

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT: Marcos De la Cruz
MEETING DATE: April 13, 2022

ITEM: 5C

County of Santa Clara, Oregon Expressway Underpass, Palo Alto, Santa Clara County – Issuance of NPDES Permit

DISCUSSION:

This Revised Tentative Order (Appendix A) would issue an individual NPDES permit for the County of Santa Clara's Oregon Expressway Underpass, which discharges treated groundwater containing volatile organic compounds, stormwater, and urban runoff to Matadero Creek.

This discharge has been enrolled under the Volatile Organic Compounds (VOCs) and Fuel General Permit since January 1, 2019. In May 2019, the Regional Water Board issued Time Schedule Order R2-2019-0016 ordering the County to comply with the VOC and Fuel General Permit within five years or apply for an individual NPDES permit that better accounts for site-specific issues. The County elected to apply for an individual permit, and this Revised Tentative Order would be that permit. It would rescind the Time Schedule Order and allow the County to terminate coverage under the VOC and Fuel General Permit.

The Revised Tentative Order contains technology-based effluent limitations that account for site-specific conditions that restrict available treatment options, and water quality-based effluent limits to ensure the protection of downstream beneficial uses. During dry weather, the Revised Tentative Order imposes numeric limits like most permits do. During wet weather, it relies on narrative requirements (i.e., maximizing treatment and wastewater diversions to the sanitary sewer system). Because wet weather discharges are mostly stormwater and, pursuant to the Municipal Regional Stormwater Permit, the County implements best management practices to reduce pollutants in stormwater, no additional requirements are needed.

We received comments (Appendix B) on the tentative order from the County of Santa Clara and the Guadalupe-Coyote Resource Conservation District, and we responded (Appendix C) to the comments. Our responses primarily reiterate that the permit requirements are technically and economically feasible and protective of water quality. We expect this item to remain uncontested.

APPENDICES:

- A. Revised Tentative Order
- B. Comments
- C. Response to Comments

Appendix A
Revised Tentative Order

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1. FACILITY INFORMATION

Information describing the Oregon Expressway Underpass (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 and G are also incorporated into this Order.
- 2.3. Time Schedule Order R2-2019-0016.** On May 8, 2019, the Regional Water Board issued Time Schedule Order R2-2019-0016, which ordered the Discharger to comply with the requirements of Order R2-2017-0048 as amended by Order R2-2018-0050 (General NPDES Permit CAG912002) within five years or, instead apply for an individual NPDES permit. On May 8, 2020, the Discharger applied for an individual NPDES permit. Therefore, Order R2-2019-0016 can be rescinded.
- 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 Time Schedule Order R2-2019-0016 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 Time Schedule Order R2-2019-0016.

3. DISCHARGE PROHIBITIONS

- 3.1. Discharge of treated or partially-treated wastewater at a location or in a manner different from that described in this Order is prohibited.
- 3.2. Bypass of untreated or partially-treated wastewater to waters of the United States is prohibited, except as provided for in Attachment D section 1.7 of this Order. For purposes of this Order, wastewater flows routed around the air stripper are not bypasses if conducted as described in Fact Sheet section 2.1 and in compliance with section 4.3 of this Order.

4. EFFLUENT LIMITATIONS

- 4.1. During dry weather, the discharge at Discharge Point 001 shall meet the following effluent limitations, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP, Attachment E):

Table 2. Effluent Limitations

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Tetrachloroethylene	µg/L	-	1.4	-	-
Benzo(a)pyrene	µg/L	0.0044	0.0088	-	-
Benzo(k)fluoranthene	µg/L	0.0044	0.0088	-	-
Chrysene	µg/L	0.0044	0.0088	-	-
Indeno(1,2,3-cd)pyrene	µg/L	0.0044	0.0088	-	-
pH	s.u.	-	-	6.5	8.5

- 4.2. **Acute Toxicity.** During dry weather, the discharge at Discharge Point 001 shall meet the following acute toxicity effluent limitations, with compliance measured at Monitoring Location EFF-001 as described in the MRP:

- 4.2.1. The three-sample median shall not exhibit less than 90 percent survival (i.e., a bioassay test showing survival of less than 90 percent shall represent a violation of this effluent limitation if one or more of the past two bioassay tests also show less than 90 percent survival); and
- 4.2.2. The single-sample maximum value shall not exhibit less than 70 percent survival (i.e., a bioassay test showing survival of less than 70 percent shall represent a violation of this effluent limitation).

