CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1515 Clay Street, Suite 1400, Oakland, California 94612
waterboards.ca.gov/sanfranciscobay

TENTATIVE ORDER R2-2025-00XX
NPDES PERMIT CA0030210

The following Discharger is subject to the waste discharge requirements (WDRs) set forth in this Order:

Discharger	**Lehigh Southwest Cement Company**
Name of Facility	**Permanente Plant**
Facility Address	**24001 Stevens Creek Blvd.** **Cupertino, CA, 95014** **Santa Clara County**

Table 1. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Treated quarry dewatering water, Crusher Slope Drainage Area stormwater, Cement Plant Reclaim Water System wastewater, Rock Plant aggregate wash water, Truck Wash water, subsurface flow from the East Materials Storage Area (EMSA) (intercepted by the EMSA French drain, EMSA catchment and drainage swales, and any additional related infrastructure), non-stormwater, and stormwater, treated at either the Upper Water Treatment System (Upper WTS) or Lower Water Treatment System (Lower WTS)	37.31713°	-122.11165°	Permanente Creek
002	Settled stormwater from slope north of Pond 13B, discharged from Pond 13B	37.31674°	-122.10167°	Permanente Creek
005	Settled stormwater from former Aluminum Plant, entry road, nearby hillside, and rain falling in the Rock Plant area, discharged from Pond 20	37.31899°	-122.087159°	Permanente Creek
007	Same sources as Discharge Point 001, treated at the Lower WTS	37.31778°	-122.08750°	Permanente Creek

This Order was adopted on:	**[DATE]**
This Order shall become effective on:	**May 1, 2026**
This Order shall expire on:	**April 30, 2031**
CIWQS regulatory measure number:	**[XXXXXX]**

The Discharger shall file a Report of Waste Discharge as an application for updated WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than **August 3, 2030.** The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) have classified this discharge as "**major**."

I hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the Regional Water Board on the date indicated above.

Eileen M. White, P.E., Executive Officer

CONTENTS

TABLES

ATTACHMENTS

1. FACILITY INFORMATION

Information describing the Lehigh Southwest Cement Company's (Discharger's) Permanente Plant (Facility) is summarized on the cover page and in Fact Sheet (Attachment F) sections 1 and 2. Fact Sheet section 1 also includes information regarding the permit application.

2. FINDINGS

The Regional Water Board finds the following:

2.1. Legal Authorities. This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA and Water Code chapter 5.5, division 7 (commencing with § 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States as described in Table 1 subject to the WDRs in this Order.

2.2. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information the Discharger submitted as part of its application, information obtained through monitoring and reporting programs, and other available information. The Fact Sheet contains background information and rationale for the requirements in this Order and is hereby incorporated into and constitutes findings for this Order. Attachments A through E, G, and S are also incorporated into this Order.

2.3. Provisions and Requirements Implementing State Law. Attachment G Provision 1.9.1 is included to implement state law only. This provision is not required or authorized under the federal CWA; consequently, violations of this provision are not subject to the enforcement remedies that are available for NPDES violations.

2.4. Notification of Interested Parties. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe these WDRs and has provided an opportunity to submit written comments and recommendations. Fact Sheet section 8.1 provides details regarding the notification.

2.5. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Fact Sheet section 8.3 provides details regarding the public hearing.

THEREFORE, IT IS HEREBY ORDERED that Order R2-2019-0024 (previous order) is rescinded upon the effective date of this Order, except for enforcement purposes, and, in order to meet the provisions contained in Water Code division 7 (commencing with § 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the

requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous order.

3. DISCHARGE PROHIBITIONS

3.1. Discharge of treated or untreated wastewater at a location or in a manner different than described in this Order is prohibited.

3.2. Combined discharge greater than 167,000 gallons per hour (gph), as determined on an hourly basis, from Discharge Points 001 and 007 is prohibited.

3.3. Discharge from Discharge Points 002 and 005 is prohibited, except as a result of precipitation or as necessary to discharge retained stormwater.

4. EFFLUENT LIMITATIONS

4.1. Discharge Points 001 and 007

The Discharger shall comply with the following effluent limitations at Discharge Points 001 and 007, with compliance measured at Monitoring Locations EFF-001 and EFF-007 as described in the Monitoring and Reporting Program (MRP, Attachment E):

Table 2. Effluent Limitations – Discharge Points 001 and 007

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	10	20	—	—
pH [1]	s.u.	—	—	6.5	8.5
Settleable Matter	mL/L-hr	0.10	0.20	—	—
Total Residual Chlorine	mg/L	—	—	—	0.0
Dissolved Oxygen (DO)	mg/L	—	—	7.0	—
Selenium	µg/L	3.7	8.2	—	—

Footnote:

[1] If the Discharger monitors pH continuously, pursuant to 40 C.F.R. section 401.17 the Discharger shall be in compliance with this pH limitation provided that both of the following conditions are satisfied: (1) the total time during which the pH is outside the required range shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the required pH range shall exceed 60 minutes.

4.2. Discharge Points 002 and 005

The Discharger shall comply with the following effluent limitations at Discharge Points 002 and 005, with compliance measured at Monitoring Locations EFF-002 and EFF-005 as described in the MRP.

Table 3. Effluent Limitations – Discharge Points 002 and 005

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	10	20	—	—

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	—	—	6.5	8.5
Settleable Matter	mL/L-hr	0.10	0.20	—	—
Total Suspended Solids (TSS)	mg/L	—	50	—	—

5. PROVISIONS

5.1. Standard Provisions

5.1.1. The Discharger shall comply with all "Standard Provisions" in Attachment D.

5.1.2. The Discharger shall comply with all applicable provisions of Attachment G (*Regional Standard Provisions, and Monitoring and Reporting Requirements for NPDES Wastewater Discharge Permits*).

5.1.3. For discharges from Discharge Points 002 and 005, the Discharger shall comply with the applicable provisions of Attachment S (*Stormwater Provisions, Monitoring, and Reporting Requirements*) as modified below. Specifically, Attachment S section I.7 is replaced as follows:

Action Levels and Advanced Best Management Practices (BMPs). If the Discharger samples any parameter in excess of an action level in Table A, the Discharger shall review the Stormwater Pollution Prevention Plan (SWPPP) to identify appropriate modifications to existing BMPs or additional BMPs as necessary to reduce pollutant discharge concentrations to levels below the action level. The Discharger shall revise the SWPPP accordingly before the next storm, if possible, or as soon as practical, and in no event later than three months following the exceedance.

Table A
Stormwater Action Levels

Parameter	Unit	Instantaneous Action Level	Annual Action Level [1]
Chromium (VI)	µg/L	16	—
Selenium	µg/L	—	5.0
Visible Oil	—	Presence	Presence
Visible Color	—	Presence	Presence

Footnote:

[1] Comparisons with Annual Action Levels shall be evaluated using data collected over each 12-month period from July 1 through the following June 30.

If, upon subsequent monitoring, the pollutants measured in Table A continue to exceed their respective action levels, the Discharger shall further evaluate its BMPs and update its SWPPP accordingly to include advanced BMPs in addition to the minimum BMPs described in Provision 1.6, above. The Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified pursuant to

Provision 1.5.8, above, as necessary to reduce or prevent discharges of pollutants in stormwater discharges in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Advanced BMPs may include one or more of the following:

- **Exposure Minimization BMPs**. These include storm resistant shelters (either permanent or temporary) that prevent the contact of stormwater with identified industrial materials.

- **Stormwater Containment and Discharge Reduction BMPs.** These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of stormwater runoff.

- **Treatment Control BMPs.** These include mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

5.1.4. If there is any conflict, duplication, or overlap between provisions in this Order, the more stringent provision shall apply.

5.2. Monitoring and Reporting Provisions

The Discharger shall comply with the Monitoring and Reporting Program (MRP, Attachment E) and future revisions thereto, and applicable monitoring and reporting requirements in Attachments D and G.

5.3. Special Provisions

5.3.1. **Reopener Provisions.** The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law or as otherwise authorized by law. The Discharger may request a permit modification based on any of these circumstances. With any such request, the Discharger shall include antidegradation and anti-backsliding analyses as necessary.

5.3.1.1. If present or future investigations demonstrate that the discharges governed by this Order have or will have a reasonable potential to cause or contribute to adverse impacts on water quality or beneficial uses of the receiving waters;

5.3.1.2. If new or revised water quality objectives or total maximum daily loads (TMDLs) come into effect for San Francisco Bay or contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order may be modified as necessary to reflect the updated water quality objectives or wasteload allocations. Adoption of the effluent limitations in this Order does not restrict in any way future modifications

based on legally-adopted water quality objectives or TMDLs or as otherwise permitted under federal regulations governing NPDES permit modifications;

5.3.1.3. If translator, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified;

5.3.1.4. If a State Water Board precedential decision, new policy, new law, or new regulation is adopted;

5.3.1.5. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to this discharge;

5.3.2. **Effluent Characterization Study and Report**

5.3.2.1. **Study Elements.** The Discharger shall characterize and evaluate the discharge from Discharge Points 001 and 007, as required by the MRP, to verify that the reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance.

The Discharger shall evaluate on an annual basis if concentrations of any of the priority pollutants listed in Attachment G, Table B, significantly increase over past performance. The Discharger shall investigate the cause of any such increase. The investigation may include, but need not be limited to, an increase in monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. The Discharger shall establish remedial measures addressing any increase resulting in reasonable potential to cause or contribute to an exceedance of applicable water quality objectives. This requirement may be satisfied through identification of the constituent as a "pollutant of concern" in the Discharger's Pollutant Minimization Program, described in Provision 5.3.3.

5.3.2.2. **Reporting Requirements**

5.3.2.2.1. **Routine Reporting.** The Discharger shall report the pollutants detected at or above applicable water quality objectives (see Fact Sheet Table F-7 for the objectives) in the transmittal letter for the self-monitoring report associated with the month in which samples were collected. This requirement does not apply to pollutants with effluent limitations (see Table 2 of this Order).

5.3.2.2.2. **Annual Reporting.** The Discharger shall summarize the annual data evaluation and source investigation in the annual self-monitoring report.

5.3.3. **Pollutant Minimization Program**

5.3.3.1. The Discharger shall develop and conduct a Pollutant Minimization Program as described below when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as

detected but not quantified [DNQ] when the effluent limitation is less than the method detection limit [MDL], sample results from analytical methods more sensitive than those methods required by this Order, presence of aquatic toxicity, health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) and either:

5.3.3.1.1. A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or

5.3.3.1.2. A sample result is reported as not detected (ND) and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in the MRP.

5.3.3.2. If triggered for a reason set forth in Provision 5.3.3.3, above, the Discharger's Pollutant Minimization Program shall include, but not be limited to, the following actions and submittals:

5.3.3.2.1. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutants, which may include fish tissue monitoring and other bio-uptake sampling, or alternative measures when source monitoring is unlikely to produce useful analytical data;

5.3.3.2.2. Quarterly monitoring for the reportable priority pollutants in the influent to the wastewater treatment system. The Executive Officer may approve alternative measures when influent monitoring is unlikely to produce useful analytical data;

5.3.3.2.3. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutants in the effluent at or below the effluent limitation; and

5.3.3.2.4. Implementation of appropriate cost-effective control measures for the reportable priority pollutants, consistent with the control strategy.

5.3.4. **Receiving Water Data Reporting.** The Discharger shall submit receiving water data for selenium at Monitoring Locations RSW-001, RSW-001A, and RSW-004 to the California Environmental Data Exchange Network (CEDEN) to the extent that CEDEN accommodates the data type. Other receiving water data the MRP requires the Discharger to collect shall be submitted to SWAMP Information Management and Quality Assurance Center (SWAMP IQ) for upload starting when CEDEN can accommodate the data type. These data and results shall be submitted annually by March 1 and as described in the MRP.

ATTACHMENT A – DEFINITIONS AND ABBREVIATIONS

DEFINITIONS

Alternative Hypothesis
Statement used to propose a statistically significant relationship in a set of given observations. Under the Test of Significant Toxicity (TST) approach, when the Null Hypothesis is rejected, the Alternative Hypothesis is accepted in its place, indicating a relationship between variables and an acceptable level of toxicity.

Arithmetic Mean (μ)
Also called the average, sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$

where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples

Average Monthly Effluent Limitation (AMEL)
Highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
Highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative
Taken up by an organism from its surrounding medium through gill membranes, through epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Calendar Month(s)
Period from the first day of a month through the last day of a month (e.g., January 1 to January 31). For toxicity monitoring, the period is from the first day of a routine monitoring test to the day before the corresponding day of the next month (e.g., from June 15 to July 14), or to the last day of the next month if there is no corresponding day (e.g., January 31 to February 28).

Carcinogenic
Known to cause cancer in living organisms.

Coefficient of Variation (CV)
Measure of data variability calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge
Either: (1) the total mass of a constituent discharged over a calendar day (12:00 a.m. through 11:59 p.m.) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit) for a constituent with limitations expressed in units of mass; or (2) the unweighted arithmetic mean measurement of a constituent over a day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period is considered the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)
Sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit
Amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effective Concentration (EC)
The EC is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA)
Value derived from the water quality criterion or objective, dilution credit, and ambient background concentration that is used, in conjunction with the CV for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as wasteload allocation (WLA) as used in U.S. EPA guidance (*Technical Support Document for Water Quality-based Toxics Control*, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays
Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest

distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration
Concentration that results from the confirmed detection of a substance below the ML by the analytical method.

Estuaries
Waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters are considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220; Suisun Bay; Carquinez Strait downstream to the Carquinez Bridge; and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inhibition Concentration (IC)
The IC is a point estimate of the toxicant concentration that would cause a given percent reduction in a nonlethal, nonquantal biological measurement, such as growth. For example, an IC25 is the estimated concentration of toxicant that would cause a 25 percent reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as U.S. EPA's Bootstrap Procedure.

Inland Surface Waters
All surface waters of the state that are not the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation
Highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
Lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Instream Waste Concentration (IWC)
Concentration of effluent in the receiving water after any dilution credit is applied. The IWC is the inverse of 1 plus the dilution credit, D, or IWC = 1/(1+D), expressed as a percentage (e.g., if D = 9, the IWC is 10 percent). If no dilution credit is granted, the IWC is 100 percent.

Maximum Daily Effluent Limitation (MDEL)
Highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour

period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For toxicity, the MDEL is based on the outcome of the TST and the percent effect at the IWC (applied to the results of any single bioassay). For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Maximum Daily Effluent Target (MDET)
Target based on a single independent toxicity test using the TST used to determine whether a TRE should be conducted. Not meeting the MDET is not a violation of an effluent limitation. The MDET only applies to discharges with no numeric toxicity limits.

Median
Middle measurement in a data set. The median of a data set is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2+1)})/2$ (i.e., the midpoint between n/2 and n/2+1).

Median Monthly Effluent Limitation (MMEL)
Highest allowable median of daily discharges over a calendar month, calculated as the median of all daily discharges measured during a calendar month. For aquatic toxicity, the MMEL is an effluent limitation based on a maximum of three independent toxicity tests analyzed using the TST during a calendar month.

Median Monthly Effluent Target (MMET)
Target based on a maximum of three independent toxicity tests using the TST during a calendar month used to determine whether a TRE should be conducted. Not meeting a MMET is not a violation of an effluent limitation. The MMET only applies to discharges with no numeric toxicity limits or to testing with *Ceriodaphnia dubia* prior to January 1, 2024.

Method Detection Limit (MDL)
Minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 C.F.R. part 136, Appendix B.

Minimum Level (ML)
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.

Mixing Zone
Limited volume of receiving water allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

MMEL Compliance Tests
For chronic toxicity monitoring, a maximum of two tests used in addition to a routine monitoring test to determine compliance with the chronic toxicity MMEL and MDEL.

MMET Tests
For chronic toxicity monitoring, for a discharger not required to comply with numeric chronic toxicity effluent limitations, a maximum of two tests used in addition to a routine monitoring test to evaluate if the discharge meets the chronic toxicity MMET and MDET.

No Observed Effect Concentration (NOEC).
The NOEC is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

No Observed Effect level (NOEL).
For compliance determination, the NOEL is equal to IC25 or EC25. If the IC25 or EC25 cannot be statistically determined, the NOEL shall be equal to the NOEC derived using hypothesis testing.

Not Detected (ND)
Sample results less than the laboratory's MDL.

Null Hypothesis
Statement used in statistical testing that has been put forward either because it is believed to be true or because it is to be used as a basis for argument, but has not been proved.

Percent Effect
Value that denotes the difference in response between a test concentration and a control, divided by the mean control response and multiplied by 100.

Persistent Pollutants
Substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program
Program of waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of a Pollutant Minimization Program is to reduce all potential sources of a priority pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. Cost effectiveness may be considered when establishing the requirements of a Pollutant Minimization Program. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), is considered to fulfill the Pollutant Minimization Program requirements.

Pollution Prevention
Any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board or Regional Water Board.

Regulatory Management Decision (RMD)
Decision that represents the maximum allowable error rates and thresholds for toxicity and non-toxicity that would result in an acceptable risk to aquatic life.

Reporting Level (RL)
ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. For priority pollutants, the MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from State Implementation Plan (SIP) Appendix 4 in accordance with SIP section 2.4.2 or established in accordance with SIP section 2.4.3. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Response
Measured biological effect (e.g., on survival, reproduction, growth) of exposure to a stimulus.

Routine Monitoring
Regular chronic toxicity monitoring required during the permit term. Routine monitoring results may trigger MMEL compliance tests, or, for a discharger not required to comply with numeric chronic toxicity effluent limitations, MMET tests. If a violation of the MDEL or MMEL occurs, Routine monitoring also includes one sample collected during the following month (regardless of the regular monitoring frequency), which is used to determine if a TRE is necessary. Routine monitoring does not include surveillance monitoring.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) beneficial use.

Standard Deviation (σ)
Measure of variability calculated as follows:

Standard deviation = $\sigma = (\Sigma[(x - \mu)^2]/(n - 1))^{0.5}$

where: x is the observed value
μ is the arithmetic mean of the observed values
n is the number of samples

Surveillance Monitoring
Chronic toxicity monitoring performed using the most sensitive species at an effluent concentration at least double the IWC. Surveillance monitoring results are not for assessing compliance with the chronic toxicity MMEL or MDEL.

Test of Significant Toxicity (TST)
Statistical approach used to analyze aquatic toxicity test data, as described in section III.B.3 of *State Water Board's State Policy for Water Quality Control: Toxicity Provisions*.

Toxicity Reduction Evaluation (TRE)
Study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemicals responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

ABBREVIATIONS

°F	degrees Fahrenheit
°C	degrees Celsius
%	Percent
µg/L	Micrograms per liter
1/Blending Event	Once per blending event
1/Discharge	Once per discharge
1/Day	Once per day
1/Month	Once per month
1/Quarter	Once per quarter
1/Week	Once per week
1/Year	Once per year
2/Month	Two times per month
2/Week	Twice per week
2/Year	Twice per year
3/Week	Three times per week
4/Week	Four times per week
5/Week	Five times per week
AMEL	Average monthly effluent limitation
AWEL	Average weekly effluent limitation
B	Background concentration
bpd	Barrels per day
C	Water quality criterion or objective
C-24	24-hour composite
CFU/100 mL	Colony forming units per 100 milliliters
CIWQS	California Integrated Water Quality System
Continuous	Measured continuously
Continuous/D	Measured continuously, and recorded and reported daily
Continuous/H	Measured continuously, and recorded and reported hourly
CTR	California Toxics Rule
CV	Coefficient of Variation
DMR	Discharge Monitoring Report

DNQ	Detected, but not quantified
DL	Detection level
ECA	Effluent Concentration Allowance
gpm	Gallons per minute
Grab	Grab sample
IWC	Instream Waste Concentration
MDEL	Maximum Daily Effluent Limitation
MDET	Maximum Daily Effluent Target
MDL	Method detection limit
MEC	Maximum effluent concentration
MG	Million gallons
mg/L	Milligrams per liter
mg/L as N	Milligrams per liter as nitrogen
MGD	Million gallons per day
ML	Minimum level
MMEL	Median Monthly Effluent Limitation
MMET	Median Monthly Effluent Target
MPN/100 mL	Most probable number per 100 milliliters
MRP	Monitoring and Reporting Program (Attachment E)
ND	Not detected
NTR	National Toxics Rule
NTU	Nephelometric turbidity units
ppt	Parts per thousand
RL	Reporting level
RPA	Reasonable potential analysis
SIP	*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy)
SMR	Self-Monitoring Report
s.u.	Standard pH units
TIE	Toxicity identification evaluation
TRE	Toxicity reduction evaluation
TST	Test of Significant Toxicity

WDRs	Waste discharge requirements
WQBEL	Water quality-based effluent limitation

ATTACHMENT B – MAPS

Figure B-1. Facility Location Map

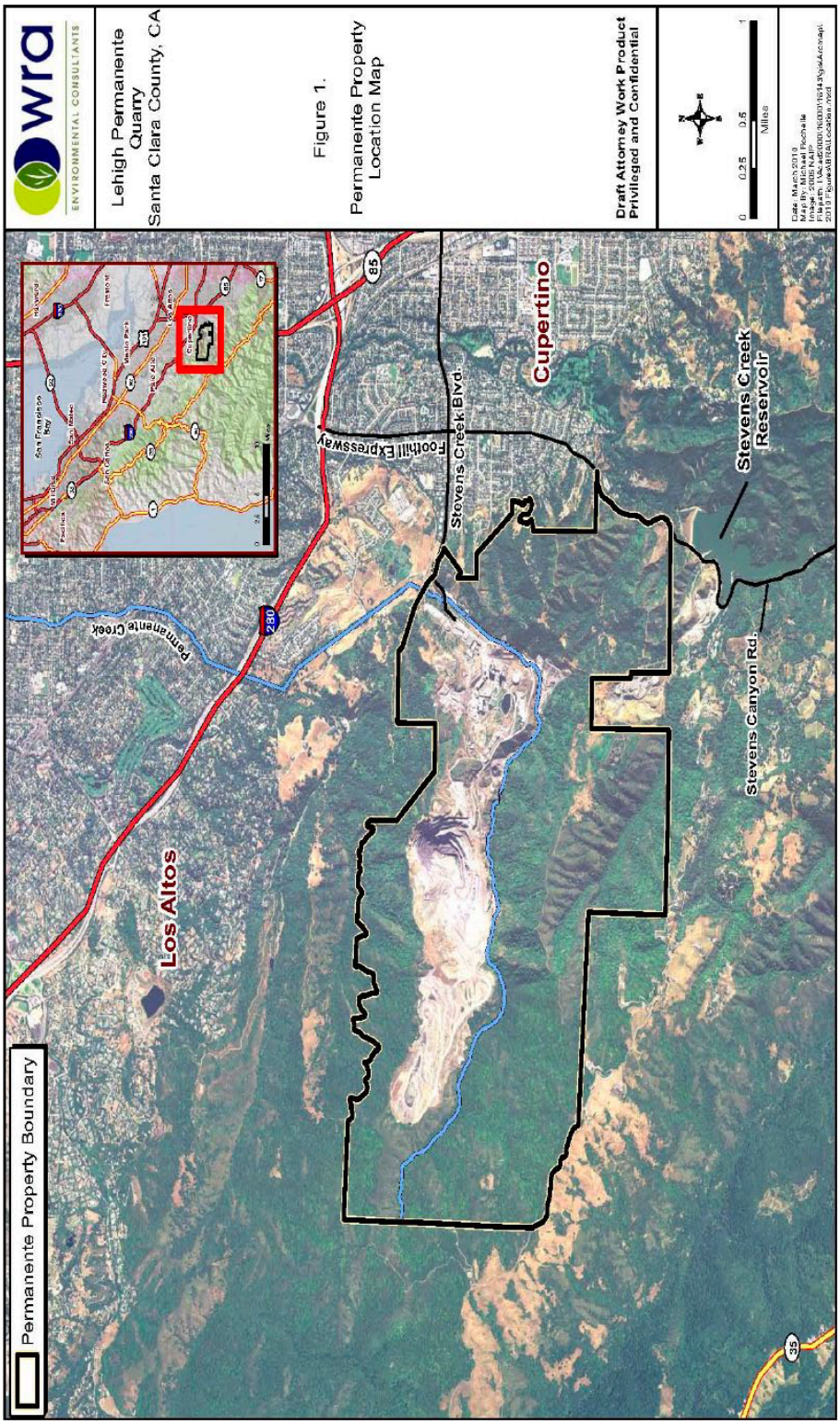
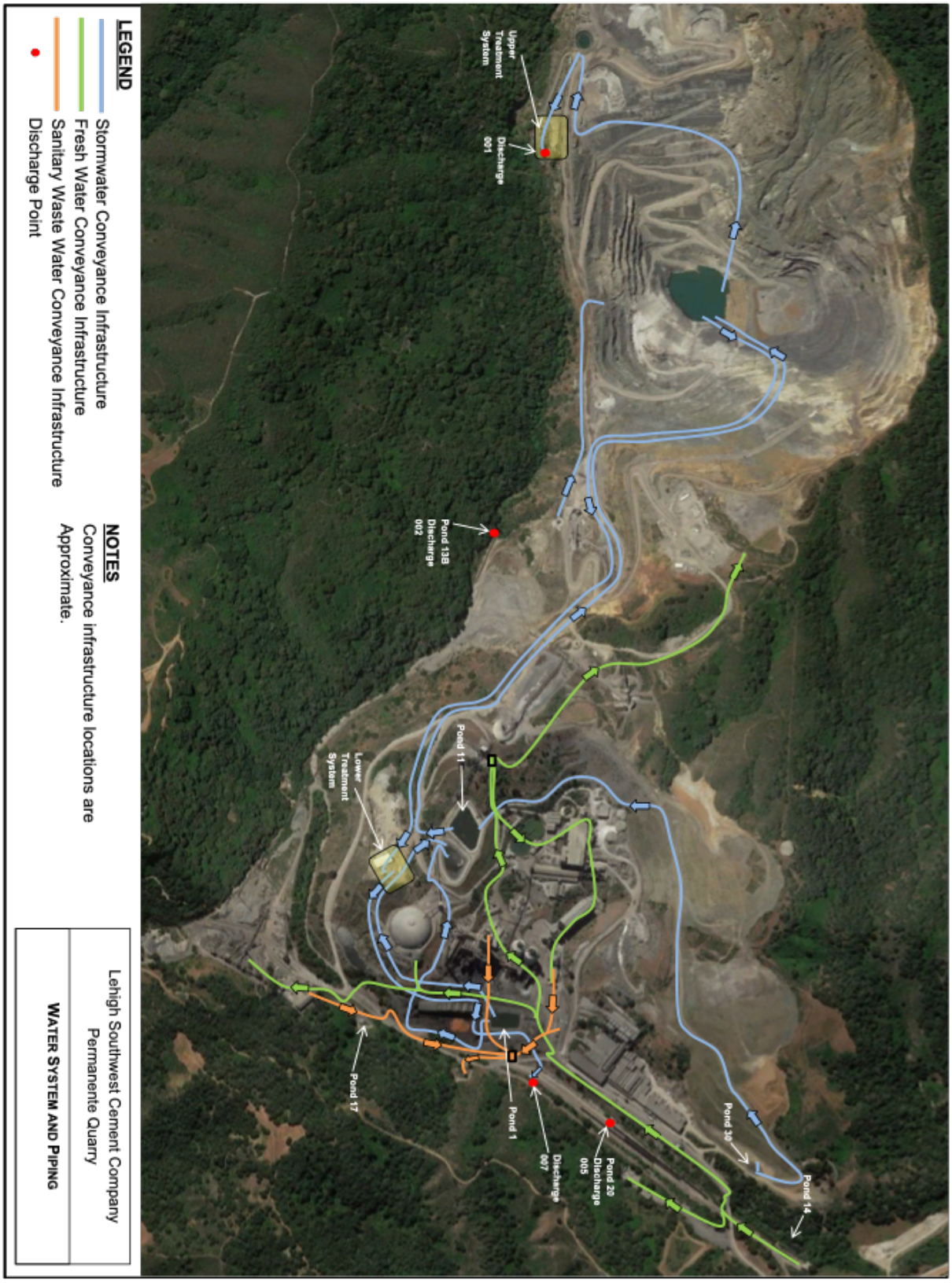
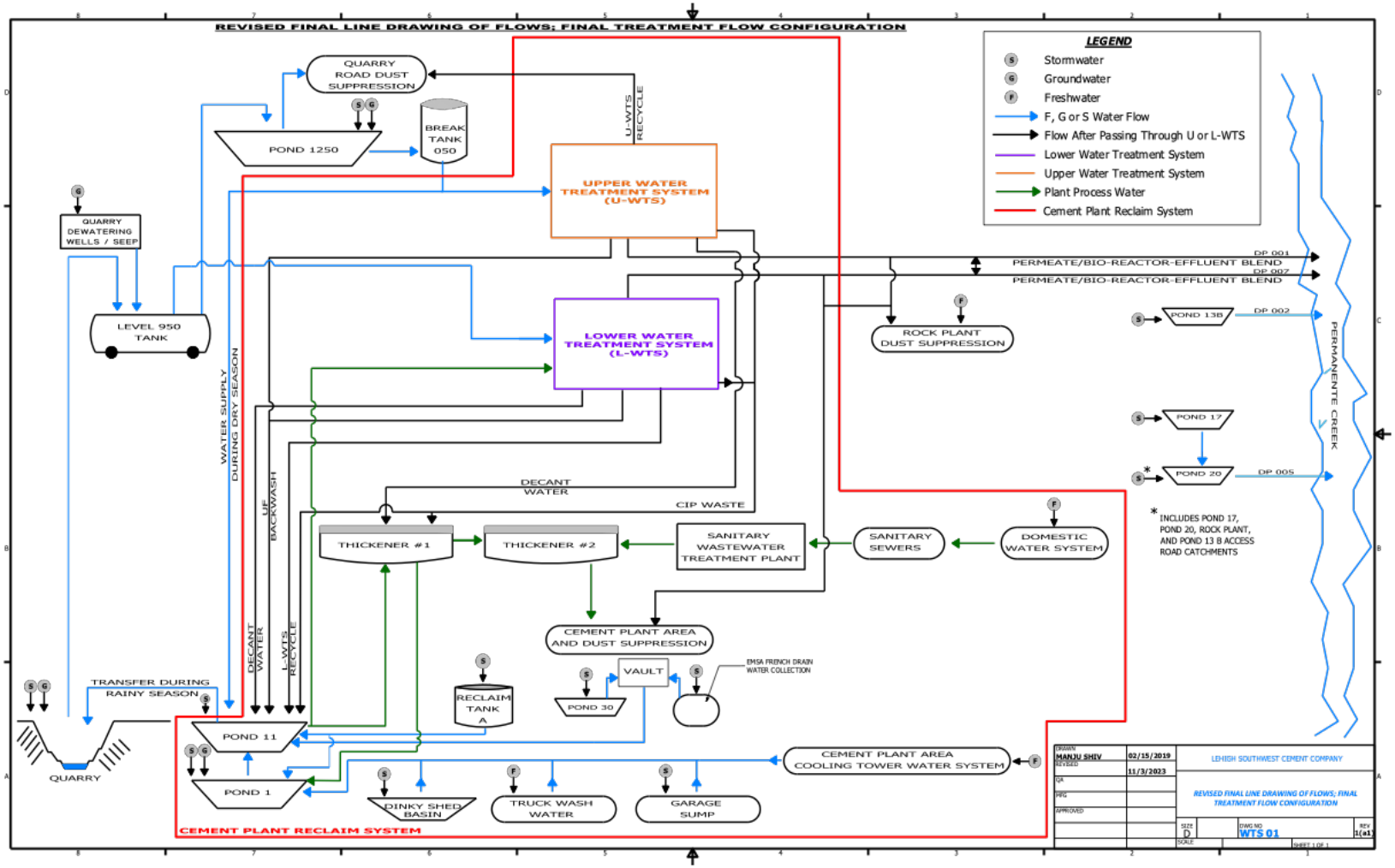


