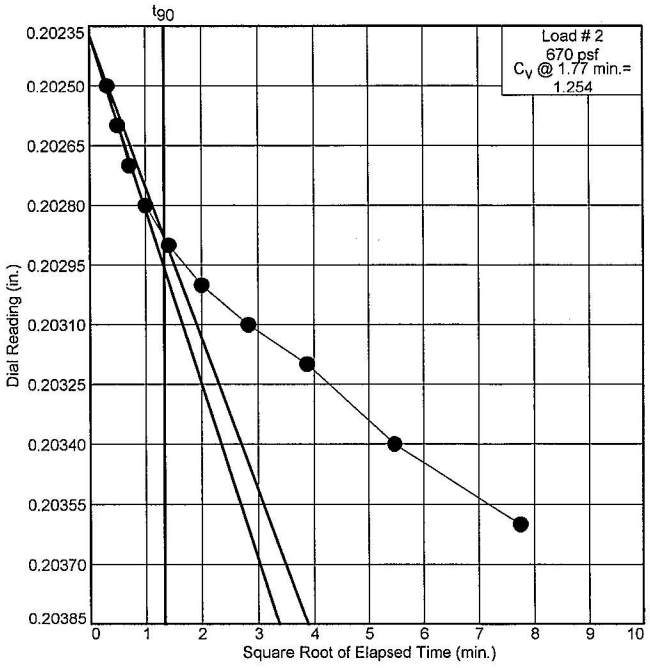
Tested By: CE **Checked By:** AL

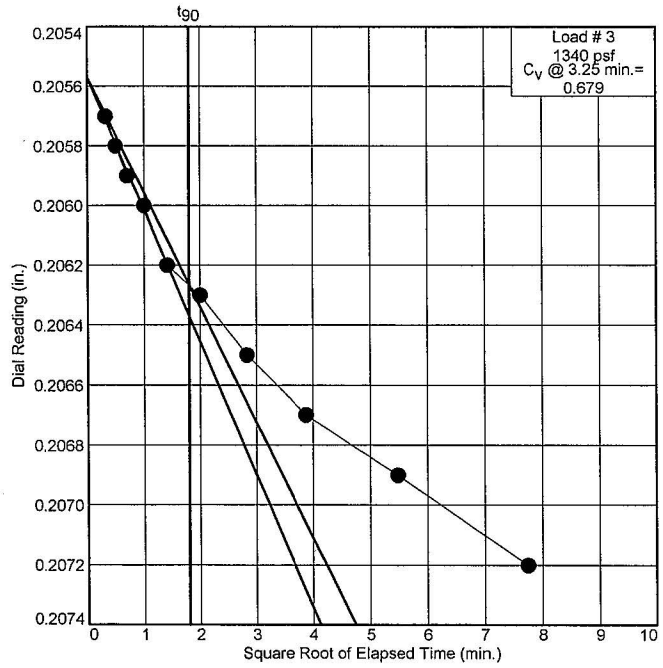
Dial Reading vs. Time

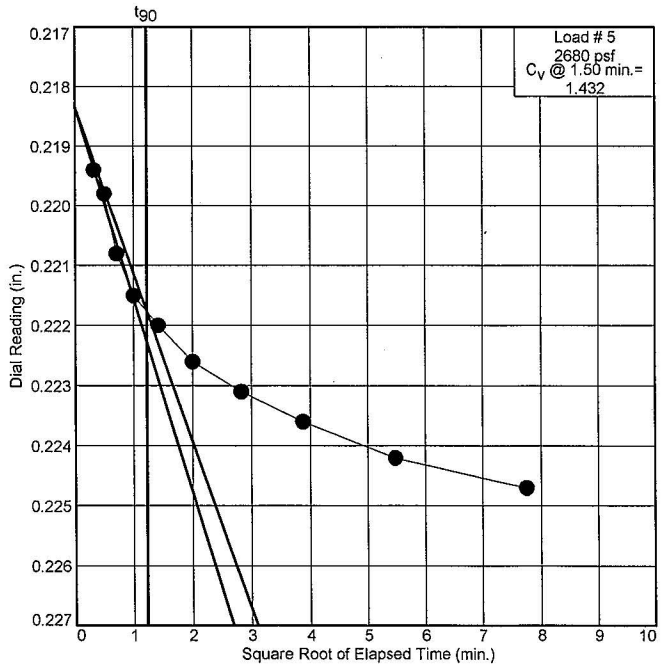
Project No.: 17523
Project: Blue Water Resources, LLC

Source of Sample: B-6 Depth: 3'









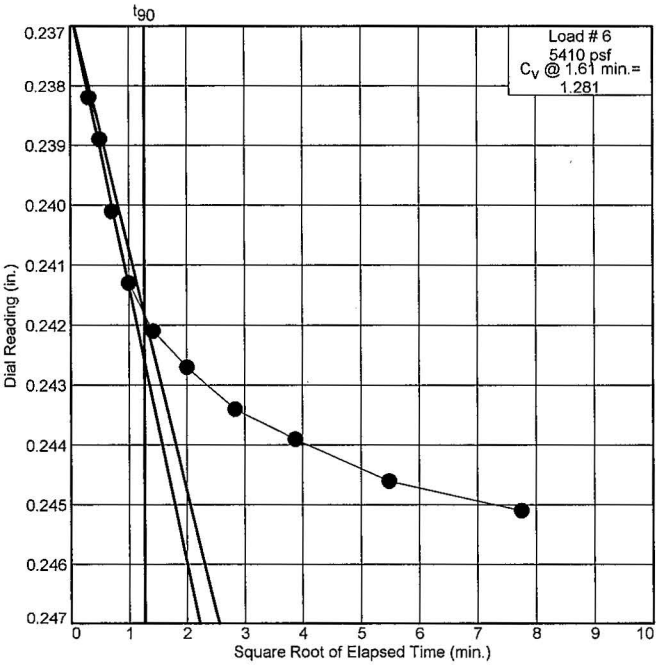
SOILS ENGINEERING, INC.

Figure B-2

Dial Reading vs. Time

Project No.: 17523
Project: Blue Water Resources, LLC

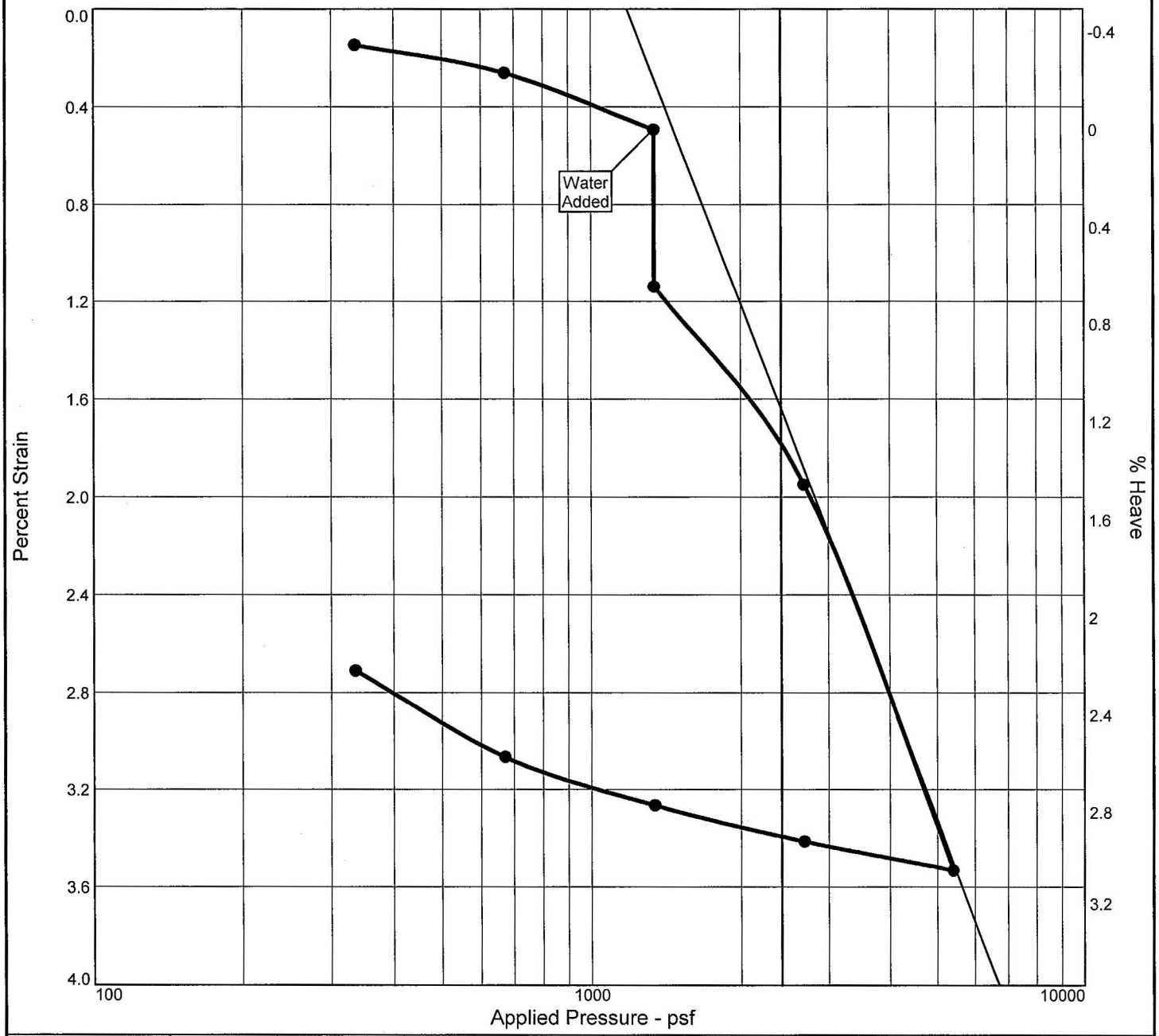
Source of Sample: B-6 Depth: 3'



SOILS ENGINEERING, INC.

Figure B-2

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_s	Swell Press. (psf)	Heave %	e_o
Sat.	Moist.											
43.7 %	9.2 %	106.1	N/A	N/A	2.65	336	2640	0.08	0.01		-0.6	0.559

MATERIAL DESCRIPTION	USCS	AASHTO
SANDY SILT	ML	N/A

Project No. 17523 **Client:** Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Source of Sample: B-9 **Depth:** 3'

Remarks:

Test Date: 03/12/20

Sample No: 73339

SOILS ENGINEERING, INC.