- 4.3. **Maximize Treatment.** The Discharger shall maximize air stripper treatment and wastewater diversions to the sanitary sewer system prior to routing excess wastewater flows around the air stripper.

5. RECEIVING WATER LIMITATIONS

5.1. The discharge shall not cause the following conditions in receiving waters:

- 5.1.1. Floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses;
- 5.1.2. Alteration of suspended sediment in such a manner as to cause nuisance or adversely affect beneficial uses or detrimental increase in the concentrations of toxic pollutants in sediments or aquatic life;
- 5.1.3. Suspended material in concentrations that cause nuisance or adversely affect beneficial uses;
- 5.1.4. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
- 5.1.5. Alteration of temperature beyond present natural background levels unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses;
- 5.1.6. Changes in turbidity that cause nuisance or adversely affect beneficial uses, or increases from normal background light penetration or turbidity greater than 10 percent in areas where natural turbidity is greater than 50 nephelometric turbidity units (NTU), or above 55 NTU in areas where natural turbidity is less than or equal to 50 NTU;
- 5.1.7. Coloration that causes nuisance or adversely affects beneficial uses;
- 5.1.8. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or
- 5.1.9. Toxic or other deleterious substances in concentrations or quantities that cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

5.2. The discharge shall not cause the following limits to be exceeded at any place in receiving waters within one foot of the water surface:

- 5.2.1. Dissolved Oxygen 7.0 mg/L, minimum

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

- 5.2.2. Dissolved Sulfide Natural background levels
- 5.2.3. pH The pH shall not be depressed below 6.5 nor raised above 8.5. The discharge shall not cause changes greater than 0.5 pH units in normal ambient pH levels.
- 5.2.4. Nutrients Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- 5.3.** The discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or State Water Resources Control Board (State Water Board) as required by the CWA and regulations adopted thereunder beyond any mixing zone established through this Order. If more stringent water quality standards are promulgated or approved pursuant to CWA section 303, or amendments thereto, the Regional Water Board may revise or modify this Order in accordance with the more stringent standards.

6. PROVISIONS

6.1. Standard Provisions

- 6.1.1. The Discharger shall comply with all “Standard Provisions” in Attachment D.
- 6.1.2. The Discharger shall comply with all applicable provisions of Attachment G (*Regional Standard Provisions, and Monitoring and Reporting Requirements for NPDES Wastewater Discharge Permits*), except section 3.1.3.2.5 (Bypass). The Discharger shall comply with the bypass monitoring requirements in MRP section 5 in lieu of those listed in Attachment G section 3.1.3.2.5 (Bypass).
- 6.1.3. If there is any conflict, duplication, or overlap between provisions in this Order, the more stringent provision shall apply.

6.2. Monitoring and Reporting Provisions

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

6.3. Reopener Provisions

- 6.3.1. 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.

- 6.3.1.1. 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;
- 6.3.1.2. 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 is not intended to 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;
- 6.3.1.3. If metal translator, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified;
- 6.3.1.4. If a State Water Board precedential decision, new policy, new law, or new regulation is adopted; or
- 6.3.1.5. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to this discharge.

ATTACHMENT A – DEFINITIONS AND ABBREVIATIONS

DEFINITIONS

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:

$$\text{Arithmetic mean} = \mu = \Sigma x / n$$

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.

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.

Dry Weather

For purposes of this Order, dry weather is when there has been no appreciable precipitation at the Facility or within its drainage area during the previous 48 hours. The wastewater level in the wet well shall be no higher than 2.5 feet, and the variable frequency drive pumps shall not be operating at a flow greater than 300 gpm, indicating that the wastewater in the wet well is mainly groundwater.

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.

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).

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 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.

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 $n/2+1$).

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.

Not Detected (ND)

Sample results less than the laboratory's MDL.

Persistent Pollutants

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

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.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) beneficial use.