Figure B-2. Site Map with Water System and Piping



ATTACHMENT C – PROCESS FLOW DIAGRAM



ATTACHMENT D– STANDARD PROVISIONS

CONTENTS

ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

1.1.1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

1.1.2. The Discharger shall comply with effluent standards or prohibitions established under CWA section 307(a) for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

1.3. Duty to Mitigate. The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

1.4. Proper Operation and Maintenance. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

1.5. Property Rights

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

1.5.2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

1.6. Inspection and Entry. The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

1.6.4. Sample or monitor, at reasonable times, for the purposes of ensuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

1.7. Bypass

1.7.1. **Definitions**

1.7.1.1. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

1.7.1.2. “Severe property damage” means substantial physical damage to property; damage to the treatment facilities, which causes them to become inoperable; or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

1.7.2. **Bypass not exceeding limitations.** The Discharger may allow any bypass to occur that does not cause exceedances of effluent limitations, but only if it is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance sections 1.7.3, 1.7.4, and 1.7.5 below. (40 C.F.R. § 122.41(m)(2).)

1.7.3. **Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

1.7.3.1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

1.7.3.2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

1.7.3.3. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance section 1.7.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

1.7.4. **Approval.** The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance section 1.7.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

1.7.5. **Notice**

1.7.5.1. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Regional Water Board. As of December 21, 2025, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting section 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

1.7.5.2. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions – Reporting section 5.5 below (24-hour notice). The notice shall be sent to the Regional Water Board. As of December 21, 2025, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting section 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

1.8. Upset. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1.8.1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance section 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

1.8.2. **Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

1.8.2.1. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

1.8.2.2. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

1.8.2.3. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting section 5.5.2.2 below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

1.8.2.4. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance section 1.3 above. (40 C.F.R. § 122.41(n)(3)(iv).)

1.8.3. **Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

2.2. Duty to Reapply. If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

2.3. Transfers. This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

3. STANDARD PROVISIONS – MONITORING

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

3.2. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

3.2.2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N, for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

4.1. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

4.2. Records of monitoring information shall include:

4.2.1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

4.3. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

4.3.1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits, and effluent data. (40 C.F.R. § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information. The Discharger shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information that the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting sections 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 C.F.R. § 122.41(k).)

5.2.2. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to ensure long term environmental

compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

For a municipal, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

5.2.3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting section 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

5.2.3.1. The authorization is made in writing by a person described in Standard Provisions – Reporting section 5.2.2 above (40 C.F.R. § 122.22(b)(1));

5.2.3.2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

5.2.3.3. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting section 5.2.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting section 5.2.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting section 5.2.2 or 5.2.3 above shall make the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – Reporting sections 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting section 5.2, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

5.3. Monitoring Reports

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board. All reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting section 5.10 and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

5.3.4. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

5.4. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

5.5. Twenty-Four Hour Reporting

5.5.1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2025, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Regional Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting section 5.10 The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

5.5.2. The following shall be included as information that must be reported within 24 hours:

5.5.2.1. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

5.5.2.2. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.5.3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.6. Planned Changes. The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

5.6.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order unless the discharge is an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a). (40 C.F.R. § 122.41(l)(1)(ii).) If the discharge is an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a), this notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1) (see Additional Provisions – Notification Levels section 7.1.1). (40 C.F.R. § 122.41(l)(1)(ii).)

5.7. Anticipated Noncompliance. The Discharger shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

5.8. Other Noncompliance. The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting sections 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting section 5.5 above. For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting section 5.5 and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

5.9. Other Information. When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

5.10. Initial Recipient for Electronic Reporting Data. The owner, operator, or duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this list. (40 C.F.R. § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

6.1. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, Water Code sections 13268, 13385, 13386, and 13387.

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Non-Municipal Facilities. Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

7.1.1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels” (40 C.F.R. § 122.42(a)(1)):

7.1.1.1. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

7.1.1.2. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4 dinitrophenol and 2-methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

7.1.1.3. Five (5) times the maximum concentration reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

7.1.1.4. The level established by the Regional Water Board in accordance with 40 C.F.R. section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

7.1.2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. § 122.42(a)(2)):

7.1.2.1. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

7.1.2.2. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

7.1.2.3. Ten (10) times the maximum concentration reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

7.1.2.4. The level established by the Regional Water Board in accordance with 40 C.F.R. section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

7.2 Publicly Owned Treatment Works (POTWs)

7.2.1. All POTWs shall provide adequate notice to the Regional Water Board of any new introduction of pollutants into the POTW from an indirect discharger that

would be subject to CWA sections 301 or 306 if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)).

7.2.2. All POTWs shall provide adequate notice to the Regional Water Board of any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order. (40 C.F.R. § 122.42(b)(2).)

7.2.3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Clean Water Act (CWA) section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This Monitoring and Reporting Program (MRP) establishes monitoring, reporting, and recordkeeping requirements that implement the federal and State laws and regulations.

1. GENERAL MONITORING PROVISIONS

1.1. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 C.F.R. section 122.63. If any discrepancies exist between this MRP and the *Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits* (Attachment G), or *Stormwater Provisions, Monitoring, and Reporting Requirements* (Attachment S), this MRP shall prevail.

1.2. The Discharger shall conduct all monitoring in accordance with Attachment D section 3, as supplemented by Attachment G. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. section 136 and must be specified in this permit.

1.3. For the analysis of monitoring samples, the Discharger shall use laboratories certified by the State Water Resources Control Board (State Water Board) in accordance with Water Code section 13176 and shall obtain quality assurance/quality control data with laboratory reports. For any onsite field tests (e.g., turbidity, pH, temperature, dissolved oxygen, conductivity, disinfectant residual) analyzed by a noncertified laboratory, the Discharger shall implement a Quality Assurance-Quality Control Program. The Discharger shall keep a manual onsite containing the steps followed in this program and shall demonstrate sufficient capability to adequately perform these field tests (e.g., qualified and trained employees, properly calibrated and maintained field instruments). The program shall conform to U.S. EPA guidelines or other approved procedures.

1.4. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board electronically to the DMR-QA Officer via email.

1.5 For parameters reported to the California Environmental Data Exchange Network (CEDEN), monitoring data must be Surface Water Ambient Monitoring Program (SWAMP) comparable. Minimum data quality shall be consistent with the latest version of the *SWAMP Quality Assurance Program Plan* (*QAPP*), currently the 2017 version (SWAMP, May 2017), for applicable parameters, including data quality objectives, field and laboratory blanks, field duplicates, laboratory spikes, and clean techniques using the most recent SWAMP Standard Operating Procedures. To achieve SWAMP comparable and acceptable data quality,

monitoring under this Order shall be consistent with the "Regulation" intended data use of the SWAMP QAPP (SWAMP, May 2017, page 54). The data shall be collected under this Order's terms, conditions, and requirements. All laboratories performing analytical work shall be NELAP or ELAP certified. In addition, methods shall be compliant with 40 C.F.R. part 136 where applicable. At a minimum, method minimum quality control samples and acceptance criteria specified in the following SWAMP Measurement Quality Objectives apply to monitoring conducted under this Order:

- *Conventional Parameters in Fresh and Marine Water* (SWAMP, 2013)
- *Field Measurements in Fresh and Marine Water* (SWAMP, 2013),
- *Inorganic Analytes in Fresh and Marine Water* (SWAMP, 2013), and
- *Chronic Freshwater Toxicity Testing* (SWAMP, January 27, 2020).

SWAMP documents on the above topics can be found at the *SWAMP – Quality Assurance* webpage and *SWAMP - Quality Control and Sample Handling Guidelines* webpage.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Locations

Discharge Point	Monitoring Location	Monitoring Location Description [1]
Effluent	EFF-001	A point in the outfall (Discharge Point 001) following treatment at the Upper Water Treatment System (Upper WTS) or Lower Water Treatment System (Lower WTS), and prior to the receiving water, at which all waste tributary to the outfall is present. *Latitude 37.31703º Longitude -122.11165º*
Effluent	EFF-002	A point in the outfall from Pond 13B (Discharge Point 002), prior to the receiving water, at which all waste tributary to the outfall is present. *Latitude 37.31674º N Longitude -122.10167º*
Effluent	EFF-005	A point in the outfall from Pond 20 (Discharge Point 005), prior to the receiving water, at which all waste tributary to the outfall is present. *Latitude 37.32016º Longitude -122.08944º*
Effluent	EFF-007	A point in the outfall (Discharge Point 007) following treatment at the Lower WTS, and prior to the receiving water, at which all waste tributary to the outfall is present. *Latitude 37.31778° Longitude -122.08750°*
Receiving Water	RSW-001	A point in Permanente Creek within 300 feet upstream of in-stream Pond 13. *Latitude 37.31662° Longitude -122.10251° (approximate)*

Receiving Water	RSW-001A	A point in Permanente Creek 200 feet or less downstream from the confluence of Wild Violet Creek and Permanente Creek. *Latitude 37.3198854° Longitude -122.1305567°*
Receiving Water	RSW-002	A point in Permanente Creek within 50 feet downstream of Discharge Point 002. *Latitude 37.31649° Longitude -122.10161° (approximate)*
Receiving Water	RSW-004	A point in Permanente Creek within 50 feet downstream of former Discharge Point 006 and at least 50 feet upstream of Pond 14. *Latitude 37.32217° Longitude -122.08436°*

Footnote:

[1] Latitude and longitude information is approximate for administrative purposes.

3. EFFLUENT MONITORING

3.1. The Discharger shall monitor effluent at Monitoring Locations EFF-001 and EFF-007 as follows:

Table E-2. Effluent Monitoring Locations EFF-001 and EFF-007

Parameter	Unit	Sample Type [1]	Minimum Sampling Frequency
Flow [2]	MGD	Continuous	Continuous/D
Oil and Grease	mg/L	Grab	1/Quarter
pH [3]	standard units	Continuous or Grab	Continuous/Day or 1/Day
Dissolved Oxygen	mg/L	Grab	1/Week
Salinity	ppt	C-24	1/Quarter
Settleable Matter	mL/L-hr	Grab	1/Month
Temperature	ºC	Grab	1/Month
Chlorine, Total Residual [3]	mg/L	Grab	1/Day
Selenium	µg/L	Grab	2/Month
Total Dissolved Solids (TDS)	mg/L	Grab	1/Quarter
Chronic Toxicity [4]	"pass" or "fail" and % effect	C-24	2/Year
Other Priority Pollutants [5]	µg/L	Grab	1/Year
Standard Observations [6]	—	—	1/Day

Footnotes:

[1] Grab samples shall be collected during daylight hours.

[2] For effluent flows, the following information shall also be monitored and reported in the monthly SMRs:

a. Average Daily Flow (gpd)
b. Total Monthly Flow (MG)

[3] pH and total residual chlorine shall be monitored once per day, Monday through Friday, at Monitoring Locations EFF-001 and EFF-007. If pH is monitored continuously, the minimum and maximum pH values for each day shall be reported in self-monitoring reports.

[4] Chronic bioassay tests shall be performed in accordance with MRP section 5.

[5] The Discharger shall monitor for the pollutants listed in Attachment G, Table B.

[6] Standard observations are listed in Attachment G section III.B.2.

3.2. The Discharger shall monitor effluent at Monitoring Locations EFF-002 and EFF-005 as follows:

Table E-3. Effluent Monitoring Locations EFF-002 and EFF-005

Parameter	Unit	Sample Type [1]	Minimum Sampling Frequency
Conductivity	µmhos/cm	Grab	1/Quarter
Flow [2]	MG	Continuous	1/Month
Oil and Grease	mg/L	Grab	1/Quarter
pH	standard units	Grab	1/Quarter
Settleable Matter	mL/L-hr	Grab	1/Quarter
TSS	mg/L	Grab	1/Quarter
Antimony	µg/L	Grab	1/Year
Chromium (VI)	µg/L	Grab	1/Quarter
Mercury	µg/L	Grab	1/Year
Nickel	µg/L	Grab	1/Year
Selenium	µg/L	Grab	[3]
Visual Observations [4]	—	—	Each Occurrence

Footnotes:

[1] Grab samples shall be collected during daylight hours.

[2] Flow shall be monitored continuously at all monitoring locations. The following information shall be reported in monthly self-monitoring reports for all monitoring locations:

a. Average Daily Flow (gpd)
b. Total Monthly Flow (MG)

[3] Selenium shall be monitored monthly during the wet season (November 1 through April 30) and twice (total) during the dry season (May 1 through October 31). The first wet season selenium samples shall be collected during the first "significant stormwater discharge" (defined in section 4.2 below) of the wet season (November 1 through April 30) that occurs in daylight during scheduled Facility operating hours.

[4] Visual observations are specified in Attachment S section 2.2.

4. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall monitor receiving water at Monitoring Locations RSW-001, RSW-001A, RSW-002, and RSW-004 according to the following requirements:

- The Discharger shall sample all receiving water monitoring locations on the same day, unless impractical for safety reasons, or due to limited hours of daylight.
- The Discharger shall collect the first receiving water samples of each wet season (November 1 through April 30) after the first storm that causes a "significant stormwater discharge," defined as follows:
  - continuous discharge of stormwater for a minimum of one hour, or
  - intermittent discharge of stormwater for a minimum of three hours in a 12-hour period.

In addition, the Discharger shall monitor as indicated in Tables E-4 through E-6 below.

4.1. Monitoring Locations RSW-001 and RSW-001A. When there is discharge at Discharge Point 001, the Discharger shall monitor receiving water at Monitoring Locations RSW-001 and RSW-001A as follows:

Table E-4. Receiving Water Monitoring Locations RSW-001 and 001A

Parameter	Units	Sample Type	Minimum Sampling Frequency [1]
Chloride [2]	mg/L	Grab	1/Year
Conductivity	µmhos/cm	Grab	[3]
Dissolved Oxygen	mg/L and % Saturation	Grab	[3]
Flow	cfs	Monthly	[3]
Total Hardness as Calcium Carbonate ($CaCO_3$) [4]	mg/L	Grab	1/Year
pH	standard units	Grab	[3]
Settleable Matter [4]	mL/L-hr	Grab	1/Year
Sulfate [2]	mg/L	Grab	2/Year
Temperature	°C	Grab	[3]
TSS	mg/L	Grab	[3]
Turbidity	NTU	Grab	1/Year
Chronic Toxicity [1, 2, 5]	"pass" or "fail" and % effect	Grab	2/Year
Selenium	µg/L	Grab	[3]
Priority Pollutants [6]	µg/L	Grab	1/Year
TDS	mg/L	Grab	1/Year
Trace Metals [2, 7]	µg/L	Grab	2/Year
Standard Observations [8]	—	—	[3]

Footnotes:

[1] Samples shall be collected on the same day as effluent monitoring at Monitoring Location EFF-001 at least once per year.

[2] Parameter shall be monitored at Monitoring Location RSW-001. Monitoring is not required at Monitoring Location RSW-001A.

[3] Parameter shall be monitored monthly during the wet season (November 1 through April 30) and twice (total) during the dry season (May 1 through October 31) at Monitoring Location RSW-001. Parameter shall be monitored once per calendar year at Monitoring Location RSW-001A .

[4] Hardness and settleable matter shall be monitored at Monitoring Location RSW-001A. Hardness and settleable matter monitoring is not required at Monitoring Location RSW-001.

[5] Chronic bioassay tests shall be performed in accordance with MRP section 5.

[6] The Discharger shall monitor for the pollutants listed in Attachment G, Table B

[7] Trace metals are total recoverable antimony, arsenic, cadmium, total chromium, chromium (VI), copper, molybdenum, nickel, thallium, vanadium, and zinc. Trace metals shall be monitored concurrently with chronic toxicity.

[8] Standard Observations are listed in Attachment G section 3.2.

4.2. Monitoring Location RSW-002. The Discharger shall monitor receiving water at Monitoring Location RSW-002 when there is discharge at Discharge Point 002 as follows:

Table E-5. Receiving Water Monitoring Location RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L and % Saturation	Grab	1/Quarter
Flow	cfs	Monthly	1/Quarter
pH	standard units	Grab	1/Quarter
Temperature	°C	Grab	1/Quarter
TSS	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Antimony	µg/L	Grab	2/Year
Chromium (VI)	µg/L	Grab	2/Year
Selenium	µg/L	Grab	1/Quarter
TDS	mg/L	Grab	1/Year
Standard Observations [1]	—	—	1/Quarter

Footnote:

[1] Standard observations are listed in Attachment G section 3.2.

4.3. Monitoring Location RSW-004. The Discharger shall monitor receiving water at Monitoring Location RSW-004 as follows:

Table E-6. Receiving Water Monitoring Location RSW-004

Parameter	Units	Sample Type	Minimum Sampling Frequency [1]
Chloride	mg/L	Grab	2/Year [3]
Dissolved Oxygen	mg/L and % Saturation	Grab	[2]
Flow	cfs	Monthly	[2]
Total Hardness as $CaCO_3$	mg/L	Grab	2/Year [3]
pH	standard units	Grab	[2]
Sulfate	mg/L	Grab	2/Year [3]
Temperature	°C	Grab	[2]
TSS	mg/L	Grab	[2]
Turbidity	NTU	Grab	1/Quarter
Chronic Toxicity [4]	TUc	Grab	2/Year [5]
Selenium	µg/L	Grab	[2]
TDS	mg/L	Grab	1/Year
Trace Metals [6]	µg/L	Grab	2/Year [3]
Standard Observations [7]	—	—	[2]

Footnotes:

[1] Samples shall be collected on the same day as effluent monitoring at Monitoring Location EFF-007 at least once per year, and on the same day as effluent monitoring at Monitoring Location EFF-005 at least once per year if possible.

[2] Parameter shall be monitored monthly during the wet season (November 1 through April 30) and twice (total) during the dry season (May 1 through October 31).

[3] Parameter shall be monitored concurrently with chronic toxicity.

[4] Chronic bioassay tests shall be performed in accordance with MRP section 5.

[5] The monitoring frequency shall become 1/Quarter after any exceedance of the MDET or MMET at the instream waste concentration of 100 percent effluent.

[6] Trace metals are total recoverable antimony, arsenic, cadmium, chromium, chromium (VI), copper, molybdenum, thallium, vanadium, and zinc. Trace metals shall be monitored concurrently with chronic toxicity.

[7] Standard observations are listed in Attachment G section 3.2.

5. TOXICITY MONITORING

The Discharger shall monitor effluent chronic toxicity at Monitoring Locations EFF-001 and EFF-007 and receiving water chronic toxicity at Monitoring Locations RSW-001 and RSW-004.

5.1. Instream Waste Concentration Monitoring

5.1.1. **Sampling.** The Discharger shall collect 24-hour composite effluent samples at Monitoring Locations EFF-001 and EFF-007 for critical life stage toxicity testing as indicated below. For toxicity tests requiring renewals, the Discharger shall collect 24-hour composite samples on consecutive or alternating days.

5.1.2. **Test Species.** The test species shall be water flea (*Ceriodaphnia dubia*) unless a more sensitive species is identified in accordance with MRP, Appendix E-1. The Discharger shall conduct chronic toxicity species sensitivity screening as described in Appendix E-1. Upon completion of the chronic toxicity screening, the most sensitive species shall be the species that exhibits the highest percent effect at the Instream Waste Concentration (IWC) as determined by the screening.

If testing a particular species proves unworkable (e.g., the discharger encounters unresolvable test interference or cannot secure a reliable supply of test organisms), the Executive Officer may authorize the temporary use of the next appropriate species as the most sensitive species. If there is no species in the same taxon, the next appropriate species shall be the species exhibiting the next highest percent effect at the IWC in the species sensitivity screening. The Executive Officer will confirm the temporary use of the next appropriate species in writing.

5.1.3. **Frequency.** The Discharger shall monitor chronic toxicity as specified below:

5.1.3.1. **Routine Monitoring.** The Discharger shall conduct routine monitoring at a reduced frequency of twice per year at the IWC of 100 percent effluent and continue routine monitoring during any Toxicity Reduction Evaluation (TRE). One event shall occur in each of the twice-per-year monitoring periods specified in Table E-9 when there are at least 15 days of continuous discharge within a monitoring period. The routine monitoring frequency shall immediately revert to once per calendar quarter after any result that exceeds an effluent target, as specified in MRP section 5.1.3.2, at the IWC.

5.1.3.2 **Effluent Targets.** During any calendar month, if the discharge at Discharge Point 001 or Discharge Point 007 does not meet the following maximum daily effluent target (MDET) or median monthly effluent target (MMET) at the IWC using the most sensitive species for effluent from Monitoring Locations EFF-001 and EFF-007, the Discharger shall perform additional routine monitoring in accordance with MRP sections 5.1.3.3 and 5.1.3.4 to determine whether a TRE is required.

- **MDET:** No chronic aquatic toxicity test result of "fail" for any sub-lethal endpoint and no percent effect greater than or equal to 50 percent for the survival endpoint (if the most sensitive species has a survival endpoint) or greater than or equal to 50 percent for any sub-lethal endpoint (if the most sensitive species has no survival endpoint).

- **MMET:** No more than one chronic aquatic toxicity test result of "fail" in a calendar month for any endpoint.

The MDET and MMET are not effluent limitations. For assessing the MMET, "calendar month" is defined in section 5.1.3.4.

5.1.3.3. **Additional Routine Monitoring Tests for TRE Determination.** If the discharger does not meet the MDET or MMET during a calendar month and is not already conducting a TRE, the Discharger shall conduct an additional routine monitoring test during the following calendar month. This additional routine monitoring test shall be used to determine whether a TRE is necessary according to the process shown in Appendix E-5. If there is not enough effluent available to test in the following calendar month, the Discharger shall return to twice per year routine monitoring as soon as enough effluent is available. The Executive Officer may also require the Discharger to conduct a TRE.

5.1.3.4. **MMET Tests and TRE Determination.** If any routine monitoring test result is "fail," the Discharger shall conduct at least one and at most two MMET tests. The results of these tests shall be used to determine whether a TRE is necessary according to the process shown in Appendix E-5. The Discharger shall initiate these tests within the same calendar month as the failed routine monitoring test. (For the purposes of MMET tests, determining whether the MMET is met, and other references to "calendar month" in section 5, the "calendar month" shall begin on the calendar day that the failed routine monitoring test was initiated. The "calendar month" shall end on the day before the corresponding day of the following month, or on the last day of the following month if it has no corresponding day [e.g., January 31 through February 28]).

If the Discharger does not complete a required toxicity test for routine monitoring or an MMET test, it shall initiate a new test to replace the incomplete test as soon as possible. The Discharger may initiate the

replacement test in the following calendar month if the delay is due to circumstances outside the Discharger's control that were not preventable with the reasonable exercise of care, and the Discharger promptly initiates, and ultimately completes, the replacement test.

5.1.3.4.1. If the first MMET test result is "pass," then the Discharger shall conduct a second MMET test. If the first MMET test result is "fail," that result does not meet the MMET and a second MMET test is not required. If any of the failed tests also do not meet the MDET, the Discharger shall conduct a TRE (see MRP section 5.3).

5.1.3.4.2. If the second MMET test result is "pass," then the Discharger shall return to routine monitoring as described in MRP section 5.1.3.1.[1] If the second MMET test result is "fail," that result does not meet the MMET. If any of the failed tests were also an MDET exceedance, the Discharger shall conduct a TRE (see MRP section 5.3).

5.1.3.4.3. If the Discharger cannot conduct an MMET test because not enough effluent is available, the Discharger shall return to routine monitoring as soon as enough effluent is available.

5.1.4. **Methodology.** Sample collection, handling, and preservation shall be in accordance with U.S. EPA protocols. Bioassays shall be conducted in compliance with the most recently promulgated test methods, as shown in Appendix E-2. These are *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, currently 1st edition (EPA/600/R-95/136); *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, currently 3rd edition (EPA-821-R-02-014); and *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, currently 4th edition (EPA-821-R-02-013). If these protocols prove unworkable, the Executive Officer and the Environmental Laboratory Accreditation Program may grant exceptions in writing upon the Discharger's request with justification.

Chronic toxicity shall be evaluated using the Test of Significant Toxicity (TST) as described in Toxicity Provisions section III.B.3. The selected test concentrations shall include the IWC. The TST shall be conducted using the IWC sample and a control as described in Toxicity Provisions section III.B.3. Test sample pH may be controlled to the level of the effluent sample as

[1] See Appendix E-5: Toxicity Reduction Evaluation Process Flowchart For Discharges With Chronic Toxicity Targets.

received by the laboratory prior to being salted up. A result of “fail” indicates toxicity at the IWC.

If the Discharger demonstrates that specific identifiable substances in the discharge are rapidly rendered harmless upon discharge to the receiving water, compliance with the chronic toxicity limit may be determined after test samples are adjusted to remove the influence of those substances. The adjustment shall not remove the influence of other substances. Written acknowledgement that the Executive Officer concurs with the Discharger’s demonstration must be obtained prior to any such adjustment.

