WDID No. 1B10104RSON

Monitoring and Reporting Program No. R1-2024-0018

for

Barella Family LLC

Roblar Road Quarry

Sonoma County

California Water Code (Water Code) sections 13267 and 13383 authorizes the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements, which are necessary to assure the discharges of waste that could impact water quality complies with waste discharge requirements and water quality objectives. The monitoring and reporting program will help ensure that management measures are effective in preventing discharges that could adversely affect beneficial uses in surface and groundwaters. The MRP will ensure that any site discharges are detected, and adequate response measures to address such discharges are implemented. As such, the burden, including costs to monitor and prepare the reports bears a reasonable relationship to the need for the information. This MRP may be modified, as necessary by the Executive Officer. Pursuant to Water Code section 13268, failure to submit the report(s) as described by this Order is a misdemeanor and may subject you to an administrative civil liability if the reports are not received by the deadline.

The technical and monitoring reports required by this Order are necessary to ensure compliance with Order No. R1-2021-0015 and to protect human health and waters of the state.

1. MONITORING LOCATIONS

1.1. The Discharger shall establish the monitoring locations described in Table A-1 to demonstrate compliance with the discharge prohibitions, discharge specifications, and other requirements in this Order. The existing monitoring well locations and are shown in Figure A-1.

1.2. The Discharger shall install two nested pairs of groundwater monitoring wells, MW-5 and MW-6, and four conventional groundwater wells MW-7, MW-8, MW-9, MW-10 at the locations shown in Figure A-1 prior to the Interim Phase of quarry development.

1.3. The Discharger shall submit a workplan for the installation of two additional sets of monitoring wells, MW-XX and MW-YY, within 90 days after adoption of this Order. The monitoring wells must be designed and certified by a registered geologist or a certified engineer and comply with all requirements of Title 27 Section 20415 of the California Code of Regulations. The wells must be located to determine the following:

- Changes in groundwater quality downgradient of the infiltration/irrigation fields. Wells MM-XX must be installed in locations as necessary to adequately characterize groundwater quality upgradient and downgradient of the infiltration/irrigation fields. The wells must be installed six months prior to use of the infiltration/irrigation fields and be located so that they adequately characterize groundwater quality upgradient and downgradient of the irrigation/infiltration field.
- Changes in hydraulic gradient that could affect baseline flows in Americano Tributary and Ranch Tributary. Wells MW-YY must be installed in locations to adequately evaluate changes to groundwater levels in Ranch Tributary all along the quarry footprint. The wells must be installed 12 months prior to the start of the Phase 1 of quarry operations to properly characterize baseline groundwater levels.

Table A-1. Monitoring Station Locations

Monitoring Location Name	Monitoring Location Description
DW-1, DW-2	Water Supply Wells. DW-2, the primary water supply well, is located in the northeast section of the quarry footprint. DW-1, the backup water supply well, is located north of the quarry footprint.
MW-1, MW-2b, MW-3, MW-4, MW-5, MW-6	Monitoring wells located between the quarry footprint and the closed Sonoma County Landfill.
MW-7	Monitoring well located within the quarry footprint and on the north slope.
MW-8	Monitoring well located west and downgradient of the quarry footprint and between the quarry and Americano Creek.
MW-9	Monitoring well located south of the quarry footprint and between the quarry and Ranch Tributary.
MW-10	Monitoring well located near the water storage tanks upslope of the quarry footprint.
MW-XX	Monitoring well locations to be determined per the Monitoring Locations provision Section 1 above.