Standard Deviation (σ)

Measure of variability calculated as follows:

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

where: x is the observed value

μ is the arithmetic mean of the observed values

n is the number of samples

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

%	Percent
$\mu\text{g/L}$	Micrograms per liter

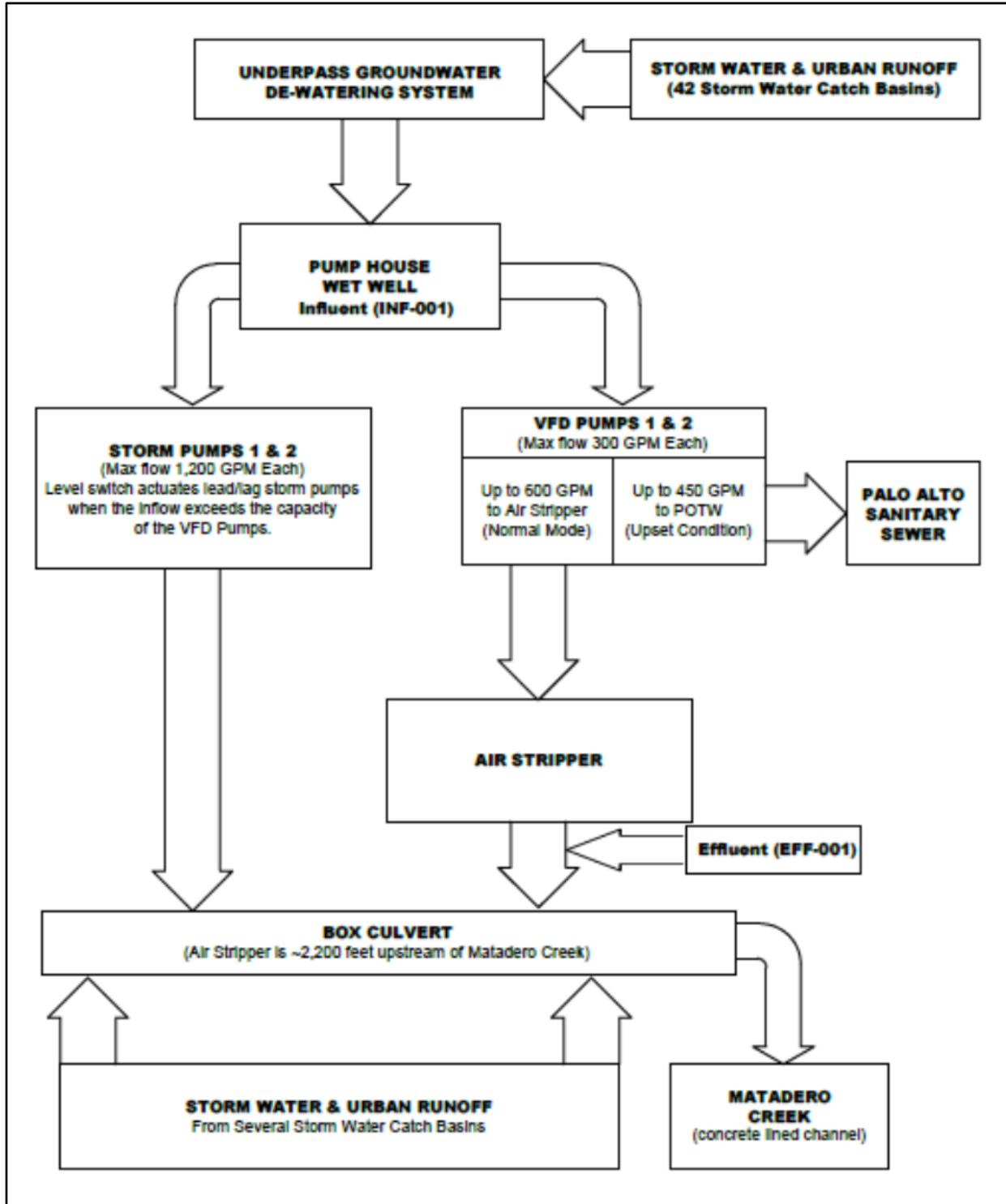
1/Blending Event	Once per blending event
1/Day	Once per day
1/Month	Once per month
1/Quarter	Once per quarter
1/Week	Once per week
1/Year	Once per year
2/Month	Two times per month
2/Week	Twice per week
2/Year	Twice per year
3/Week	Three times per week
4/Week	Four times per week
5/Week	Five times per week
AMEL	Average monthly effluent limitation
AWEL	Average weekly effluent limitation
B	Background concentration
C	Water quality criterion or objective
C-24	24-hour composite
CFU/100 mL	Colony forming units per 100 milliliters
Continuous	Measured continuously
Continuous/D	Measured continuously, and recorded and reported daily
Continuous/H	Measured continuously, and recorded and reported hourly
CV	Coefficient of Variation
DNQ	Detected, but not quantified
DL	Detection level
ECA	Effluent Concentration Allowance
Grab	Grab sample
GPM	Gallons per minute
MDEL	Maximum Daily Effluent Limitation
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
MPN/100 mL	Most probable number per 100 milliliters
ND	Not detected
NTU	Nephelometric turbidity units
RL	Reporting level
RPA	Reasonable potential analysis
s.u.	Standard pH units
TIE	Toxicity identification evaluation
TRE	Toxicity reduction evaluation
TUa	Acute toxicity units
TUc	Chronic toxicity units