5.2. Reporting

The Discharger shall provide toxicity test results with self-monitoring reports and shall include the following, at a minimum, for each test:

5.2.1. Sample date.

5.2.2. Test initiation date.

5.2.3. Test species.

5.2.4. End point values for the control and IWC sample (e.g., number of young, growth rate, percent survival). For routine monitoring and MMEL compliance tests, the Discharger shall report the results as either “pass” or “fail,” and the percent effect at the IWC for each endpoint.

5.2.5. End point values for each replicate of the control and IWC sample (e.g., number of young, growth rate, percent survival).

5.2.6. Available water quality measurements for each test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, ammonia).

5.3. Toxicity Reduction Evaluation (TRE)

5.3.1. The Discharger shall prepare a generic TRE work plan within 90 days of the effective date of this Order to be ready to respond to toxicity events. The Discharger shall review and update the generic work plan as necessary, so it remains current and applicable to the discharge and discharge facilities.

5.3.2. Within 30 days of the following circumstances, the Discharger shall submit a TRE work plan that shall be the generic work plan revised as appropriate for the toxicity observed. The circumstances triggering a TRE are as follows:

5.3.2.1. The Discharger has any combination of two or more MDEL or MMEL violations within a single calendar month or two successive calendar months; or

5.3.2.2. The Discharger violates the MDEL or MMEL during a calendar month, there is no effluent available to test in the following calendar month, and the Executive Officer requires a TRE;

5.3.3. Within 30 days of submitting the TRE work plan, the Discharger shall initiate a TRE in accordance with the TRE work plan. The TRE shall be specific to the discharge and be in accordance with current technical guidance and reference materials, including U.S. EPA guidance materials. The Discharger shall conduct the TRE as a tiered evaluation as summarized below:

5.3.3.1. Tier 1 shall consist of basic data collection (routine monitoring, additional routine monitoring, and MMEL compliance tests);

5.3.3.2. Tier 2 shall consist of evaluating treatment processes, including operational practices and process chemicals;

5.3.3.3. Tier 3 shall consist of a toxicity identification evaluation (TIE) to identify the substance or combination of substances causing the observed toxicity. The Discharger shall employ all reasonable efforts using currently available TIE methodologies;

5.3.3.4. Tier 4 shall consist of a toxicity source evaluation;

5.3.3.5. Tier 5 shall consist of a toxicity control evaluation that considers alternative strategies, including treatment process modifications, to reduce or eliminate the toxic substances from the discharge; and

5.3.3.6. Tier 6 shall consist of implementing all reasonable toxicity control measures, and follow-up monitoring and confirmation of implementation success.

5.3.4. The Discharger may end the TRE at any stage if monitoring finds there is no longer consistent toxicity (i.e., two consecutive test results of “pass”).

5.3.5. The Executive Officer may authorize the Discharger to end a TRE if the Discharger documents that it has exhausted all reasonable efforts to identify the cause of the toxicity.

5.3.6. Many recommended TRE elements parallel required or recommended efforts related to source control, pollution prevention, and stormwater control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements or recommended efforts of such programs may be acceptable to demonstrate compliance with TRE requirements.

5.3.7. The routine monitoring frequency shall be a minimum of two tests per calendar year at the IWC when the Discharger is conducting toxicity testing as part of a TRE during that calendar year. The Discharger must return to the routine monitoring frequency specified in MRP section 5.1.3.1 at the conclusion of the

TRE or one year after the initiation of the TRE, whichever occurs sooner. TRE triggers are set forth below.

Table E-7. Toxicity Reduction Evaluation (TRE) Triggers

Monitoring Type and Frequency	Triggers	TRE Required?
Routine and MMEL compliance monitoring, less than monthly frequency	1. Exceedance of MDET or MMET in a calendar month, and 2. No discharge during the following calendar month	EO may require TRE
Routine and MMET compliance monitoring	Any combination of two or more MDET or MMET exceedances in a single calendar month or successive calendar months	TRE is required

6. REPORTING REQUIREMENTS

6.1. General Monitoring and Reporting Requirements. The Discharger shall comply with all Standard Provisions (Attachments D, G, and S) related to monitoring, reporting, and recordkeeping.

6.2. Self-Monitoring Reports (SMRs)

6.2.1. **SMR Format.** The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (waterboards.ca.gov/water_issues/programs/ciwqs). The CIWQS website will provide additional information for SMR submittal in the event of a planned service interruption for electronic submittal.

6.2.2. **SMR Due Dates and Contents.** The Discharger shall submit SMRs by the due dates, and with the contents, specified below:

6.2.2.1. **Monthly SMRs** — Monthly SMRs shall be due the first day of the second month after the monthly monitoring period. Each SMR shall contain the applicable items described in Provision 6.3.2 (Effluent Characterization Study and Report) of this Order, Attachment D section 5.2, and Attachment G section 5.3. Each SMR shall include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the Discharger shall include the results of such monitoring in the calculations and reporting for the SMR.

6.2.2.2. **Annual SMR** — Annual SMRs shall be due March 1 each year, covering the previous calendar year. The annual SMR shall contain the applicable items described in Provisions 6.3.2 (Effluent Characterization Study and Report) of this Order, and Attachment G section 5.3.1.6.

6.2.3. **Specifications for Submitting SMRs to CIWQS.** The Discharger shall submit analytical results and other information using one of the following methods:

Table E-8. CIWQS Reporting

Parameter	Method of Reporting: EDF/CDF data upload	Parameter
All parameters identified in influent, effluent, and receiving water monitoring tables (except Temperature)	Required for all results	—
Temperature	Required for monthly maximum and minimum results only [1]	Discharger may use this method for all results or keep records
Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Zinc, Dioxins & Furans (by U.S. EPA Method 1613), Other Pollutants (by U.S. EPA Methods 601, 602, 608, 610, 614, 624, and 625)	Required for all results [2]	—
Analytical Method	Not required (Discharger may select "data unavailable") [1]	—
Collection Time, Analysis Time	Not required	—

Footnotes:

[1] The Discharger shall continue to monitor at the minimum frequency specified in this MRP, keep records of the measurements, and make the records available upon request.

[2] These parameters require EDF/CDF data upload or manual entry regardless of whether monitoring is required by this MRP or other provisions of this Order (except for biosolids, sludge, or ash provisions).

The Discharger shall arrange all reported data in a tabular format and summarize data to clearly illustrate whether the Facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format, the Discharger shall electronically submit the data in a tabular format as an attachment.

6.2.4. **Monitoring Periods.** Monitoring periods for all required monitoring shall be as set forth below unless otherwise specified:

Table E-9. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
Continuous/D	Order effective date	All times
1/Day	Order effective date	Any 24-hour period that reasonably represents a calendar day for sampling purposes (e.g., beginning at midnight and continuing through 11:59 p.m.)
1/Week	First Sunday following or on Order effective date	Sunday through Saturday

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
1/Month	First day of calendar month following or on Order effective date	First day of calendar month through last day of calendar month
2/Month	First day of calendar month following or on Order effective date	First day of calendar month through last day of calendar month
1/Quarter	Closest January 1, April 1, July 1, or October 1 before or after Order effective date [1]	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
1/Year	Closest January 1 before or after Order effective date [1]	January 1 through December 31
2/Year	Closest May 1 or November 1 before or after Order effective date [1]	November 1 through April 30 (typical wet season) May 1 through October 31 (typical dry season)

Footnote:

[1] Monitoring performed during the previous order term may be used to satisfy monitoring required by this Order.

6.2.5. **RL and MDL Reporting.** The Discharger shall report with each sample result the Reporting Level (RL) and Method Detection Limit (MDL) as determined by the procedure in 40 C.F.R. part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

6.2.5.1. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

6.2.5.2. 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 reported.

For purposes of data collection, the Discharger shall require the laboratory to write the estimated chemical concentration next to DNQ. 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 the laboratory considers appropriate.

6.2.5.3. Sample results less than the laboratory's MDL shall be reported as "Not Detected", or ND.

6.2.5.4. The Discharger shall instruct laboratories to establish calibration standards so that the minimum level (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.

6.2.6. **Compliance Determination.** Compliance with effluent limitations shall be determined using sample reporting protocols defined above, in the Fact Sheet, and in Attachments A, D, and G. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and, if applicable, greater than or equal to the RL.

6.3. Discharge Monitoring Reports (DMRs). DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or the latest upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website (waterboards.ca.gov/water_issues/programs/discharge_monitoring).

APPENDIX E-1

CHRONIC TOXICITY DEFINITION OF TERMS AND SCREENING PHASE REQUIREMENTS

1. Definition of Terms

1.1. Continuous Discharger. Discharger that discharges without interruption throughout its operating hours, except for infrequent shutdowns for maintenance, process changes, or other similar activities, and that discharges throughout the calendar year.

1.2. Non-Continuous Discharger. Discharger that does not discharge in a continuous manner or does not discharge throughout the calendar year (e.g., intermittent and seasonal dischargers).

2. Chronic Toxicity Species Sensitivity Screening

2.1. The Discharger shall perform species sensitivity screening as specified in Toxicity Provisions section III.C.2:

2.1.1. The Discharger shall conduct species sensitivity screening and submit a technical report that identifies the most sensitive test species within 18 months of the effective date of this Order, whichever is latest, if the Discharger has not previously conducted a species sensitivity screening as specified in Toxicity Provisions section III.C.2.

2.1.2. The Discharger shall conduct a species sensitivity screening and submit a technical report that identifies the most sensitive test species with the application for permit reissuance. Alternatively, the Discharger may provide species sensitivity screening results from a previous sensitive species screening conducted within the 15 years before the expiration date of this Order if that sensitive species screening was conducted as specified in Toxicity Provisions section III.C.2.

2.1.3. The Discharger shall conduct species sensitivity screening and submit a technical report that identifies the most sensitive test species no later than 18 months after any significant change in the nature of the effluent discharged due to changes in sources or treatment, except those changes resulting from reductions in pollutant concentrations attributable to source control efforts.

2.2. Species sensitivity screening shall, at a minimum, reflect the following elements:

2.2.1 Test species specified in Appendix E-2, attached, and protocols referenced in those tables. Test species shall be Tier I unless those species are unavailable. In such cases, the Executive Officer may approve a Tier II test species.

2.2.2. Continuous Dischargers: four sets of tests, one in each calendar quarter of a calendar year.

Non-continuous Dischargers: at least two sets of tests, one in each calendar quarter with at least 15 days of discharge, unless the Discharger discharges in only one quarter of a calendar year; in that case, both sets of testing shall occur during the same calendar quarter. Testing in a specific species sensitivity screening can be conducted using effluent that is not discharged into surface waters (e.g., effluent discharged onto land because of a summer prohibition on discharges into surface waters) as long as the effluent tested is representative of the effluent that will be discharged to surface waters.

2.2.3. Appropriate controls as required by the applicable U.S. EPA test method for the selected test species.

2.2.4. Tests conducted at a waste concentration of 10 percent or the IWC, whichever represents a higher concentration of effluent. Alternatively, the Executive Officer may specify a higher waste concentration if needed to increase the likelihood that potential effects might be observed.

2.3. The Discharger shall submit a species sensitivity screening proposal at least 30 days prior to initiating any species sensitivity screening. The proposal shall address each of the elements listed above.

2.4. The most sensitive species shall be the species exhibiting the highest percent effect.

APPENDIX E-2: SUMMARY OF TOXICITY TEST SPECIES REQUIREMENTS

Table AE-1. West Coast Marine Chronic Toxicity Test Species and Methods

Species	Scientific Name	Tier	Effect	Test Duration	Reference
Giant kelp	*Macrocystis pyrifera*	I	Percent germination; germ tube length	48 hours	1
Red Abalone	*Haliotis rufescens*	I	Larval development	48 hours	1
Oyster Mussel	*Crassostrea gigas* *Mytilus sp.*	I	Larval development	48 hours	1
Purple Urchin Sand dollar	*Strongylocentrotus purpuratus* *Dendraster excentricus*	I	Percent fertilization or larval development	1 hour or 72 hours	1
Shrimp	*Americamysis bahia*	II	Percent survival; growth	7 days	2
Topsmelt	*Atherinops affinis*	I	Percent survival; growth	7 days	1
Silverside	*Menidia beryllina*	II	Larval growth rate; percent survival	7 days	2

Toxicity Test References:

1. Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms. EPA/600/R-95/136. August 1995.
2 Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Marine and Estuarine Organisms. EPA/821/R-02/014. October 2002.

Table AE-2. Freshwater Chronic Toxicity Test Species and Method

Species	Scientific Name	Tier	Effect	Test Duration	Reference
Fathead minnow	*Pimephales promelas*	I	Survival; growth rate	7 days	1
Water flea	*Ceriodaphnia dubia*	I	Survival; number of young	7 days	1
Green Alga	*Selenastrum capricornutum*	I	Final cell density	4 days	1

Toxicity Test Reference:

1. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, fourth Edition Chronic manual (EPA-821-R-02-013, October 2002).

Table AE-3. Toxicity Test Requirements for Species Sensitivity Screening

Requirements	Discharges to Marine or Estuarine Water (San Francisco Bay) [1]	Discharges to Freshwater [1]
Taxonomic diversity	1 plant 1 invertebrate 1 fish	1 plant 1 invertebrate 1 fish
Screening Requirement	A total of 3 Marine and/or Freshwater species from Table AE-1 and Table AE-2	3 Freshwater species from Table AE-2[2]

Footnotes:

[1] (a) "Marine" refers to receiving water salinities greater than 1.0 parts per thousand (ppt) at least 95 percent of the time during a normal water year.

(b) "Freshwater" refers to receiving water with salinities less than 1.0 ppt at least 95 percent of the time during a normal water year.

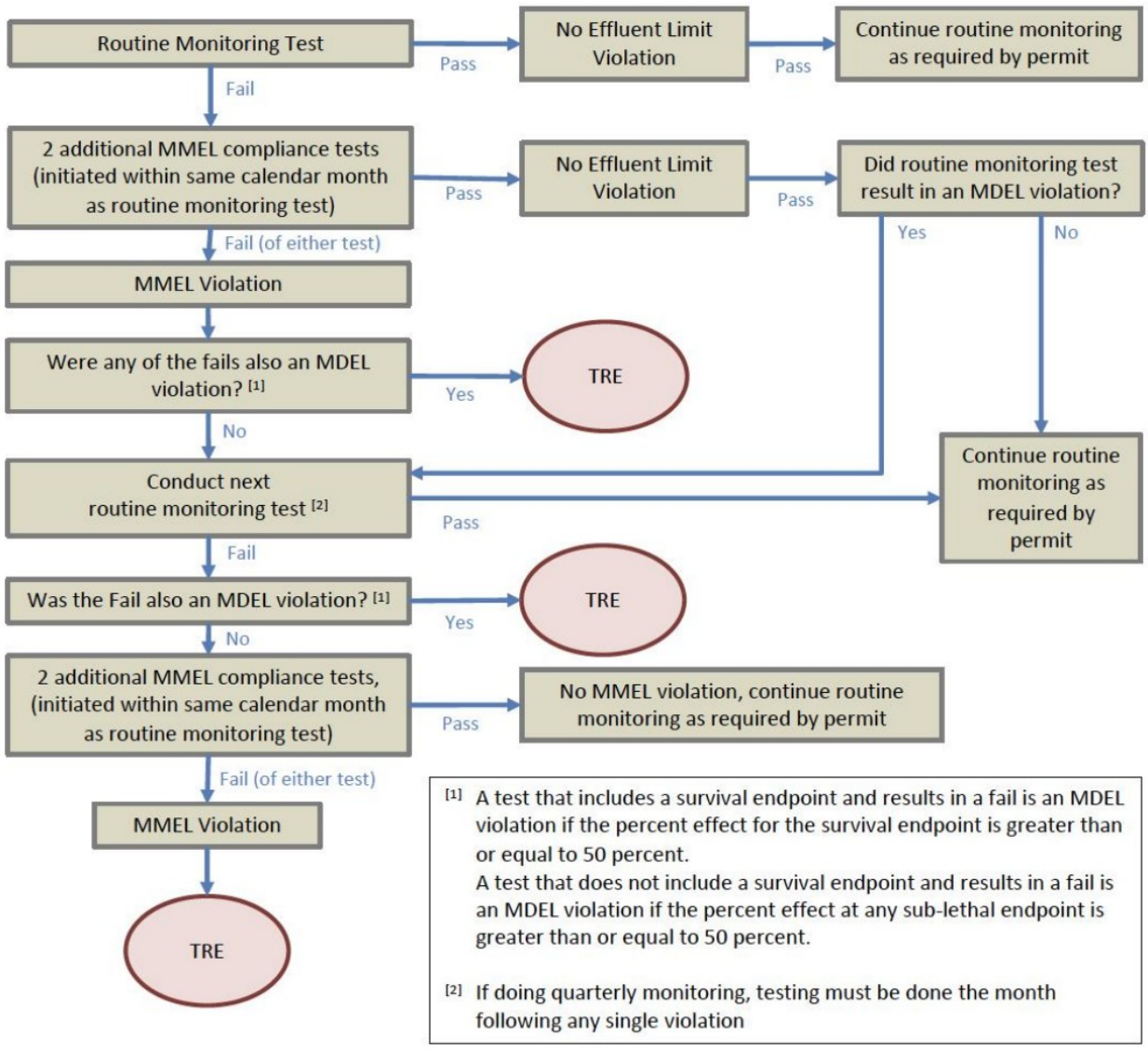
(c) "Estuarine" refers to all other cases (i.e., when receiving water salinity is above 1.0 less than 95 percent of the time and below 1.0 less than 95% of the time).

[2] The freshwater species may be substituted with a marine species if:

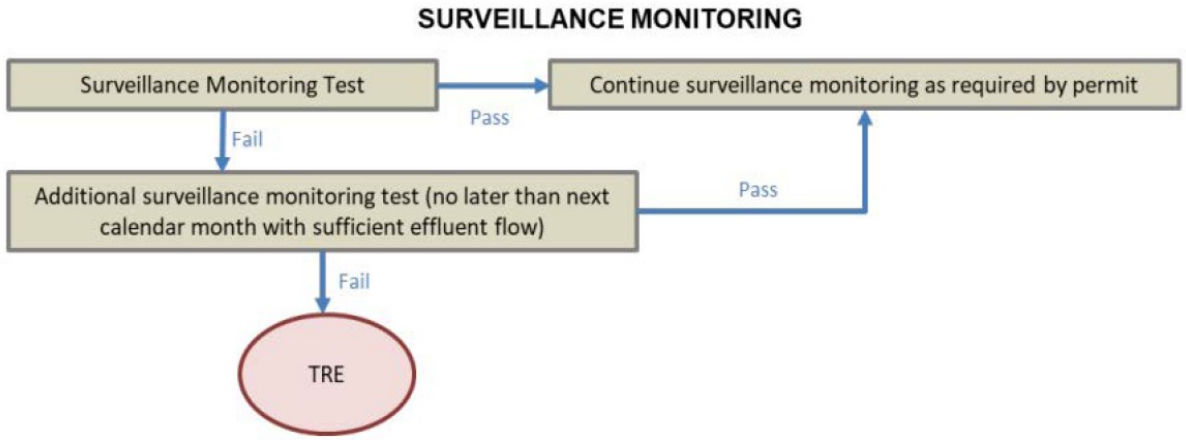
(a) The salinity of the effluent is above 1 ppt greater than 95 percent of the time, or

(b) The ionic strength (TDS or conductivity) of the effluent at the IWC is documented to be toxic to the test species.

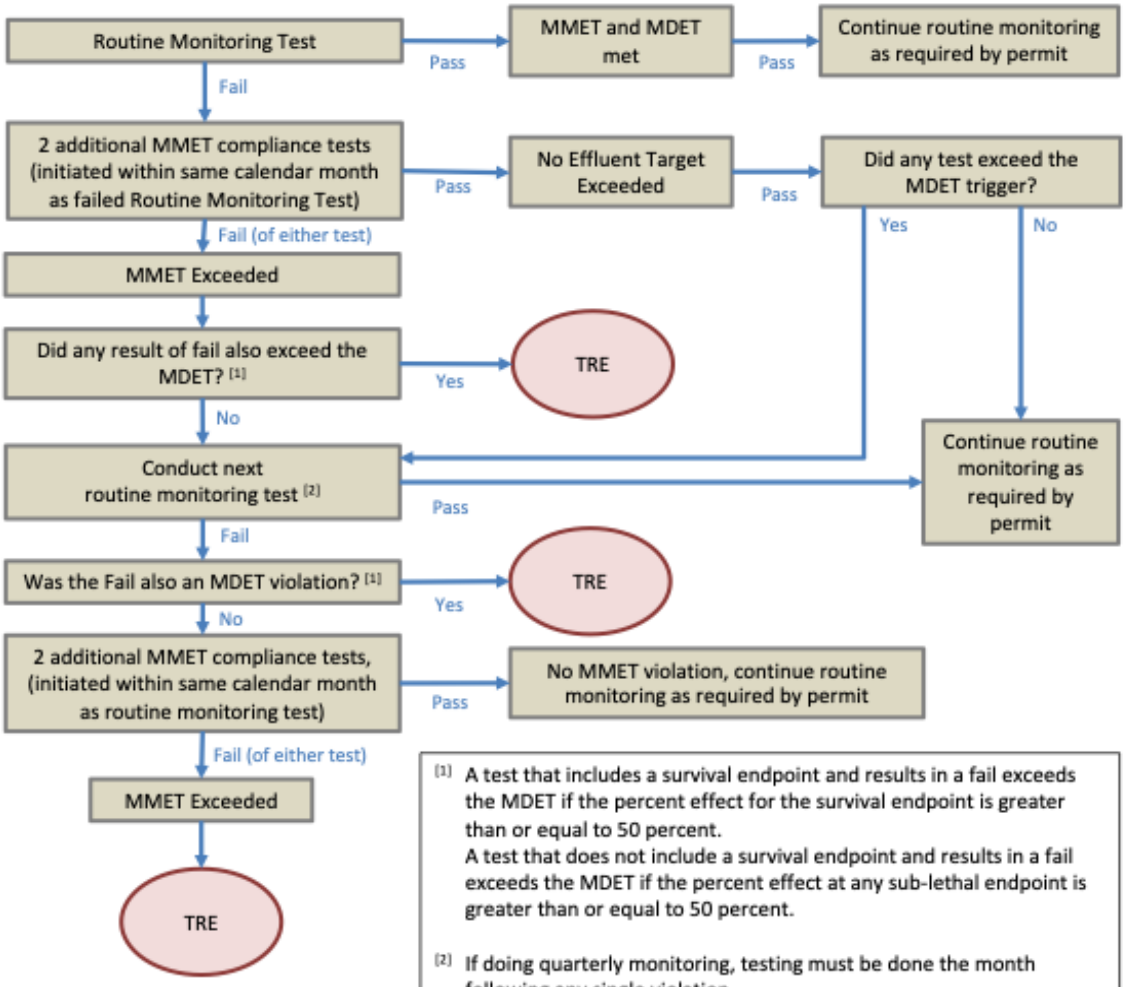
APPENDIX E-3: TOXICITY REDUCTION EVALUATION PROCESS FLOWCHART FOR DISCHARGES WITH CHRONIC TOXICITY LIMITS



APPENDIX E-4: TOXICITY REDUCTION EVALUATION PROCESS FLOWCHART FOR DISCHARGES WITH CHRONIC TOXICITY LIMITS



APPENDIX E-5: TOXICITY REDUCTION EVALUATION PROCESS FLOWCHART
ROUTINE EFFLUENT MONITORING FOR DISCHARGES WITH CHRONIC TOXICITY TARGETS



ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. As described in section 2.2 of this Order, the Regional Water Board incorporates this Fact Sheet as findings supporting the issuance of this Order.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	2_43I006267
CIWQS Place ID	273205
Discharger	Lehigh Southwest Cement Company
Facility Name	Permanente Plant
Facility Address	24001 Stevens Creek Blvd Cupertino, CA 95014 Santa Clara County
Facility Contact, Title, and Phone	Sanjeet Sen, Senior Environmental Manager, 408-996-4249
Authorized Person to Sign and Submit Reports	Bradd Statley, General Manager-Property Management and Reclamation, 408-996-4034
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Facility Type	Industrial, SIC Code 1422 (Crushed and broken limestone)
Major or Minor Facility	Major
Water Quality Threat	1
Complexity	A
Pretreatment Program	N/A
Reclamation Requirements	Order 94-038
Mercury and PCBs Requirements	N/A
Nutrients Requirements	N/A
Permitted Flow	167,000 gallons per hour (gph) (Discharge Points 001 and 007, combined)
Design Flow	167,000 gph (Discharge Points 001 and 007, combined)
Watershed	Santa Clara Basin
Receiving Water	Permanente Creek
Receiving Water Type	Inland Surface Water (Fresh)

1.1. Lehigh Southwest Cement Company operates the Permanente Plant (Facility), a limestone quarry and former cement production facility that currently produces construction aggregate. Hanson Permanente Cement, Inc., owns the property on which the Facility is located at 24001 Stevens Creek Road just outside Cupertino. Lehigh Southwest Cement Company is hereinafter referred to as the “Discharger.” For the purposes of this Order, references to the “discharger” or “permittee” in

applicable federal and State laws, regulations, plans, or policies are held to be equivalent to references to the Discharger herein.

1.2. The Facility discharges wastewater to Permanente Creek, a water of the United States tributary to San Francisco Bay within the Santa Clara Basin watershed. The Facility also discharges stormwater runoff associated with industrial activities to Permanente Creek. Attachment B provides a map of the Facility and area around the Facility. Attachment C provides a site flow and treatment process schematic for the Facility.

The Discharger is regulated pursuant to National Pollutant Discharge Elimination System (NPDES) Permit CA0030210. The Discharger was previously subject to Order R2 2019-0024 (the previous order). The Discharger submitted a Report of Waste Discharge and an application for reissuance of its NPDES permit and Waste Discharge Requirements (WDRs) on December 5, 2023.

1.3. The Discharger is authorized to discharge subject to the WDRs in this Order at the discharge locations described in Table 1 of this Order. Clean Water Act section 402(b)(1)(B) limits the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, this Order limits the effective period for the discharge authorization. Pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES regulation requirements for continuation of expired permits (40 C.F.R. § 122.6(d)).

1.4. The Discharger is also subject to Regional Water Board Order 94-038 for treatment and onsite discharge and reuse (or reclamation) of treated sanitary wastewaters. This Order does not affect Order 94-038.

1.5. When applicable, State law requires dischargers to file a petition with the State Water Resources Control Board (State Water Board), Division of Water Rights, and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce such requirements under Water Code section 1211. This is not an NPDES permit requirement.

2. FACILITY DESCRIPTION

The Discharger processes minerals at the Facility and produces construction aggregate from limestone and other stone quarried onsite. It produces several types of wastewater, including quarry dewatering water, truck and equipment wash water, aggregate crushing and washing water, and industrial stormwater. This Order addresses all wastewater (including industrial stormwater) associated with quarrying and crushed rock mining and processing at the Facility.

Site operations commenced in 1939. The Discharger formerly manufactured cement at the Facility. The Discharger initially shut down the kiln in April 2020, and

permanently shut down the kiln, two raw mills, the clinker cooler, one finish mill, and the two kiln fuel mill systems in November 2022. The Discharger now processes mined material and states it has no plans to re-start cement manufacturing at the Facility.

The Facility consists of a quarry pit, material storage areas, several crushers and mills, and roads and a conveyor system for transporting mined raw materials. Wastewater and industrial stormwater are collected and managed through a system of berms, ditches, pipes, and ponds. The ponds discharge to Permanente Creek at several locations. Runoff also occurs as sheet flow from undisturbed areas.

2.1. Discharge Points and Receiving Waters. The Facility discharges to Permanente Creek, a freshwater stream tributary to San Francisco Bay. All the Facility's discharges are shallow water discharges. The discharge points are located in the Santa Clara Basin watershed, as indicated below:

Table F-2. Discharge Point Locations

Discharge Point	Latitude (North)	Longitude (West)	Receiving Water
001	37.31713°	-122.11165°	Permanente Creek
002	37.31674°	-122.10167°	Permanente Creek
005	37.31899°	-122.08716°	Permanente Creek
007	37.31778°	-122.08750°	Permanente Creek

2.2. **Wastewater Treatment and Control.** During normal operations, the Discharger pumps quarry dewatering water and stormwater collected in the quarry pit to Pond 1250, then to the Upper Water Treatment System (Upper WTS). Alternatively, the Discharger pumps this water to Tank 950, then to the Lower Water Treatment System (Lower WTS) (See Attachment C.) The Discharger may use water from Pond 1250 for dust suppression on quarry roads.