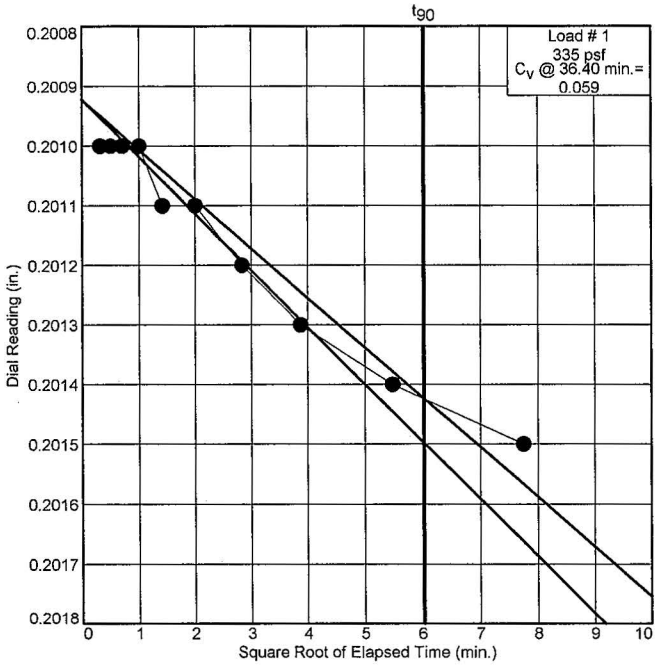
Figure B-3

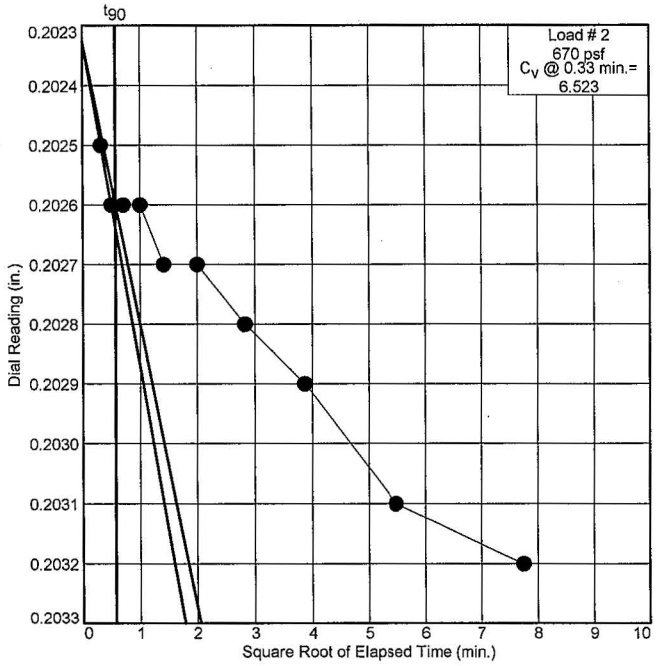
Tested By: CE **Checked By:** AL

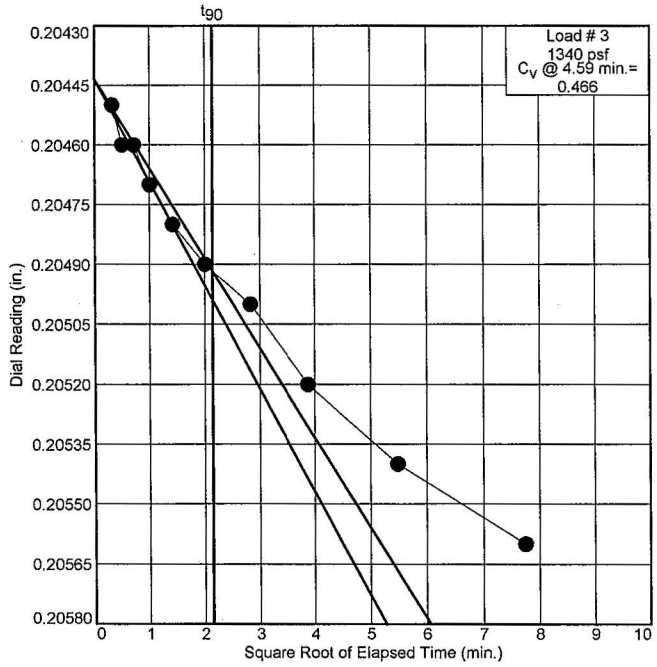
Dial Reading vs. Time

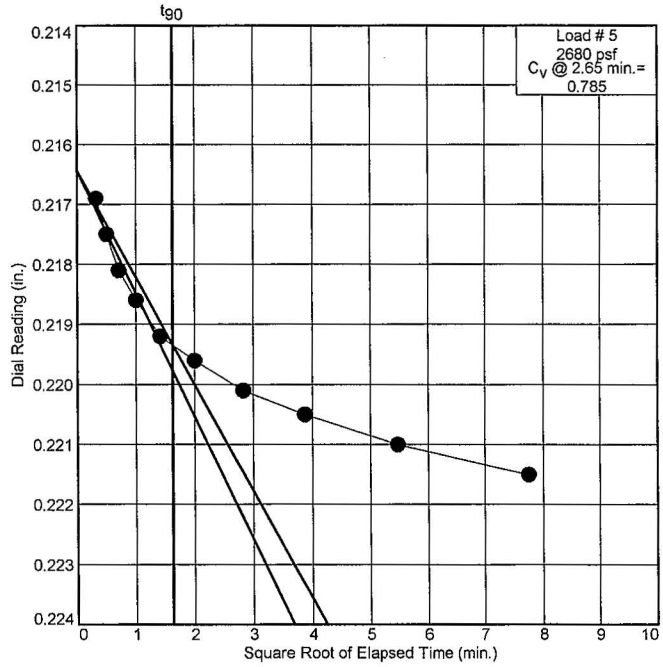
Project No.: 17523
Project: Blue Water Resources, LLC

Source of Sample: B-9 Depth: 3'









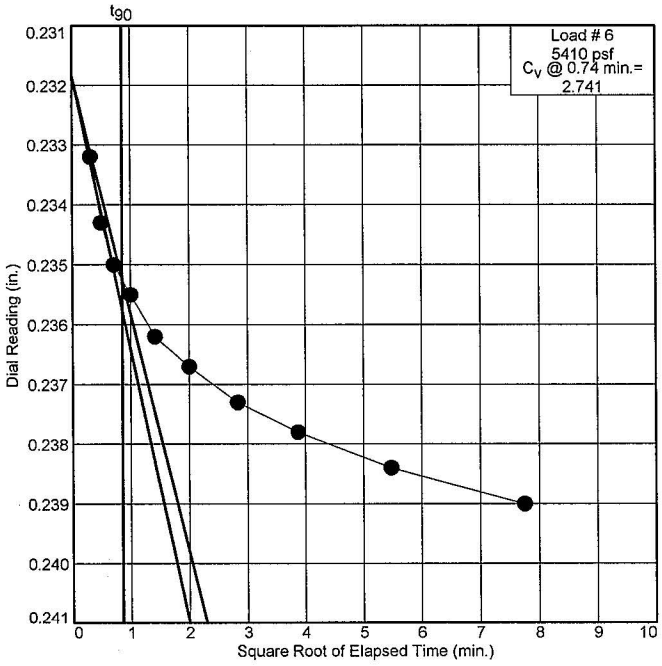
SOILS ENGINEERING, INC.

Figure B-3

Dial Reading vs. Time

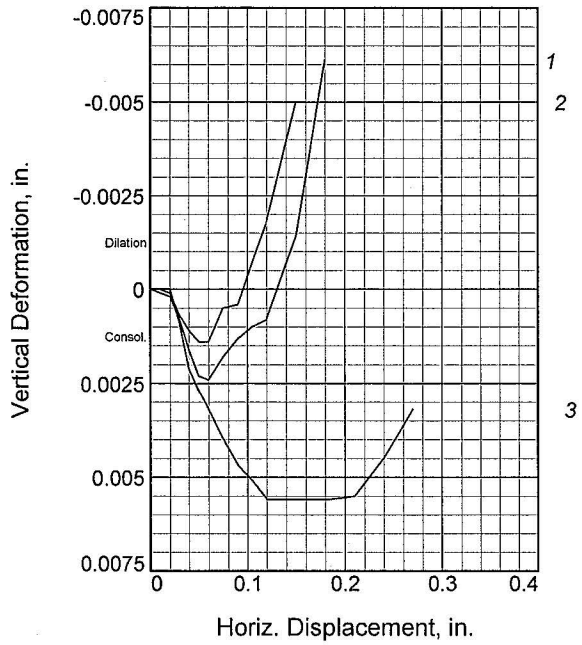
Project No.: 17523
Project: Blue Water Resources, LLC

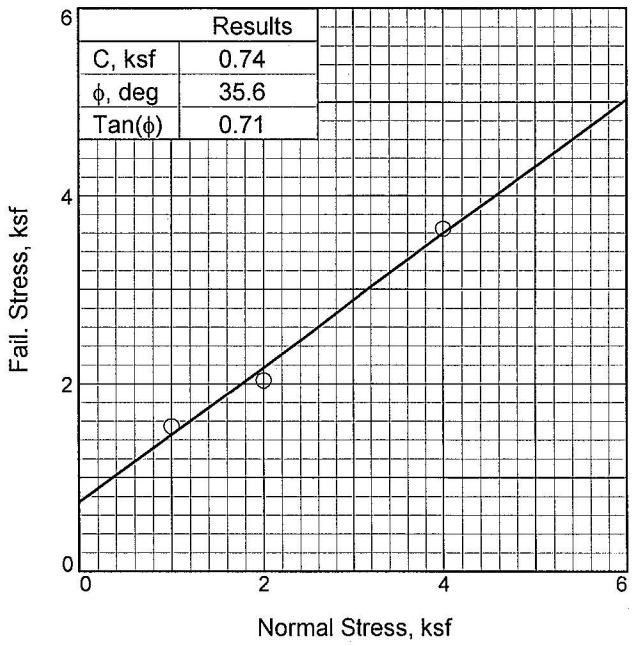
Source of Sample: B-9 Depth: 3'

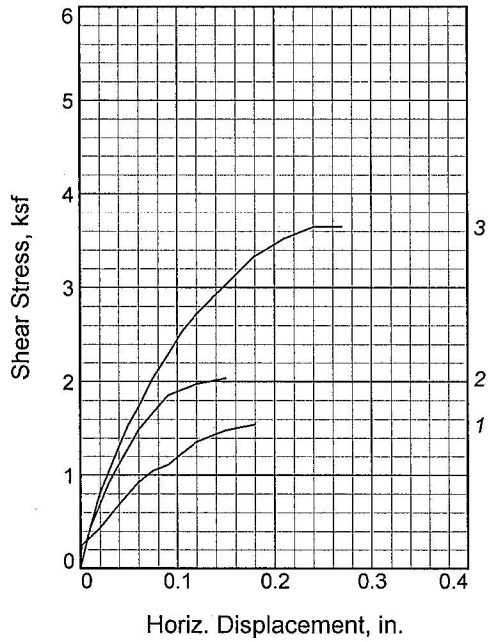


SOILS ENGINEERING, INC.

Figure B-3







Sample No.		1	2	3
Initial	Water Content, %	11.3	11.4	11.6
	Dry Density, pcf	114.1	115.1	114.5
	Saturation, %	66.6	69.2	69.3
	Void Ratio	0.4498	0.4378	0.4454
	Diameter, in.	2.38	2.38	2.38
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	15.4	15.2	15.4
	Dry Density, pcf	114.1	115.1	114.5
	Saturation, %	91.0	91.8	91.6
	Void Ratio	0.4498	0.4378	0.4454
	Diameter, in.	2.38	2.38	2.38
	Height, in.	1.00	1.00	1.00
Normal Stress, ksf		1.00	2.00	4.00
Fail. Stress, ksf		1.54	2.04	3.64
Displacement, in.		0.18	0.15	0.24
Ult. Stress, ksf				
Displacement, in.				
Strain rate, in./min.		N/A	N/A	N/A

Sample Type: 2.5" x 6" TUBE
Description: SANDY SILT; light brown, fine, cohesive, with low to medium plasticity clay, fine
LL= N/A **PI=** N/A
Assumed Specific Gravity= 2.65
Remarks: Test Date: 03/11/20

Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Source of Sample: B-1 **Depth:** 3'

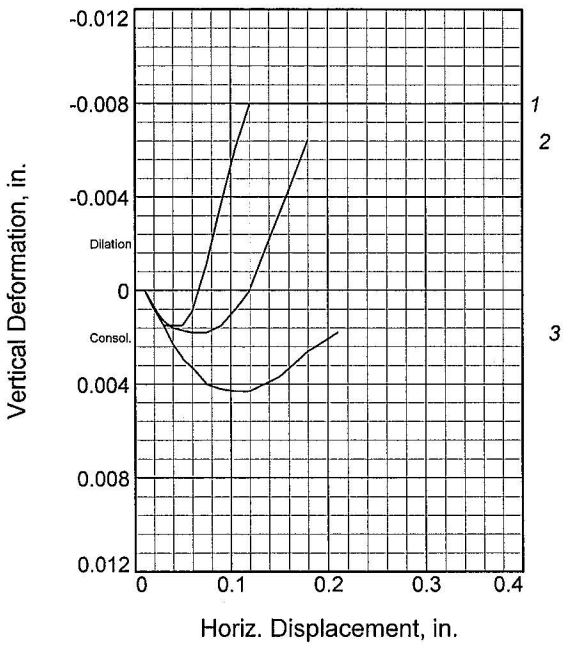
Proj. No.: 17523 **Date Sampled:** 2/26/2020

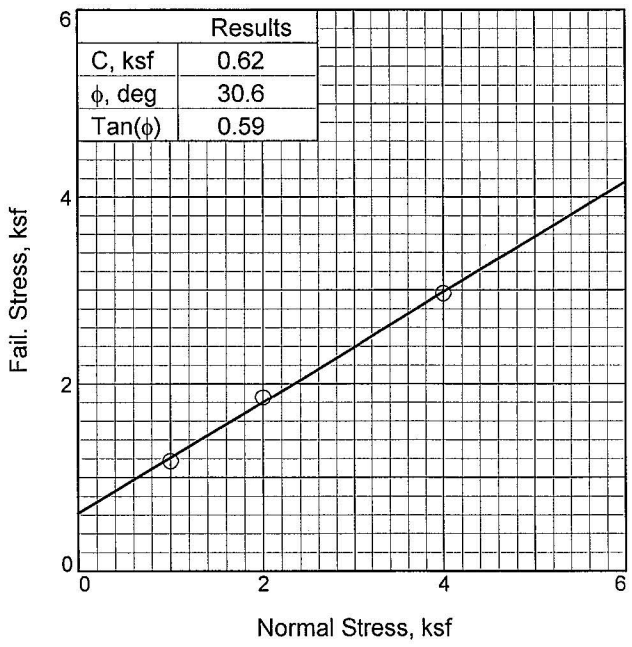
DIRECT SHEAR TEST REPORT

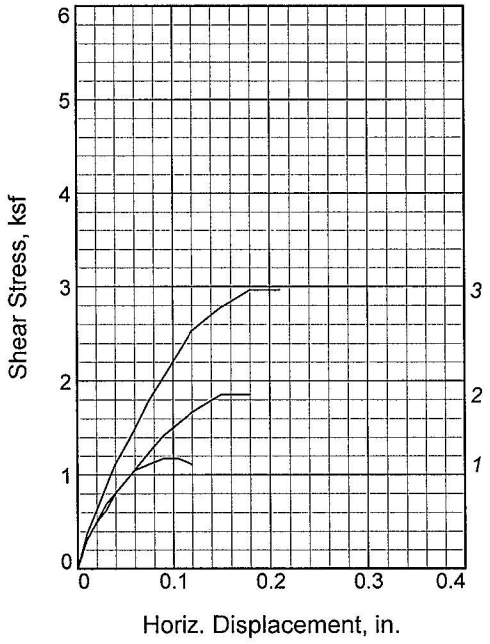
SOILS ENGINEERING, INC.

