Attachment E – Monitoring and Reporting Program – Table of Contents

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify monitoring and reporting requirements. CWC Sections 13267 and 13383 also authorize the Regional Water Quality Control Board to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements to implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Regional Board.

B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.

1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)

3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services.

D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
Receiving Water	R-001U	In the Pajaro River upstream of Discharge Point 001 where water samples reflect water quality before the addition of effluent to the receiving water.
Receiving Water	R-001D	Pajaro River approximately 100 to 200 feet downstream of Discharge Point 001, where a representative sample that indicates the impact of effluent on receiving water can be collected.
001	M-001	Effluent discharged from Quarry Storage Reservoir before its contact with receiving water

III. MONITORING REQUIREMENTS

A. Effluent Monitoring, M-001

1. The Discharger shall monitor effluent discharged to the Pajaro River from Quarry Storage Reservoir at Monitoring Location M-001 as follows. All effluent monitoring is required only when effluent is being discharged to the Pajaro River.

Constituent	Units	Sample Type	Minimum Sampling Frequency
Flow	mgd	measured	daily
TSS	mg/L	grab	weekly
Turbidity	NTUs	grab	weekly
pH	pH units	grab	weekly
Temperature	º F	grab	hourly[7]
Oil and Grease	mg/L	grab	weekly [1]
TDS	mg/L	grab	weekly [1]
Chloride	mg/L	grab	weekly [1]
Sulfate	mg/L	grab	weekly [1]
Boron	mg/L	grab	weekly [1]
Sodium	mg/L	grab	weekly [1]
Mercury (Total)	µg/L	grab	weekly [1]
Nitrate (as N)	mg/L	grab	weekly [1]
Acute Toxicity	TU	grab	1X / discharge event [2]
CTR Metals [3]	µg/L	grab	1X / year
CTR Priority Pollutants [4]	µg/L	grab	2X / permit term [6]
Title 22 Pollutants [5]	µg/L	grab	2X / permit term [6]

[1] Monitoring for these pollutants at weekly intervals is based on an assumption of one discharge event per year during the wet season (October 1 through May 31) that lasts for 3-4 days. If a single discharge event continues for more than 7 days, monitoring for this constituent will be required a second time following a weekly interval; however, monitoring is required at monthly intervals thereafter.

[2] Monitoring for acute toxicity during each discharge event is based on an assumption of one discharge event per year, or less. If there is more than one discharge event per wet season, monitoring for acute toxicity is required during the second discharge event; however, monitoring for acute toxicity is required no more than two times per wet season.

[3] The CTR Metals are those pollutants identified as compound numbers 1 – 13 by the California Toxics Rule at 40 CFR 131.38 (b) (1). These metals shall be monitored one time per year, if there is a discharge event in each year.

[4] The CTR priority pollutants are those listed by the California Toxics Rule at 40 CFR 131.38 (b) (1).

[5] The Title 22 pollutants are those for which primary Maximum Contaminant Levels have been established by the Department of Health Services and which are listed in Tables 64431-A and 64444-A of the California Code off Regulations, Title 22, Division 4, Chapter 15. Where these pollutants are included in other groups of pollutants (CTR Metals or CTR Priority Pollutants), monitoring does not need to be duplicated because they are included in more than one set of constituents. The Regional Board's intent is to require monitoring for the CTR metals plus aluminum one time per year and monitoring for the other CTR and Title 22 pollutants two times during the permit term.

[6] Monitoring for these constituents shall occur during the first and second discharge events following adoption of this Order, but not during the same rainy season. The CTR Priority Pollutants include the CTR metals. Monitoring for metals does not need to be duplicated because they are included in both sets of constituents. The Regional Board's intent is to require monitoring for the CTR metals one time per year and monitoring for the other, 113 CTR pollutants two times during the permit term. Sample collection shall be reported in the first quarterly report submitted following completion of the sampling event. Data shall be reported in the first quarterly report submitted following receipt of the data from the analytical laboratory.

[7] Hourly during the discharge. Sampling may be reduced to one time sampling during discharges as supported by applicable data showing that the effluent temperature is consistently at or below the receiving water temperature and will not be likely to cause excursions above the prescribed limits (see Receiving Water Limitation A.12 of Order No. R3-2005-0044). Reductions in sampling frequency are contingent upon Executive Officer approval.

B. Receiving Water Monitoring, R-001U and R-001D

1. The Discharger shall monitor the Pajaro River at Monitoring Stations R-001U and R-001D as follows, except that the CTR Priority Pollutants and the Title 22 Pollutants shall be monitored only at Monitoring Station R-001U.