The Discharger directs process wastewater from the Rock Plant and Truck Wash, and stormwater from the Dinky Shed basin and Cement Plant area, to Pond 1, then to Pond 11. (The Dinky Shed basin collects stormwater from the Rock Plant access road and surrounding areas, along with stormwater from nearby roads.) The Discharger sends industrial stormwater from the Pond 30 area and Eastern Materials Storage Area (EMSA), subsurface flow intercepted by the EMSA French drain, bioreactor and ultrafiltration/reverse osmosis (UF/RO) backwash water, and UF/RO concentrate directly to Pond 11. The Discharger either reclaims water collected in Pond 11 for on-site reuse or sends it to the quarry pit for subsequent treatment at either the Upper WTS or Lower WTS. The Discharger uses the quarry pit as equalization storage to store water for later treatment and discharge.

The Discharger discharges stormwater that does not require treatment at the WTS to Permanente Creek at two other locations: Discharge Points 002 (from Pond 13B) and 005 (from Pond 20). Stormwater flows to these discharge points from the areas listed in Table 1 and is treated using Best Management Practices (BMPs). During the term of the previous order, the Discharger eliminated all

discharges from former Discharge Points 004 (Pond 17) and 006 (Pond 30). This Order no longer authorizes discharge from these discharge points.

2.3. Previous Requirements and Monitoring Data. The table below presents the previous order's effluent limitations and representative monitoring data from the previous order term. Discharge Points 002, 004, and 006 are omitted because there were no discharges from those discharge points.

Table F-3. Previous Limitations and Monitoring Data

Parameter	Units	Effluent Limitations				Monitoring Data (09/19 – 08/24)
		Monthly Average	Daily Maximum	Instant-aneous Minimum	Instant-aneous Maximum	Highest Daily Discharge
Discharge Point 001 (Pond 4A)						
Oil and Grease	mg/L	10	20	—	—	0.80
pH	s.u.	—	—	6.5	8.5	6.8 – 8.2
Settleable Matter	mL/L-hr	0.10	0.20	—	—	ND<0.20
Total Residual Chlorine	mg/L	—	—	—	0.0	0.0
Total Suspended Solids (TSS)	mg/L	—	—	—	—	8.4
	lbs/d	—	58 [1]	—	—	52
Antimony	µg/L	6.0	12	—	—	5.2
Chromium (VI)	µg/L	8.0	16	—	—	0.93
Selenium	µg/L	3.7	8.2	—	—	16
Acute Toxicity	% Survival	[2]				100
Chronic Toxicity	TUc	[3]				1.0
Discharge Point 005 (Pond 20)						
Oil and Grease	mg/L	10	20	—	—	0.86
pH	s.u.	—	—	6.5	8.5	6.7 – 8.4
Settleable Matter	mL/L-hr	0.10	0.20	—	—	0.20
TSS	mg/L	—	50	—	—	37
Discharge Point 007						
Oil and Grease	mg/L	10	20	—	—	ND<0.74
pH	s.u.	—	—	6.5	8.5	6.7 – 8.2
Settleable Matter	mL/L-hr	0.10	0.20	—	—	ND<0.22
Total Residual Chlorine	mg/L	—	—	—	0.0	0.0
TSS	mg/L	—	—	—	—	6.3
	lbs/d	—	58 [1]	—	—	52
Antimony	µg/L	6.0	12	—	—	2.5
Chromium (VI)	µg/L	8.0	16	—	—	0.83
Selenium	µg/L	3.7	8.2	—	—	10
Acute Toxicity	% Survival	[2]				100
Chronic Toxicity	TUc	[3]				1.0

Footnotes:

[1] Limit applies to the combined discharge from Discharge Points 001 and 007.

[2] The previous order imposed acute toxicity limits of a minimum single-sample survival percentage of 70 percent and a minimum three sample median percent survival of 90 percent.

[3] The previous order did not impose chronic toxicity effluent limits. It did impose accelerated chronic toxicity monitoring triggers of a single-sample maximum of 2.0 TUc and a three-sample median of 1.0 TUc.

2.4. Compliance Summary

2.4.1. **Discharge Point 001.** On December 18, 2019, the Discharger violated the daily maximum effluent limit for selenium (8.2 µg/L) at Discharge Point 001, with a result of 16 µg/L. On November 17, 2022, the Regional Water Board issued Order R2-2022-1017, which assessed a $3,000 mandatory minimum penalty (MMP) for this violation.

This violation was caused by failure to control the flow of bioreactor effluent to a blending tank, where it is blended with reverse osmosis (RO) permeate prior to discharge. The usual electric pump (P1100) was out of service due to a mechanical failure, and the Discharger had installed a temporary diesel pump. P1100 is electronically controlled to produce a bioreactor effluent / RO permeate blend in the blending tank that complies with permit effluent limits when discharged. The temporary diesel pump did not have electronic controls and was set to run constantly, which produced a blended discharge that violated the maximum daily selenium effluent limit.

The Discharger's corrective actions were:

- On December 19, 2019, the Discharger installed level controls for the temporary diesel pump, similar to the controls used with P1100, in the blending tank.
- On December 20, 2019, the Discharger adjusted the bioreactor's discharge to the blending tank to match the capacity of the temporary diesel pump.

The Discharger also commenced accelerated monitoring. This violation was not repeated, and the Discharger complied with the monthly average effluent limit for selenium (3.7 µg/L).

2.4.2. **Discharge Point 007.** On September 16, 2019, the Discharger violated the daily maximum effluent limit for selenium (8.2 µg/L) at Discharge Point 007, with a result of 10 µg/L. On February 4, 2020, the Regional Water Board issued Order R2-2020-1016, which assessed a $3,000 MMP for this violation.

This violation was caused by human error. A manual valve between the bioreactor tank and the nutrient dosing tank in treatment train C was closed as a normal part of the nutrient tank drawdown procedure, but mistakenly not reopened when the procedure was completed. Thus, nutrient flow to the bioreactor tank was stopped, causing the oxidation reduction potential (ORP) to increase beyond its optimal range and selenium removal to decrease. Treatment plant operators discovered the closed valve and reopened it,

restoring nutrient flow to the bioreactor. The Discharger also found that the ORP alarms were not properly set.

The Discharger's corrective actions were:

- The Discharger set the ORP alarms to both alert operators to a high ORP and shut down the affected treatment train.
- The Discharger re-trained its operators with respect to the nutrient drawdown procedure.

The Discharger also commenced accelerated monitoring. This violation was not repeated, and the Discharger complied with the monthly average effluent limit for selenium (3.7 µg/L).

2.4.3. **Discharge Point 005.** During the previous order term, the Discharger violated the monthly average settleable solids effluent limit at Discharge Point 005 twice, as shown in the following table. The Regional Water Board imposed MMPs for these violations through Orders R2-2022-1017 (for the December 31, 2019, violation) and R2-2024-1021 (for the April 20, 2022, violation).

Table F-4. Numeric Violations – Discharge Point 005

Violation Date	Parameter Violated	Units	Effluent Limit	Reported Value
12/31/19	Settleable solids, Monthly Average	mL/L/hr	0.10	0.20
04/30/22	Settleable solids, Monthly Average	mL/L/hr	0.10	0.20

In both cases, the Discharger monitored on only one day during the month because there were no other storm events that produced discharge during daylight hours (when sampling is required). While these results complied with the daily maximum limit (0.20 mL/L/hr), they exceeded the monthly average limit (0.10 mL/L/hr). The Discharger's corrective actions for both violations were to replace the Pond 20 outlet filter, install additional flocculant logs and flocculant powder in Pond 20, clean the check dams and add new rock, and remove built-up solids from Pond 20. These corrective actions prevented further violations.

2.4.4. **Unauthorized Discharges.** The Discharger had five unauthorized discharges during the term of the previous order. Three were chlorinated potable water discharges, and two were industrial stormwater discharges, as listed below:

Table F-5: Unauthorized Discharges

Date	Material	Units	Violation	Duration and Volume
03/18/20 to 03/23/20	Chlorinated potable water	days MG	Prohibited	5 days 5.25 MG (estimated)
01/26/21	Chlorinated potable water	days gal	Prohibited	1 day 22,500 gal (estimated)

Date	Material	Units	Violation	Duration and Volume
01/05/23	Industrial stormwater	Gal	Prohibited, except at Discharge Points 002 and 005	89,000 gal (estimated).
01/14/23 to 01/19/23	Industrial stormwater	gpm	Prohibited, except at Discharge Points 002 and 005	Intermittent discharge of 100 to 312 gpm (estimated).
06/30/22 to 07/29/22	Chlorinated potable water	days MG	Prohibited	29 days 15.6 MG

2.4.4.1. **Potable Water Discharges**

2.4.4.1.1. **March 2020 and January 2021.** The Regional Water Board issued Order R2-2021-1021 on June 14, 2021, imposing a penalty of $60,000 for the March 18, 2020, and January 26, 2021, unauthorized discharges.

The March 18, 2020, unauthorized discharge occurred at the Fresh Water Tank, located downstream of Pond 14 (an off-channel pond adjacent to Permanente Creek). A failed valve became stuck in the open position, causing potable water to overflow the tank and flow overland about 50 feet to Permanente Creek. The Discharger stated that this discharge was not discovered for about five days because the Fresh Water Tank is in an infrequently observed or visited part of the Facility.

The January 26, 2021, unauthorized discharge occurred near the Facility entrance. A gate valve on the potable water supply line burst, and discharge flowed overland and reached the creek downstream from Pond 14. Discharger personnel noticed and stopped this discharge within 15 minutes.

2.4.4.1.2. **June and July 2022.** The Regional Water Board issued Order R2-2023-1006 on September 29, 2023, imposing a penalty of $600,310 for the June 30 through July 29, 2022, unauthorized discharge. This discharge was also from a location near the Fresh Water Tank (an infrequently observed or visited part of the Facility). It occurred from a branch of pipe that was capped and no longer in use, but still hydraulically tied into the potable water supply. The pipe material was susceptible to corrosion and the pipe failed, resulting in potable water discharging to land just upstream of the Fresh Water Tank and flowing overland to Permanente Creek. The discharge continued for 29 days before San Jose Water informed the Discharger of excessive water use.

2.4.4.2. **Stormwater Discharges**

2.4.4.2.1. **January 5, 2023.** About 89,600 gallons of stormwater permitted by the previous order to be discharged at Discharge Point 005 breached a berm and flowed overland to Permanente Creek instead of discharging at the authorized discharge location. The berm failure occurred during a period

of high stormwater and debris flow from recent storms. The discharge reached Permanente Creek downstream of Discharge Point 005 and upstream of receiving water Monitoring Location RSW-004 without being treated by the BMPs at Discharge Point 005. The Discharger estimated that the berm was breached between 10:15 and 11:00 am, based on the last time it was visually observed to be intact before the breach was discovered. The Discharger repaired the berm within 30 minutes of becoming aware of it.

2.4.4.2.2. **January 14 through 19, 2023.** An estimated intermittent flow of between 100 and 312 gpm of stormwater normally directed for treatment was discharged from the Yeager Yard sediment basin. High intensity rainfall caused this discharge when the suction line to the pump that transfers stormwater from the Yeager Yard sediment basin to the WTS was blocked by material accumulation. The suction line became blocked at approximately 11:00 a.m. Discharger staff could not access the area until January 19, 2023, due to severe weather and potentially unsafe access conditions.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

3.1. Legal Authorities. This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by the U.S. EPA, and Water Code chapter 5.5, division 7 (commencing with § 13370). It serves as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 1 subject to the WDRs in this Order.

3.2. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resources Code division 13, chapter 3 (commencing with § 21100). Attachment G, Provision 1.9.1 is a state law requirement that is retained from the previous order. To the extent Water Code section 13389 does not apply to this state law requirement, retaining it is not a project subject to CEQA because it will not cause a direct or indirect physical change in the environment (Public Resources Code §§ 21065, 21080).

3.3. State and Federal Laws, Regulations, Policies, and Plans

3.3.1. **Water Quality Control Plan.** The Regional Water Board adopted the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters

addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, this Order implements State Water Board Resolution 88-63, which established State Policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal and domestic supply. Permanente Creek does not meet any of the exceptions under State Water Board Resolution 88-63. Therefore, the municipal or domestic supply beneficial use applies. Beneficial uses applicable to Permanente Creek are as follows:

Table F-6. Beneficial Uses

Discharge Points	Receiving Water	Beneficial Uses
001 002 005 007	Permanente Creek	Groundwater recharge (GWR) Cold freshwater habitat (COLD) Warm freshwater habitat (WARM) Preservation of rare, threatened or endangered species (RARE) Fish spawning (SPWN) Wildlife habitat (WILD) Contact water recreation (REC-1) Non-contact water recreation (REC-2) Municipal and domestic water supply (MUN)

3.3.2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** The NTR and CTR contain federal water quality criteria for priority pollutants. U.S. EPA adopted the NTR on December 22, 1992, and amended it on May 4, 1995, and November 9, 1999. About 40 NTR criteria apply in California. U.S. EPA adopted the CTR on May 18, 2000. The CTR promulgated new toxics criteria for California and incorporated the NTR criteria that applied in the State. U.S. EPA amended the CTR on February 13, 2001.

3.3.3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP establishes implementation provisions for priority pollutant criteria and objectives, and provisions for chronic toxicity control. The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria U.S. EPA promulgated for California through the NTR and the priority pollutant objectives the Regional Water Board established through the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria U.S. EPA promulgated through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. Requirements of this Order implement the SIP.

3.3.4 **Toxicity Provisions.** The State Water Board adopted the *State Policy for Water Quality Control: Toxicity Provisions* (Toxicity Provisions) on October 5, 2021. U.S. EPA approved the Toxicity Provisions on May 1, 2023. Toxicity Provisions sections II.C.1 and II.C.2 establish numeric chronic and acute toxicity objectives that apply to all inland surface waters, enclosed bays, and estuaries in the State with aquatic life beneficial uses. The Toxicity Provisions

include related implementation provisions and require that compliance with the chronic toxicity water quality objectives be assessed using U.S. EPA's Test of Significant Toxicity (TST) (U.S. EPA, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* [EPA/833-R-10-003], June 2010).

3.3.5 **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 require that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

3.3.6. **Domestic Water Quality.** In accordance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order complies with that policy by requiring discharges to meet MCLs designed to protect human health and ensure that water is safe for domestic use.

3.3.7. **Anti-Backsliding Requirements.** CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

3.3.8. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §§ 2050 to 2097) or Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits and other requirements to protect the beneficial uses of waters of the State, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all applicable Endangered Species Act requirements.

3.3.9. **Mercury Provisions.** On May 2, 2017, the State Water Board adopted Resolution 2017-0027, which approved Final Part 2 of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (Mercury Provisions), thereby establishing water quality objectives for mercury

in most State waters. The Mercury Provisions (section III.D.3) supersede the freshwater mercury water quality objectives in Basin Plan Table 3-4. Requirements of this Order implement the Mercury Provisions.

3.4. Impaired Water Bodies on CWA section 303(d) List. On May 11, 2022, U.S. EPA approved a revised list of impaired waters pursuant to CWA section 303(d), which requires identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Where it has not done so already, the Regional Water Board plans to adopt total maximum daily loads (TMDLs) for pollutants on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for nonpoint sources, and are established to achieve water quality standards. Permanente Creek is listed as impaired due to selenium, diazinon, toxicity, and trash:

3.4.1. **Selenium.** Available information suggests that Facility discharges have historically been the predominant source of selenium in Permanente Creek. The Regional Water Board adopted the previous order, which contained effluent limitations and required implementation of BMPs to achieve water quality standards in Permanente Creek. This Order continues the previous order's requirements and implements a revised water quality standard for selenium. It also contains monitoring and reporting requirements to allow the Regional Water Board to evaluate progress toward achieving the revised water quality standards and eliminating the impairment.

3.4.2. **Diazinon and Toxicity.** On May 21, 2007, U.S. EPA approved a TMDL for diazinon (a pesticide) and pesticide-related toxicity in urban creeks as set forth in Basin Plan section 7.1.1. The TMDL allocates the entire wasteload allocations for diazinon and pesticide-related toxicity to municipal stormwater. Available data do not indicate that Facility discharges contain diazinon or pesticide-related toxicity. As explained in Fact Sheet section 4.3.3.6, Facility discharges do not pose a reasonable potential to cause or contribute to exceedance of the Basin Plan's toxicity objective. Nevertheless, this Order requires toxicity monitoring to ensure that any potential sources of toxicity other than pesticides are identified and resolved.

3.4.3. **Trash.** Facility discharges are not a source of trash to Permanente Creek. The Regional Water Board addressed the trash impairment when it reissued the Municipal Separate Storm Sewer System NPDES permit (NPDES Permit CAS612008).

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent

limitations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards, and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters.

4.1. Discharge Prohibitions

4.1.1. Prohibitions in this Order

4.1.1.1. **Discharge Prohibition 3.1 (No discharge other than as described):** This prohibition is based on 40 C.F.R. section 122.21(a) and Water Code section 13260, which require filing an application and Report of Waste Discharge before a discharge can occur. Discharges not described in the application and Report of Waste Discharge, and subsequently in this Order, are prohibited.

4.1.1.2. **Discharge Prohibition 3.2 (No flow above 167,000 gph at Discharge Points 001 and 007 combined):** This prohibition ensures that wastewater flows do not exceed the design capacity of the wastewater treatment system.

4.1.1.3. **Discharge Prohibition 3.3 (No discharge other than that due to precipitation at Discharge Points 002 and 005):** This prohibition ensures that these discharge points only discharge stormwater.

4.1.2. Basin Plan Discharge Prohibition. Basin Plan Discharge Prohibition 1 (Basin Plan Table 4-1) prohibits wastewater discharges that do not receive an initial dilution of at least 10:1. Basin Plan section 4.2 allows exceptions to Discharge Prohibition 1 under certain circumstances:

- An inordinate burden would be placed on the Discharger relative to the beneficial uses protected, and an equivalent level of environmental protection can be achieved by alternate means;
- A discharge is approved as part of a reclamation project;
- Net environmental benefits will be derived as a result of the discharge; or
- A discharge is approved as part of a groundwater cleanup project.

The Basin Plan further states:

> Significant factors to be considered by the Regional Water Board in reviewing requests for exceptions will be the reliability of the discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water and the environmental consequences of such discharges.

This Order grants an exception for discharges to Permanente Creek for the following reasons:

4.1.2.1. An inordinate burden would be placed on the Discharger relative to the beneficial uses protected to require the discharge to achieve 10:1 dilution in Permanente Creek. Upstream flow in Permanente Creek is insufficient to achieve 10:1 dilution consistently throughout the year and constructing and operating a deepwater outfall to provide consistent dilution (e.g., in San Francisco Bay) would require construction and operation of a discharge pipe several miles long.

4.1.2.2. For treated wastewater discharges from Discharge Points 001 and 007, the Discharger will provide an equivalent level of environmental protection through advanced treatment to minimize pollutants and comply with this Order's stringent effluent limitations. Furthermore, the Discharger will be able to contain untreated or partially treated wastewater in the quarry pit in case of possible treatment upset, allowing it to be re-routed for treatment prior to discharge.

4.1.2.3. For stormwater discharges from Discharge Points 002 and 005, Provision 6.1.3 of this Order and Attachment S require the Discharger to provide an equivalent level of environmental protection by developing and implementing BMPs reflecting best industry practice considering technological availability and economic practicability to comply with effluent limits and minimize pollutants in stormwater.

4.2. Technology-Based Effluent Limitations

4.2.1. **Scope and Authority.** CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include applicable technology-based limitations based on several levels of control:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants. Conventional pollutants include 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), pH, and oil and grease.

- Best available technology economically achievable (BAT) represents the best available performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

- Best conventional control technology (BCT) represents the control from existing industrial point sources of conventional pollutants. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) represent the best available demonstrated control technology standards for new sources. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines, and standards representing application of BPT, BAT, BCT, and NSPS. CWA section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis whenever U.S. EPA has not promulgated effluent limitations, guidelines, and standards. When using BPJ to impose technology-based effluent limits based on BPT and BCT control, 40 C.F.R. section 125.3 requires the Regional Water Board to consider the factors set forth in 40 C.F.R. subsections 125.3(c)(2)(i)-(ii) and 125.3(d).

The discharges this Order authorizes must meet minimum federal technology-based requirements based on U.S. EPA-promulgated Effluent Limitations Guidelines for the Mining Point Source Category at 40 C.F.R. section 436. Specifically, regulations at 40 C.F.R. section 436 subparts B (Crushed Stone Subcategory) and C (Construction Sand and Gravel Subcategory) apply to Discharge Points 001 and 007 because these discharges contain wastewater associated with mining and processing crushed stone, such as the construction aggregate produced at the Facility. These regulations apply to the Discharger's processing of mined material, and treatment and discharge of wastewater and impacted stormwater stored in the quarry. The Basin Plan contains additional requirements for certain pollutants.

Basin Plan Table 4-2 contains technology-based effluent limitations for pH, residual chlorine, settleable matter, and oil and grease that apply to all treatment facilities. It also contains effluent limitations, including those for TSS, that the Regional Water Board may, at its option, apply to non-sewage discharges if doing so does not preempt any of U.S. EPA's effluent limitations, guidelines, and standards.

Table F-7. Selected Effluent Limits from Basin Plan Table 4-2

Parameter	Monthly Average	Weekly Average	Daily Maximum	Instantaneous
pH (Shallow Water Discharge)	—	—	—	6.5 – 8.5
Settleable Matter	0.1 mL/L-hr	—	0.2 mL/L-hr	—
Oil and Grease	10 mg/L	20 mg/L	—	—
Chlorine, Total Residual	—	—	—	0.0 mg/L
TSS	30 mg/L	45 mg/L	—	—

4.2.2. **Discharge Points 001 and 007.** Discharges from Discharge Points 001 and 007 are subject to the following technology-based effluent limitations.

4.2.2.1. **pH.** The pH effluent limitations are based on Basin Plan Table 4-2, which requires more stringent pH limitations (6.5 to 8.5 standard units) than the Effluent Limitations Guidelines at 40 C.F.R. section 436 (6.0 to 9.0 standard units).

4.2.2.2. **Settleable Matter.** The settleable matter effluent limitations are based on Basin Plan Table 4-2.

4.2.2.3. **Oil and Grease**. The oil and grease effluent limitations are based on Basin Plan Table 4-2.

4.2.2.4. **Total Residual Chlorine**. The total residual chlorine effluent limitation is based on Basin Plan Table 4-2. Chlorine may be present when potable water is used onsite as make-up Primary Crusher wash water, Rock Plant wash water, Truck Wash water, or dust suppression water.

4.2.2.5. **Total Suspended Solids (TSS)**. This Order does not retain TSS limits from the previous order. The previous order's TSS effluent limitations were based on Effluent Limitation Guidelines that no longer apply because Facility operations have changed (see Fact Sheet § 4.4).

4.2.3. **Discharge Points 002 and 005.** Discharges from Discharge Points 002 and 005 are subject to the following technology-based effluent limitations, which are retained from the previous Order. These discharges are also subject to the provisions of Attachment S, which constitute narrative technology-based effluent limits. These requirements reflect BAT and BCT as CWA section 301(b) requires. When developing these numeric and narrative limitations, the factors listed in 40 C.F.R. section 125.3(d) were considered, as discussed in Table F-8.

Table F-8. Factors Considered Per 40 C.F.R. Section 125.3(d)

Factors	Considerations
Cost relative to benefits	The costs of imposing the limitations are reasonable relative to the benefits of treating the wastewater. The Discharger can readily comply with no additional costs because the Discharger does not need to change its stormwater operations.
Comparison of cost and level of reduction of such pollutants to that of publicly owned treatment plants	The treatment system cost and pollutant reduction are less than those for a publicly-owned treatment works because stormwater discharges are infrequent rather than continuous and the Discharger will rely primarily on settling and not on biological treatment. There will be no additional costs because the Discharger does not need to change its stormwater operations.
Age of equipment and facilities	The limitations at Discharge Points 002 and 005 can be met with existing equipment and facilities.
Process employed	The limitations at Discharge Points 002 and 005 can be met with the existing treatment process.

Factors	Considerations
Engineering aspects of various controls	The limitations at Discharge Points 002 and 005 can be met with the existing treatment process.
Process changes	The limitations at Discharge Points 002 and 005 can be met without process changes.
Non-water quality environmental impacts	No changes are anticipated.

4.2.3.1. **pH.** The pH effluent limitations are based on Basin Plan Table 4-2.

4.2.3.2. **Settleable Matter.** The settleable matter effluent limitations are based on Basin Plan Table 4-2.

4.2.3.3. **Oil and Grease**. The oil and grease effluent limitations are based on Basin Plan Table 4-2.

4.2.3.4. **Total Suspended Solids.** This Order retains the TSS effluent limitation from the previous order based on BPJ. While the previous order's TSS effluent limitation was based on Effluent Limitation Guidelines that no longer apply (see Fact Sheet § 4.4), the Facility operations impacting these discharges have not changed and it is consistent with limits for similar facilities.

4.3. Water Quality-Based Effluent Limitations

4.3.1. **Scope and Authority.** CWA section 301(b) and 40 C.F.R. section 122.44(d) require permits to include limitations more stringent than federal technology-based requirements where necessary to achieve water quality standards. According to 40 C.F.R. section 122.44(d)(1)(i), permits must include effluent limitations for all pollutants that are or may be discharged at levels that have a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective, WQBELs must be established using (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting a narrative criterion, supplemented with relevant information. The process for determining reasonable potential and calculating WQBELs when necessary is intended to achieve applicable water quality objectives and criteria, and thereby protect designated beneficial uses of receiving waters. When numeric effluent limitations are infeasible, 40 C.F.R.

part 122.44(k) allows WQBELs to be expressed narratively, such as through BMPs.

4.3.2. **Beneficial Uses and Water Quality Criteria and Objectives.** Fact Sheet section 3.3.1 identifies the beneficial uses of Permanente Creek. Water quality criteria and objectives to protect these beneficial uses are described below.

4.3.2.1. **Basin Plan Objectives.** The Basin Plan specifies numerous water quality objectives, such as numeric objectives for 10 priority pollutants and un-ionized ammonia, and narrative objectives for toxicity and bioaccumulation. Because Permanente Creek has the MUN beneficial use based on State Water Board Resolution 88-63 (see Fact Sheet § 3.3.1), drinking water standards (i.e., maximum contaminant levels) also apply as water quality objectives. For purposes of these discharges, the relevant MUN objectives include those for total dissolved solids, turbidity, chloride, phenols, and sulfate.

4.3.2.1.1. **Un-ionized Ammonia.** Basin Plan section 3.3.20 contains water quality objectives for un-ionized ammonia of 0.025 mg/L (as nitrogen) as an annual median for San Francisco Bay region receiving waters. Effluent and receiving water data are available for total ammonia, but not un-ionized ammonia because (1) sampling and laboratory methods are unavailable to analyze for un-ionized ammonia, and (2) the fraction of total ammonia that exists in the toxic un-ionized form depends on pH, salinity, and temperature of the receiving water.

To translate the un-ionized ammonia objectives into total ammonia criteria, pH, salinity, and temperature data were obtained at Monitoring Location RSW-001A from April 2020 through August 2023 (when flow was present). The un-ionized fraction of total ammonia was calculated using on the following equations (U.S. EPA, 1989, *Ambient Water Quality Criteria for Ammonia (Saltwater)–1989*, EPA Publication 440/5-88-004):

$$\text{Fraction of un-ionized ammonia} = (1 + 10^{[pK - pH]})^{-1}$$

Where, for salinity less than 1 ppt:

$pK = 0.09018 + 2729.92/T$
T = temperature in Kelvin

The median un-ionized ammonia fraction was then used to express the annual average un-ionized objective as a chronic total ammonia criterion. This approach is consistent with U.S. EPA guidance on translating dissolved metal water quality objectives to total recoverable metal water quality criteria (*The Metals Translator: Guidance for Calculating a Total Recoverable Limit from a Dissolved Criterion,* EPA Publication 823-B96-007, 1996). The equivalent chronic total ammonia criterion is 1.7 mg/L.