Figure C-1

Tested By: CE







Sample No.		1	2	3
Initial	Water Content, %	11.2	9.9	10.7
	Dry Density, pcf	109.8	111.5	112.8
	Saturation, %	58.6	54.1	60.6
	Void Ratio	0.5065	0.4833	0.4663
	Diameter, in.	2.38	2.38	2.38
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	17.7	15.1	15.1
	Dry Density, pcf	109.8	111.5	112.8
	Saturation, %	92.6	82.9	85.8
	Void Ratio	0.5065	0.4833	0.4663
	Diameter, in.	2.38	2.38	2.38
	Height, in.	1.00	1.00	1.00
Normal Stress, ksf		1.00	2.00	4.00
Fail. Stress, ksf		1.17	1.85	2.96
Displacement, in.		0.09	0.15	0.18
Ult. Stress, ksf				
Displacement, in.				
Strain rate, in./min.		N/A	N/A	N/A

Sample Type: 2.5" x 6" TUBE
Description: SANDY SILT; olive brown, fine, Very stiff, with low plasticity clay.
LL= N/A **PI=** N/A
Assumed Specific Gravity= 2.65
Remarks: Test Date: 03/16/20

Figure C-2

Client: Blue Water Resources, LLC

Project: Blue Water Resources, LLC

Source of Sample: B-8 **Depth:** 3'

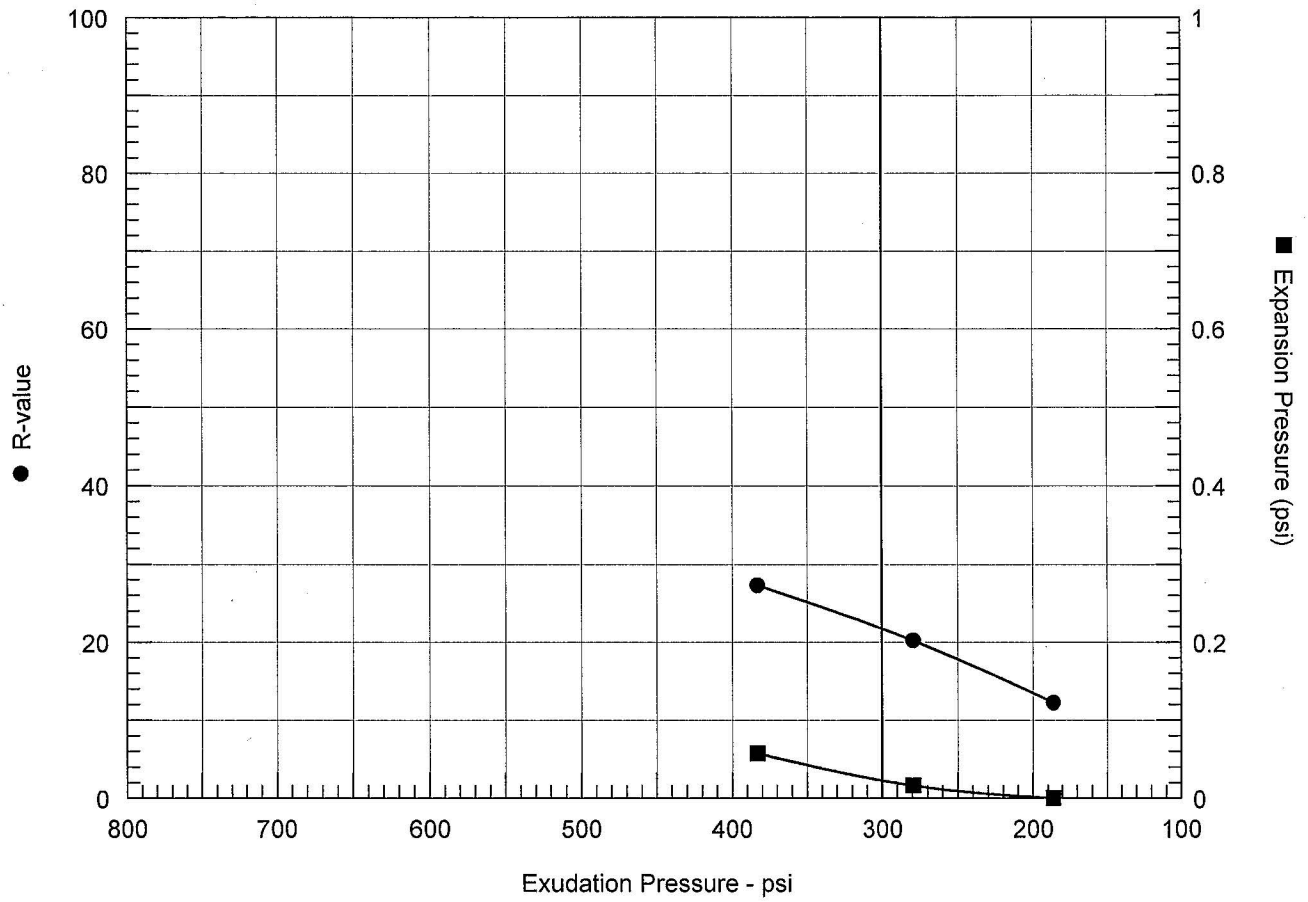
Proj. No.: 17523 **Date Sampled:** 2/26/2020

DIRECT SHEAR TEST REPORT

SOILS ENGINEERING, INC.

Tested By: CE **Checked By:** AL

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	180	121.9	12.0	0.06	91	2.48	383	27	27
2	80	120.1	13.1	0.02	106	2.49	280	20	20
3	50	116.9	14.2	0.00	122	2.54	186	12	12

Test Results	Material Description
R-value at 300 psi exudation pressure = 22 **Exp. pressure at 300 psi exudation pressure =** 0.02 psi	SILTY SAND; dark brown, with medium plasticity clay, fine.

Project No.: 17523
Project: Blue Water Resources, LLC
Location: R-1 @ 0-5'
Sample Number: 73348 **Depth:** 0-5'
Date: 3/31/2020

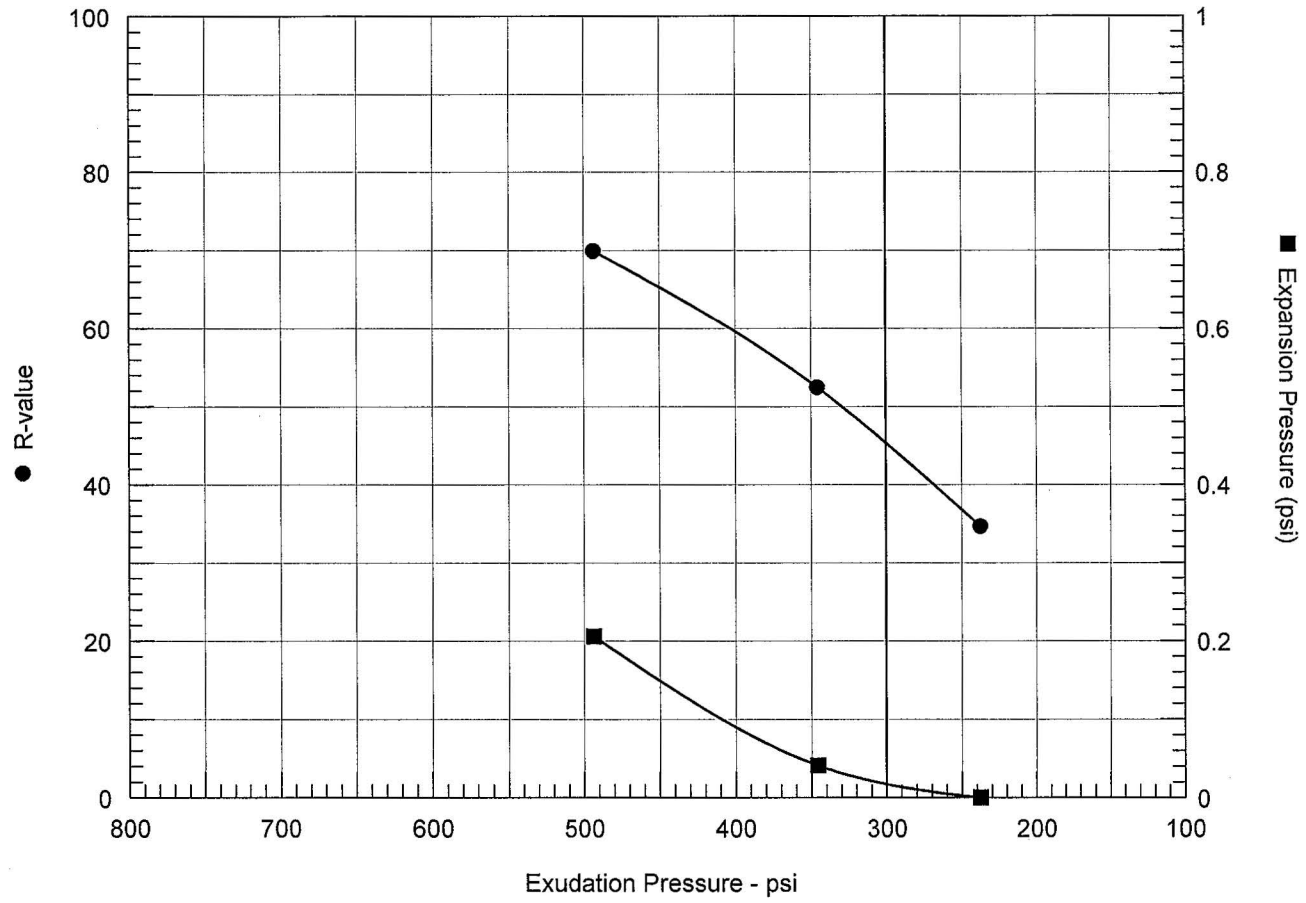
Tested by: RG
Checked by: AL
Remarks:
Test Date: 3/23/2020

R-VALUE TEST REPORT

SOILS ENGINEERING, INC.

Figure D-1

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	260	128.1	8.6	0.21	28	2.44	493	71	70
2	230	125.8	9.7	0.04	48	2.43	346	54	52
3	130	123.3	10.8	0.00	72	2.47	238	35	35

Test Results	Material Description
R-value at 300 psi exudation pressure = 45 **Exp. pressure at 300 psi exudation pressure =** 0.02 psi	SILTY SAND; dark brown, with medium plasticity clay, fine.

Project No.: 17523
Project: Blue Water Resources, LLC
Location: R-2 @ 0-5'
Sample Number: 73349 **Depth:** 0-5'
Date: 3/31/2020

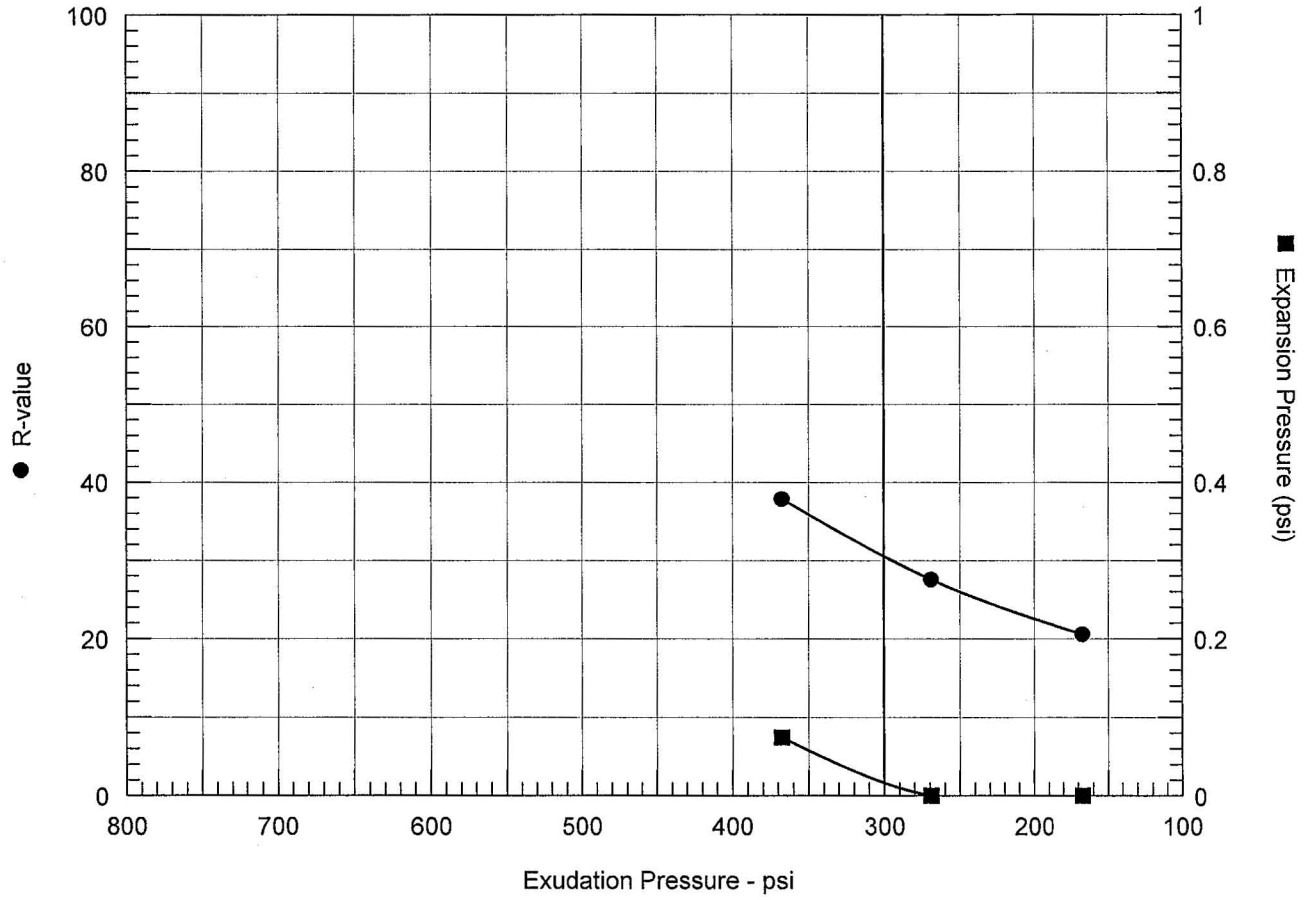
Tested by: RG
Checked by: AL
Remarks:
Test Date: 03/23/20

R-VALUE TEST REPORT

SOILS ENGINEERING, INC.