Monitoring Location Name	Monitoring Location Description
MW-YY	Monitoring well locations to be determined per the Monitoring Locations provision Section 1 above.
SCB-1	North Slope Sediment Control Basin on quarry floor.
SCB-2	South Slope Sediment Control Basin on quarry floor.
SCB-3	Sediment basin located near access road.
WTS-1	Outlet of water treatment system.
INT-1	Outlet of North Interceptor Trench to the North slope Sediment Control Basin
INT-2	Outlet of east side Interceptor Trench to the sediment control basin located on the south side of the quarry.
SCD-1	Lower Outfall of the Surface Water Runoff Collection Ditch
SCD-2	Middle Outfall of the Surface Water Runoff Collection Ditch
SCD-3	Upper Outfall of the Surface Water Runoff Collection Ditch
PSW-1	Surface water monitoring location on Americano Creek upstream of the quarry.
PSW-2	Surface water monitoring location on Americano Creek downstream of the quarry and upstream of the confluence of Ranch Tributary.
PSW-3	Surface water monitoring location on Ranch Tributary prior to the confluence with Americano Creek.
PSW-4	Surface water monitoring location on Americano Creek downstream of Ranch Tributary and the quarry.
PSW-5	Surface water monitoring location on Ranch Tributary downstream of where runoff water from the Lower Outfall of the Surface Water Runoff Collection Ditch enters Ranch Tributary.
PSW-6	Surface water monitoring location on Ranch Tributary upstream of where runoff water from the Lower Outfall of the Surface Water Runoff Collection Ditch enters Ranch Tributary.

2. MONITORING PARAMETERS

The groups of parameters show in the monitoring requirements tables below include the following parameters for each group:

2.1. VOCs: US EPA Method 8260B

2.2. Semi-VOCs: US EPA Method 8270

2.3. Metals[1]: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Tin, Vanadium, and Zinc.

2.4. Field Parameters: pH, Specific Conductance, Total Alkalinity, Total Suspended Solids, Total Dissolved Solids, Turbidity, Total Hardness, Chloride, Nitrate as N, Oil and Grease.

3. MONITORING REQUIREMENTS

3.1. Source Water from Water Supply Wells

Table A-2. Monitoring Locations, Parameters, and Frequency

Monitoring Locations	VOCs	Metals	Field Parameters	Groundwater Elevation[2]
DW-1 and DW-2	24 hours[3]	24 hours[3]	24 hours[3]	Quarterly

3.2. Source Water from Sediment Control Basins

Table A-3. Monitoring Locations, Parameters, and Frequency

Monitoring Locations[4]	VOCs	Metals	Field Parameters	Freeboard
SCB-1, SCB-2, SCB-3	6-M/Q	6-M/Q	6-M/Q	Quarterly

6M/Q: Six monthly sampling events; quarterly thereafter

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[1] Metals samples shall be filtered through a 0.45-micron filter prior to preservation. Analytical methods shall be selected to provide detection limits below the limiting water quality objective for each constituent.

[2] Groundwater elevations shall be monitored on a weekly basis during periods of active pumping from Well DW-1 or DW-2.

[3] Groundwater extracted from Wells DW-1 and DW-2 shall be sampled and analyzed at least once every 24-hours for up to ten days during periods of sustained or cyclic pumping (until a suitable trend of water quality parameters is established), and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

[4] The samples shall be collected at the head end of the process water discharge point into the basin at a depth approximately midway between the pond surface and pond bottom.

3.3. Source Water from Water Treatment System

Table A-4. Monitoring Locations, Parameters, and Frequency

Monitoring Location	VOCs	Metals	Field Parameters
WTS-1[5]	6-M/Q	6-M/Q	6-M/Q

6M/Q: Six monthly sampling events; quarterly thereafter

3.4. Groundwater Monitoring

Table A-5. Monitoring Locations, Parameters, and Frequency

Monitoring Locations	VOCs	Semi-VOCs	Metals	Field Parameters	Groundwater Elevation
MW-1, MW-2b, MW-3, MW-4, MW-5, MW-6	6-Q/S	6-Q/S	6-Q/S	6-Q/S	Quarterly
MW-7, MW-8, MW-9, MW-10, MW-XX	6-Q/S	N/A	6-Q/S	6-Q/S	Quarterly
MW-YY	N/A	N/A	N/A	N/A	Quarterly

6Q/S: Six quarterly sampling events; semi-annually thereafter

3.5. Interceptor Trench Surface Water Monitoring

Table A-6. Monitoring Locations, Parameters, and Frequency

Monitoring Locations	VOCs	Semi-VOCs	Metals	Field Parameters
INT-1 and INT-2	6-Q/S	6-Q/S	6-Q/S	6-Q/S