4.3.2.1.2. **Dioxin-TEQ.** The narrative bioaccumulation objective (Basin Plan § 3.3.2) states, “Many pollutants can accumulate on particulates, in sediments, or bioaccumulate in fish and other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered.” Because it is the consensus of the scientific community that dioxins and furans associate with particulates, accumulate in sediments, and bioaccumulate in the fatty tissue of fish and other organisms, the Basin Plan’s narrative bioaccumulation water quality objective applies to these pollutants. Elevated levels of dioxins and furans in San Francisco Bay fish tissue demonstrate that the narrative bioaccumulation water quality objective is not being met. U.S. EPA has therefore placed San Pablo Bay on its 303(d) list of receiving waters where water quality objectives are not being met after imposition of applicable technology-based requirements.

When the CTR was promulgated, U.S. EPA stated its support for the regulation of dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs). U.S. EPA stated, “For California waters, if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limits for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme” (Fed. Reg. Vol. 65, No. 97, pages 31695-31696, May 18, 2000). This Order uses a TEQ scheme based on a set of toxicity equivalency factors (TEFs) the World Health Organization developed in 2005, and a set of bioaccumulation equivalency factors (BEFs) U.S. EPA developed for the Great Lakes region (40 C.F.R. § 132, Appendix F) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD). Although the 2005 World Health Organization scheme includes TEFs for dioxin-like PCBs, they are not included in this Order’s TEQ scheme. The CTR has established a specific water quality criterion for PCBs, and dioxin-like PCBs are included in the analysis of total PCBs.

The CTR establishes a numeric water quality objective for 2,3,7,8-TCDD of 1.4×10^{-8} µg/L for the protection of human health when water and aquatic organisms are consumed. This CTR criterion is used as a criterion for dioxin-TEQ because dioxin-TEQ represents a toxicity-weighted concentration equivalent to 2,3,7,8-TCDD, thus translating the narrative bioaccumulation objective into a numeric criterion.

4.3.2.1.3. **Temperature.** Permanente Creek supports warm water and cold water habitat beneficial uses; therefore, the temperature water quality objectives in Basin Plan section 3.3.17 apply:

- The natural receiving water temperature of inland surface waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

- The temperature of any cold or warm freshwater habitat shall not be increased by more than 5 [degrees Fahrenheit] (2.8 [degrees Celsius]) above natural receiving water temperature.

4.3.2.2. **Mercury Provisions Objectives.** The Mercury Provisions specify water column criteria for mercury depending on water body type and beneficial uses. Permanente Creek is a flowing water body that supports cold freshwater habitat; warm freshwater habitat; preservation of rare, threatened, or endangered species; and wildlife habitat beneficial uses. Mercury Provisions section IV.D.2.b, Table 1, establish an annual average total mercury objective of 0.012 µg/L for Permanente Creek water.

4.3.2.3. **CTR Criteria.** The CTR specifies numeric aquatic life and human health criteria for numerous priority pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries. Some human health criteria are for consumption of "water and organisms" and others are for consumption of "organisms only." The criteria applicable to "water and organisms" apply to Permanente Creek because it is considered a potential source of drinking water, as described in Fact Sheet section 3.3.1, above.

In December 2024, U.S. EPA promulgated a revised CTR selenium criterion for California freshwater receiving waters in *Final Aquatic Life and Aquatic-Dependent Wildlife Selenium Water Quality Criterion for Freshwaters of California*, EPA-822-R-24-014 (Final Freshwater Selenium WQC). The revised criteria took effect on January 16, 2025, after publication in the Federal Register (U.S. EPA, 2024, Environmental Protection Agency, Fed. Reg. Vol. 89, No. 242, pages 101914 – 101938, December 17, 2024, codified at 40 C.F.R. part 131). The revised criteria include fish tissue and bird tissue elements to protect against bioaccumulation and reproductive toxicity, and an option to calculate a site-specific water quality criterion using a mechanistic model according to U.S. EPA's *Method for Translating Selenium Tissue Criterion Elements into Site-specific Water Column Criterion Elements for California, Version 2* (December 2024).[1] With its Report of Waste Discharge, the Discharger calculated a site-specific criterion of

[1] The Discharger used U.S. EPA's draft guidance (*Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California, Version 1*, August 8, 2018), and the final guidance did not revise the mechanistic model procedure.

4.9 µg/L for Permanente Creek (*Reasonable Potential Study for Selenium in Permanente Creek, Final Report*, Robertson-Bryan, Inc, December 2023).

4.3.2.4. **NTR Criteria.** The NTR establishes numeric aquatic life and human health criteria for a number of toxic pollutants for San Francisco Bay waters upstream to and including San Pablo Bay and the Sacramento-San Joaquin Delta. The NTR criteria apply to Permanente Creek.

4.3.2.5. **Toxicity Provisions.** The Toxicity Provisions establish numeric chronic and acute toxicity objectives that apply to all inland surface waters, enclosed bays, and estuaries in the State with aquatic life beneficial uses. The chronic toxicity water quality objective is as follows:

H_o: mean response (ambient water) ≤ 0.75 x mean response (control water)

H_a: mean response (ambient water) > 0.75 x mean response (control water)

Where:

H_o = null hypothesis
H_a = alternative hypothesis,
0.75 = regulatory management decision criterion (i.e., 75 percent)

H_o means the ambient water is toxic when the test organism response in a bioassay is less than or equal to 75 percent of the control response; H_a means the ambient water is not toxic when the test organism response is greater than 75 percent of the control response. For example, if an average of 75 percent of bioassay test organisms or fewer survive when exposed to ambient water relative to the average number that survive when exposed to control water, the ambient water is toxic (i.e., the test result is “fail”). Conversely, if an average of more than 75 percent of bioassay test organisms survive relative to those exposed to control water, the ambient water is not toxic (i.e., the test result is “pass”).

4.3.2.6. **Receiving Water Salinity.** Basin Plan section 4.6.2 (like the CTR and NTR) states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water are to be considered in determining the applicable water quality objectives. Freshwater criteria apply to discharges to waters with salinities equal to or less than one part per thousand (ppt) at least 95 percent of the time. Saltwater criteria apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally-influenced freshwaters that support estuarine beneficial uses, the water quality objectives are the lower of the salt or freshwater criteria (the latter calculated based on ambient hardness) for each substance.

Permanente Creek is an inland freshwater stream as confirmed by salinity data collected from April 2020 to August 2023 at Monitoring Location RSW-001A (when flow was present). No salinity greater than 1 ppt was detected in any sample. Permanente Creek is therefore classified as freshwater, and the reasonable potential analysis and WQBELs are based on freshwater water quality criteria and objectives.

4.3.2.7. **Receiving Water Hardness.** Ambient hardness data are used to calculate freshwater water quality objectives that are hardness dependent. The water quality objectives for this Order are based on a hardness of 400 mg/L as $CaCO_3$, which is the geometric mean of observed hardness at the confluence of Wild Violet Creek and Permanente Creek (Monitoring Location RSW-001A as defined in the Monitoring and Reporting Program).

4.3.3. **Reasonable Potential Analysis.** The reasonable potential analysis below applies to the discharges at Discharge Points 001 and 007. Discharge Points 002 and 005 discharge stormwater and are subject to technology-based limits as described in Fact Sheet sections 4.2.1 and 4.2.3.4, and narrative WQBELs as set forth in Provision 6.1.3. These narrative requirements include implementation of best management practices.

4.3.3.1. **CTR and NTR Water Quality Objectives and Dioxin-TEQ, Total Dissolved Solids, Turbidity, Chloride, Phenols, and Sulfate**

4.3.3.1.1. **Methodology.** SIP section 1.3 sets forth the methodology used to assess whether priority pollutants have reasonable potential to exceed CTR and NTR water quality objectives. Here, SIP section 1.3 is also used as guidance for dioxin-TEQ, total dissolved solids, turbidity, chloride, phenols, and sulfate.

The analysis begins with identifying the maximum effluent concentration (MEC) observed for each pollutant based on available effluent concentration data and the ambient background concentration (B). SIP section 1.4.3 states that ambient background concentrations are either the maximum ambient concentration observed or, for water quality objectives intended to protect human health, the arithmetic mean of observed concentrations. There are three triggers in determining reasonable potential:

- **Trigger 1** is activated if the maximum effluent concentration is greater than or equal to the lowest applicable water quality objective (MEC ≥ water quality objective).

- **Trigger 2** is activated if the ambient background concentration observed in the receiving water is greater than the lowest applicable water quality objective (B > water quality objective) and the pollutant is detected in any effluent sample.

- **Trigger 3** is activated if a review of other information indicates that a WQBEL is needed to protect beneficial uses.

Section IV.D.2.c of the Mercury Provisions modify SIP section 1.3 for mercury. The maximum effluent concentration and ambient background concentration are maximum annual averages, calculated as the arithmetic mean over each calendar year, with non-detect results estimated as half the method detection limit.

4.3.3.1.2. **Effluent Data.** The reasonable potential analysis for this Order is based on effluent data from Discharge Points 001 and 007 collected from November 2022 to August 2024.

4.3.3.1.3. **Ambient Background Data.** The reasonable potential analysis for this Order is based on ambient background data collected from April 2020 through August 2023 at Monitoring Location RSW-001A. This location was chosen based on its accessibility, geological appropriateness, and lack of chemical influences from the Facility and other land uses (*Background Monitoring Locations Plan and Reporting, Water Code section 13267 Order No. R2-2013-1005, Order Item No. 6, Golder Associates*, March 6, 2013).

4.3.3.1.4. **Reasonable Potential Analysis.** The maximum effluent concentrations, most stringent applicable water quality criteria and objectives, and ambient background concentrations used in the analysis are presented in the following table, along with the reasonable potential analysis results for each pollutant. Based on this analysis, the only pollutant that demonstrates reasonable potential is selenium by Trigger 3, as explained in Table F-9, Footnote 5, below.

Table F–9. Reasonable Potential Analysis

CTR #	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	B or Minimum DL [1][2] (µg/L)	Result [3]
1	Antimony	6.0	0.72	1.6	No
2	Arsenic	10	<0.70	3.5	No
3	Beryllium	4.0	< 0.14	< 0.14	No
4	Cadmium	2.5	< 0.11	0.18	No
5a	Chromium (III)	50	<0.50	2.9	No
5b	Chromium (VI)	11	0.36	0.67	No
6	Copper	22	1.3	3.8	No
7	Lead	12	0.25	0.50	No
8	Mercury [4]	0.012	0.00041	0.0013	No
9	Nickel	100	6.3	13	No
10	**Selenium**	**4.9**	**4.6**	**0.30**	**Yes [5]**
11	Silver	24	< 0.10	< 0.10	No
12	Thallium	1.7	< 0.10	< 0.10	No
13	Zinc	287	8.2	47	No
14	Cyanide	5.2	2.1	3.4	No
15	Asbestos	7,000,000	< 0.20	< 0.20	No

CTR #	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	B or Minimum DL [1][2] (µg/L)	Result [3]
16	2,3,7,8-TCDD (Dioxin)	1.4E-08	< 3.6E-07	< 3.1E-07	U
17	Acrolein	320	< 1.0	< 1.0	No
18	Acrylonitrile	0.059	< 0.40	< 0.40	U
19	Benzene	1.0	< 0.055	< 0.055	No
20	Bromoform	4.3	< 0.067	< 0.067	No
21	Carbon Tetrachloride	0.25	< 0.050	< 0.050	No
22	Chlorobenzene	70	< 0.050	< 0.050	No
23	Chlorodibromomethane	0.40	< 0.050	< 0.050	No
24	Chloroethane	No Criteria	< 0.057	< 0.057	U
25	2-Chloroethylvinyl Ether	No Criteria	< 0.20	< 0.20	U
26	Chloroform	No Criteria	0.090	0.090	U
27	Dichlorobromomethane	0.56	< 0.050	Unavailable	U
28	1,1-Dichloroethane	5.0	< 0.051	< 0.051	No
29	1,2-Dichloroethane	0.38	< 0.068	< 0.068	No
30	1,1-Dichloroethylene	0.057	< 0.050	< 0.050	No
31	1,2-Dichloropropane	0.52	< 0.050	< 0.050	No
32	1,3-Dichloropropylene	0.50	< 0.050	< 0.050	U
33	Ethylbenzene	300	< 0.050	< 0.050	No
34	Methyl Bromide	48	< 0.055	< 0.055	No
35	Methyl Chloride	No Criteria	< 0.055	< 0.055	U
36	Methylene Chloride	4.7	< 0.055	< 0.055	No
37	1,1,2,2-Tetrachloroethane	0.17	< 0.066	< 0.066	No
38	Tetrachloroethylene	0.80	< 0.072	< 0.050	No
39	Toluene	150	< 0.050	< 0.050	No
40	1,2-Trans-Dichloroethylene	10	< 0.056	< 0.056	No
41	1,1,1-Trichloroethane	200	< 0.050	< 0.050	No
42	1,1,2-Trichloroethane	0.60	< 0.050	< 0.050	No
43	Trichloroethylene	2.7	< 0.081	< 0.081	No
44	Vinyl Chloride	0.50	< 0.059	< 0.059	No
45	Chlorophenol	120	< 0.20	< 0.20	No
46	2,4-Dichlorophenol	93	< 0.22	< 0.22	No
47	2,4-Dimethylphenol	540	< 0.20	< 0.20	No
48	2-Methyl-4,6-Dinitrophenol	13	< 0.24	< 0.24	No
49	2,4-Dinitrophenol	70	< 0.20	< 0.20	No
50	2-Nitrophenol	No Criteria	< 0.20	< 0.20	U
51	4-Nitrophenol	No Criteria	< 0.30	< 0.30	U
52	3-Methyl-4-Chlorophenol	No Criteria	< 0.20	< 0.20	U
53	Pentachlorophenol	0.28	< 0.40	< 0.40	U
54	Phenol	21,000	< 0.21	< 0.21	No
55	2,4,6-Trichlorophenol	2.1	< 0.20	< 0.20	No
56	Acenaphthene	1,200	< 0.20	< 0.20	No
57	Acenaphthylene	No Criteria	< 0.64	< 0.20	U
58	Anthracene	9,600	< 0.20	< 0.20	No
59	Benzidine	0.00012	< 1.6	< 1.6	U
60	Benzo(a)Anthracene	0.0044	< 0.21	< 0.21	U
61	Benzo(a)Pyrene	0.0044	< 0.20	< 0.20	U
62	Benzo(b)Fluoranthene	0.0044	< 0.24	< 0.24	U
63	Benzo(ghi)Perylene	No Criteria	< 0.33	< 0.33	U
64	Benzo(k)Fluoranthene	0.0044	< 0.30	< 0.30	U
65	Bis(2-Chloroethoxy)Methane	No Criteria	< 0.20	< 0.20	U
66	Bis(2-Chloroethyl)Ether	0.031	< 0.31	< 0.31	U

CTR #	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	B or Minimum DL [1][2] (µg/L)	Result [3]
67	Bis(2-Chloroisopropyl)Ether	1,400	< 0.20	< 0.20	No
68	Bis(2-Ethylhexyl)Phthalate	1.8	< 0.20	< 0.20	No
69	4-Bromophenyl Phenyl Ether	No Criteria	< 0.20	< 0.20	U
70	Butylbenzyl Phthalate	3,000	< 0.20	< 0.20	No
71	2-Chloronaphthalene	1,700	< 0.20	< 0.20	No
72	4-Chlorophenyl Phenyl Ether	No Criteria	< 0.20	< 0.20	U
73	Chrysene	0.0044	< 0.20	< 0.20	U
74	Dibenzo(a,h)Anthracene	0.0044	< 0.34	< 0.34	U
75	1,2-Dichlorobenzene	600	< 0.050	< 0.050	No
76	1,3-Dichlorobenzene	400	< 0.050	< 0.050	No
77	1,4-Dichlorobenzene	5.0	< 0.050	< 0.050	No
78	3,3-Dichlorobenzidine	0.040	< 0.33	< 0.53	U
79	Diethyl Phthalate	23,000	< 0.20	< 0.20	No
80	Dimethyl Phthalate	313,000	< 0.20	< 0.20	No
81	Di-n-Butyl Phthalate	2,700	< 0.20	< 0.20	No
82	2,4-Dinitrotoluene	0.11	< 0.40	< 0.40	U
83	2,6-Dinitrotoluene	No Criteria	< 0.20	< 0.20	U
84	Di-n-Octyl Phthalate	No Criteria	< 0.20	< 0.21	U
85	1,2-Diphenylhydrazine	0.040	< 0.20	< 0.20	U
86	Fluoranthene	300	< 0.28	< 0.28	No
87	Fluorene	1,300	< 0.20	< 0.20	No
88	Hexachlorobenzene	0.00075	< 0.25	< 0.25	U
89	Hexachlorobutadiene	0.44	< 0.14	< 0.14	U
90	Hexachlorocyclopentadiene	50	< 0.31	< 0.31	No
91	Hexachloroethane	1.9	< 0.050	< 0.050	No
92	Indeno(1,2,3-cd) Pyrene	0.0044	< 0.29	< 0.29	No
93	Isophorone	8.4	< 0.20	< 0.20	No
94	Naphthalene	No Criteria	< 0.10	< 0.10	U
95	Nitrobenzene	17	< 0.20	< 0.20	No
96	N-Nitrosodimethylamine	0.00069	< 1.2	< 0.55	U
97	N-Nitrosodi-n-Propylamine	0.0050	< 0.21	< 0.21	U
98	N-Nitrosodiphenylamine	5.0	< 0.20	< 0.20	No
99	Phenanthrene	No Criteria	< 0.20	< 0.20	U
100	Pyrene	960	< 0.22	< 0.22	No
101	1,2,4-Trichlorobenzene	5.0	< 0.14	< 0.14	No
102	Aldrin	0.00013	< 0.00095	< 0.0010	No
103	alpha-BHC	0.0039	< 0.00050	< 0.00050	No
104	beta-BHC	0.014	< 0.00064	< 0.00064	No
105	gamma-BHC	0.019	< 0.00067	< 0.00067	No
106	delta-BHC	No Criteria	< 0.0012	< 0.0012	U
107	Chlordane	0.00057	< 0.045	< 0.045	No
108	4,4-DDT	0.00059	< 0.00096	< 0.00072	No
109	4,4-DDE	0.00059	< 0.00071	< 0.00071	No
110	4,4-DDD	0.00083	< 0.00086	< 0.00086	No
111	Dieldrin	0.00014	< 0.00069	< 0.00069	No
112	alpha-Endosulfan	0.056	< 0.00068	< 0.00068	No
113	beta-Endosulfan	0.056	< 0.00098	< 0.00098	No
114	Endosulfan Sulfate	110	< 0.00055	< 0.00055	No
115	Endrin	0.036	< 0.00069	< 0.00069	No
116	Endrin Aldehyde	0.76	< 0.00054	< 0.00054	No
117	Heptachlor	0.00021	< 0.00084	< 0.00084	No

CTR #	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	B or Minimum DL [1][2] (µg/L)	Result [3]
118	Heptachlor Epoxide	0.00010	< 0.00064	< 0.00064	No
119-125	PCBs sum	0.00017	< 0.10	< 0.10	U
126	Toxaphene	0.00020	< 0.20	< 0.20	No
	Total Ammonia (N, mgL)	1.7	Unavailable	Unavailable	U
	Total Dissolved Solids (mg/L)	1,000	820	760	No
	Turbidity (NTU)	5.0	Unavailable	0.93	No
	Chloride (mg/L)	500	Unavailable	120	U
	Phenols	1.0	< 0.20	< 0.40	No
	Sulfate (mg/L)	250	Unavailable	590	U

Footnotes:

[1] The MEC and ambient background concentration are the actual detected concentrations unless preceded by a "<" sign, in which case the value shown is the minimum detection level (MDL).

[2] The MEC or ambient background concentration is "Unavailable" when there are no monitoring data for the constituent.

[3] RPA Results = Yes, if MEC ≥ WQC, B > WQC and MEC is detected, or Trigger 3
= No, if MEC and B are < WQC or all effluent data are undetected
= Unknown (U) if no criteria have been promulgated or data are insufficient.

[4] The Mercury Provisions supersede Basin Plan Table 3-4 (see Fact Sheet § 3.3.9). In accordance with the Mercury Provisions, the water quality objective (C), MEC, and B are annual averages calculated as described in Fact Sheet section 4.3.3.1.

[5] Reasonable potential found by Trigger 3. Effluent selenium concentrations over the term of the previous order, but preceding the November 2022 to August 2024 period used for Table F-9, exceed the site-specific selenium criterion of 4.9 µg/L. See Fact Sheet Table F-3 and Fact Sheet §§ 2.4.1, 2.4.2, and 4.3.2.3).

4.3.3.2. **Chronic Toxicity.** Toxicity Provisions section III.C.3.c states that reasonable potential exists if any of at least four chronic toxicity tests at the Instream Waste Concentration (IWC) within five years prior to permit reissuance (1) results in a "fail" or (2) has at least a 10 percent effect. If data from these tests were not analyzed using the TST, the data must be re-analyzed using the TST. If previous tests were not conducted at the IWC, then a concentration of effluent higher than the IWC may be used. Data from older tests may also be considered. If a minimum of four chronic toxicity tests is unavailable, the Regional Water Board is to require the Discharger to conduct a minimum of four chronic toxicity tests at the IWC and analyze the data using the TST.

The Discharger's chronic toxicity screening, conducted over the fourth quarter of 2022 through the fourth quarter of 2023, included testing on one vertebrate, one invertebrate, and one aquatic plant/algae from Table 1 of Toxicity Provisions section III.B.2. The Discharger also re-analyzed chronic toxicity results from 2019 (there was no discharge from Discharge Points 001 and 007 in 2020 or 2021). All tests at the IWC of 100 percent effluent resulted in a "pass," with a maximum percent effect of 8.7 percent (*Ceriodaphnia dubia*, reproduction endpoint). There is therefore no reasonable potential for the discharge to cause or contribute to chronic toxicity in the receiving water, and this Order does not include chronic toxicity

WQBELs. MRP section 5.1.3.2 includes effluent targets consistent with Toxicity Provisions section III.C.4.c.

4.3.3.3. **Acute Toxicity.** The Toxicity Provisions do not require acute toxicity monitoring and limitations. During the previous order term, the Discharger monitored its effluent quarterly for acute toxicity at 100 percent effluent. All results were 100 percent survival. Therefore, there is no reasonable potential for the discharge to cause or contribute to acute toxicity in the receiving water.

4.3.3.4. **Temperature.** Permanente Creek supports warm water and cold water habitat beneficial uses; Basin Plan temperature objectives therefore apply. Temperature data from effluent Monitoring Location EFF-001, background receiving water Monitoring Location RSW-001A, and downstream receiving water Monitoring Locations RSW-001 and RSW-004 indicate that Facility discharges do not increase receiving water temperature by more than 2.8°C above natural receiving water temperature. The Monitoring and Reporting Program requires continued monitoring of background, effluent, and downstream receiving water temperatures to support future reasonable potential analyses.

4.3.3.5. **Dissolved Oxygen.** Basin Plan section 3.3.5 requires minimum dissolved oxygen (DO) levels in non-tidal waters with the COLD or WARM beneficial uses of 7.0 mg/L and 5.0 mg/L, respectively, and that the median DO concentration for any three consecutive months not be less than 80 percent of the dissolved oxygen content at saturation. Both cold water and warm water beneficial uses apply to Permanente Creek (Fact Sheet Table F-6). There is no effluent dissolved oxygen data to compare to the water quality objective. In addition, DO content at saturation is based on salinity, temperature, and a three-month duration, which makes it impractical to evaluate with effluent data. Therefore, reasonable potential is analyzed by review of other information. The Lower and Upper WTS remove selenium and other metals by an anaerobic attached growth process and aerate the effluent using a fine bubble diffuser prior to discharge (Regional Water Board, *Compliance Evaluation Inspection Report, Lehigh Southwest Cement Company*, August 4, 2023). Thus, there is reasonable potential for the discharge, if inadequately aerated, to exceed the narrative DO water quality objective and an effluent limit is required to ensure proper operation of the treatment systems.

4.3.3.6. **pH.** Basin Plan section 3.3.9 requires that pH not be depressed below 6.5 nor raised above 8.5 in the receiving water, and that discharges not cause changes greater than 0.5 in normal ambient pH levels. Based on effluent monitoring data in Table F-3, there is no reasonable potential to exceed this objective. Furthermore, this Order imposes technology-based effluent limitations for pH (See Fact Sheet § 4.2.2.1) that ensure the discharge will

not exceed the required pH range. Therefore, there is no reasonable potential for the discharge to exceed the pH water quality objective.

4.3.3.7. **Narrative Water Quality Objectives.** Basin Plan chapter 3 includes narrative water quality objectives for all surface waters within the region, except the Pacific Ocean. Where reasonable potential is found, the Basin Plan requires these objectives to be translated into effluent limitations.

4.3.3.7.1. **Bioaccumulation.** Basin Plan section 3.3.2 requires that controllable water quality factors not cause a detrimental increase in concentrations of toxic substances in bottom sediments or aquatic life. This Order finds reasonable potential for one bioaccumulative pollutant, selenium. As explained in Fact Sheet section 4.3.2.3, the selenium criterion was revised effective January 2025 to protect against bioaccumulative toxicity; thus, this Order's selenium effluent limits and monitoring requirements based on that criterion protect against selenium bioaccumulation in bottom sediments and aquatic life. Further, as explained in Fact Sheet section 4.3.3.2, this Order finds no reasonable potential for chronic toxicity, but requires chronic toxicity monitoring and imposes chronic toxicity targets consistent with the Toxicity Provisions. The Regional Water Board is implementing this narrative objective by using an indicator parameter (i.e., selenium) for these bioaccumulative pollutants of concern.

4.3.3.7.2. **Biostimulatory Substances.** Basin Plan section 3.3.3 requires that waters not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. Data for nutrients (nitrogen [N], ammonia as N, nitrate and nitrite as N, phosphorus) in this discharge are currently unavailable. However, as explained in Fact Sheet section 2, this Order regulates discharge of wastewater associated with crushed rock mining and processing; the discharge does not include treated domestic sewage and is unlikely to include significant concentrations of biostimulatory substances. Thus, there is no reasonable potential for the discharge to exceed the narrative water quality objective for biostimulatory substances.

4.3.3.7.3. **Color.** Basin Plan section 3.3.4 requires that discharges be free of coloration that causes nuisance or adversely affects beneficial uses. The discharge receives advanced treatment and does not contain objectionable color, odor, taste, or turbidity. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for color.

4.3.3.7.4. **Floating Material.** Basin Plan section 3.3.6 requires that waters not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses. The effluent discharged receives advanced treatment and does not

contain floating debris, oil, or scum; therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for floating material.

4.3.3.7.5. **Oil and Grease.** Basin Plan section 3.3.7 requires that discharges not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses. The effluent discharged receives advanced treatment and does not contain materials that cause a visible film or coating on the water surface or aquatic objects. Furthermore, this Order imposes technology-based effluent limitations for oil and grease (See Fact Sheet §4.2.2.3) that ensure the discharge will not contain oil and other materials at concentrations that result in a visible film. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for oil and grease.

4.3.3.7.6. **Population and Community Ecology.** Basin Plan section 3.3.8 requires all waters to be maintained free of toxic substances in concentrations that are lethal to or that produce significant alterations in population or community ecology or receiving water biota. This Order finds no reasonable potential for toxicity (see Fact Sheet §4.3.3.2) and establishes effluent targets, instead of limits, for chronic toxicity based on the Toxicity Provisions. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for Population and Community Ecology.

4.3.3.7.7. **Radioactivity.** Basin Plan section 3.3.10 requires that radionuclides not be present in concentrations that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life. It further requires that waters designated for use as domestic or municipal supply shall not contain concentrations of radionuclides in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the California Code of Regulations (CCR). No radioactive material is present at the Facility or in any wastewater generated by the Facility. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for radioactivity.

4.3.3.7.8. **Salinity.** Basin Plan section 3.3.11 requires that controllable water quality factors not increase the total dissolved solids (TDS) or salinity of receiving waters so as to adversely affect beneficial uses, particularly fish migration and estuarine habitat. This Order finds no reasonable potential for TDS in the discharge (see Fact Sheet Table F-9). Therefore, there is no reasonable potential for the discharge to significantly increase TDS or salinity in the receiving water.