Figure D-2

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	220	124.5	10.9	0.07	69	2.43	367	40	38
2	190	122.3	11.9	0.00	88	2.43	269	29	28
3	60	121.3	13.0	0.00	103	2.48	167	21	21

Test Results	Material Description
R-value at 300 psi exudation pressure = 31 **Exp. pressure at 300 psi exudation pressure =** 0.02 psi	SILTY SAND; dark brown, with medium plasticity clay, fine, trace of gravel.

Project No.: 17523
Project: Blue Water Resources, LLC
Location: R-3 @ 0-5'
Sample Number: 73350 **Depth:** 0-5'
Date: 3/31/2020

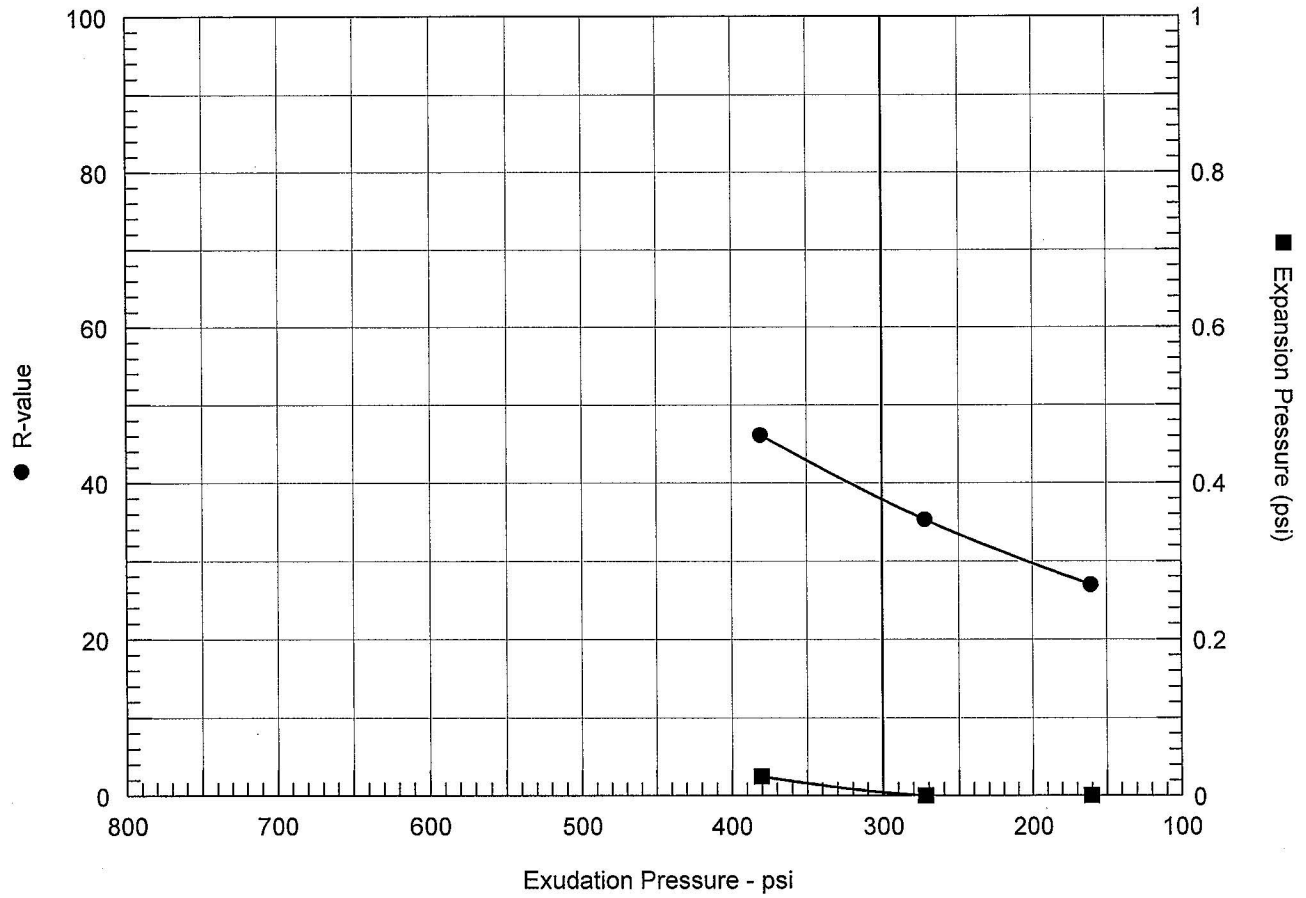
Tested by: RG
Checked by: AL
Remarks:
Test Date: 03/23/20

R-VALUE TEST REPORT

SOILS ENGINEERING, INC.

Figure D-3

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	200	125.8	9.9	0.02	56	2.44	380	48	46
2	120	123.2	11.0	0.00	72	2.47	272	35	35
3	60	122.6	12.1	0.00	88	2.57	160	26	27

Test Results	Material Description
R-value at 300 psi exudation pressure = 38 **Exp. pressure at 300 psi exudation pressure =** 0.00 psi	SILTY SAND; dark brown, with medium plasticity clay, fine.

Project No.: 17523
Project: Blue Water Resources, LLC
Location: R-4 @ 0-5'
Sample Number: 73351 **Depth:** 0-5'
Date: 3/31/2020

Tested by: RG
Checked by: AL
Remarks:
Test Date: 03/23/20

R-VALUE TEST REPORT

SOILS ENGINEERING, INC.

Figure D-4

APPENDIX D

SEISMIC INVESTIGATION

SEISMIC DESIGN INFORMATION
SEAOC Design Map Summary and Detail Report

EQFAULT
Version 3.00

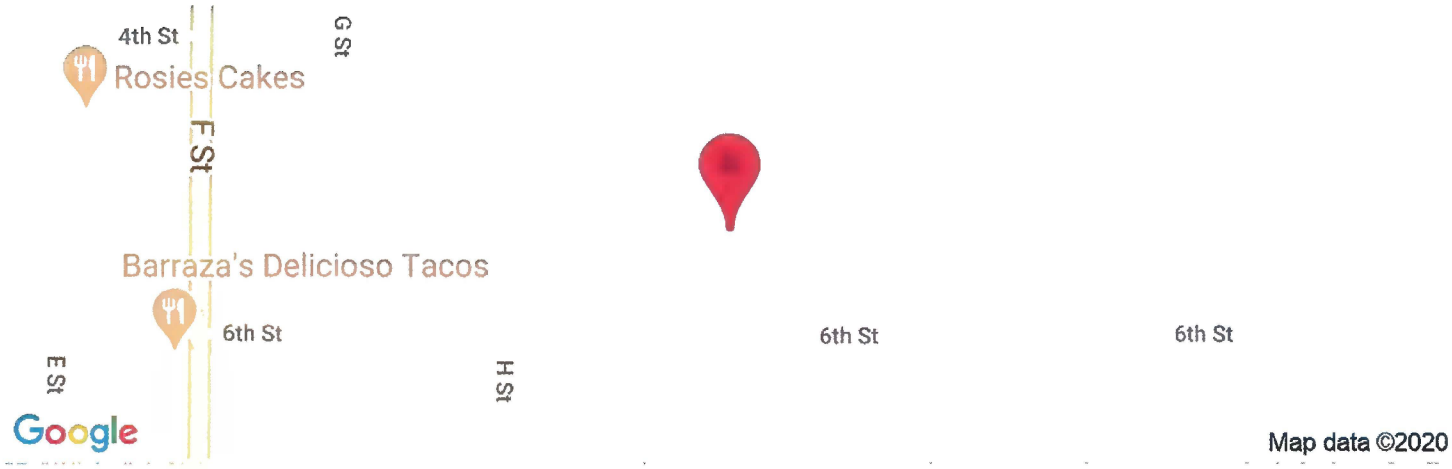
California Fault Map

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Blue Water Resources

591 J St, Wasco, CA 93280, USA

Latitude, Longitude: 35.5963628, -119.3287553



Date	3/30/2020, 9:57:49 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.809	MCE_R ground motion. (for 0.2 second period)
S_1	0.305	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.952	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8 0.595	Site-modified spectral acceleration value
S_{DS}	0.634	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8 0.397	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.176	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8 1.95	Site amplification factor at 1.0 second
PGA	0.354	MCE_G peak ground acceleration
F_{PGA}	1.246	Site amplification factor at PGA
PGA_M	0.441	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	0.809	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.877	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.305	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.332	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.923	Mapped value of the risk coefficient at short periods
C_{R1}	0.919	Mapped value of the risk coefficient at a period of 1 s