6Q/S: Six quarterly sampling events; semi-annually thereafter

3.6. Surface Water Monitoring

Table A-7. Monitoring Locations, Parameters, and Frequency

Monitoring Locations	VOCs	Metals	Field Parameters	Flow	Creek Stage
PSW-1, PSW-2, PSW-3, PSW-4	6-Q/S	6-Q/S	6-Q/S	Continuous	Continuous
PSW-5, PSW-6			4-QSE[6]		
SCD-1, SCD-2, SCD-3			4-QSE[6]		

6Q/S: Six quarterly sampling events; semi-annually thereafter. Three of the first six quarterly sample events and one of the two annual semi-annual sampling events may be coordinated with the storm-triggered sampling events required below.

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[5] Composite sample required.
[6] Samples analyzed for turbidity only

4-QSE: Four sampling events during a Qualifying Storm Event (QSE). A QSE is defined as a rain event that meets all of the following conditions:

- there is runoff present at the outfall of the Surface Water Runoff Collection Ditch at the SCD-1 monitoring location
- there is flow present in Ranch Tributary at the PSW-5 and PSW-6 monitoring locations and
- there has been no runoff from the Surface Water Runoff Collection Ditch occurring at the SCD-1 monitoring location within the previous 48 hours.

4. GENERAL MONITORING PROVISIONS

4.1. Water Treatment System Monitoring Provision

Composite samples may be taken by a proportional sampling device approved by the Regional Water Board Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

4.2. Supplemental Monitoring Provision

If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual self-monitoring reports.

4.3. Laboratory Certification

Laboratories analyzing monitoring samples shall be certified by the State of California Environmental Laboratory Accreditation Program and must include quality assurance/quality control data with their reports. The Discharger may analyze pollutants with short hold times (e.g., pH, chlorine residual, etc.) in its on-site laboratory provided that the Discharger has standard operating procedures (SOPs) that identify quality assurance/quality control procedures to be followed to ensure accurate results.

4.4. Minimum Levels

Compliance and reasonable potential monitoring analyses shall be conducted using commercially available and reasonably achievable detection limits that are lower than the applicable effluent limitation. If no minimum level (ML) value is below the effluent limitation, the lowest ML shall be selected as the reporting level (RL). The method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40, Code of Federal Regulations (C.F.R.), part 136, Attachment B, revised as of July 3, 1999.

4.5. Monitoring Equipment Provision

All monitoring and analysis instruments and devices used by the Discharger to fulfill this MRP shall be properly maintained and calibrated as recommended by the manufacturer to ensure their continued accuracy. The calibration interval for flow measurement devices shall not exceed 5 years.

4.6. Treated Water Monitoring Provision.

For effluent monitoring from the granular activated carbon and/or ion exchange water treatment system, composite samples may be taken by a proportional sampling device approved by the Regional Water Board Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

4.7. Groundwater Gradients

Groundwater elevations taken prior to purging the well and sampling for Monitoring Parameters shall be used to fulfill the groundwater gradient/direction analyses required. For each monitored groundwater body, the Discharger shall measure the water level in each well and shall determine groundwater gradient and direction at least quarterly, including the times of expected highest and lowest elevations of the water level for the respective groundwater body. Groundwater elevations for all upgradient and downgradient wells for a given groundwater body shall be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater gradient and direction. This information shall be included in the quarterly monitoring reports.

5. REPORTING REQUIREMENTS

5.1. Self-Monitoring Reports (SMRs)

- The Discharger shall submit quarterly SMRs including the results for all monitoring specified in this MRP. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
- Quarterly SMRs shall be submitted by the first day of the second calendar quarter, following the quarter of sampling. Annual summary reports shall be submitted by April 1 each year.
- Monitoring periods for all required monitoring shall be completed according to the following schedule:

Table A-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period
Daily	Permit Effective Date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month
Quarterly	First day of calendar quarter following permit effective date or on permit effective date if that date is first day of the quarter.	January through March April through June July through September October through December
Annually	January 1 following (or on) permit effective date	January 1 through December 31