4.3.3.7.9. **Sediment.** Basin Plan section 3.3.12 requires that the suspended sediment load and suspended sediment discharge rate of surface waters not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Monitoring data from Monitoring Locations EFF-001 and EFF-007 (Table F-3) show no detections of settleable matter and a maximum TSS detection of 8.4 mg/L, well below Basin Plan Table 4-2's monthly and weekly average limits of 30 mg/L and 45 mg/L, respectively (see Table F-7). Therefore, there is no reasonable potential for the discharge exceed the narrative water quality objective for sediment.

Basin Plan section 3.3.12 also requires that controllable water quality factors not cause a detrimental increase in the concentrations of toxic pollutants in sediments or aquatic life. As discussed in Fact Sheet sections 4.3.3.7.1 and 4.3.3.7.6 above, there is no reasonable potential for the discharge to exceed narrative limits on toxicity in sediments or aquatic life.

4.3.3.7.10. **Settleable Material.** Basin Plan section 3.3.13 requires that waters not contain substances in concentrations that result in the deposition of materials that cause nuisance or adversely affect beneficial uses. As discussed in Fact Sheet section 4.3.3.7.9, above, settleable matter was not detected in this discharge (see Table F-3). Furthermore, this Order imposes technology-based effluent limitations on settleable matter (See Fact Sheet § 4.2.2.2) that ensure the discharge will not contain substances that will result in materials deposition. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for settleable material.

4.3.3.7.11. **Suspended Material.** Basin Plan section 3.3.14 requires that discharges not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses. The discharge receives advanced treatment and as described in Fact Sheet section 4.3.3.7.9, above, TSS has not been detected in the discharge at levels approaching Basin Plan Table 4-2 limits. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for suspended material.

4.3.3.7.12. **Sulfide.** Basin Plan section 3.3.15 requires that discharges be free of dissolved sulfides above natural background levels. Violation of the sulfide objective would indicate violation of DO objectives, as sulfides cannot exist to a significant degree in an oxygenated environment. The discharge receives advanced treatment that includes biological treatment under anaerobic conditions, which may form sulfide if sulfate is present; however, the effluent is re-oxygenated prior to discharge. Furthermore, this Order imposes minimum DO limits, as discussed in Fact Sheet section 4.3.3.5. Therefore, there is no reasonable potential for the discharge to contain sulfide concentrations above the background levels of the receiving water.

4.3.3.7.13. **Tastes and Odors.** Basin Plan section 3.3.16 requires that discharges not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses. As stated in Fact Sheet section 4.3.3.7.3, The discharge receives advanced treatment and does not contain objectionable color, odor, taste, or turbidity. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for tastes and odors.

4.3.3.7.14. **Turbidity.** Basin Plan section 3.3.19 requires that waters be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. As discussed above, the discharge receives advanced treatment and does not contain objectionable color, turbidity, or floating, suspended, or settleable matter. Therefore, there is no reasonable potential for the discharge to exceed the narrative water quality objective for turbidity.

4.3.4. **Water Quality-Based Effluent Limitations (WQBELs).** For Discharge Points 001 and 007, numeric WQBELs were developed for the pollutants determined to have reasonable potential to cause or contribute to exceedances of water quality objectives. These WQBELs are based on the procedure specified in SIP section 1.4, as required for priority pollutants and as guidance for the other pollutants.

4.3.4.1. **WQBEL Expression.** NPDES regulations at 40 C.F.R. section 122.45(d) require that permit limits for industrial dischargers be expressed as maximum daily and average monthly limits, unless impracticable.

4.3.4.2. **Dilution Credits.** Basin Plan section 4.6.1 and SIP section 1.4.2 allow dilution credits under certain circumstances. Because neither Discharge Point 001 nor 007 is submerged, has a diffuser, or achieves any dilution, no dilution credit is used in the calculation of WQBELs.

4.3.4.3. **WQBEL Calculation.** The following table shows the WQBEL calculations for selenium, the only pollutant with reasonable potential to exceed water quality standards. The selenium criterion is based on a 30-day averaging period, rather than the 96-hour period typical for chronic criteria. The average monthly effluent limit calculation, therefore, assumes a monitoring frequency of once per day (i.e., 30 times per month) and a 30-day averaging period because the assumed monitoring frequency used in the calculation should not be less than the averaging period the criterion is based on. This approach is consistent with U.S. EPA's *Water Quality Criteria; Notice of Availability; 1999 Update of Ambient Water Quality Criteria for Ammonia;* (Federal Register, Vol. 64, No. 245, page 71976, December 22, 1999).

Table F-10. WQBEL Calculations

PRIORITY POLLUTANTS	Selenium
Units	**µg/L**
Basis and Criteria type	Freshwater Selenium WQC
Criteria -Acute	—
Criteria -Chronic	4.9
Water Effects Ratio (WER)	1
Lowest WQO	4.9
Dilution Factor (D) (if applicable)	0
No. of samples per month	30
Aquatic life criteria analysis required? (Y/N)	Y
HH criteria analysis required? (Y/N)	N
Applicable Acute WQO	—
Applicable Chronic WQO	4.9
HH criteria	—
Background (Maximum Conc for Aquatic Life calc)	0.30
Background (Average Conc for Human Health calc)	—
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?	Y
ECA acute	—
ECA chronic	4.9
ECA HH	—
Number of data points <10 or at least 80% of data reported non detect? (Y/N)	N
Avg of effluent data points	1.3
Std Dev of effluent data points	1.0
CV calculated	0.79
CV (Selected) – Final	0.79
ECA acute mult99	0.25
ECA chronic mult99	0.72
LTA acute	—
LTA chronic	3.5
minimum of LTAs	3.5
AMEL mult95	1.3
MDEL mult99	4.0
AMEL (aq life)	4.4

PRIORITY POLLUTANTS	Selenium
Units	µg/L
MDEL (aq life)	14
MDEL/AMEL Multiplier	3.2
AMEL (human hlth)	—
MDEL (human hlth)	—
minimum of AMEL for Aq. life vs HH	4.4
minimum of MDEL for Aq. Life vs HH	14
Previous order limit (30-day average)	3.7
Previous order limit (daily)	8.2
Final limit – AMEL	3.7
Final limit – MDEL	8.2

4.3.4.3. **Dissolved Oxygen.** This Order includes a DO effluent limitation based on Basin Plan section 3.3.5. The most protective dissolved oxygen objective is a minimum of 7.0 mg/L, which protects both WARM and COLD beneficial uses. The discharge receives no dilution and Permanente Creek is often effluent-dominated at Discharge Points 001 and 007. This Order therefore establishes a minimum DO effluent limit of 7.0 mg/L.

4.3.5. **Receiving Water Limitations.** This Order removes the receiving water limitations contained in Section V of the previous order that served as backstops for unanticipated circumstances or changes to effluent quality that could affect water quality. The receiving water limitations made the Discharger responsible for the quality of the receiving water without specifying specific requirements (e.g., effluent limitations) or other actions the Discharger must take that apply at or before the discharge point. The Regional Water Board removed the receiving water limitations to be consistent with the U.S. Supreme Court's ruling in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S.Ct. 704, which held that NPDES permits issued by the U.S. EPA may not include end-result requirements under the Clean Water Act. End-result requirements are provisions that do not spell out what a Discharger must do or refrain from doing; rather, they make a Discharger responsible for the quality of the water in the body of water into which it discharges pollutants.[2]

The requirements in this Order will ensure that the discharge satisfies Clean Water Act section 301(b)(1)(C) (33 U.S.C. § 1311(b)(1)(C)), which requires that the permit include any more stringent limitation, including those necessary to meet water quality standards (See Fact Sheet § 4.3.3.5.). If unanticipated circumstances or changes to effluent quality occur during the permit term, the Board may reopen the permit to include any limitations necessary to protect water quality.

4.4. Discharge Requirement Considerations

4.4.1. **Anti-backsliding.** This Order complies with the anti-backsliding provisions of CWA sections 402(o) and 303(d)(4), and 40 C.F.R. section 122.44(l), which generally require effluent limitations in a reissued permit to be as stringent as those in the previous order unless an exception applies. The requirements of this Order are at least as stringent as those in the previous order or otherwise fall under an anti-backsliding exception, as explained below.

As discussed in Fact Sheet sections 4.3.5 and 5.4, this Order removes the receiving water limitations included in the previous order and retains the nuisance provisions contained in the previous order as State-only requirements. The removal of these requirements, as a matter of federal law, is consistent with the U.S. Supreme Court's holding in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S.Ct. 704. However,

[2] While the Regional Water Board removed generalized receiving water limitations in accordance with the U.S. Supreme Court's decision interpreting the Clean Water Act's NPDES requirements, the Regional Water Board may decide in the future to include similar requirements as a matter of state authority.

as discussed in section 4.3.5, the Regional Water Board has determined that the requirements in this Order are sufficient to ensure the discharge complies with Clean Water Act section 301(b)(1)(C) (33 U.S.C. § 1311(b)(1)(C)). As a result, the discharge does not authorize violations of water quality standards, and the removal of the receiving water limitations does not authorize the additional discharge of pollutants or authorize the violation of water quality standards. The Order does not, therefore, authorize either backsliding or further degradation of water quality.

4.4.1.1. **Technology-Based Effluent Limitations.** This Order does not retain the previous order's technology-based mass limits for total suspended solids at Discharge Points 001and 007 because those limits were based on the *Effluent Limitations Guidelines for the Cement Manufacturing Point Source Category* at 40 C.F.R. section 411, which no longer applies. As discussed in Fact Sheet sections 1 and 2, the Facility no longer manufactures cement. CWA sections 402(o)(2)(A) and 40 C.F.R. section 122.44(l)(2)(i)(A) provide an exception to anti-backsliding requirements when material and substantial alterations or additions occur to a facility and justify the application of less stringent effluent limitations, as is the case here.

4.4.1.2. **Water Quality-Based Effluent Limitations.** This Order does not retain the previous order's water quality-based effluent limitations at Discharge Points 001 and 007 for antimony and chromium (VI) because those pollutants no longer demonstrate reasonable potential to cause or contribute to exceedances of the water quality objectives. This Order also does not retain acute toxicity effluent limitations because acute toxicity does not demonstrate reasonable potential under the new Toxicity Provisions. In State Water Board Order WQ 2001-16, the State Water Board held that anti-backsliding does not necessarily dictate that a pollutant limited in a prior permit must have a limitation in a later permit when there is no reasonable potential that the pollutant discharged will cause or contribute to a water quality standard exceedance. The State Water Board stated that, where the anti-backsliding exception in CWA section 303(d)(4)(B) is met, the limit may be removed. The removal of these water quality-based effluent limits is consistent with CWA section 303(d)(4)(B). As discussed in Fact Sheet section 4.4.2, removing these effluent limits will not degrade water quality, and the relaxation will not result in a violation of water quality standards.

4.4.2. **Antidegradation.** This Order complies with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16. Compared to the previous order, this Order does not allow for an increased discharge volume or pollutant concentrations, or a reduced level of treatment. For the reasons explained below, findings authorizing degradation are unnecessary.

The Facility will discharge a lower mass of pollutants than it did when manufacturing cement. The removal of the mass-based limit for total suspended solids developed for the previous cement manufacturing operations will not

lower water quality because it applied to a cement manufacturing waste stream that no longer exists; moreover, that limit did not drive treatment performance at the Facility.

This Order does not retain effluent limits for antimony or chromium (VI) from the previous order because data no longer indicate reasonable potential for antimony or chromium (VI) to exceed water quality objectives. The quantity of these pollutants are not expected to exceed the quantity discharged under the previous order when the effluent limits were in place. Therefore, the removal of these limits will not lower water quality related to these pollutants in the receiving water.

This Order imposes new aquatic toxicity requirements. The previous order required acute and chronic toxicity monitoring, imposed effluent limits on acute toxicity, and imposed TRE triggers on chronic toxicity. This Order requires chronic toxicity monitoring at a waste concentration of 100 percent effluent and imposes TRE triggers. This will ensure that a comparable level of treatment will be maintained; thus, these requirements ensure that the receiving water will not be degraded. As for the acute toxicity limits, chronic toxicity requirements are protective against acute toxicity, which is caused by higher levels of toxicants. For these reasons, water quality will not be degraded.

This Order also imposes a new minimum DO effluent limit to protect the COLD and WARM beneficial uses of Permanente Creek. The previous order's receiving water limits for DO are removed from this Order for the reasons described below. Instead, this Order finds reasonable potential for the discharge to cause or contribute to non-compliance with the narrative requirement for DO at Basin Plan section 3.3.5 (see Fact Sheet § 4.3.3.5.4). This new limit will prevent degradation of water quality due to insufficient DO in the receiving water.

This Order removes the generalized receiving water limitations contained in the previous order. As discussed in Fact Sheet section 4.3.3.5, the effluent limitations established in this Order are sufficient to protect Permanente Creek. The removal of the generalized receiving water limitations will not result in an increased volume or concentration of pollutants in the discharge. As explained in Fact Sheet section 4.3.3.5, the technology- and water quality-based effluent limitations established in the Order are sufficient to drive treatment plant performance in a manner comparable to the previous order and to ensure that water quality and beneficial uses are protected. This Order does not, therefore, authorize further degradation of water quality.

4.4.3. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and WQBELs for individual pollutants. The technology-based limitations implement minimum, applicable federal technology-based requirements. In addition, this Order contains more stringent effluent limitations as necessary to meet water quality standards. Collectively, this Order's

restrictions on individual pollutants are no more stringent than required to implement CWA requirements.

This Order's WQBELs have been derived to implement water quality objectives that protect beneficial uses. The beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. The procedures for calculating these WQBELs are based on the CTR, as implemented in accordance with the SIP, which U.S. EPA approved on May 18, 2000. U.S. EPA approved most Basin Plan beneficial uses and water quality objectives prior to May 30, 2000. Beneficial uses and water quality objectives submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1). U.S. EPA approved the remaining beneficial uses and water quality objectives, so they are also applicable water quality standards pursuant to 40 C.F.R. section 131.21(c)(2).

5. RATIONALE FOR PROVISIONS

5.1. Standard Provisions

5.1.1. Attachment D contains standard provisions that apply to all NPDES permits in accordance with 40 C.F.R. section 122.41 and additional conditions applicable to specific categories of permits in accordance with 40 C.F.R. section 122.42. The Discharger must comply with these provisions. The conditions set forth in 40 C.F.R. sections 122.41(a)(1) and (b) through (n) apply to all state-issued NPDES permits and must be incorporated into permits either expressly or by reference.

5.1.2. Attachment G contains standard provisions that supplement the provisions in Attachment D. In accordance with 40 C.F.R. section 123.25(a)(12), states may omit or modify conditions to impose more stringent requirements. This Order omits the federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the State's enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates Water Code section 13387(e) by reference.

5.1.3. Attachment S contains stormwater provisions consistent with the State Water Board's *General Permit for Stormwater Discharges Associated with Industrial Activities* (NPDES CAS000001) (Industrial General Permit), including requirements for the Discharger to prepare a Stormwater Pollution Prevention Plan, to evaluate BMP performance using stormwater action levels (stormwater action levels are not effluent limitations), and to submit an annual stormwater report.

This Order modifies Attachment S to include stormwater action levels appropriate for this Facility. This Order retains the stormwater action levels for selenium and chromium (VI) from the previous order. This Order does not retain the stormwater action level for antimony from the previous order because effluent detections at Monitoring Location EFF-005 were consistently less than half the water quality objective of 6.0 µg/L.

5.2. Monitoring and Reporting Provisions

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. For more information, see Fact Sheet section 6.

5.3. Special Provisions

5.3.1. **Reopener Provisions.** These provisions are based on 40 C.F.R. sections 122.62 and 122.63 and allow modification of this Order and its effluent limitations as necessary in response to updated water quality objectives, regulations, or other new and relevant information that may become available in the future, and other circumstances as allowed by law.

5.3.2. **Effluent Characterization Study and Report.** This Order does not include WQBELs for pollutants that do not demonstrate reasonable potential, but this provision requires the Discharger to evaluate monitoring data to verify that the reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to 40 C.F.R. section 122.41(h) and Water Code section 13383. It is necessary to inform the next permit reissuance and to ensure that the Discharger takes timely steps in response to any unanticipated change in effluent quality during the term of this Order.

5.3.3. **Pollutant Minimization Program.** This provision is based on Basin Plan section 4.13.2 and SIP section 2.4.5.

5.3.4. **Receiving Water Data Reporting.** This Order requires the Discharger to upload specified receiving water data to the California Environmental Data Exchange Network (CEDEN) to the extent that CEDEN accommodates the data type. This requirement ensures that the public can access these data through CEDEN's database, and that the State and Regional Water Boards can use these data to evaluate whether Permanente Creek meets water quality standards pursuant to CWA section 303(d).

5.4. Provisions from Previous Order Retained to Implement State Law Only

Attachment G, Provision I.I.1 of the previous order stated, “Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.” Consistent with the holding in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S.Ct. 704 (discussed in Fact Sheet § 4.3.5.), this Order does not retain this provision as a federal requirement. However, this Order does retain a modified version of the provision in Attachment G, Provision 1.9.1., as a matter of State law: “the treatment of pollutants shall not create nuisance as defined by California Water Code section 13050.” This provision does not retain the requirement that the discharge not cause pollution, contamination, or nuisance because this Order includes effluent limits that are sufficient to prevent those conditions from occurring.

The Regional Water Board has maintained this provision as a State law requirement to implement Water Code section 13263, which identifies the need to prevent nuisance as a factor to consider when issuing waste discharge requirements. The U.S. Supreme Court’s decision in *City and County of San Francisco v. U.S. EPA* did not interpret the Water Code. Furthermore, there is no provision of the Water Code analogous to the NPDES permit shield that was a part of the basis of the U.S. Supreme Court’s decision. Likewise, the Porter-Cologne Water Quality Control Act has consistently recognized the ability of the Water Boards to regulate to prevent nuisance, and the Porter-Cologne Water Quality Control Act does not share the legislative history of the federal Clean Water Act. This Order, therefore, maintains the requirement identified above to continue protections as a matter of State law.

As required by Water Code section 13263, the Regional Water Board has considered the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the factors listed in Water Code section 13241 in establishing these State law requirements. The Water Code section 13241 factors are considered below.

5.4.1. **Past, present, and probable future beneficial uses of water.** Basin Plan Chapter 2 identifies designated beneficial uses for water bodies in the San Francisco Bay Region. Beneficial uses of water relevant to this Order are also identified above in Fact Sheet Table F-6. The Regional Water Board has taken beneficial uses into account in establishing the requirements of this Order. The prohibition against nuisance will not adversely affect present and future beneficial uses of water.

5.4.2. **Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.** The environmental characteristics of the Santa Clara Basin are described in Basin Plan Table 2-1 and the Discharger’s Report of Waste Discharge. The

prohibition against nuisance will not adversely affect the environmental characteristics of the hydrographic unit.

5.4.3. **Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.** By complying with the CWA-mandated requirements established in this Order, the Discharger will ensure control over factors that could affect water quality. The requirement to prevent nuisance will ensure that the treatment process does not result in odors that could adversely affect the surrounding community.

5.4.4. **Economic considerations.** The Discharger has reliably operated its treatment plant over several permit terms without creating nuisance conditions. Therefore, this provision is unlikely to impose additional economic costs on the Discharger. In the unlikely event that the Discharger incurs additional costs, those costs would be justified and necessary to properly operate and maintain its treatment plant and protect public health and the environment. If a nuisance were to occur, it would have a negative economic impact on tourism, recreation, and affected residents in the area.

5.4.5. **The need for developing housing within the region.** The requirement to prevent nuisance will not adversely affect the development of housing within the region.

5.4.6. **The need to develop and use recycled water.** The requirement to prevent nuisance will have no impact on the development and use of recycled water.

6. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The following provides the rationale for the monitoring and reporting requirements in the MRP.

6.1 Monitoring Requirements Rationale

Attachment E contains the MRP for this Order. It specifies monitoring locations, pollutants to be monitored (including all parameters for which effluent limitations are specified), monitoring frequencies, and reporting requirements. The following provides the rationale for the MRP requirements.

6.1.1. **Effluent Monitoring.** Effluent flow monitoring is necessary at Monitoring Locations EFF-001 and EFF-007 to evaluate compliance with Discharge Prohibition 3.2 and to understand Facility operations. Effluent flow monitoring is necessary at Monitoring Locations EFF-002 and EFF-005 to evaluate the Discharger's management of Facility stormwater. Monitoring for the other parameters is necessary at Monitoring Locations EFF-001, EFF-002, EFF-005, and EFF-007 to evaluate compliance with this Order's effluent limitations and to conduct future reasonable potential analyses. Monitoring is also needed at Monitoring Locations EFF-002 and EFF-005 to evaluate the effectiveness of the

Discharger's stormwater BMPs by comparing discharge concentrations with stormwater action levels.

6.1.3. **Toxicity Monitoring.** Toxicity tests are necessary to ensure the discharge does not cause or contribute to toxicity in the receiving water, evaluate whether the Toxicity Provisions' chronic toxicity water quality objectives are met, and to conduct future reasonable potential analyses. Chronic toxicity tests are also necessary to evaluate whether Toxicity Reduction Evaluations are needed. This monitoring will allow timely identification and response to potential toxicants. On December 5, 2023, the Discharger submitted a permit reissuance application with a chronic toxicity species screening that satisfies the minimum screening requirements in Toxicity Provisions section III.C.2.a.

Toxicity Provisions section III.C.4.b.i(A) requires a routine chronic toxicity monitoring frequency of quarterly for non-stormwater NPDES dischargers authorized to discharge at a rate of less than 5.0 MGD or greater unless the Regional Water Board approves a reduced monitoring frequency under Toxicity Provisions section III.C.4.b.i(B). This Order approves a reduced routine chronic toxicity monitoring frequency of twice per year because, as required by Toxicity Provisions section III.C.4.b.i(B), the Discharger has for the last five years:

- complied with the previous order's toxicity requirements;
- conducted at least ten chronic aquatic toxicity tests at an effluent concentration at or above the IWC;
- analyzed or reanalyzed the results using the TST; and
- not had a result of "fail" at the IWC.

The Discharger did not detect chronic toxicity under the previous order when monitoring quarterly using the water flea (*Ceriodaphnia dubia*). The Discharger submitted the results of twenty chronic toxicity monitoring tests (ten each at the survival and growth endpoints) conducted at the IWC from 2019 through 2023 re-analyzed using the TST. All results were "pass." As required by Toxicity Provisions section III.C.4.b.i(B), this Order also requires that the routine chronic toxicity monitoring frequency revert to quarterly if the Discharger fails to comply with this Order's chronic toxicity requirements or has a chronic toxicity test result that exceeds the MDET or MMET at the IWC.

6.1.4. **Receiving Water Monitoring.** Receiving water monitoring is necessary to characterize the receiving water (e.g., to provide background values for future reasonable potential analyses) and the effects of the discharges on the receiving water. Monitoring Location RSW-001A represents background water quality based on the *Background Monitoring Report* (Golder Associates, March 22, 2013), which found that Monitoring Location RSW-001A is unaffected by Facility operations, is accessible for sampling, and has similar geologic conditions as the discharge locations. Monitoring Locations RSW-001,

RSW-002, and RSW-004 represent conditions immediately downstream of the discharge points.

This Order does not retain monitoring requirements for far-field Monitoring Locations RSW-005, RSW-006, and RSW-007 from the previous order, which required the Discharger to monitor those locations and upload the data to CEDEN in support of a TMDL for toxicity in Permanente Creek. No aquatic toxicity has been found, and that data collection is no longer needed.

6.1.5. **Other Monitoring Requirements.** Pursuant to CWA section 308, U.S. EPA requires some dischargers to participate in a Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program that evaluates the analytical abilities of laboratories that perform or support NPDES permit-required monitoring. The program applies to discharger laboratories and contract laboratories, and evaluates each laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES program. There are two options to comply: (1) the Discharger may obtain and analyze DMR-QA samples, or (2) pursuant to a waiver U.S. EPA issued to the State Water Board, the Discharger may submit results from the most recent Water Pollution Performance Evaluation Study. MRP section 1.4 requires the Discharger to ensure that the results of the DMR-QA Study or most recent Water Pollution Performance Evaluation Study are submitted to the State Water Board, which forwards the results to U.S. EPA.

6.2. Monitoring Requirements Summary. The table below summarizes routine monitoring requirements. This table is for informational purposes only. The actual requirements are specified in the MRP and elsewhere in this Order.

Table F-11. Monitoring Requirements Summary

Parameter	Effluent EFF-001 and EFF-007	Effluent EFF-002 and EFF-005	Receiving Water RSW-001 and RSW-001A	Receiving Water RSW-002	Receiving Water RSW-004
Chloride	—	—	1/Year [1]	—	2/Year
Conductivity	—	1/Quarter	[2]	—	—
Dissolved Oxygen	1/Week	—	[2]	1/Quarter	[2]
Flow	Continuous/D [3]	1/Month [3]	[2]	1/Quarter	[2]
Hardness	—	—	1/Year [4]	—	2/Year
Oil and Grease	1/Quarter	1/Quarter	—	—	—
pH	Continuous/D or 1/Day [5]	1/Quarter	[2]	1/Quarter	[2]
Salinity	1/Quarter	—	—	—	—
Settleable Matter	1/Month	1/Quarter	1/Year [4]	—	—
Sulfate	—	—	2/Year [1]	—	2/Year

Parameter	Effluent EFF-001 and EFF-007	Effluent EFF-002 and EFF-005	Receiving Water RSW-001 and RSW-001A	Receiving Water RSW-002	Receiving Water RSW-004
Temperature	1/Month	—	[2]	1/Quarter	[2]
Total Residual Chlorine	1/Day [5]	—	—	—	—
TSS	1/Week	1/Quarter	[2]	1/Quarter	[2]
Turbidity	—	—	1/Year	1/Quarter	1/Quarter
Antimony	—	1/Year	—	2/Year	[2]
Chromium (VI)	—	1/Quarter	—	2/Year	[2]
Chronic Toxicity	2/Year	—	2/Year [1]	—	2/Year
Mercury	—	1/Year	—	—	—
Nickel	—	1/Year	—	—	—
Selenium [6]	2/Month	[2]	[2]	1/Quarter	[2]
TDS	1/Quarter	—	1/Year	1/Year	1/Year
Trace Metals [7]	—	—	2/Year [1]	—	2/Year
Other priority pollutants [8]	1/Year	—	1/Year	—	—
Standard Observations [9]	1/Day	—	[2]	1/Quarter	[2]
Visual Observations [10]	—	Each Occurrence	—	—	—

Footnotes:

[1] To be monitored at Monitoring Location RSW-001. Monitoring is not required at Monitoring Location RSW-001A.

[2] The monitoring frequency is to be monthly during the wet season (November 1 through April 30) and twice (total) during the dry season (May 1 through October 31).

[3] For effluent flows, the following information is also to be monitored and reported in monthly SMRs:

a. Average Daily Flow (gpd)
b. Total Monthly Flow (MG)

[4] Hardness and settleable matter are to be monitored at Monitoring Location RSW-001A. Hardness and settleable matter monitoring is not required at Monitoring Location RSW-001

[5] pH and total residual chlorine are to be monitored once per day, Monday through Friday, at Monitoring Locations EFF-001 and EFF-007. If pH is monitored continuously, the minimum and maximum pH values for each day are to be reported in self-monitoring reports.

[6] Selenium samples are to be collected at Monitoring Locations EFF-002 and EFF-005 during the first significant stormwater discharge of the wet season (November 1 through April 30) that occurs in daylight during scheduled Facility operating hours.

[7] Trace metals are total recoverable antimony, arsenic, cadmium, total chromium, chromium (VI), copper, molybdenum, nickel, thallium, vanadium, and zinc. They are to be monitored concurrently with chronic toxicity.

[8] The Discharger is to monitor for the pollutants listed in Attachment G, Table B

[9] Standard observations are listed in Attachment G section 3.2.

[10] Visual observations are specified in Attachment S section 2.2.

7. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, Regional

Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

7.1. Notification of Interested Parties. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website (waterboards.ca.gov/sanfranciscobay).

7.2. Written Comments. Interested persons were invited to submit written comments concerning the tentative WDRs as explained through the notification process. Comments were to be submitted either in person or by mail to the Executive Office at the Regional Water Board at 1515 Clay Street, Suite 1400, Oakland, California 94612, to the attention of John H. Madigan.