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**********************
*                    *
*    E Q F A U L T   *
*                    *
*    Version 3.00    *
*                    *
**********************
```

DETERMINISTIC ESTIMATION OF
PEAK ACCELERATION FROM DIGITIZED FAULTS

JOB NUMBER: 17523

DATE: 03-30-2020

JOB NAME: Blue Water Resources

CALCULATION NAME: Test Run Analysis

FAULT-DATA-FILE NAME: CGSFLTE.DAT

SITE COORDINATES:
SITE LATITUDE: 35.5963
SITE LONGITUDE: 119.3295

SEARCH RADIUS: 100 mi

ATTENUATION RELATION: 3) Boore et al. (1997) Horiz. - NEHRP D (250)
UNCERTAINTY (M=Median, S=Sigma): M Number of Sigmas: 0.0
DISTANCE MEASURE: cd_2drp
SCOND: 0
Basement Depth: 5.00 km Campbell SSR: Campbell SHR:
COMPUTE PEAK HORIZONTAL ACCELERATION

FAULT-DATA FILE USED: CGSFLTE.DAT

MINIMUM DEPTH VALUE (km): 0.0

EQFAULT SUMMARY

DETERMINISTIC SITE PARAMETERS

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT: MAXIMUM EARTHQUAKE MAG.(Mw)	ESTIMATED MAX. EARTHQUAKE EVENT: PEAK SITE ACCEL. g	ESTIMATED MAX. EARTHQUAKE EVENT: EST. SITE INTENSITY MOD.MERC.
Kern Front	8.5(13.6)	6.3	0.244	IX
SAN ANDREAS - Whole M-1a	35.6(57.3)	8.0	0.170	VIII
SAN ANDREAS - Cho-Moj M-1b-1	35.6(57.3)	7.8	0.153	VIII
SAN ANDREAS - 1857 Rupture M-2a	35.6(57.3)	7.8	0.153	VIII
SAN ANDREAS - Carrizo M-1c-2	35.6(57.3)	7.4	0.124	VII
SAN ANDREAS - Cholame M-1c-1	35.9(57.8)	7.3	0.117	VII
WHITE WOLF	37.7(60.6)	7.3	0.137	VIII
PLEITO THRUST	43.6(70.2)	7.0	0.104	VII
GREAT VALLEY 14	44.6(71.8)	6.4	0.075	VII
SAN JUAN	46.9(75.5)	7.1	0.085	VII
SAN ANDREAS - Parkfield	55.6(89.4)	6.5	0.055	VI
BIG PINE	56.5(91.0)	6.9	0.066	VI
GARLOCK (West)	58.2(93.6)	7.3	0.080	VII
GREAT VALLEY 13	59.5(95.7)	6.5	0.063	VI
SAN GABRIEL	66.1(106.3)	7.2	0.069	VI
SAN LUIS RANGE (S. Margin)	66.4(106.8)	7.2	0.084	VII
RINCONADA	69.2(111.4)	7.5	0.078	VII
LOS OSOS	71.3(114.8)	7.0	0.071	VI
NORTH CHANNEL SLOPE	72.1(116.0)	7.4	0.087	VII
SANTA YNEZ (East)	73.6(118.4)	7.1	0.060	VI
M.RIDGE-ARROYO PARIDA-SANTA ANA	74.3(119.5)	7.2	0.077	VII
SAN ANDREAS (Creeping)	74.6(120.1)	6.2	0.037	V
So. SIERRA NEVADA	75.1(120.8)	7.3	0.080	VII
SANTA YNEZ (West)	75.4(121.3)	7.1	0.059	VI
SAN CAYETANO	75.7(121.8)	7.0	0.068	VI
GARLOCK (East)	76.5(123.1)	7.5	0.072	VI
GREAT VALLEY 12	76.9(123.8)	6.3	0.046	VI
SAN ANDREAS - Mojave M-1c-3	77.3(124.4)	7.4	0.068	VI

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LOS ALAMOS-W. BASELINE	77.7(125.0)	6.9	0.063	VI
LIONS HEAD	78.8(126.8)	6.6	0.053	VI
CASMALIA (Orcutt Frontal Fault)	79.3(127.6)	6.5	0.050	VI
RED MOUNTAIN	79.8(128.4)	7.0	0.065	VI
LITTLE LAKE	84.3(135.6)	6.9	0.049	VI
VENTURA - PITAS POINT	85.3(137.2)	6.9	0.059	VI
OWENS VALLEY	86.0(138.4)	7.6	0.069	VI
SANTA SUSANA	86.3(138.9)	6.7	0.052	VI
HOLSER	86.3(138.9)	6.5	0.047	VI
OAK RIDGE MID-CHANNEL STRUCTURE	87.3(140.5)	6.6	0.049	VI
OAK RIDGE (Onshore)	87.5(140.8)	7.0	0.061	VI
GREAT VALLEY 11	88.2(141.9)	6.4	0.044	VI

DETERMINISTIC SITE PARAMETERS

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT: MAXIMUM EARTHQUAKE MAG.(Mw)	ESTIMATED MAX. EARTHQUAKE EVENT: PEAK SITE ACCEL. g	ESTIMATED MAX. EARTHQUAKE EVENT: EST. SITE INTENSITY MOD.MERC.
NORTHRIDGE (E. Oak Ridge)	89.5(144.0)	7.0	0.060	VI
SIMI-SANTA ROSA	90.3(145.3)	7.0	0.059	VI
CHANNEL IS. THRUST (Eastern)	91.7(147.5)	7.5	0.076	VII
LENWOOD-LOCKHART-OLD WOMAN SPRGS	91.8(147.8)	7.5	0.063	VI
HOSGRI	92.8(149.4)	7.5	0.062	VI
INDEPENDENCE	93.0(149.7)	7.1	0.061	VI
SIERRA MADRE (San Fernando)	94.2(151.6)	6.7	0.049	VI
OAK RIDGE(Blind Thrust Offshore)	98.4(158.3)	7.1	0.058	VI
ANACAPA-DUME	99.0(159.4)	7.5	0.072	VI

****

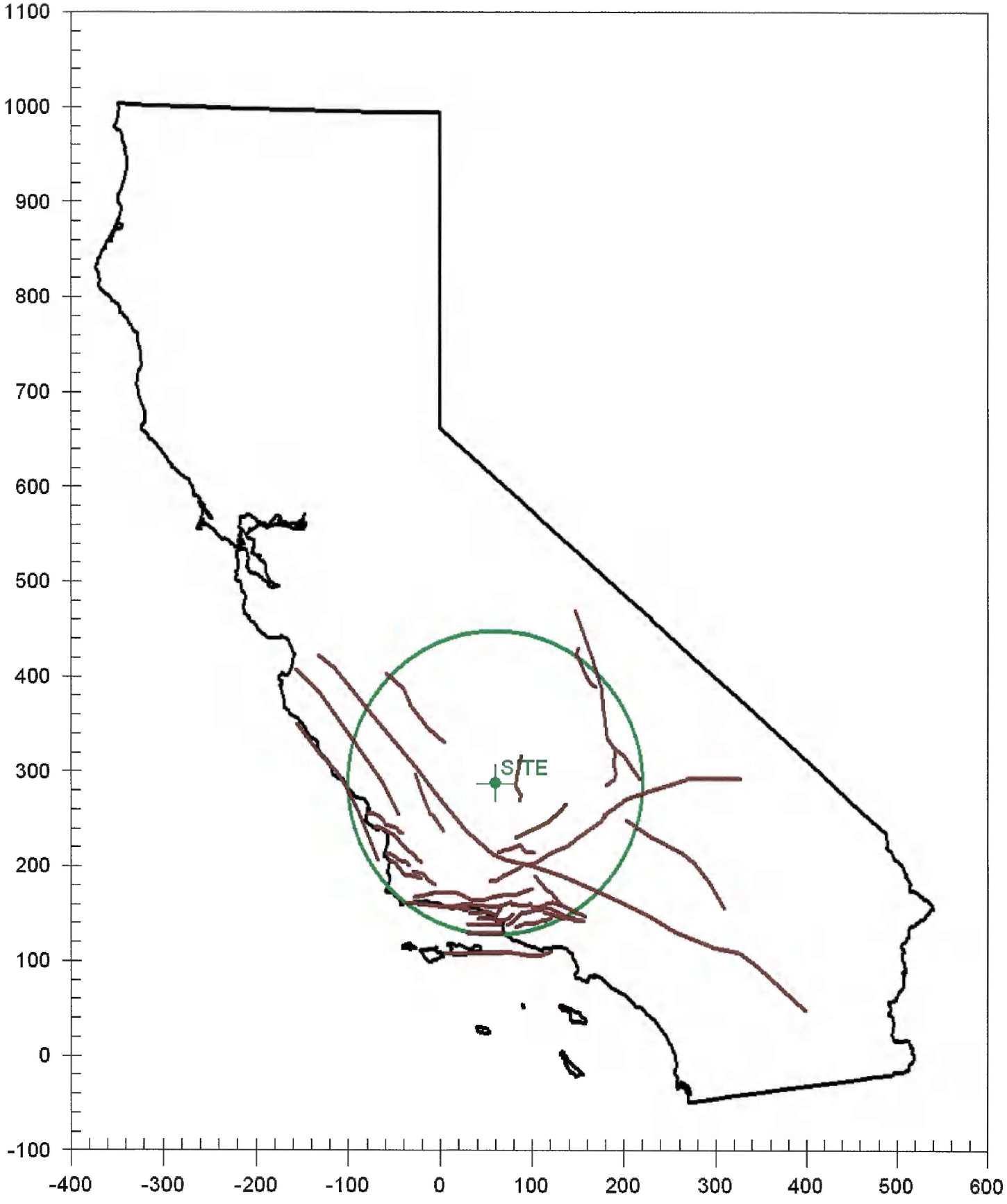
-END OF SEARCH- 49 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.

THE Kern Front FAULT IS CLOSEST TO THE SITE.
IT IS ABOUT 8.5 MILES (13.6 km) AWAY.

LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.2437 g

CALIFORNIA FAULT MAP

Blue Water Resources



APPENDIX C
HAZARD BUSINESS PLAN & CONSOLIDATED CONTINGENCY PLAN

BlueWater
Wasco, California

Draft Copy

Hazardous Material Business Plan

and

Consolidated Contingency Plan

Kern County Environmental Health Services
(661) 862-8700

ID#_____
Business Name:_____ **Map** _____
Grid_____

DO NOT WRITE IN THIS BOX

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HAZARDOUS MATERIALS BUSINESS PLAN FORM 2

SECTION 1: BUSINESS IDENTIFICATION DATA

A. **FULL LEGAL BUSINESS NAME: BlueWater Resources.LLC**

B. **PHYSICAL LOCATION / STREET ADDRESS:** 591 J Street
CITY: Wasco,CA. **ZIP:** 93280 **BUSINESS PHONE:** (661)

C. **MAILING ADDRESS:** 591 J Street
CITY: Wasco,CA **ZIP:** 93280

D. Have you filed a Business Plan with the Department under a different name within the last two years? YES_____ NO ___**X**___
If yes, under what name did you file? _____

E. This submission is a NEW ____X or REVISED __ business plan.

F. Does your business handle any "Acutely Hazardous Materials" listed on the enclosed handout, in addition to other types of materials?
YES __**X**__ NO_____

SECTION 2: EMERGENCY NOTIFICATIONS

In the event of an emergency involving the release or threatened release of a hazardous material, telephone **9-1-1** and then **(800) 852-7550** or **(916) 262-1621**. This will notify the Kern County Fire Department and the State Office of Emergency Services as required by State law. Additional federal reporting may be required.

PERSONS WHO SHOULD BE NOTIFIED IN CASE OF EMERGENCY THAT HAVE FULL ACCESS AND CAN PROVIDE TECHNICAL ASSISTANCE:

NAME AND TITLE	DURING BUSINESS HOURS	AFTER BUSINESS HOURS
Dundee Kelbel	(661) XXX-XXXX	(520) 971-4102 (Cellular)
Donnie Williams	(661) XXX-XXXX	(661) 447-1347 (Cellular)

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SECTION 3: LOCATION OF MAIN UTILITY SHUTOFFS FOR THE ENTIRE BUSINESS

Operations personnel will shut down all pertinent main utility controls at the facility in case of a fire or other emergency condition that may occur.

UTILITY CONTROL	*LOCATION*
NATURAL GAS/PROPANE	South side of facility
ELECTRICAL	Northeast side of facility
WATER	West side of facility
SPECIAL/OTHER	None

	Site Plans YES **NO**	SDS **YES** NO
	Floor Plans YES **NO**	Keys **YES** NO

SECTION 4: PRIVATE RESPONSE TEAM DESCRIPTION

Do you have a group of employees trained to handle minor accidents involving hazardous materials? YES __X__ NO _____

If yes, explain the level of training and equipment they posses and how they are notified to respond.

In the event of a hazardous material incident, appropriate company supervisory personnel shall be notified. Upon notification, the Plant Manager or his designee will investigate the incident and take appropriate **defensive action** to contain the spill. Safe containment to avoid damage to life, environment, and property is of primary importance. Operations personnel receive training (initial and refresher) in fire protection, fire control, accident prevention, safety, and first aid in accordance with Operation and Maintenance Inc.'s "Safety Policy - General Safety Rules", "Fire Protection Manual", and "First Aid and CPR". Hazardous Waste Operations and Emergency Response (HAZWOPER) annual refresher training is provided in accordance with 29 CFR 1910.120.

A list of emergency response equipment available at Mojave is included as Attachment A of the Hazardous Waste Contingency Plan.

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SECTION 5: IDENTIFICATION OF THE CLOSEST APPROPRIATE EMERGENCY MEDICAL ASSISTANCE AVAILABLE

Name: Wasco Medical Plaza and Urgent Care
Address: 2300 7th St
City: Wasco, CA. 93280
Telephone: (661) 758-4184

SECTION 6: EMPLOYEE TRAINING

Employers are required by State law to have a program that provides employees with initial and refresher training.

A. TRAINING PROVIDED INCLUDES:

1) Methods for safe handling of the hazardous materials used by Wasco;
2) The CAL OSHA Hazard Communication Standard;
3) HAZWOPER Training (Incident Commander level);
4) Correct use of emergency response equipment and supplies available at Wasco;

5) The prevention, minimization, and cleanup procedures developed for BlueWater and explained on the business plan forms;
6) The emergency evacuation plan BlueWater has developed, the notification procedures used to alert people to evacuate, and the closest location to obtain appropriate emergency medical care;
7) Procedures to coordinate with and assist the local emergency personnel that may respond to BlueWater;
8) Who and how to call for immediate assistance in the event of an accident involving hazardous materials.

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B. DESCRIBE THE LOCATION OF THE WRITTEN PLAN AND THE TRAINING RECORDS WHICH ARE REQUIRED TO BE DEVELOPED AND MAINTAINED. STATE LAW REQUIRES THAT YOUR TRAINING RECORDS BE INSPECTED.

The written employee training plan is located in the Plant Control Room. All employee training records are located in personnel files which are maintained by the Field Office Administrator at the Wasco office in Wasco, California.

STOP!

Is your business divided into smaller geographic areas or units?

__X__ NO Continue on with Sections 7 through 10 of this form.

_____YES Do not answer Sections 7 through 10 of this form. Sign your name at the bottom of this page, then fill out a Form 3 for every area your business was subdivided into.

SECTION 7: EXPLAIN WHAT PREVENTION, MINIMIZATION, AND CLEANUP PROCEDURES BlueWater'S EMERGENCY PLAN INCLUDES. INCLUDE A DESCRIPTION OF MONITORING METHODS AND PROCEDURES

A. RELEASE PREVENTION:

BlueWater operations personnel perform a visual daily inspection of all bulk chemical locations for tank, line, and pump leaks. Any leaking components are repaired or replaced immediately. All chemicals stored in greater than 55-gal drums are stored in product compatible bulk tanks with secondary containment to catch any leakage which could result from accidental damage.

Interlock schemes are designed into the Human Machine Interface. ("HMI") to safely shut down the system in the event of an emergency. The HMI will also automatically shut down the system if the other process equipment fails or is forced off-line.

B. RELEASE CONTAINMENT:

Upon discovery of a release or threatened release of those hazardous materials listed on the hazardous material inventories, the following response actions and notifications shall be immediately initiated:

In the event of a hazardous material incident, appropriate supervisory personnel shall be notified. Upon receipt of a report of any spill or reported contact with any chemical, the Operation Manager or his designee shall investigate and take necessary action. All releases or threatened releases should be contained expeditiously by either constructing earthen berms or absorpbent material to preclude or minimize any potential harm to persons, property, or the environment.

Additionally, all hazardous material releases must be further contained either by recovery of the product and/or by absorption with an appropriate material such as commercial absorbents that can be obtained from the warehouse to contain liquids before county and/or contract emergency response personnel arrive.

C. CLEANUP:

Company or partnership contract personnel should not be utilized for any cleanup or removal of hazardous chemical or waste releases. All such incidents should be reported to the Plant Manager and/or Operations Manager, who will coordinate contract emergency response crews to decontaminate affected locations. Such companies are Patriot Environmental Service (661) 414-9075

SECTION 8: EXPLAIN THE NOTIFICATION METHOD AND EVACUATION PROCEDURES BLUEWATER HAS DEVELOPED FOR THE EMPLOYEES TO USE IN AN EMERGENCY. *YOU MUST INCLUDE A MEETING POINT.*

A. AGENCY NOTIFICATION:

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The following regulatory agency notifications via telephone shall be made in the event of a release or threatened release. To facilitate accurate, consistent, and effective notification of the appropriate regulatory agency and cogeneration officials, the "Kern County Environmental Health Services Hazardous Materials Spill Report" and "Hazardous Materials Release Report Notification Log" (Attachment 1) shall be used to record such incidents. Copies of the above reports shall be forwarded to the SH&E Group for reporting the incident to regulatory agencies.

PERSONNEL
Immediately Notify:

Dundee Kelbel
Office: ☎ (XXX) XXX-XXXX
Cellular: ☎ (520) 971-4102

Donnie Williams
Office: ☎ (XXX) XXX-XXXX
Cellular: ☎ (661) 447-1347

REGULATORY AGENCIES
Office of Emergency Services (OES)
☎ (800) 852-7550 or
☎ (916) 262-1621

Environmental Health Services Department (EHSD)
☎ (661) 862-8700

TRIGGER NOTIFICATION CRITERIA

- Any spill that threatens significant ecological damage or poses a threat to public health or welfare;
- Any incident that may have legal repercussions or potential side effects such as waste reaching a drinking water source;
- Adverse public reaction or news media coverage;
- Chemical spills or leaks;
- Fires and explosions.

TRIGGER NOTIFICATION CRITERIA

- A reasonable belief that a release or threatened release could pose a significant threat to the environment or human health and safety.

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B. EMPLOYEE NOTIFICATION / EVACUATION:

Notification of personnel on-site shall be made by portable radio. Upon notification, all personnel shall immediately evacuate to the nearest designated facility Incident Command Station (ICS) dictated by wind direction and ambient conditions. For more information regarding evacuation procedures, refer to BlueWater Emergency Response Plan included as Attachment B of the Hazardous Waste Contingency Plan. BlueWater management personnel listed below shall be immediately notified of the occurrence with sufficient information to allow them to notify regulatory agencies.

Dundee Kelbel

☎ (661) xxx-xxxx (During Bus. Hours)