Constituent	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L	field measurement	monthly [1]
Temperature	º F	field measurement	prior/hourly[2]
pH	pH units	field measurement	monthly [1]
Visual Observations	-	field observation	monthly [1]
Flow	mgd or cfs	measured	prior/hourly[3]
Turbidity	NTUs	grab	monthly [1]
TDS	mg/L	grab	monthly [1]
Chloride	mg/L	grab	monthly [1]
Sulfate	mg/L	grab	monthly [1]
Boron	mg/L	grab	monthly [1]
Sodium	mg/L	grab	monthly [1]
Nitrate (as N)	mg/L	grab	monthly [1]
Acute Toxicity	TU	grab	1X / discharge event [7]
CTR Priority Pollutants [4]	µg/L	grab	1 X / permit term [6]
Title 22 Pollutants [5]	µg/L	grab	1X / permit term [6]
Hardness	mg/L $CaCO_3$	grab	2X / permit term [6]

[1] These monthly monitoring requirements shall be conducted only during periods of discharge to the Pajaro River; i.e., in each calendar month that a discharge occurs, monthly monitoring requirements must be conducted.

[2] Prior to each Pajaro River discharge, and hourly during the discharge. Sampling may be reduced to one time sampling during discharges as supported by applicable data showing that the effluent temperature is consistently at or below the receiving water temperature and will not be likely to cause excursions above the prescribed limits (see Receiving Water Limitation A.12 of Order No. R3-2005-0044). Alternate sampling locations may be established to account for safety considerations as long as alternate locations produce characteristic temperature data. Reductions in sampling frequency and the selection of alternate sampling locations are contingent upon Executive Officer approval.

[3] Prior to each Pajaro River discharge, and hourly during the discharge as measured at the Chittenden Gauging Station.

[4] The CTR priority pollutants are those listed by the California Toxics Rule at 40 CFR 131.38 (b) (1).

[5] The Title 22 pollutants are those for which primary Maximum Contaminant Levels have been established by the Department of Health Services and which are listed in Tables 64431-A and 64444-A of the California Code off Regulations, Title 22, Division 4, Chapter 15. Where these pollutants are also identified as CTR Priority Pollutants, monitoring does not need to be duplicated.

[6] Monitoring shall occur during the wet season (Oct 1 – May 31) within the 18-month period before expiration of this Order. Sample collection shall be reported in the first quarterly report submitted following completion of the sampling event. Data shall be reported in the first quarterly report submitted following receipt of the data from the analytical laboratory.

[7] Receiving water monitoring for toxicity shall be conducted coincident with effluent toxicity monitoring.

C. Process Water Supply Monitoring

1. The Discharger shall collect and analyze representative samples from the facility process water supply well (currently the Orchard Well) as follows.

Constituent	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	measured	annually
TDS	mg/L	grab	annually
Chloride	mg/L	grab	annually
Sulfate	mg/L	grab	annually
Boron	mg/L	grab	annually
Sodium	mg/L	grab	annually
Nitrate (as N)	mg/L	grab	annually
Hardness	mg/L $CaCO_3$	grab	annually

IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

Acute toxicity testing shall be performed using U.S. EPA Method 2001.0 (fathead minnow) in accordance with procedures described by *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, U.S. EPA Office of Water, EPA-821-R-02-012 (2002) or the latest edition.

The presence of acute toxicity is identified by significantly reduced survival, as determined by a t-test, of test organisms in 100 percent effluent compared to a control sample.

When toxicity monitoring finds acute toxicity in the effluent above the limitation established by Order No. R3-2005-0044, the Discharger shall immediately resample the effluent, if the discharge is continuing, and retest for acute toxicity. Results of the initial failed test and any toxicity monitoring results subsequent to the failed test shall be reported as soon as reasonable to the Executive Officer (EO). The EO will determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation (TRE) requirements, or to implement other measures.

V. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports

1. The Discharger shall submit an annual Self Monitoring Reports, which includes the results of all required monitoring and results of all additional monitoring conducted using U.S. EPA approved test methods or methods specified in this Order. Annual reports shall be due on August 1of each calendar year.

2. Monitoring periods for all required monitoring shall adhere to the following schedule.

Monitoring Period	SMR Submittal Date
June 1 – May 31	August 1

3. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory's current method detection limit (MDL) as determined by the procedure in 40 CFR Part 136.

4. The Discharger shall arrange all reported data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.

5. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned, and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

6. Monitoring results must be reported on forms approved by this Regional Board. Duplicate copies of the monitoring reports, signed and certified as required by the standard provisions (Attachment D) must be submitted to the address listed below.

Submit monitoring reports to:
State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

7. If no discharge occurs during the year, a statement to that effect may be sent in lieu of the annual Report.

8. In accordance with Provision VI. C. 4 of Order No. R3-2005-0044, the Discharger shall certify by August 1 of each year that necessary measures have been taken and pollution control equipment and systems are in proper condition to comply with the terms of the Order during the impending rainy season.

9. Annual Self Monitoring Reports shall include:

- All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.
- A discussion of any incident of non-compliance and corrective actions taken.

10. All monitoring shall be conducted according to test procedures established at 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, constituents not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations.

11. Monitoring requirements of this MRP will be continuously evaluated, and this MRP may be revised at any time during the permit term, as necessary, following collection and review of monitoring data.