Written comments were due at the Regional Water Board office by 5:00 p.m. on August 25, 2025.

7.3. Public Hearing. The Regional Water Board held a public hearing on the tentative WDRs during its meeting at the following date and time:

Date: October 8, 2025
Time: 9:00 a.m.

Contact: John H. Madigan, (510) 622-2405,
john.madigan@waterboards.ca.gov

Interested persons were provided notice of the hearing and information on how to participate. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge and Order.

Dates and venues can change. The Regional Water Board's website is (waterboards.ca.gov/sanfranciscobay), where one can access the current agenda for changes.

7.4. Reconsideration of Waste Discharge Requirements. Any person aggrieved by this Regional Water Board action may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050. The State Water Board must receive the petition at the following address within 30 calendar days of the date of Regional Water Board action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

A petition may also be filed by email at waterqualitypetitions@waterboards.ca.gov.

For instructions on how to file a water quality petition for review, see the Water Board's petition instructions (waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml).

7.5. Information and Copying. The Report of Waste Discharge, related supporting documents, and comments received are on file and may be inspected at the Regional Water Board address above at any time online or by making an appointment with the Regional Water Board's custodian of records. Document copying may be arranged by calling (510) 622-2300 or emailing Melinda.Wong@waterboards.ca.gov.

7.6. Register of Interested Persons. Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference the Facility, and provide a name, address, and phone number.

7.7. Additional Information. Requests for additional information or questions regarding this Order should be directed to John H. Madigan, (510) 622-2405, john.madigan@waterboards.ca.gov.

ATTACHMENT G – REGIONAL STANDARD PROVISIONS, AND MONITORING AND REPORTING REQUIREMENTS (SUPPLEMENT TO ATTACHMENT D)

Contents

ATTACHMENT G – REGIONAL STANDARD PROVISIONS, AND MONITORING AND REPORTING REQUIREMENTS (SUPPLEMENT TO ATTACHMENT D)

APPLICABILITY

This document supplements the requirements of Federal Standard Provisions (Attachment D). For clarity, these provisions are arranged using to the same headings as those used in Attachment D.

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply – Not Supplemented

1.2. Need to Halt or Reduce Activity Not a Defense – Not Supplemented

1.3. Duty to Mitigate – Supplement to Attachment D, Provision 1.3.

1.3.1. **Contingency Plan.** The Discharger shall maintain a Contingency Plan as prudent in accordance with current facility emergency planning. The Contingency Plan shall describe procedures to ensure that existing facilities remain in, or are rapidly returned to, operation in the event of a process failure or emergency incident, such as employee strike, strike by suppliers of chemicals or maintenance services, power outage, vandalism, earthquake, or fire. The Discharger may combine the Contingency Plan and Spill Prevention Plan (see Provision 1.3.2, below) into one document. In accordance with Regional Water Board Resolution 74-10, discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below may be the basis for considering the discharge a willful and negligent violation of the permit pursuant to California Water Code section 13387. The Contingency Plan shall, at a minimum, provide for the following:

1.3.1.1. Sufficient personnel for continued facility operation and maintenance during employee strikes or strikes against contractors providing services;

1.3.1.2. Maintenance of adequate chemicals or other supplies, and spare parts necessary for continued facility operations;

1.3.1.3. Emergency standby power;

1.3.1.4. Protection against vandalism;

1.3.1.5. Expeditious action to repair failures of, or damage to, equipment, including any sewer lines;

1.3.1.6. Reporting of spills and discharges of untreated or inadequately treated wastes, including measures taken to clean up the effects of such discharges; and

1.3.1.7. Maintenance, replacement, and surveillance of physical condition of equipment and facilities, including any sewer lines.

1.3.2. **Spill Prevention Plan.** The Discharger shall maintain a Spill Prevention Plan to prevent accidental discharges and to minimize the effects of any such discharges. The Spill Prevention Plan shall do the following:

1.3.2.1. Identify the possible sources of accidental discharge, untreated or partially-treated waste bypass, and polluted drainage;

1.3.2.2. State when current facilities and procedures became operational and evaluate their effectiveness; and

1.3.2.3. Predict the effectiveness of any proposed facilities and procedures and provide an implementation schedule with interim and final dates when the proposed facilities and procedures will be constructed, implemented, or operational.

1.4. Proper Operation and Maintenance – Supplement to Attachment D, Provision 1.4

1.4.1. **Operation and Maintenance Manual.** The Discharger shall maintain an Operation and Maintenance Manual to provide the plant and regulatory personnel with a source of information describing all equipment, recommended operational strategies, process control monitoring, and maintenance activities. To remain a useful and relevant document, the Operation and Maintenance Manual shall be kept updated to reflect significant changes in treatment facility equipment and operational practices. The Operation and Maintenance Manual shall be maintained in usable condition and be available for reference and use by all relevant personnel and Regional Water Board staff.

1.4.2. **Wastewater Facilities Status Report.** The Discharger shall maintain a Wastewater Facilities Status Report and regularly review, revise, or update it, as necessary. This report shall document how the Discharger operates and maintains its wastewater collection, treatment, and disposal facilities to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

1.4.3. **Proper Supervision and Operation of Publicly-Owned Treatment Works (POTWs).** POTWs shall be supervised and operated by persons possessing

certificates of appropriate grade pursuant to Title 23, section 3680, of the California Code of Regulations.

1.5. Property Rights – Not Supplemented

1.6. Inspection and Entry – Not Supplemented

1.7. Bypass – Not Supplemented

1.8. Upset – Not Supplemented

1.9. Other – Addition to Attachment D

1.9.1. The treatment of pollutants shall not create nuisance as defined by California Water Code section 13050.

1.9.2. Collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater. If public contact with wastewater could reasonably occur on public property, warning signs shall be posted.

1.9.3. If the Discharger submits a timely and complete Report of Waste Discharge for permit reissuance, this permit shall continue in force and effect until the permit is reissued or the Regional Water Board rescinds the permit.

2. STANDARD PROVISIONS – PERMIT ACTION – NOT SUPPLEMENTED

3. STANDARD PROVISIONS – MONITORING

3.1. Sampling and Analyses – Supplement to Attachment D, Provisions 3.1 and 3.2

3.1.1. **Certified Laboratories.** Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with California Water Code section 13176.

3.1.2. **Minimum Levels.** For the 126 priority pollutants, the Discharger should use the analytical methods listed in Table B unless the Monitoring and Reporting Program (MRP, Attachment E) requires a particular method or minimum level (ML). All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

3.1.3. **Monitoring Frequency.** The MRP specifies the minimum sampling and analysis schedule.

3.1.3.1. **Sample Collection Timing**

3.1.3.1.1. The Discharger shall collect influent samples on varying days selected at random and shall not include any plant recirculation or other sidestream wastes, unless otherwise stipulated in the MRP. The Executive Officer

may approve an alternative influent sampling plan if it is representative of plant influent and complies with all other permit requirements.

3.1.3.1.2. The Discharger shall collect effluent samples on days coincident with influent sampling, unless otherwise stipulated by the MRP. If influent sampling is not required, the Discharger shall collect effluent samples on varying days selected at random, unless otherwise stipulated in the MRP. The Executive Officer may approve an alternative effluent sampling plan if it is representative of plant discharge and in compliance with all other permit requirements.

3.1.3.1.3. The Discharger shall collect effluent grab samples during periods of daytime maximum peak flows (or peak flows through secondary treatment units for facilities that recycle effluent).

3.1.3.1.4. Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay the MRP requires. During the course of the bioassay, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event that a bioassay result does not comply with effluent limitations, the Discharger shall analyze the retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limitations.

3.1.3.1.4.1. The Discharger shall perform bioassays on final effluent samples; when chlorine is used for disinfection, bioassays shall be performed on effluent after chlorination and dechlorination; and

3.1.3.1.4.2. The Discharger shall analyze for total ammonia nitrogen and calculate the amount of unionized ammonia whenever test results fail to meet effluent limitations.

3.1.3.2. **Conditions Triggering Accelerated Monitoring**

3.1.3.2.1. **Average Monthly Effluent Limitation Exceedance.** If the results from two consecutive samples of a constituent monitored in a particular month exceed the average monthly effluent limitation for any parameter (or if the required sampling frequency is once per month or less and the monthly sample exceeds the average monthly effluent limitation), the Discharger shall, within 24 hours after the results are received, increase its sampling frequency to daily until the results from the additional sampling show that the parameter complies with the average monthly effluent limitation.

3.1.3.2.2. **Maximum Daily Effluent Limitation Exceedance.** If a sample result exceeds a maximum daily effluent limitation, the Discharger shall, within 24 hours after the result is received, increase its sampling frequency to daily until the results from two samples collected on consecutive days show compliance with the maximum daily effluent limitation.

3.1.3.2.3. **Acute Toxicity.** If final or intermediate results of an acute bioassay indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single acute bioassay is less than 70 percent), the Discharger shall initiate a new test as soon as practical or as described in applicable State Water Board plan provisions that become effective after adoption of these Regional Standard Provisions. The Discharger shall investigate the cause of the mortalities and report its findings in the next self-monitoring report.

3.1.3.2.4. **Chlorine.** The Discharger shall calibrate chlorine residual analyzers against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, the Discharger shall collect grab samples at least every 30 minutes until compliance with the limitation is achieved, unless the Discharger monitors chlorine residual continuously. In such cases, the Discharger shall continue to conduct continuous monitoring.

3.1.3.2.5. **Bypass.** Except as indicated below, if a Discharger bypasses any portion of its treatment facility, it shall monitor flows and collect samples at affected discharge points and analyze samples for all constituents with effluent limitations on a daily basis for the duration of the bypass. The Discharger need not accelerate chronic toxicity monitoring. The Discharger also need not collect and analyze samples for mercury, dioxin-TEQ, and PCBs after the first day of the bypass. The Discharger may satisfy the accelerated acute toxicity monitoring requirement by conducting a flow-through test or static renewal test that captures the duration of the bypass (regardless of the method specified in the MRP). If bypassing disinfection units only, the Discharger shall only monitor bacteria indicators daily.

3.1.3.2.5.1. **Bypass for Essential Maintenance.** If a Discharger bypasses a treatment unit for essential maintenance pursuant to Attachment D section 1.7.2, the Executive Officer may reduce the accelerated monitoring requirements above if the Discharger (i) monitors effluent at affected discharge points on the first day of the bypass for all constituents with effluent limitations, except chronic toxicity; and (ii) identifies and implements measures to ensure that the bypass will continue to comply with effluent limitations.

3.1.3.2.5.2. **Approved Wet Weather Bypasses.** If a Discharger bypasses a treatment unit or permitted outfall during wet weather with Executive Officer approval pursuant to Attachment D section 1.7.4, the Discharger shall monitor flows and collect and retain samples for affected discharge points on a daily basis for the duration of the bypass. The Discharger shall analyze daily for TSS using 24 hour composites (or more frequent increments) and for bacteria indicators with effluent limitations using grab samples. If TSS exceeds 45 mg/L in any

composite sample, the Discharger shall also analyze daily the retained samples for all other constituents with effluent limitations, except oil and grease, mercury, PCBs, dioxin-TEQ, and acute and chronic toxicity. Additionally, at least once each year, the Discharger shall analyze the retained samples for one approved bypass for all other constituents with effluent limitations, except oil and grease, mercury, PCBs, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

3.2. Standard Observations – Addition to Attachment D

3.2.1. **Receiving Water Observations.** The following requirements only apply when the MRP requires standard observations of receiving waters. Standard observations shall include the following:

3.2.1.1. **Floating and Suspended Materials (e.g., oil, grease, algae, and other macroscopic particulate matter) —** presence or absence, source, and size of affected area.

3.2.1.2. **Discoloration and Turbidity** — color, source, and size of affected area.

3.2.1.3. **Odor** — presence or absence, characterization, source, and distance of travel.

3.2.1.4. **Beneficial Water Use** — estimated number of water-associated waterfowl or wildlife, fisherpeople, and other recreational activities.

3.2.1.5. **Hydrographic Condition** — time and height of high and low tides (corrected to nearest National Oceanic and Atmospheric Administration location for the sampling date and time).

3.2.1.6. **Weather Conditions** — wind direction, air temperature, and total precipitation during five days prior to observation.

3.2.2. **Wastewater Effluent Observations.** The following requirements only apply when the MRP requires standard observations of wastewater effluent. Standard observations shall include the following:

3.2.2.1. **Floating and Suspended Material of Wastewater Origin** (e.g., oil, grease, algae, and other macroscopic particulate matter) — presence or absence.

3.2.2.2. **Odor** — presence or absence, characterization, source, distance of travel, and wind direction.

3.2.3. **Beach and Shoreline Observations.** The following requirements only apply when the MRP requires standard observations of beaches or shorelines. Standard observations shall include the following:

3.2.3.1. **Material of Wastewater Origin —** presence or absence, description of material, estimated size of affected area, and source.

3.2.3.2. **Beneficial Use —** estimate of number of people participating in recreational water contact, non-water contact, and fishing activities.

3.2.4. **Waste Treatment and/or Disposal Facility Periphery Observations.** The following requirements only apply when the MRP requires standard observations of the periphery of waste treatment or disposal facilities. Standard observations shall include the following:

3.2.4.1. **Odor** — presence or absence, characterization, source, and distance of travel.

3.2.4.2. **Weather Conditions** — wind direction and estimated velocity.

4. STANDARD PROVISIONS – RECORDS

4.1. Records to be Maintained – Supplement to Attachment D, Provision 4.1

The Discharger shall maintain records in a manner and at a location (e.g., the wastewater treatment plant or the Discharger's offices) such that the records are accessible to Regional Water Board staff. The minimum retention period specified in Attachment D, Provision IV, shall be extended during the course of any unresolved litigation regarding permit-related discharges, or when requested by Regional Water Board or U.S. EPA, Region IX, staff.

A copy of the permit shall be maintained at the discharge facility and be available at all times to operating personnel.

4.2. Records of Monitoring – Supplement to Attachment D, Provision 4.2

Monitoring records shall include the following:

4.2.1. **Analytical Information.** Records shall include analytical method detection limits, minimum levels, reporting levels, and related quantification parameters.

4.2.2. **Disinfection Process.** For the disinfection process, records shall include the following:

4.2.2.1. For bacteriological analyses:

4.2.2.1.1. Wastewater flow rate at the time of sample collection; and

4.2.2.1.2. Required statistical parameters for cumulative bacterial values (e.g., moving median or geometric mean for the number of samples or sampling period identified in the MRP).

4.2.2.2. For the chlorination process (when chlorine is used for disinfection), at least daily average values for the following:

4.2.2.2.1. Chlorine residual of treated wastewater as it enters the chlorine contact basin (mg/L);

4.2.2.2.2. Chlorine dosage (kg/day); and

4.2.2.2.3. Dechlorination chemical dosage (kg/day).

4.2.3. **Wastewater Treatment Process Solids.** For each treatment unit process that involves solids removal from the wastewater stream, records shall include the following:

4.2.3.1. Total volume or mass of solids removed from each collection unit (e.g., grit, skimmings, undigested biosolids, or combination) for each calendar month or other time period as appropriate, but not to exceed annually; and

4.2.3.2. Final disposition of such solids (e.g., landfill, other subsequent treatment unit).

4.2.4. **Treatment Process Bypasses.** For all treatment process bypasses, including wet weather blending, records shall include the following:

4.2.4.1. Chronological log of treatment process bypasses;

4.2.4.2. Identification of treatment processes bypassed;

4.2.4.3. Beginning and ending dates and times of bypasses;

4.2.4.4. Bypass durations;

4.2.4.5. Estimated bypass volumes; and

4.2.4.6. Description of, or reference to other reports describing, the bypasses, their cause, the corrective actions taken (except for wet weather blending explicitly approved within the permit and in compliance with any related permit conditions), and any additional monitoring conducted.

4.2.5. **Treatment Plant Overflows.** The Discharger shall retain a chronological log of overflows at the treatment plant, including the headworks and all units and appurtenances downstream, and records supporting the information provided in accordance with Provision 5.5.2, below.

4.3. Claims of Confidentiality – Not Supplemented

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information – Not Supplemented

5.2. Signatory and Certification Requirements – Not Supplemented

5.3. Monitoring Reports – Supplement to Attachment D, Provision 5.3

5.3.1. **Self-Monitoring Reports.** For each reporting period established in the MRP, the Discharger shall submit a self-monitoring report to the Regional Water Board in accordance with the requirements listed in the MRP and below:

5.3.1.1. **Transmittal Letter.** Each self-monitoring report shall be submitted with a transmittal letter that includes the following:

5.3.1.1.1. Identification of all violations of effluent limitations or other waste discharge requirements found during the reporting period;

5.3.1.1.2. Details regarding the violations, such as parameters, magnitude, test results, frequency, and dates;

5.3.1.1.3. Causes of the violations;

5.3.1.1.4. Corrective actions taken or planned to resolve violations and prevent recurrences, and dates or time schedules for implementation (the Discharger may refer to previously submitted reports that address the corrective actions);

5.3.1.1.5. Explanation for any data invalidation. Data should not be submitted in a self-monitoring report if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate a measurement after submitting it in a self-monitoring report, the Discharger shall identify the measurement suspected to be invalid and state the Discharger's intent to submit, within 60 days, a formal request to invalidate the measurement. The formal request shall include the original measurement in question, the reason for invalidating the measurement, all relevant documentation that supports invalidation (e.g., laboratory sheet, log entry, test results), and a discussion of the corrective actions taken or planned (with a time schedule for completion) to prevent recurrence of the sampling or measurement problem;

5.3.1.1.6. Description of blending, if any. If the Discharger blends, it shall describe the duration of blending events and certify whether the blending complied with all conditions for blending;

5.3.1.1.7. Description of other bypasses, if any. If the Discharger bypasses any treatment units (other than blending), it shall describe the duration of the bypasses and effluent quality during those times; and

5.3.1.1.8. Signature. The transmittal letter shall be signed in accordance with Attachment D, Provision 5.2.

5.3.1.2. **Compliance Evaluation Summary.** Each self-monitoring report shall include a compliance evaluation summary that addresses each parameter for which the permit specifies effluent limitations, the number of samples taken during the monitoring period, and the number of samples that exceed the effluent limitations.

5.3.1.3. **More Frequent Monitoring.** If the Discharger monitors any pollutant more frequently than required by the MRP, the Discharger shall include the results of such monitoring in the calculation and reporting of the data submitted in the self-monitoring report.

5.3.1.4. **Analysis Results**

5.3.1.4.1. **Tabulation.** Each self-monitoring report shall include tabulations of all required analyses and observations, including parameters, dates, times, sample stations, types of samples, test results, method detection limits, method minimum levels, and method reporting levels (if applicable), signed by the laboratory director or other responsible official.

5.3.1.4.2. **Multiple Samples.** Unless the MRP specifies otherwise, when determining compliance with effluent limitations (other than instantaneous effluent limitations) and more than one sample result is available, the Discharger shall compute the arithmetic mean. If the data set contains one or more results that are “Detected, but Not Quantified (DNQ) or “Not Detected” (ND), the Discharger shall instead compute the median in accordance with the following procedure:

5.3.1.4.2.1. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

5.3.1.4.2.2. The median of the data set shall be determined. If the data set has an odd number of data points, the median is the middle value. If the data set has an even number of data points, the median is the average of the two values around the middle, unless one or both of these values is ND or DNQ, in which case the median shall be the lower of the two results (where DNQ is lower than a quantified value and ND is lower than DNQ).

5.3.1.4.3. **Duplicate Samples.** The Discharger shall report the average of duplicate sample analyses when reporting for a single sample result (or the median if one or more of the duplicates is DNQ or ND [see Provision 5.3.1.4.2, above]). For bacteria indicators, the Discharger shall report the geometric mean of the duplicate analyses.

5.3.1.4.4. **Dioxin-TEQ.** The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the reporting level, the method detection limit, and the measured concentration. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating dioxin-TEQ, the Discharger shall set congener concentrations below the minimum levels (MLs) to zero. The Discharger shall calculate and report dioxin-TEQ using the following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

$$\text{Dioxin-TEQ} = \Sigma (C_x \times TEF_x \times BEF_x)$$

where: C_x = measured or estimated concentration of congener x
TEF_x = toxicity equivalency factor for congener x
BEF_x = bioaccumulation equivalency factor for congener x

Table A
Minimum Levels, Toxicity Equivalency Factors, and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	2005 Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0003	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.03	0.2
2,3,4,7,8-PeCDF	50	0.3	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0003	0.02

5.3.1.5. **Results Not Yet Available.** The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in a timely manner. Certain analyses may require additional time to complete analytical processes and report results. In these cases, the Discharger shall describe the circumstances in the self-monitoring report and include the data for these parameters and relevant discussions of any violations in the next self-monitoring report due after the results are available.

5.3.1.6. **Annual Self-Monitoring Reports.** By the date specified in the MRP, the Discharger shall submit an annual self-monitoring report covering the previous calendar year. The report shall contain the following:

5.3.1.6.1. Comprehensive discussion of treatment plant performance, including documentation of any blending or other bypass events, and compliance with the permit. This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve the performance and reliability of wastewater collection, treatment, or disposal practices;

5.3.1.6.2. List of approved analyses, including the following:

5.3.1.6.2.1. List of analyses for which the Discharger is certified;

5.3.1.6.2.2. List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory need not be submitted but shall be retained onsite); and

5.3.1.6.2.3. List of “waived” analyses, as approved;

5.3.1.6.3. Plan view drawing or map showing the Discharger’s facility, flow routing, and sampling and observation station locations; and

5.3.1.6.4. Results of facility report reviews. The Discharger shall regularly review, revise, and update, as necessary, the Operation and Maintenance Manual, Contingency Plan, Spill Prevention Plan, and Wastewater Facilities Status Report so these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall describe or summarize its review and evaluation procedures, recommended or planned actions, and estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure that they remain up-to-date.

5.4. Compliance Schedules – Not supplemented

5.5. Twenty-Four Hour Reporting – Supplement to Attachment D, Provision 5.5

5.5.1. **Oil or Other Hazardous Material Spills**

5.5.1.1. Within 24 hours of becoming aware of a spill of oil or other hazardous material not contained onsite and completely cleaned up, the Discharger shall report as follows:

5.5.1.1.1. If the spill exceeds reportable quantities for hazardous materials listed in 40 C.F.R. part 302. The Discharger shall call the California Office of Emergency Services (800 852-7550).

5.5.1.1.2. If the spill does not exceed reportable quantities for hazardous materials listed in 40 C.F.R., part 302, the Discharger shall call the Regional Water Board (510-622-2369).

5.5.1.2. The Discharger shall submit a written report to the Regional Water Board within five working days following either of the above telephone notifications unless directed otherwise by Regional Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:

5.5.1.2.1. Date and time of spill, and duration if known;

5.5.1.2.2. Location of spill (street address or description of location);

5.5.1.2.3. Nature of material spilled;

5.5.1.2.4. Quantity of material spilled;

5.5.1.2.5. Receiving water body affected, if any;

5.5.1.2.6. Cause of spill;

5.5.1.2.7. Estimated size of affected area;

5.5.1.2.8. Observed impacts to receiving waters (e.g., oil sheen, fish kill, water discoloration);

5.5.1.2.9. Corrective actions taken to contain, minimize, or clean up the spill;

5.5.1.2.10. Future corrective actions planned to prevent recurrence, and implementation schedule; and

5.5.1.2.11. Persons or agencies notified.

5.5.2. **Unauthorized Municipal Wastewater Treatment Plant Discharges**1F[1]

5.5.2.1. **Two-Hour Notification.** For any unauthorized discharge that enters a drainage channel or surface water, the Discharger shall, as soon as possible, but not later than two hours after becoming aware of the discharge, notify the California Office of Emergency Services (800-852-7550) and the local health officer or director of environmental health with jurisdiction over the affected water body. Notification shall include the following:

5.5.2.1.1. Incident description and cause;

5.5.2.1.2. Location of threatened or involved waterways or storm drains;

5.5.2.1.3. Date and time that the unauthorized discharge started;

5.5.2.1.4. Estimated quantity and duration of the unauthorized discharge (to the extent known), and estimated amount recovered;

5.5.2.1.5. Level of treatment prior to discharge (e.g., raw wastewater, primary-treated wastewater, or undisinfected secondary-treated wastewater); and

5.5.2.1.6. Identity of person reporting the unauthorized discharge.

5.5.2.2. **Five-Day Written Report.** Within five business days following the two-hour notification, the Discharger shall submit a written report that includes, in addition to the information listed in Provision 5.5.2.1, above, the following:

5.5.2.2.1. Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;

5.5.2.2.2. Efforts implemented to minimize public exposure to the unauthorized discharge;

5.5.2.2.3. Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of receiving water) and extent of sampling if conducted;

5.5.2.2.4. Corrective measures taken to minimize the impact of the unauthorized discharge;

[1] California Code of Regulations, Title 23, section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially-treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment, or disposal system.

5.5.2.2.5. Measures to be taken to minimize the potential for a similar unauthorized discharge in the future;

5.5.2.2.6. Summary of Spill Prevention Plan or Operation and Maintenance Manual modifications to be made, if necessary, to minimize the potential for future unauthorized discharges; and

5.5.2.2.7. Quantity and duration of the unauthorized discharge, and the amount recovered.

5.6. Planned Changes – Not supplemented

5.7. Anticipated Noncompliance – Not supplemented

5.8. Other Noncompliance – Not supplemented

5.9. Other Information – Not supplemented

6. STANDARD PROVISIONS – ENFORCEMENT – NOT SUPPLEMENTED

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS – NOT SUPPLEMENTED

8. DEFINITIONS – ADDITION TO ATTACHMENT D

More definitions can be found in Attachment A of this NPDES Permit.

8.1. Arithmetic Calculations

8.1.1. **Geometric Mean.** The antilog of the log mean or the back-transformed mean of the logarithmically transformed variables, which is equivalent to the multiplication of the antilogarithms. The geometric mean can be calculated with either of the following equations:

Geometric Mean = Anti log ($1/N \sum \text{Log } C_i$)

or

Geometric Mean = $(C_1 \times C_2 \times \ldots \times C_N)^{1/N}$

Where “N” is the number of data points for the period analyzed and “C” is the concentration for each of the “N” data points.

8.1.2. **Mass Emission Rate.** The rate of discharge expressed in mass. The mass emission rate is obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.345}{N} \sum_{i=1}^{N} Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.785}{N}\sum_{i=1}^{N} Q_i C_i$$

In which "N" is the number of samples analyzed in any calendar day and "Q_i" and "C_i" are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" grab samples that may be taken in any calendar day. If a composite sample is taken, "C_i" is the concentration measured in the composite sample and "Q_i" is the average flow rate occurring during the period over which the samples are composited. The daily concentration of a constituent measured over any calendar day shall be determined from the flow weighted average of the same constituent in the combined waste streams as follows:

$$C_d = \text{Average daily concentration} = \frac{1}{Q_i}\sum_{i=1}^{N} Q_i C_i$$

In which "N" is the number of component waste streams and "Q" and "C" are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" waste streams. "Q_t" is the total flow rate of the combined waste streams.

8.1.3. **Removal Efficiency.** The ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities (expressed as a percentage). The Discharger shall determine removal efficiencies using monthly averages (by calendar month unless otherwise specified) of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

Removal Efficiency (%) =
100 x [1 - (Effluent Concentration / Influent Concentration)]

8.2. Blending – the practice of bypassing biological treatment units and recombining the bypass wastewater with biologically-treated wastewater.

8.3. Composite Sample – a sample composed of individual grab samples collected manually or by an automatic sampling device on the basis of time or flow as specified in the MRP. For flow-based composites, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent (+/-5%) of the representative flow of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples comprising time-based composite samples shall be collected at intervals not greater than those specified in the MRP. The quantity of each grab sample comprising a time-based composite sample shall be a set of flow proportional volumes as specified in

the MRP. If a particular time-based or flow-based composite sampling protocol is not specified in the MRP, the Discharger shall determine and implement the most representative protocol.

8.4. Duplicate Sample – a second sample taken from the same source and at the same time as an initial sample (such samples are typically analyzed identically to measure analytical variability).

8.5. Grab Sample – an individual sample collected during a short period not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the sample is collected.

8.6. Overflow – the intentional or unintentional spilling or forcing out of untreated or partially-treated waste from a transport system (e.g., through manholes, at pump stations, or at collection points) upstream of the treatment plant headworks or from any part of a treatment plant.