☎ (520) 971-4102 (Cellular)

Donnie Williams

☎ (661)xxx-xxxx (During Bus. Hours)

☎ (661) 447-1347 (Cellular)

Draft Copy

If there is an injury or exposure related to a hazardous chemical or waste spill, the applicable Safety Data Sheet (SDS) should be consulted immediately to determine potential health and safety hazards and appropriate precautionary or medical response procedures. This information shall be provided, if necessary, to any rescue or medical personnel. SDS binders are maintained in the plant control room.

Additionally, if a major spill or accident occurs, the following personnel should be contacted:

Dundee Kelbel	Donnie Williams	EH&S Manager
Dundee Kelbel (xxx) xxx-xxxx (Office) (520) 971-4102 (Cellular)	*Donnie Williams* (661) xxx-xxxx (Office) (661) 447-1347 (Cellular)	(xxx) xxx-xxxx ext. (Office) (xxx) xxx-xxxx (Cellular)

SECTION 9: EXPLAIN WHAT PRIVATE FIRE PROTECTION SYSTEMS ARE IN PLACE THAT MAY ASSIST EMERGENCY RESPONDERS

The building is protected by a water system. The remainder of the building is equipped with hand-held portable Dry Chemical fire extinguishers. Hand-held Dry Chemical fire extinguishers are also installed at various locations throughout the facility. A list of the descriptions and locations of all fire protection equipment and emergency response equipment is contained in Attachment A of the Hazardous Waste Contingency Plan.

SECTION 10: LIST THE LOCATION OF ANY WATER SUPPLIES THAT MAY BE USED BY EMERGENCY RESPONDERS

Three 5,000 barrel (630,000 gallon) water tanks are located on the south side of the facility of which 5,000 barrels (210,000 gallons) can be used for fire protection at any times.

I, Donnie Williams, certify that the information submitted on all the business plan forms is accurate and complete. I understand that this information will be used to fulfill my obligations under California Health and Safety Code Division 20 Chapter 6.95 et. seq. and Title 42 U.S.G.C. Section 1100 et. seq.

Signature Title Date

Draft Copy

Attachment 1

Notification Forms

DraftCopy

HAZARDOUS MATERIALS RELEASE REPORT NOTIFICATION LOG

BlueWater Management Personnel

Person Contacted	Time and Date

Kern County Fire Department
911 or (661) 768-4341

Person Contacted	Time and Date

National Emergency Response Center
1-800-424-8802

Person Contacted	Time and Date

Kern County Environmental Health Services Department
661-862-8700

Person Contacted	Time and Date

Poison Control Center
559-445-1222

Person Contacted	Time and Date

CHP (If highway is involved)
911

Person Contacted	Time and Date

Other

Draft Copy

Person/Agency Contacted	Time and Date

Agencies Notified by:_____

Personnel Name & Title Signature & Date

Draft Copy

PART 1: HAZARDOUS WASTE CONTINGENCY PLAN

Name of Facility: **BlueWater ("Wasco")**

Address: **591 J Street Wasco, CA. 93280**

This Hazardous Waste Contingency Plan has been prepared pursuant to the provisions of 22 CCR §§66265.51, et seq., and is designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

The provisions of this Contingency Plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

IN THE EVENT OF A FIRE, EXPLOSION, OR UNPLANNED RELEASE OF HAZARDOUS WASTE OR HAZARDOUS WASTE CONSTITUENTS TO THE AIR, SOIL OR SURFACE WATER AT THE FACILITY, THIS CONTINGENCY PLAN SHALL BE PUT INTO EFFECT IMMEDIATELY BY THE PERSONNEL OBSERVING THE INCIDENT OR OCCURRENCE. THE PRIMARY EMERGENCY COORDINATOR AT THE SCENE SHALL TAKE COMMAND.

1. Emergency Coordinators

The following persons are qualified to act as Emergency Coordinators ("EC") at BlueWater. At all times, one of the following people shall be either on the facility premises or on call. The first person on the list should be notified first in the event of an emergency. If the first person is not available, immediately contact the second person, and so on down the list. If none of the designated people are available, immediately notify the agencies listed on Section 3 below:

Primary Emergency Coordinator

Name: Donnie Williams
Home Address: Bakersfield, CA
Office Phone: XXX-XXX-XXXX
Cellular Phone: (661) 447-1347

First Alternate

Name: Dundee Kelbel
Home Address: Bakersfield, CA
Office Phone: (xxx) xxx-xxxx
Cellular Phone: (520) 971-4102

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2. Off-Site Emergency Services

This Contingency Plan has been established, in part, to facilitate coordination and emergency planning with off-site response officials and facilities in the event of an emergency.

Should an emergency occur which requires off-site assistance, the EC or designee will notify management and without delay immediately notify the appropriate agencies for the assistance required as listed below. Coordination has been arranged for as indicated in Section 4. The EC or designee shall meet the responding agencies and direct them to the fire, explosion or unplanned release of hazardous waste or hazardous waste constituents and stand by to assist with information and other resources. ***Note:*** Statutory and regulatory release reporting requirements may necessitate notification of off-site emergency response officials even if no assistance is needed.

3. Emergency Response Agencies

1) Fire Department: ☎ **"911"** or **(661) 324-6551**
2) Sheriff's Department: ☎ **"911"** or **(661) 861-3110**
3) Kern County Environmental Health Services Department: ☎ **(661) 862-8700**
4) State Office of Emergency Services: ☎ **(800) 852-7550** or **(916) 262-1621**
5) Cal/EPA Department of Toxic Substances Control: ☎ **(916) 323-6042**
6) U.S. EPA, Region IX, San Francisco: ☎ **(415) 744-2000**
7) National Response Center: ☎ **(800) 424-8802**
8) Emergency Response Contractor (s):

Name: **Industrial Environmental Support**	Phone: **(559) 240-2229**
Name: **MP Environmental Services**	Phone: **(661) 393-1151**

4. Coordination with Local Emergency Services Agencies

The local police departments, fire departments, hospitals, contractors, and State and local emergency response agencies have been notified of the facility's operations relative to hazardous waste generation and storage and the potential need for their services pursuant to the requirements of 22 CCR §66265.37.

5. Assessment of Potential Hazardous Waste Incidents

(1) Type and volumes of hazardous wastes generated and accumulated at the facility:

Types of Hazardous Waste	Largest Volume on Site at Any One Time	Type/Volume of Largest Container
	gallons	gallon
	gallon	gallon
	gallons	gallon
	gallon	gallon
	gallon	gallon

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(2) Potential hazardous waste incidents:

Type of Incident	Summary of Response
Release of large quantities of liquid: Type of waste (low):	(1) Implement contingency plan. (2) Evacuate immediate area and secure with barricade. (3) Contact contract emergency response personnel for containment/clean up if appropriate. (4) Once contained, spill is picked up and repackaged or sent to a disposal facility by employees or contractors wearing protective equipment.

Type of Incident	Summary of Response
Release of 55-gallon drum: Type of waste (low):	(1) Implement contingency plan. (2) Contain release with absorbent material berms, if appropriate. (3) Isolate containers nearby to a safe distance. (4) Once contained, spill is picked up and repackaged by employees wearing protective equipment.

6. Emergency Equipment

The following is the emergency equipment available at the facility. It shall be used only at the direction of the EC or designee in command and only by persons trained in emergency response and in the use of the equipment.

(A) Safety

Protective Equipment	Type of Hazard	Number	Location
See Attachment "A"			

(B) Spill Control Cleanup Supplies

Type of Material	Appropriate Use	Volume/No.	Location
See Attachment "A"			

(C) Communication Equipment

Type of Equipment	Use Condition	Number	Location
Public Address System	In Service	N/A	Lab
Fixed Audible Alarm	In Service	One	Hazardous Materials Accumulation Yard
Portable two-way Radios	Charged	Six	LAB
Telephone	In Service	One	Office

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7. Evacuation Procedures

(A) In the event that a fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents threatens employees or other occupants of the facility, the EC or designee in command shall order an evacuation of the immediate area.

(B) The EC or designee will announce the evacuation via the portable two-way radios paging system or other appropriate communication system. The administration office will serve as the Incident Command Station ("ICS"). Communication systems, including telephones and plant radios, are available in the administration office.

(C) Employees, upon hearing the order to evacuate, or who otherwise become aware of the need to evacuate the immediate area, shall notify other employees, safely cease operations, and evacuate without delay via the nearest designated unobstructed exit. An evacuation plan (See Section 8) is posted in all buildings showing the nearest exits and the location of the assembly area designated for the work area. The following are locations of the evacuation plan map:

Administration Office
Lab/Shop

(D) Employees who evacuate shall assemble at the designated assembly areas by the Southeast gate and the Northeast gate of the facility (see Evacuation Plan). When advised, employees shall all meet at one of the two assembly areas where the EC or designee shall be present to account for all personnel known to be on the site. No employee shall leave the site without specific authorization by management, EC, or designee.

(E) Employees shall not re-enter the facility for any purpose until specifically authorized to by the EC or designee.

8. Evacuation Routes

If evacuation is required, refer to the Emergency Evacuation Plan in Attachment B. If any evacuation route is blocked by the hazard, the secondary routes shall be taken:

Location of Employee/ Evacuee	Evacuation Route	Secondary Route
See Attachment B		

As required by Cal/OSHA standard, 8 CCR §3220, evacuation routes are diagrammed and posted in various locations at the facility.

9. Approval and Adoption

Contingency Plan Approved By: ***Donnie Williams***

Title: _____

Signature/Date: _____

Effective Date: _____

Note: This Contingency Plan will be reviewed, and revised if necessary, whenever: applicable regulations are revised; the plan fails in an emergency; the facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency; the list of emergency coordinators changes; or the list of emergency equipment changes. Recipients will be provided revised copies if significant changes are made.

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PART 2: EMERGENCY RESPONSE PROCEDURES

Name of Facility: **BlueWater ("Wasco")**

Address: **591 J Street Wasco, CA 93280**

Pursuant to 22 CCR §66265.56, emergency procedures to immediately and efficiently respond to a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment, have been established.

IN THE EVENT OF AN EMERGENCY INVOLVING HAZARDOUS WASTES, THIS EMERGENCY RESPONSE PROCEDURE SHALL BE IMPLEMENTED IMMEDIATELY.

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1. Emergency Response and Notification Procedures

LIMITED RELEASE

In the event of a limited hazardous waste release, employees are authorized to take immediate action to contain and clean up a small amount of material if it does not present an exposure hazard. Employees will undertake such action ***only*** if they have received prior training in the hazards of the materials, can safely handle the material with minimal exposure, and use the appropriate personal protective equipment ("PPE") for the material ***or*** notify and await off-site responders. Absorbent materials, other supplies and appropriate PPE are available to employees to use in such cleanups.

SIGNIFICANT RELEASE OR INCIDENT

If the emergency is significant, a large spill occurs, or additional help is needed, employees are required to immediately notify their supervisor, or the EC or designee. The EC or designee on-site shall implement the contingency plan and direct the emergency response and cleanup as appropriate. The EC or designee will determine the need for off-site assistance or a dedicated mobilization of available on-site resources.

2. Contingency Plan Implementation

Whenever there is an imminent or actual emergency situation, the EC or designee shall implement the provisions of the Contingency Plan, which include:

(A) Immediately activate the appropriate internal facility alarm and emergency communication systems:
   1) Public Address system
   2) Telephone

(B) Immediately identifying the character, exact source, amount, and areal extent of any release, fire or explosion through observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(C) Assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment shall consider both direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(D) Determine the need for off-site emergency assistance and/or the reportability of the incident. If necessary, notify the appropriate State or local agencies designated in the Contingency Plan.

(E) If the release, fire or explosion **could** threaten human health or the environment outside the facility, then it must be reported.

1) **Notify the appropriate local authorities if an evacuation of the local areas may be advisable (it is the responsibility of the EC to help officials decide whether local areas need to be evacuated).**

2) **Notify the state Office of Emergency Services (1-800-852-7550) and report the following information (see form in Attachment C):**

a) Name and telephone number of reporter.
b) Name and address of facility.
c) Time and type of incident.
d) Name and quantity of material(s) involved (as known).
e) Extent of injuries, if any.