- The Discharger shall report with each sample result the applicable MDL, the RL and the current MDL, as determined by the procedure in Standard Methods.
- The Discharger shall report with each sample result the applicable ML[7], the RL and the current MDL, as determined by the procedure in Standard Methods.
  a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
  b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be

[7] The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Non-Detect," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

- The Discharger shall submit monthly SMRs in accordance with the following requirements:

  a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the Facility is operating in compliance with effluent limitations and other WDR requirements.

  b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

     i. Facility name and address;

     ii. WDID number;

     iii. Applicable period of monitoring and reporting;

     iv. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

     v. Corrective actions taken or planned; and

     vi. The proposed time schedule for corrective actions.

  c. The Discharger shall obtain a GeoTracker Account and Global ID for the Roblar Road Quarry site. Information on the GeoTracker database is provided on the State Water Board website: (https://www.waterboards.ca.gov/resources/data_databases/groundwater.shtml)

  d. The Quarterly SMRs, and the Annual Reports must be uploaded to the State Water Board's GeoTracker database in a Portable Document

Format (PDF). Analytical results must be electronically submitted to GeoTracker database in electronic deliverable format (EDF).

5.2. **Annual Report**

The Discharger shall submit an annual report, as per this section, to the Regional Water Board for each calendar year. The report shall be submitted by April 1 of the following year. The report shall, at a minimum, include the following:

- Monitoring Data Summaries. Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculation and report of the data submitted in the SMR.
- Compliance Reporting. A comprehensive discussion of the Facility's compliance (or lack thereof) with all water quality limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.
- Infiltration/Irrigation Application Rates. Monthly application rates of wastewater discharged to the infiltration/irrigation fields.
- Baseflow and Peak Flow Monitoring. Hydrographs for Americano Creek and Ranch Tributary reporting the results of continuous monitoring. The report shall compare current year results to historical results through the development of the quarry to post-reclamation and note any statistically significant changes over time. The report shall also contain the quarterly groundwater level measurements and compare current results to historical results and note any statistically significant changes over time.

5.3. **Notification of Detections of Exceedances of Concentration Limits**

- If the results of the monitoring program show there is any detection of VOCs or Semi-VOCs, or that metals concentrations or field parameters are measured above concentration limits[8] for changes over time within samples collected from monitoring wells MW-1, MW-2b, MW-3, MW-4, MW-5, MW-6, MW-XX and surface water sample locations INT-1 and INT-2, the Discharger shall:
  a. Immediately notify the Regional Water Board staff by telephone or email of the exceedance,

[8] The concentration limit for each constituent shall be determined by calculation in accordance with a statistical method pursuant to Title 27, section 20415(e)(8) or by an alternate statistical method approved by Regional Water Board staff.

b. Within seven days of the initial findings, follow up with written notification,

c. Within 30 days of the initial finding, re-sample for the constituent(s) or parameter(s) at the point where the standard was exceeded, and

d. Within 60 days of the initial finding, submit the results of the re-sampling and statistical analysis, indicating whether or not an exceedance or release was confirmed by the re-test. Within 180 days of verifying constituents of concern above concentration limits specified in this Order, submit a corrective action plan to correct the violations and to prevent future similar violations.

5.4. **Spill Notification**

- Spills and Unauthorized Discharges. Information regarding all spills and unauthorized discharges that may endanger health or the environment shall be provided verbally to the Regional Water Board[9] within 24 hours from the time the Discharger becomes aware of the circumstances and a written report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances of the spill or unauthorized discharge.
- Information to be provided verbally to the Regional Water Board includes:

  a. Name and contact information of caller;

  b. Date, time and location of spill occurrence;

  c. Estimates of spill volume, rate of flow, and spill duration, if available and reasonably accurate;

  d. Surface water bodies impacted, if any;

  e. Cause of spill, if known at the time of the notification;

  f. Cleanup actions taken or repairs made at the time of the notification;

  g. Actions taken to prevent the spill or unauthorized discharge from reoccurring; and

  h. Responding agencies.

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[9] The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, spill reporting to the California Governor's Office of Emergency Services Warning Center. (CalOES) will satisfy the 24-hour spill reporting requirement for the Regional Water Board. The contact number for spill reporting for the CalOES is (800) 852-7550.