8.7. Priority Pollutants – those constituents referred to in 40 C.F.R. part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule.

8.8. Untreated waste – raw wastewater.

Table B
List of Monitoring Parameters, Analytical Methods, and Minimum Levels (µg/L)[1]

CTR No.	Pollutant / Parameter	Analytical Method[2]	GC	GC MS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGF AA	HYD RIDE	CVAA	DCP
1	Antimony	204.2	-	-	-	-	10	5	50	0.5	5	0.5	-	1000
2	Arsenic	206.3	-	-	-	20	-	2	10	2	2	1	-	1000
3	Beryllium	-	-	-	-	-	20	0.5	2	0.5	1	-	-	1000
4	Cadmium	200 or 213	-	-	-	-	10	0.5	10	0.25	0.5	-	-	1000
5a	Chromium (III)	SM 3500	-	-	-	-	-	-	-	-	-	-	-	-
5b	Chromium (VI)	SM 3500	-	-	-	10	5	-	-	-	-	-	-	1000
	Chromium (total)[3]	SM 3500	-	-	-	-	50	2	10	0.5	1	-	-	1000
6	Copper	200.9	-	-	-	-	25	5	10	0.5	2	-	-	1000
7	Lead	200.9	-	-	-	-	20	5	5	0.5	2	-	-	10,000
8	Mercury	1631[4]	-	-	-	-	-	-	-	-	-	-	-	-
9	Nickel	249.2	-	-	-	-	50	5	20	1	5	-	-	1000
10	Selenium	200.8 or SM 3114B or C	-	-	-	-	-	5	10	2	5	1	-	1000
11	Silver	272.2	-	-	-	-	10	1	10	0.25	2	-	-	1000
12	Thallium	279.2	-	-	-	-	10	2	10	1	5	-	-	1000
13	Zinc	200 or 289	-	-	-	-	20	-	20	1	10	-	-	-
14	Cyanide	SM 4500 CN^- C or I	-	-	-	5	-	-	-	-	-	-	-	-
15	Asbestos (only required for dischargers to MUN waters)[5]	0100.2[6]	-	-	-	-	-	-	-	-	-	-	-	-
16	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613	-	-	-	-	-	-	-	-	-	-	-	-
17	Acrolein	603	2.0	5	-	-	-	-	-	-	-	-	-	-
18	Acrylonitrile	603	2.0	2	-	-	-	-	-	-	-	-	-	-
19	Benzene	602	0.5	2	-	-	-	-	-	-	-	-	-	-
33	Ethylbenzene	602	0.5	2	-	-	-	-	-	-	-	-	-	-
39	Toluene	602	0.5	2	-	-	-	-	-	-	-	-	-	-
20	Bromoform	601	0.5	2	-	-	-	-	-	-	-	-	-	-
21	Carbon Tetrachloride	601	0.5	2	-	-	-	-	-	-	-	-	-	-

CTR No.	Pollutant / Parameter	Analytical Method[2]	GC	GC MS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGF AA	HYD RIDE	CVAA	DCP
22	Chlorobenzene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
23	Chlorodibromomethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
24	Chloroethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
25	2-Chloroethylvinyl Ether	601	1	1	-	-	-	-	-	-	-	-	-	-
26	Chloroform	601	0.5	2	-	-	-	-	-	-	-	-	-	-
75	1,2-Dichlorobenzene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
76	1,3-Dichlorobenzene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
77	1,4-Dichlorobenzene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
27	Dichlorobromomethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
28	1,1-Dichloroethane	601	0.5	1	-	-	-	-	-	-	-	-	-	-
29	1,2-Dichloroethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
30	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
31	1,2-Dichloropropane	601	0.5	1	-	-	-	-	-	-	-	-	-	-
32	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
34	Methyl Bromide or Bromomethane	601	1.0	2	-	-	-	-	-	-	-	-	-	-
35	Methyl Chloride or Chloromethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
36	Methylene Chloride or Dichloromethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
37	1,1,2,2-Tetrachloroethane	601	0.5	1	-	-	-	-	-	-	-	-	-	-
38	Tetrachloroethylene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
40	1,2-Trans-Dichloroethylene	601	0.5	1	-	-	-	-	-	-	-	-	-	-
41	1,1,1-Trichloroethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
42	1,1,2-Trichloroethane	601	0.5	2	-	-	-	-	-	-	-	-	-	-
43	Trichloroethene	601	0.5	2	-	-	-	-	-	-	-	-	-	-
44	Vinyl Chloride	601	0.5	2	-	-	-	-	-	-	-	-	-	-
45	2-Chlorophenol	604	2	5	-	-	-	-	-	-	-	-	-	-
46	2,4-Dichlorophenol	604	1	5	-	-	-	-	-	-	-	-	-	-
47	2,4-Dimethylphenol	604	1	2	-	-	-	-	-	-	-	-	-	-

CTR No.	Pollutant / Parameter	Analytical Method[2]	GC	GC MS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGF AA	HYD RIDE	CVAA	DCP
48	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5	-	-	-	-	-	-	-	-	-	-
49	2,4-Dinitrophenol	604	5	5	-	-	-	-	-	-	-	-	-	-
50	2-Nitrophenol	604	-	10	-	-	-	-	-	-	-	-	-	-
51	4-Nitrophenol	604	5	10	-	-	-	-	-	-	-	-	-	-
52	3-Methyl-4-Chlorophenol	604	5	1	-	-	-	-	-	-	-	-	-	-
53	Pentachlorophenol	604	1	5	-	-	-	-	-	-	-	-	-	-
54	Phenol	604	1	1	-	50	-	-	-	-	-	-	-	-
55	2,4,6-Trichlorophenol	604	10	10	-	-	-	-	-	-	-	-	-	-
56	Acenaphthene	610 HPLC	1	1	0.5	-	-	-	-	-	-	-	-	-
57	Acenaphthylene	610 HPLC	-	10	0.2	-	-	-	-	-	-	-	-	-
58	Anthracene	610 HPLC	-	10	2	-	-	-	-	-	-	-	-	-
60	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5	-	-	-	-	-	-	-	-	-	-
61	Benzo(a)Pyrene	610 HPLC	-	10	2	-	-	-	-	-	-	-	-	-
62	Benzo(b) Fluoranthene or 3,4 Benzofluoranthene	610 HPLC	-	10	10	-	-	-	-	-	-	-	-	-
63	Benzo(ghi)Perylene	610 HPLC	-	5	0.1	-	-	-	-	-	-	-	-	-
64	Benzo(k)Fluoranthene	610 HPLC	-	10	2	-	-	-	-	-	-	-	-	-
74	Dibenzo(a,h)Anthracene	610 HPLC	-	10	0.1	-	-	-	-	-	-	-	-	-
86	Fluoranthene	610 HPLC	10	1	0.05	-	-	-	-	-	-	-	-	-
87	Fluorene	610 HPLC	-	10	0.1	-	-	-	-	-	-	-	-	-
92	Indeno(1,2,3-cd)Pyrene	610 HPLC	-	10	0.05	-	-	-	-	-	-	-	-	-
100	Pyrene	610 HPLC	-	10	0.05	-	-	-	-	-	-	-	-	-
68	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5	-	-	-	-	-	-	-	-	-	-
70	Butylbenzyl Phthalate	606 or 625	10	10	-	-	-	-	-	-	-	-	-	-
79	Diethyl Phthalate	606 or 625	10	2	-	-	-	-	-	-	-	-	-	-
80	Dimethyl Phthalate	606 or 625	10	2	-	-	-	-	-	-	-	-	-	-
81	Di-n-Butyl Phthalate	606 or 625	-	10	-	-	-	-	-	-	-	-	-	-
84	Di-n-Octyl Phthalate	606 or 625	-	10	-	-	-	-	-	-	-	-	-	-
59	Benzidine	625	-	5	-	-	-	-	-	-	-	-	-	-
65	Bis(2-Chloroethoxy)Methane	625	-	5	-	-	-	-	-	-	-	-	-	-

CTR No.	Pollutant / Parameter	Analytical Method[2]	GC	GC MS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGF AA	HYD RIDE	CVAA	DCP
66	Bis(2-Chloroethyl)Ether	625	10	1	-	-	-	-	-	-	-	-	-	-
67	Bis(2-Chloroisopropyl) Ether	625	10	2	-	-	-	-	-	-	-	-	-	-
69	4-Bromophenyl Phenyl Ether	625	10	5	-	-	-	-	-	-	-	-	-	-
71	2-Chloronaphthalene	625	-	10	-	-	-	-	-	-	-	-	-	-
72	4-Chlorophenyl Phenyl Ether	625	-	5	-	-	-	-	-	-	-	-	-	-
73	Chrysene	625	-	10	5	-	-	-	-	-	-	-	-	-
78	3,3'-Dichlorobenzidine	625	-	5	-	-	-	-	-	-	-	-	-	-
82	2,4-Dinitrotoluene	625	10	5	-	-	-	-	-	-	-	-	-	-
83	2,6-Dinitrotoluene	625	-	5	-	-	-	-	-	-	-	-	-	-
85	1,2-Diphenylhydrazine[7]	625	-	1	-	-	-	-	-	-	-	-	-	-
88	Hexachlorobenzene	625	5	1	-	-	-	-	-	-	-	-	-	-
89	Hexachlorobutadiene	625	5	1	-	-	-	-	-	-	-	-	-	-
90	Hexachlorocyclopentadiene	625	5	5	-	-	-	-	-	-	-	-	-	-
91	Hexachloroethane	625	5	1	-	-	-	-	-	-	-	-	-	-
93	Isophorone	625	10	1	-	-	-	-	-	-	-	-	-	-
94	Naphthalene	625	10	1	0.2	-	-	-	-	-	-	-	-	-
95	Nitrobenzene	625	10	1	-	-	-	-	-	-	-	-	-	-
96	N-Nitrosodimethylamine	625	10	5	-	-	-	-	-	-	-	-	-	-
97	N-Nitrosodi-n-Propylamine	625	10	5	-	-	-	-	-	-	-	-	-	-
98	N-Nitrosodiphenylamine	625	10	1	-	-	-	-	-	-	-	-	-	-
99	Phenanthrene	625	-	5	0.05	-	-	-	-	-	-	-	-	-
101	1,2,4-Trichlorobenzene	625	1	5	-	-	-	-	-	-	-	-	-	-
102	Aldrin	608	0.005	-	-	-	-	-	-	-	-	-	-	-
103	α-BHC	608	0.01	-	-	-	-	-	-	-	-	-	-	-
104	β-BHC	608	0.005	-	-	-	-	-	-	-	-	-	-	-
105	γ-BHC (Lindane)	608	0.02	-	-	-	-	-	-	-	-	-	-	-
106	δ-BHC	608	0.005	-	-	-	-	-	-	-	-	-	-	-
107	Chlordane	608	0.1	-	-	-	-	-	-	-	-	-	-	-
108	4,4'-DDT	608	0.01	-	-	-	-	-	-	-	-	-	-	-
109	4,4'-DDE	608	0.05	-	-	-	-	-	-	-	-	-	-	-
110	4,4'-DDD	608	0.05	-	-	-	-	-	-	-	-	-	-	-

CTR No.	Pollutant / Parameter	Analytical Method[2]	GC	GC MS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGF AA	HYD RIDE	CVAA	DCP
111	Dieldrin	608	0.01	-	-	-	-	-	-	-	-	-	-	-
112	Endosulfan (alpha)	608	0.02	-	-	-	-	-	-	-	-	-	-	-
113	Endosulfan (beta)	608	0.01	-	-	-	-	-	-	-	-	-	-	-
114	Endosulfan Sulfate	608	0.05	-	-	-	-	-	-	-	-	-	-	-
115	Endrin	608	0.01	-	-	-	-	-	-	-	-	-	-	-
116	Endrin Aldehyde	608	0.01	-	-	-	-	-	-	-	-	-	-	-
117	Heptachlor	608	0.01	-	-	-	-	-	-	-	-	-	-	-
118	Heptachlor Epoxide	608	0.01	-	-	-	-	-	-	-	-	-	-	-
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5	-	-	-	-	-	-	-	-	-	-	-
126	Toxaphene	608	0.5	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

[1] Minimum levels are from the *State Implementation Policy*. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., U.S. EPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

[2] The suggested method is the U.S. EPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another U.S. EPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

[3] Analysis for total chromium may be substituted for analysis of chromium (III) and chromium (VI) if the concentration measured is below the lowest hexavalent chromium criterion (11 ug/l).

[4] The Discharger shall use ultra-clean sampling (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 ug/l).

[5] MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

[6] Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters, U.S. EPA 600/R-94-134, June 1994.

[7] Detected as azobenzene.

ATTACHMENT S– STORMWATER PROVISIONS, MONITORING, AND REPORTING REQUIREMENTS

CONTENTS

TABLE

ATTACHMENT S – STORMWATER PROVISIONS, MONITORING, AND REPORTING REQUIREMENTS

APPLICABILITY

These stormwater provisions only apply to facilities that do not direct all stormwater flows from process areas to a wastewater treatment plant's headwork or do not enroll in NPDES Permit CAS000001 (General Permit for Stormwater Discharges Associated with Industrial Activities).

1. STORMWATER PROVISIONS – PERMIT COMPLIANCE

1.1. Stormwater Pollution Prevention Plan (SWPPP)

The Discharger shall prepare a SWPPP that includes the following elements:

1.1.1. Facility name and contact information;

1.1.2. Site map;

1.1.3. List of industrial materials;

1.1.4. Description of potential sources;

1.1.5. Assessment of potential pollutant sources;

1.1.6. Minimum Best Management Practices (BMPs);

1.1.7. Advanced BMPs, if applicable;

1.1.8. Monitoring implementation plan;

1.1.9. Annual comprehensive facility compliance evaluation; and

1.1.10. Date SWPPP initially prepared and dates of each SWPPP amendment.

The SWPPP shall be designed in accordance with good engineering practices to achieve the following objectives:

- Identify and evaluate all pollutant sources that may affect stormwater discharge quality;
- Identify, assign, and implement control measures and management practices to reduce or prevent pollutants in stormwater discharges; and
- Identify and describe conditions or circumstances that may require revisions to the SWPPP.

The SWPPP shall be retained onsite, revised whenever necessary, and made available upon request of any Regional Water Board representative. The SWPPP may be combined with the Spill Prevention Plan (Attachment G section 1.3.2).

1.2. Site Map

The Discharger shall prepare one or more site maps that include notes, legends, a north arrow, and other data as appropriate to ensure the map is clear, legible and understandable, including the following:

1.2.1 The facility boundary, stormwater drainage areas within the facility boundary, and portions of any drainage area impacted by discharges from surrounding areas (the maps shall include the flow direction of each drainage area, on-facility surface water bodies, areas of soil erosion, and locations of nearby water bodies [e.g., rivers, lakes, wetlands] or municipal storm drain inlets that may receive the facility's industrial stormwater discharges and authorized non-stormwater discharges);

1.2.2. Locations of stormwater collection and conveyance systems, associated discharge locations, and direction of flow (the maps shall include sample locations if different than the discharge locations);

1.2.3. Locations and descriptions of structural control measures (e.g., catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers) that affect industrial stormwater discharges, authorized non-stormwater discharges, and run-on;

1.2.4. Identification of all impervious areas, including paved areas, buildings, covered storage areas, or other roofed structures;

1.2.5. Locations where materials are directly exposed to precipitation and the locations where identified significant spills or leaks have occurred; and

1.2.6. Areas of industrial activity (the maps shall identify all industrial storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage and maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and material reuse areas, and other areas of industrial activity that may have potential pollutant sources).

1.3. List of Industrial Materials

The SWPPP shall contain a list of industrial materials handled at the facility and the locations where each material is stored, received, shipped, and handled, as well as the typical quantities and handling frequency.

1.4. Potential Pollutant Sources

The Discharger shall describe and assess potential stormwater pollutant sources, including the following:

1.4.1. **Industrial Processes.** Industrial processes may include manufacturing, cleaning, maintenance, recycling, and disposal. The SWPPP shall describe the type, characteristics, and approximate quantity of industrial materials used and areas protected by containment structures and the corresponding containment capacity.

1.4.2. **Material Handling and Storage Areas.** The SWPPP shall describe the type, characteristics, and quantity of industrial materials handled or stored; shipping, receiving, and loading procedures; spill and leak prevention and response procedures; and areas protected by containment structures and the corresponding containment capacity.

1.4.3. **Dust and Particulate Generating Activities.** The SWPPP shall describe the discharge locations, source type, and characteristics of the dust or particulate pollutant.

1.4.4. **Significant Spills and Leaks.** The Discharger shall evaluate the facility for areas where spills and leaks can occur. The SWPPP shall list any industrial materials spilled or leaked in significant quantities and discharged from the facility's stormwater conveyance system within the previous five years, including but not limited to any chemicals identified in 40 C.F.R. section 302 as reported on U.S. EPA Form R and any oil and hazardous substances discharged in excess of reportable quantities (40 C.F.R. §§ 110, 117, and 302). The SWPPP shall also list any industrial materials spilled or leaked in significant quantities that had the potential to be discharged from the facility's stormwater conveyance system within the previous five years. For each listed industrial material spill and leak, the SWPPP shall include the location, characteristics, and approximate quantity of the material spilled or leaked; the approximate quantity of the material discharged; the cleanup or remedial actions taken or planned; the approximate quantity of remaining material that could be discharged; and the preventive measures taken to ensure that spills or leaks do not reoccur.

1.4.5. **Non-Stormwater Discharges.** The SWPPP shall describe all non-stormwater discharges, including the source, quantity, frequency, characteristics, and associated drainage area, and indicate whether these discharges are authorized or unauthorized.

1.4.6. **Erodible Surfaces.** The SWPPP shall describe any facility locations where soil erosion may be caused by industrial activity, contact with stormwater,

authorized and unauthorized non-stormwater discharges, or run-on from areas surrounding the facility.

1.5. Assessment of Potential Pollutant Sources

The SWPPP shall include a narrative assessment of all areas of industrial activity with potential industrial pollutant sources, including, at a minimum, the following:

1.5.1. Facility areas with likely sources of pollutants;

1.5.2. Pollutants likely to be present in industrial stormwater discharges;

1.5.3. Approximate quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each industrial material handled, produced, stored, recycled, or disposed;

1.5.4. Degree to which the pollutants associated with such materials may be exposed to, and mobilized by, contact with stormwater;

1.5.5. Direct and indirect pathways by which pollutants may be exposed to stormwater;

1.5.6. Sampling, visual observation, and inspection records;

1.5.7. Effectiveness of existing BMPs to reduce or prevent pollutants in industrial stormwater discharges; and

1.5.8. Estimated effectiveness of implementing, to the extent feasible, minimum BMPs to reduce or prevent pollutants in industrial stormwater discharges.

Based upon the assessment, the SWPPP shall identify facility areas where the minimum BMPs described in Provision 1.6, below, will not adequately reduce or prevent pollutants in stormwater discharges and any necessary advanced BMPs, as described in Provision 1.7, below, for those areas.

1.6. Minimum Best Management Practices (BMPs)

The Discharger shall, to the extent feasible, implement and maintain the following BMPs:

1.6.1. **Good Housekeeping.** The Discharger shall do the following:

1.6.1.1. Observe all outdoor areas associated with industrial activity, including stormwater discharge locations, drainage areas, conveyance systems, waste handling and disposal areas, and perimeter areas affected by off-facility materials or stormwater run-on to determine housekeeping needs. Any

identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;

1.6.1.2. Minimize or prevent material tracking;

1.6.1.3. Minimize dust generated from industrial materials or activities;

1.6.1.4. Ensure that all facility areas impacted by rinse or wash waters are cleaned as soon as possible;

1.6.1.5. Cover all stored industrial materials that can be readily mobilized by contact with stormwater;

1.6.1.6. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper) that can be transported or dispersed by the wind or contact with stormwater;

1.6.1.7. Prevent disposal of any rinse or wash waters or industrial materials into the stormwater conveyance system;

1.6.1.8. Minimize stormwater discharges from non-industrial areas (e.g., stormwater flows from employee parking areas) that contact industrial areas of the facility; and,

1.6.1.9. Minimize authorized non-stormwater discharges from non-industrial areas (e.g., potable water, fire hydrant testing) that contact areas of the sanitary or industrial facility.

1.6.2. **Preventative Maintenance.** The Discharger shall (1) identify all equipment and systems used outdoors that may spill or leak pollutants, (2) observe the identified equipment and systems to detect leaks or identify conditions that may result in the development of leaks, (3) establish an appropriate schedule for maintenance of identified equipment and systems, and (4) establish procedures for prompt maintenance and repair of equipment and maintenance of systems when conditions exist that may result in the development of spills or leaks.

1.6.3. **Spill and Leak Prevention and Response.** The Discharger shall (1) establish procedures and controls to minimize spills and leaks; (2) develop and implement spill and leak response procedures to prevent industrial materials from discharging through the stormwater conveyance system (spilled or leaked industrial materials shall be cleaned promptly and disposed of properly); (3) identify and describe all necessary and appropriate spill and leak response equipment, locations of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and (4) identify and train appropriate spill and leak response personnel.

1.6.4. **Material Handling and Waste Management.** The Discharger shall do the following:

1.6.4.1. Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm;

1.6.4.2. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powers, shredded paper) that can be transported or dispersed by the wind or contact with stormwater;

1.6.4.3. Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;

1.6.4.4. Divert run-on and stormwater generated from within the facility away from all stockpiled materials;

1.6.4.5. Clean all spills of industrial materials or wastes that occur during handling in accordance with spill response procedures; and,

1.6.4.6. Observe and clean, as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

1.6.5. **Erosion and Sediment Control.** The Discharger shall (1) implement effective wind erosion controls; (2) provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storms; (3) maintain effective perimeter controls and stabilize site entrances and exits to sufficiently control discharges of erodible materials; and (4) divert run-on and stormwater generated from within the facility away from erodible materials.

1.6.6. **Employee Training.** The Discharger shall ensure that all personnel implementing the SWPPP are properly trained with respect to BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. The Discharger shall identify which personnel need to be trained, their responsibilities, and the type of training they are to receive and maintain documentation of completed training and the personnel that received the training with the SWPPP.

1.6.7. **Quality Assurance and Record Keeping.** The Discharger shall (1) develop and implement management procedures to ensure that appropriate personnel implement all SWPPP elements; (2) develop methods of tracking and recording BMP implementation; and (3) maintain BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five years.

1.7. Action Levels and Advanced BMPs

If the Discharger samples total suspended solids (TSS), oil and grease, or pH in excess of an action level in Table S-1, the Discharger shall review the SWPPP to identify appropriate modifications to existing BMPs or additional BMPs as necessary to reduce pollutant discharge concentrations to levels below the action level. The Discharger shall revise the SWPPP accordingly before the next storm, if possible, or as soon as practical, and in no event later than three months following the exceedance.

Table S-1. Stormwater Action Levels

Parameter	Unit	Instantaneous Action Level	Annual Action Level
Total Suspended Solids	mg/L	400	100
Oil and Grease	mg/L	25	15
pH	s.u.	6.0-9.0[1]	—-

Footnotes:

[1] Values below or above this range require action.

If, upon subsequent monitoring, the pollutants measured in Table S-1 continue to exceed their respective action levels, the Discharger shall further evaluate its BMPs and update its SWPPP accordingly to include advanced BMPs in addition to the minimum BMPs described in Provision 1.6, above. The Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified pursuant to Provision 1.5.8, above, as necessary to reduce or prevent discharges of pollutants in stormwater discharges in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Advanced BMPs may include one or more of the following:

1.7.1. **Exposure Minimization BMPs**. These include storm resistant shelters (either permanent or temporary) that prevent the contact of stormwater with identified industrial materials.

1.7.2. **Stormwater Containment and Discharge Reduction BMPs.** These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of stormwater runoff.

1.7.3. **Treatment Control BMPs.** These include mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

1.8. BMP Descriptions

The SWPPP shall identify each BMP being implemented at the facility, including the following:

1.8.1. The pollutants the BMP is designed to reduce or prevent;

1.8.2. The frequency, times of day, or conditions when the BMP is scheduled for implementation;

1.8.3. The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented;

1.8.4. The individual responsible for implementing the BMP;

1.8.5. The procedures, including maintenance procedures, and instructions to implement the BMP effectively; and

1.8.6. The equipment and tools necessary to implement the BMP effectively.

1.9. Annual Comprehensive Facility Compliance Evaluation

The Discharger shall conduct one annual facility evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an annual evaluation fewer than 8 months, or more than 16 months, after it conducts the previous annual evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the annual evaluation. At a minimum, the annual evaluations shall consist of the following:

1.9.1. A review of all sampling, visual observation, and inspection records conducted during the previous reporting year;

1.9.2. An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;

1.9.3. An inspection of all drainage areas previously identified as having no exposure to industrial activities and materials;

1.9.4. An inspection of equipment needed to implement the BMPs; and

1.9.5. An assessment of any other factors needed to comply with the requirements of the Annual Stormwater Report (see Provision 3.1, below).

2. STORMWATER PROVISIONS – MONITORING

2.1. Monthly Visual Observations

2.1.1. At least once per month, the Discharger shall visually observe each drainage area for the following:

2.1.1.1. The presence or indication of prior, current, or potential unauthorized non-stormwater discharges and their sources;

2.1.1.2. Authorized non-stormwater discharges, sources, and associated BMPs; and

2.1.1.3. Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential sources of industrial pollutants.

2.1.2. The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.

2.1.3. The Discharger shall provide an explanation in the Annual Stormwater Report for uncompleted monthly visual observations (see Provision 3.1, below).

2.2. Sampling Event Visual Observations

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of stormwater associated with industrial activity.

2.2.1. The Discharger shall ensure that visual observations of stormwater discharged from containment sources (e.g., secondary containment or storage ponds) are conducted at the time that the discharge is sampled.

2.2.2. If the Discharger employs volume-based or flow-based treatment BMPs, it shall sample any bypass that occurs while the visual observations and sampling of stormwater discharges are conducted.

2.2.3. The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and sources of any discharged pollutants.

2.2.4. If a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.

2.2.5. The Discharger shall provide an explanation in the Annual Stormwater Report for uncompleted sampling event visual observations (see Provision 4.1, below).

2.3. Visual Observation Records

The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of persons who conducted the

observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

2.4. SWPPP Revisions

The Discharger shall revise its BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed.

2.5. Sampling and Analysis

2.5.1. The Discharger shall collect and analyze stormwater samples as specified in the MRP.

2.5.2. Samples shall be (1) representative of stormwater associated with industrial activities and any commingled authorized non-stormwater dischargers; or (2) associated with the discharge of contained stormwater.

2.5.3. On a facility-specific basis, the Discharger shall also analyze additional parameters that serve as indicators of the presence of all industrial pollutants identified in the pollutant source assessment. These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment.

3. STORMWATER PROVISIONS – REPORTING

3.1. Annual Stormwater Report

The results of the Discharger's Annual Comprehensive Facility Compliance Evaluation shall be reported in the Annual Stormwater Report to the Regional Water Board no later than July 30. The Discharger shall include in the Annual Stormwater Report the following:

3.1.1. A compliance checklist that indicates whether the Discharger has complied with or addressed all applicable requirements of the SWPPP;

3.1.2. An explanation for any non-compliance requirements within the reporting year, as indicated in the compliance checklist;

3.1.3. An identification, including page numbers and sections, of all revisions made to the SWPPP within the reporting year; and

3.1.4. The date(s) of the annual evaluation.

4. STORMWATER PROVISIONS – DEFINTIONS

4.1. Authorized Non-Stormwater Discharges – non-stormwater discharges are authorized if they meet the following conditions:

4.1.1. Fire-hydrant and fire prevention or response system flushing;

4.1.2. Potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems;

4.1.3. Drinking fountain water and atmospheric condensate, including refrigeration, air conditioning, and compressor condensate;

4.1.4. Irrigation drainage and landscape watering, provided that all pesticides, herbicides, and fertilizers have been applied in accordance with manufacturer's labels;

4.1.5. Uncontaminated natural springs, groundwater, foundation drainage, footing drainage;

4.1.6. Seawater infiltration where the seawater is discharged back into the source; or,

4.1.7. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from cooling towers (e.g., "piped" cooling tower blowdown or drains).

4.2. Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage, excluding infiltration and runoff from agricultural land.