f) Potential hazards to human health or the environment, outside the facility.

(F) During an emergency, take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste. These measures include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(G) If operations are stopped in response to a fire, explosion or release, monitor for leaks, pressure buildup, gas generation, or ruptures in valves pipes, or other equipment, where applicable.

(H) Immediately after an emergency, provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion. Unless proven otherwise, any recovered material will be considered a hazardous waste and shall be handled accordingly.

(I) Ensure that, in the affected areas of the facility:

1) No waste that may be incompatible with the released material is transferred, treated, stored, or disposed of until clean up procedures are completed.

2) All emergency equipment listed in Attachment A is cleaned and fit for its intended use before operations are resumed.

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Before operations are resumed in the affected area(s) of the facility, notify the State Department of Toxic Substances Control ("DTSC") at (916) 323-6042 and the appropriate State and local authorities that steps 1) and 2) listed above have been completed.

(J) Note in the operating log the time, date and details of any events which require implementing the contingency plan. Within 15 days of the incident, submit a report on the incident to the DTSC. The report shall include (see form in Attachment D):

1) Name, address, and telephone number of the owner/operator.
2) Name, address, and telephone number of the facility.
3) Date, time, and type of incident (e.g., explosion, fire).
4) Name and quantity of material(s) involved.
5) The extent of injuries, if any.
6) An assessment of actual or potential hazards to human health or the environment, where applicable.
7) Estimated quantity and disposition of recovered material that resulted from the incident.

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3. Control of Release or Threatened Releases by On-Site Personnel

The purpose of this response is to mitigate the consequences of a release by taking prompt action to contain or to stop a release in progress. This type of response requires judgment on the part of the EC or designee with respect to the hazards and the capabilities and equipment available, including trained personnel, appropriate safety equipment, and other supplies.

ON-SITE EMERGENCY RESPONSE TO MITIGATE A RELEASE

The EC or designee will investigate the incident and determine the appropriate defensive action to contain the release. Safe containment to avoid harm to humans, environmental damage and property damage is of primary importance.

REQUIRED PERSONAL PROTECTIVE EQUIPMENT ("PPE")

Designated responders will don appropriate PPE and commence control and containment of a small spill or release. PPE will be consistent with the recommendations made in the Material Safety Data Sheet ("MSDS") or similar guidance for the specific material spilled, and will depend upon the size of the spill or release. In the event of a significant spill or release, qualified responders will assist off-site emergency responders to the extent for which they are trained and equipped.

ASSIGNMENT TO EMERGENCY RESPONSE AND TRAINING

Emergency coordinators and operations personnel receive training (initial and refresher) in fire protection, fire control, accident prevention, safety, and first aid in accordance with Edison Mission Operation and Maintenance Inc.'s "Safety Policy – General Safety Rules", "Fire Protection Manual", and "First Aid and CPR". Hazardous Waste Operations and Emergency Response (HAZWOPER) annual refresher training is provided in accordance with 29 CFR 1910.120.

The following personnel have been assigned specific duties as members of an Emergency Response Team at the facility, and have received special training pursuant to the requirements of 8 CCR §5192 (q).

Name	Job Title	Responsibility
Mr. Dundee Kelbel		Operations & Maintenance
Mr. Donnie Williams		Operations & Maintenance
		Operations Envr. Health & Safety

4. Approval and Adoption

Emergency Response Plan Approved By: ***Mr. Donnie Williams***

Title: _____

Signature/Date: _____

Effective Date: _____

Note: This Emergency Response Plan will be reviewed, and revised if necessary, whenever: applicable regulations are revised; the plan fails in an emergency; the facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency; the list of emergency coordinators changes; or the list of emergency equipment changes. Recipients will be provided revised copies if significant changes are made.

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Attachment A

Emergency Equipment

Draft Copy

Attachment B

Emergency Evacuation Plan

Draft Copy

Attachment C

Initial Incident Report

Draft Copy

Attachment D

DTSC Incident Follow-up Report

Draft Copy

INITIAL INCIDENT REPORT

This form should be used by the individual responsible for calling the State Office of Emergency Services based on the Emergency Coordinator's determination that the release, fire or explosion could threaten human health or the environment outside the facility (22 CCR §66265.56(d)(2)).

1. Name of Person Calling: _____

   Return Telephone Number: _____

2. Name of Facility: _____

   Address of Facility: _____

3. Description of Emergency: _____

4. Date and Time of Incident: _____

5. Description of Hazardous Waste Released: _____

6. Quantity of Material Released: _____

7. Extent of Injuries: _____

8. Potential Hazards to Human Health or the Environment: _____

Draft Copy

DTSC INCIDENT FOLLOW-UP REPORT

The following report is hereby submitted to the California Department of Toxic Substances Control within 15 days after an emergency involving hazardous waste pursuant to 22 CCR §66264.5.

1. Name of Owner/Operator: _____

   Address: _____

   Telephone Number: _____

2. Name of Facility: _____

   Address of Facility: _____

   Telephone Number: _____

3. Description of Incident: _____

   _____

   _____

   _____

   _____

   _____

4. Date and Time of Incident: _____ 19 ____, at _____ a.m./p.m.

5. Description of Hazardous Waste Released: _____

6. Quantity of Material Released: _____ (pounds/gallons)

7. Extent of Injuries (attach additional sheets as necessary): _____

   _____

   _____

   _____

   _____

8. Assessment of Actual or Potential Hazards to Human Health or the Environment (attach additional sheets where applicable):

   _____

   _____

   _____

9. Disposition of Material Recovered from the Incident (attach additional sheets as necessary):

   _____

   _____

   _____

Draft Copy

10. Quantity of Material Recovered from the Incident: _____

Respectfully submitted,

Name: _____ Title: _____

Signature: _____ Date: _____

Draft Copy

Emergency Response/Contingency Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC, Section 25504(b); Title 22, Div. 4.5, Ch. 12, Art. 3 CCR Page ___ of ___

All facilities that handle hazardous materials in specified quantities must have a written emergency response plan. In addition, facilities that generate 1,000 kilograms or more of hazardous waste per month, or accumulate more than 6,000 kilograms of hazardous waste on-site at any one time, must prepare a contingency plan. Because the requirements are similar, they have been combined in a single document, provided below, for your convenience. This plan is a required module of the Hazardous Materials Business Plan (HMBP). **If you already have a plan that meets these requirements, you should not complete the blank plan, below, but you must include a copy of your existing plan as part of your HMBP.**

This site-specific Emergency Response/Contingency Plan is the facility's plan for dealing with emergencies and shall be implemented immediately whenever there is a fire, explosion, or release of hazardous materials that could threaten human health and/or the environment**. At least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency.** Within Santa Clara County, hospitals and police agencies have delegated receipt of these plans to the local agencies administering Hazardous Materials Business Plans, so additional copies need not be submitted. However, a copy of the plan and any revisions must be provided to any contractor, hospital, or agency with whom special (i.e. contractual) emergency services arrangements have been made *(see section 3, below)*.

Draft Copy

1. Evacuation Plan:

a. The following alarm signal(s) will be used to begin evacuation of the facility *(check all that apply)*:

Bells; Horns/Sirens; Verbal *(i.e. shouting)*; Other *(specify)* _____

b. Evacuation map is prominently displayed throughout the facility.

Note: A properly completed HMBP Site Plan satisfies contingency plan map requirements. This drawing (or any other drawing that shows primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas) must be prominently posted throughout the facility in locations where it will be visible to employees and visitors.

2. a. Emergency Contacts*:

Fire/Police/Ambulance . . . . . Phone No. **911**

State Office of Emergency Services . . . . . Phone No. **(800) 852-7550**

b. Post-Incident Contacts*:

Fire Department . . . . . Phone No.: **911**

Kern County Environmental Health Services Department . . . . . Phone No. **(661) 862-8700**

California EPA Department of Toxic Substances Control . . . . . Phone No. **(**
Cal-OSHA Division of Occupational Safety and Health . . . . . Phone No. **(**

San Joaquin Valley Air Quality Control District . . . . . Phone No. **(661) 326-6900**

Regional Water Quality Control Board . . . . . Phone No. **(**

**** These telephone numbers are provided as a general aid to emergency notification. Be advised that additional agencies may be required to be notified.***

c. Emergency Resources:

Poison Control Center . . . . . Phone No. **(800) 876-4766**

Nearest Hospital: Name: **Hospital** Phone No.: **(**

Address: **Street,** City:

3. Arrangements With Emergency Responders:

If you have made special (i.e. contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements below:

No special arrangements have been made with local city or county governmental emergency response agencies above and beyond what is required of them by State and Local Rules and Regulations (i.e., Kern County Municipal Code, California Health and Safety Code, California Code of Regulations.

4. Emergency Procedures:

Emergency Coordinator Responsibilities:

a. Whenever there is an imminent or actual emergency situation such as a explosion, fire, or release, the emergency coordinator *(or his/her designee when the emergency coordinator is on call)* shall:
   i. Identify the character, exact source, amount, and areal extent of any released hazardous materials.
   ii. Assess possible hazards to human health or the environment that may result from the explosion, fire, or release. This assessment must consider both direct and indirect effects *(e.g. the effects of any toxic, irritating, or asphyxiating gases that are generated, the effects of any hazardous surface water run-off from water or chemical agents used to control fire, etc.)*.
   iii. Activate internal facility alarms or communications systems, where applicable, to notify all facility personnel.
   iv. Notify appropriate local authorities *(i.e. call 911)*.
   v. Notify the State Office of Emergency Services at 1-800-852-7550.
   vi. Monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment shut down in response to the incident.
   vii. Take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous materials at the facility.

b. Before facility operations are resumed in areas of the facility affected by the incident, the emergency coordinator shall:
   i. Provide for proper storage and disposal of recovered waste, contaminated soil or surface water, or any other material that results from a explosion, fire, or release at the facility.
   ii. Ensure that no material that is incompatible with the released material is transferred, stored, or disposed of in areas of the facility affected by the incident until cleanup procedures are completed.
   iii. Ensure that all emergency equipment is cleaned, fit for its intended use, and available for use.
   iv. Notify the California Environmental Protection Agency's Department of Toxic Substances Control, Kern County Environmental Health Services Department and the Kern County Fire Department that the facility is in compliance with requirements b-i and b-ii, above.

Responsibilities of Other Personnel:

On a separate page, list any emergency response functions not covered in the "Emergency Coordinator Responsibilities" section, above. Next to each function, list the job title or name of each person responsible for performing the function. Number the page(s) appropriately.

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5. Post-Incident Reporting/Recording:

The time, date, and details of any hazardous materials incident that requires implementation of this plan shall be noted in the facility's operating record.

Within 15 days of any hazardous materials emergency incident or threatened hazardous materials emergency incident that triggers implementation of this plan, a written Emergency Incident Report, including, but not limited to a description of the incident and the facility's response to the incident, must be submitted to the California Environmental Protection Agency's Department of Toxic Substances Control, Kern County Environmental Health Services Department and the Kern County Fire Department. The report shall include:

a. Name, address, and telephone number of the facility's owner/operator;
b. Name, address, and telephone number of the facility;