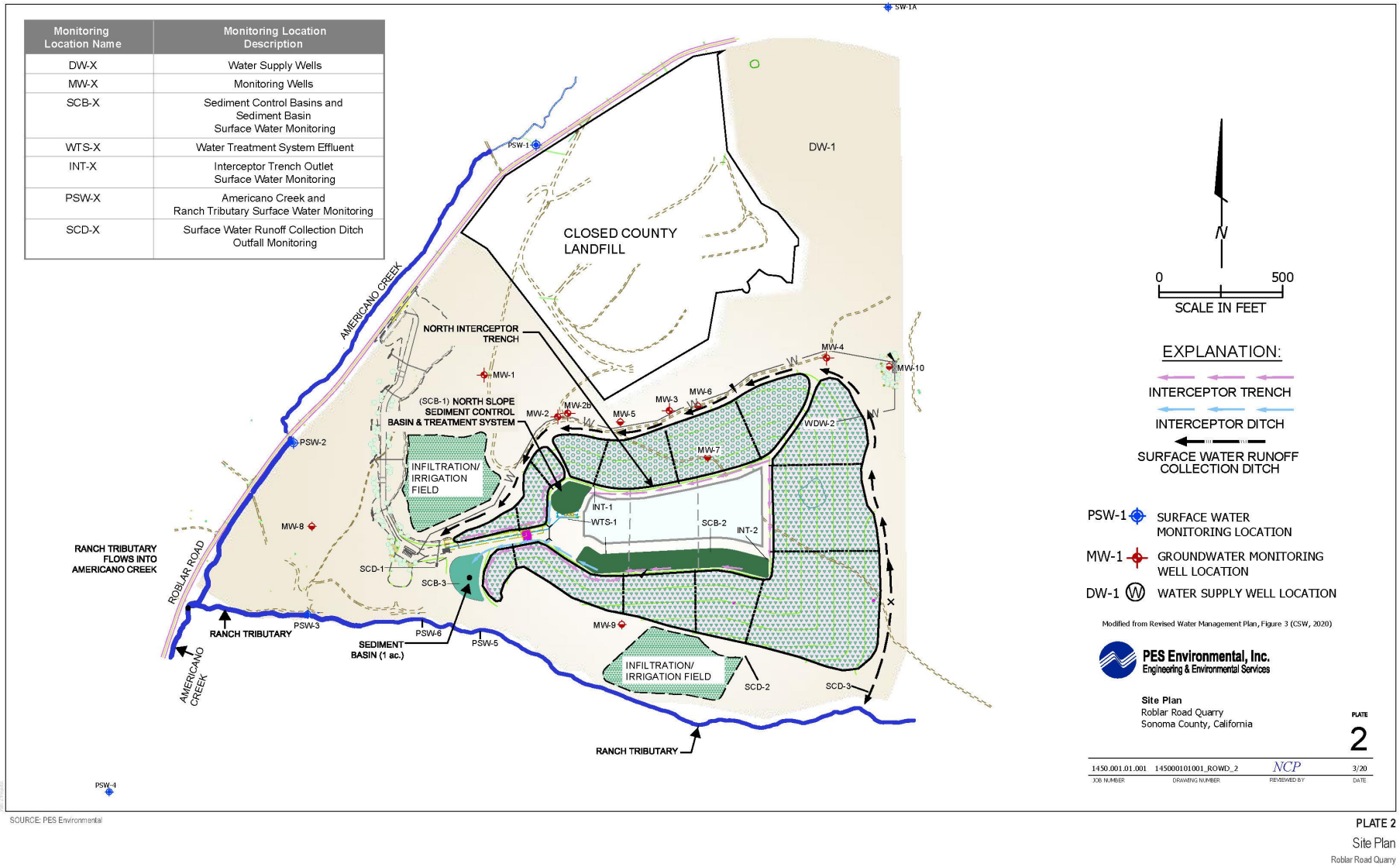

FIGURE A-1. Roblar Road Quarry Surface Water and Groundwater Monitoring Locations

Ordered by

Valerie Quinto
Executive Officer