c. Date, time, and type of incident *(e.g. fire, explosion, etc.)*;
d. Name and quantity of material(s) involved;
e. The extent of injuries, if any;
f. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
g. Estimated quantity and disposition of recovered material that resulted from the incident;
h. Cause(es) of the incident;
i. Actions taken in response to the incident;
j. Administrative or engineering controls designed to prevent such incidents in the future.

6. Earthquake Vulnerability: [19 CCR §2731(e)]

Identify any areas of the facility and mechanical or other systems that require immediate inspection or isolation because of their vulnerability to earthquake-related ground motion:

Check for damage, pipe ruptures, spill in the area of the acid and caustic bulk storage, the waste lube oil tank, the demineralization building and anhydrous ammonia tank

7. Emergency Equipment:

22 CCR §66265.52(e) [as referenced by 22 CCR §66262.34(a)(4)] and the Hazardous Materials Storage Ordinance require that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

EMERGENCY EQUIPMENT INVENTORY TABLE

1. Equipment Category	2. Equipment Type	3. Locations *	4. Description**
Personal Protective Equipment, Safety Equipment, and First Aid Equipment	Cartridge Respirators		
	Chemical Monitoring Equipment *(describe)*		
	Chemical Protective Aprons/Coats		
	Chemical Protective Boots		
	Chemical Protective Gloves		
	Chemical Protective Suits *(describe)*		
	Face Shields		
	First Aid Kits/Stations *(describe)*		
	Hard Hats		
	Plumbed Eye Wash Stations		
	Portable Eye Wash Kits *(i.e. bottle type)*		
	Respirator Cartridges *(describe)*		
	Safety Glasses/Splash Goggles		
	Safety Showers		
	Self-Contained Breathing Apparatuses (SCBA)		
	Other *(describe)*		
Fire Extinguishing Systems	Automatic Fire Sprinkler Systems		
	Fire Alarm Boxes/Stations		
	Fire Extinguisher Systems *(describe)*		
	Other *(describe)*		
Spill Control Equipment and Decontamination Equipment	Absorbents *(describe)*		
	Berms/Dikes *(describe)*		
	Decontamination Equipment *(describe)*		
	Emergency Tanks *(describe)*		
	Exhaust Hoods		
	Gas Cylinder Leak Repair Kits *(describe)*		
	Neutralizers *(describe)*		

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	Overpack Drums		
	Sumps *(describe)*		
	Other *(describe)*		
Communications and Alarm Systems	Chemical Alarms *(describe)*		
	Intercoms/ PA Systems		
	Portable Radios		
	Telephones		
	Underground Tank Leak Detection Monitors		
	Other *(describe)*		
Additional Equipment *(Use Additional Pages if Needed.)*			

* *Use the map and grid numbers from the Storage Map prepared earlier for your HMBP.*

** *Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

Employee Training Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC, Section 25504(c); Title 22, Div. 4.5, Ch. 12, Art. 3 CCR

Draft Copy

All facilities that handle hazardous materials must have a written employee training plan. This plan is a required module of the Hazardous Materials Business Plan (HMBP). A blank plan has been provided below for you to complete and submit if you do not already have such a plan. **If you already have a brief written description of your training program that addresses all subjects covered below, you are not required to complete the blank plan, below, but you must include a copy of your existing document as part of your HMBP.**

Check all boxes that apply. *[Note: Items marked with an asterisk (*) are required.]*:

1. Personnel are trained in the following procedures:

Internal alarm/notification *
Evacuation/re-entry procedures & assembly point locations*
Emergency incident reporting
External emergency response organization notification
Location(s) and contents of Emergency Response/Contingency Plan
Facility evacuation drills, that are conducted at least *(specify)* _____ *(e.g. "Quarterly", etc.)*

2. Chemical Handlers are additionally trained in the following:

Safe methods for handling and storage of hazardous materials *
Location(s) and proper use of fire and spill control equipment
Spill procedures/emergency procedures
Proper use of personal protective equipment *
Specific hazard(s) of each chemical to which they may be exposed, including routes of exposure *(i.e. inhalation, ingestion, absorption)* *
Hazardous Waste Handlers/Managers are trained in all aspects of hazardous waste management specific to their job duties *(e.g. container accumulation time requirements, labeling requirements, storage area inspection requirements, manifesting requirements, etc.)* *

3. Emergency Response Team Members are capable of and engaged in the following:

Personnel rescue procedures
Shutdown of operations
Liaison with responding agencies
Use, maintenance, and replacement of emergency response equipment
Refresher training, which is provided at least annually *

Emergency response drills, which are conducted at least *(specify)* _____ *(e.g. "Quarterly", etc.)*

Record Keeping

(Hazardous Materials Business Plan Module)

All facilities that handle hazardous materials must maintain records associated with their management. A summary of your recordkeeping procedures is a required module of the Hazardous Materials Business Plan (HMBP). A blank summary has been provided below for you to complete and submit if you do not already have such a document. **If you already have a brief written description of your hazardous materials recordkeeping systems that addresses all subjects covered below, you are not required to complete this page, but you must include a copy of your existing document as part of your HMBP.**

Draft Copy.

Check all boxes that apply. The following records are maintained at the facility. *[Note: Items marked with an asterisk (*) are required.]*:

Current employees' training records *(to be retained until closure of the facility)* *
Former employees' training records *(to be retained at least three years after termination of employment)* *
Training Program(s) *(i.e. written description of introductory and continuing training)* *
Current copy of this Emergency Response/Contingency Plan *
Record of recordable/reportable hazardous material/waste releases *
Record of hazardous material/waste storage area inspections *
Record of hazardous waste tank daily inspections *
Description and documentation of facility emergency response drills

Note: The above list of records does not necessarily identify every type of record required to be maintained by the facility.

A copy of the Inspection Check Sheet(s) or Log(s) used in conjunction with required routine self-inspections of your facility must be submitted with your HMBP. *(Exception: Available from your local agency is a Hazardous Materials/Waste Storage Area Inspection Form that you may use if you do not already have your own form. If you use the example provided, you do not need to attach a copy.)*

Check the appropriate box:

We will use the Unidocs "Hazardous Materials/Waste Storage Area Inspection Form" to document inspections.
We will use our own documents to record inspections. ***(A blank copy of each document used must be attached to this HMBP.)***

APPENDIX D
TRIP GENERATION ANALYSIS REPORT

PORTER & ASSOCIATES, INC.
ENGINEERING & SURVEYING

October 16, 2013 Job No. 2760

Roger Mobley

Planning Director
City of Wasco
746 E Street
Wasco, CA 93280

RE: Trip Generation Analysis for Proposed Oilfield Wastewater Recycling Facility 591 J Street, APN: 030-020-19, City of Wasco, California

Dear Mr. Mobley:

The purpose of this analysis it to provide traffic generation data for the proposed Oilfield Wastewater Recycling Facility at the northwest corner of J Street and 6th Street in the City of Wasco. The proposed facility will operate on a fenced 7 acre site with an existing 33,000 square feet building. The property is zoned I-H Heavy Industrial. The facility will operate 5 days a week (Monday through Friday) with 20 hour work days. The facility will have 15 full time employees that work in shifts with 3 employees starting work at 4:00 am, 2 employees remaining at work the last 4 hours of the day from 8:00 pm to 12:00 am and the remainder of the employees will work staggered shifts during the day. According to the Institute of Transportation Engineers *Trip Generation Manual, 7th Edition*, an average of 1.3 persons per passenger car is typical for general light industrial facilities (ITE Land Use 110) which tends to best fit the historic and proposed use of this site. With 15 employees, 12 entering automobile trips are anticipated with 12 exiting trips for a total of 24 Average Daily Trips (ADT). Based on the staggered schedule of the employees across the 20 hour work day, not more than 10 peak hour passenger car trips are expected for either the morning or evening peak hour.

The project applicant, Sweetwater Tech Resources, LLC has provided the following information regarding the proposed truck traffic entering the site, full Routes and number of entering truck trips from each site are shown on Figure 1:

1) Entering from the West on SR 46
    a. Lost Hills 19 trucks
2) Entering from the East on SR 46
    a. Kern River 7 trucks
3) Entering from the South on SR 43
    a. Midway Sunset 17 trucks
    b. Asphalto 6 trucks
    c. Bowerbank 9 trucks
    d. Buena Vista 14 trucks
    e. Elk Hills 3 trucks

1200 21st Street, Bakersfield, California 93301 • 661.327.0362 • FAX 661.327.1065

A total of 26 truck trips will enter the facility from State Route 46. Trucks will turn south from SR 46 onto J Street to enter the facility. A total of 49 trucks will enter the facility from SR 43. Trucks will turn east either on Kimberlina Road then north onto Wasco Avenue / J Street or turn east on Poso Street then north onto Wasco Avenue / J Street and enter the facility. The trucks will bypass the majority of the controlled intersections along SR 43 within the City thereby reducing impacts to the street network.

75 truck trips are proposed to enter the facility each day with 75 trucks exiting the facility for a total of 150 Average Daily Truck Trips (ADTT). Initially, the recycled water will not be hauled offsite, but within a few months of starting operations, the recycled water will be hauled out and used for other purposes. The facility will operate in shifts with 20 hour work days. The majority of truck trips are expected to occur in three windows between 5:00 am to 7:00 am, 10:00 am to 12:00 pm and 6:00 pm to 8:00 pm. Typical peak hours of adjacent street traffic in the morning and evening are between 7:00 am to 9:00 am and 4:00 pm and 6:00 pm, respectively. Based on the expected delivery windows of the trucks delivering the majority of the unprocessed wastewater, it is likely that most of the truck traffic will not occur during normal peak hours of the adjacent street traffic. Assuming one-third (1/3) of the trucks enter the site in the 5:00 am to 7:00 am window, it is likely that the maximum peak hour truck traffic generated by this facility during peak hour of adjacent street traffic will be exiting truck trips during the 7:00 am to 9:00 am peak hour. For this analysis, a conservative assumption of 25 exiting truck trips during the 7:00 am to 9:00 am peak hour has been utilized. Less peak hour trips are expected to be generated during the normal pm peak hour because of the employee shifts and the anticipated delivery window for the evening waste water occurring from 6:00 pm to 8:00 pm after the normal adjacent street peak hour traffic.

Table 1 summarizes the estimated equivalent ADT for the facility and peak hour trips:

TABLE 1

Oilfield Wastewater Facility Trip Generation

Category	Estimated Number of Vehicles	Average Daily Trips	A.M. Peak Hour Trips (7:00 AM-9:00 AM)		P.M. Peak Hour Trips (4:00 PM-6:00 PM)		Non-Peak Hour Trips	
			In	Out	In	Out	In	Out
Passenger Cars	12	24	10	0	0	10	2	2
Truck Deliveries	75	150	0	25	0	0	75	50
Total Trips	87	174	10	25	0	10	77	52

Based on the above assumptions and the information provided by Sweetwater Tech Resources, LLC, the equivalent traffic volumes generated by this facility is a typically considered less than significant. This project conservatively generates a maximum of 35 peak hour trips during the morning peak and 174 average daily trips.

This site with existing 33,000 square feet building has previously been used for various heavy industrial uses over the last 50 years including furniture manufacturing, garlic processing &

packaging, and pallet storage & distribution and others. IFCO Pallet Company employed 65 workers at the location and stored over 1 million pallets. Pallets were shipped to various locations throughout the state on a daily basis. Belridge Farms employed 91 workers at this location and processed 10 million cartons of garlic a year. Garlic was packaged and trucked from this facility to various locations throughout the country and other parts of the world. Based on the Institute of Transportation Engineers *Trip Generation Manual, 7th Edition*, Land Use 110 – General Light Industrial, light industrial facilities with 91 employees generate an estimated 275 ADT and 41 am peak hour trips and 39 pm peak hour trips. The proposed new wastewater recycling use for this facility generates significantly less traffic than traffic generated by historic uses of the site and existing facility.

Please call me with any questions or comments. Thank you for your consideration in this matter.

Sincerely,

Fred W. Porter II
R.C.E. 74059

Enc. Figure 1



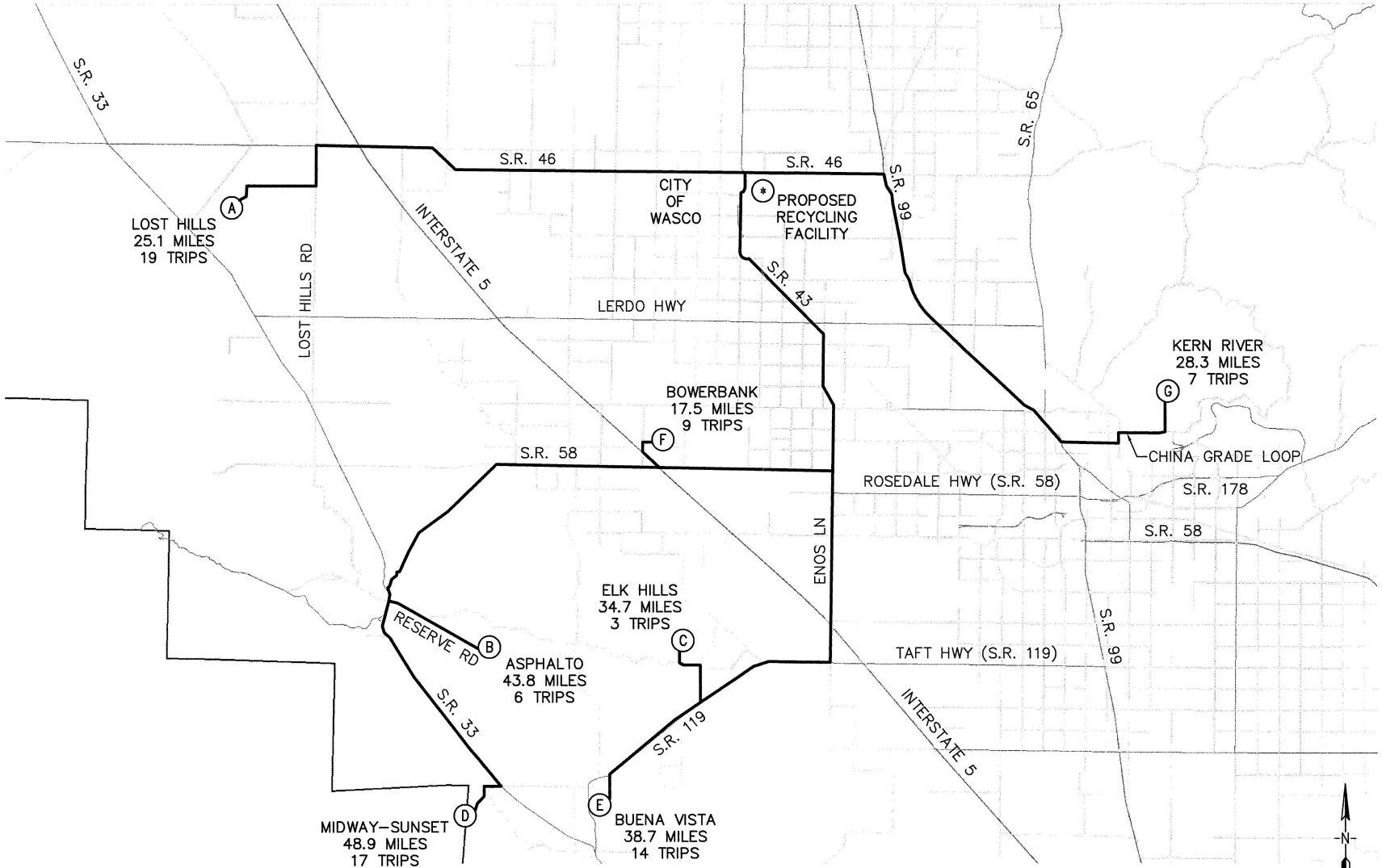


FIGURE 1: ROUTE MAP
OILFIELD WASTEWATER RECYCLING FACILITY, WASCO, CA

PORTER & ASSOCIATES, INC.
ENGINEERING & SURVEYING
1200 21st Street, Bakersfield, California 93301
661.327.0362 FAX 661.327.1065

DATE 10/16/2013
PA JOB No. 13-2760
PROJECT ENGINEER: FWP2
DRAFTSMEN: TNB
PA REVIEW BY:
DATE:

SHEET 1 OF 1 SHEETS

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