ATTACHMENT B – FACILITY MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

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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

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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 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), 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., pH) 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. If required by U.S. EPA, 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 at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street
Sacramento, CA 95814

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

Monitoring Location Type	Monitoring Location	Monitoring Location Description
Influent	INF-001	A point immediately prior to the treatment system.
Effluent	EFF-001	A point in the discharge line immediately following treatment and before the effluent mixes with any other waste stream or receiving water.
Receiving Water	RSW-001	A point 50 feet upstream from the point of discharge into the receiving water or, if access is limited, the first accessible point upstream.

3. MONITORING REQUIREMENTS

The Discharger shall monitor at Monitoring Locations INF-001, EFF-001, and RSW-001 as follows. Monitoring shall occur only during dry weather, when there has been no appreciable precipitation at the Facility or within its drainage area during the previous 48 hours. The wastewater level in the wet well shall be no higher than 2.5 feet, and the variable frequency drive pumps shall not be operating at a flow greater than 300 gallons per minute (gpm), indicating that the wastewater in the wet well is mainly groundwater.

Table E-2. Minimum Monitoring Requirements

Parameter	Unit	Sample Type	INF-001	EFF-001	RSW-001 ^[1]
Flow ^[2]	gpm/gpd	Continuous	-	Continuous	-
pH	s.u.	Grab	-	1/Quarter	Once
Tetrachloroethylene	µg/L	Grab	1/Quarter	1/Quarter	-
Benzo(a)pyrene	µg/L	Grab	1/Year	1/Year	-
Benzo(k)fluoranthene	µg/L	Grab	1/Year	1/Year	-
Chrysene	µg/L	Grab	1/Year	1/Year	-
Indeno(1,2,3-cd)pyrene	µg/L	Grab	1/Year	1/Year	-
Acute Toxicity ^[3]	% Survival	Grab	-	1/Year	-
Hardness (as CaCO ₃)	mg/L	Grab	-	-	Once
Priority Pollutants ^[4]	µg/L	Grab	-	Once	Once

Footnotes:

- ^[1] Receiving water samples shall be collected within one foot of the surface of the receiving water body. The Discharger shall explain and report any deviation from this requirement.
- ^[2] Flows shall be measured continuously in gallons per minute and reported as gallons per day.
- ^[3] Acute toxicity tests shall be performed in accordance with MRP section 4.
- ^[4] The Discharger shall monitor for the pollutants listed in Attachment G, Table G-2, except asbestos, dioxins and furans, and PCBs.

4. ACUTE TOXICITY MONITORING REQUIREMENTS

- 4.1. Compliance with the acute toxicity effluent limitations shall be evaluated at Monitoring Location EFF-001 by measuring survival of test organisms exposed to 96-hour static renewal bioassays.
- 4.2. Test organisms shall be rainbow trout (*Oncorhynchus mykiss*). Alternatively, the Executive Officer may specify a more sensitive organism or, if testing a particular organism proves unworkable, the most sensitive organism available.
- 4.3. All bioassays shall be performed according to the most up-to-date protocols in 40 C.F.R. part 136, currently *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms*, 5th Edition (EPA-821-R-02-012). 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.
- 4.4. If the Discharger demonstrates that specific identifiable substances in the discharge are rapidly rendered harmless upon discharge to the receiving water, compliance with the acute toxicity limit may be determined after test samples are adjusted to remove the influence of those substances. Written acknowledgement that the Executive Officer concurs with the Discharger's demonstration and that the adjustment will not remove the influence of other substances must be obtained prior to any such adjustment.
- 4.5. Bioassay monitoring shall include, on a daily basis, pH, dissolved oxygen, ammonia (if toxicity is observed), temperature, hardness, and alkalinity. These results shall be reported. If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms is less than 70 percent), the Discharger shall initiate a new test as soon as practical and shall investigate the cause of the mortalities and report its findings in the next self-monitoring report. The Discharger shall repeat the test until a test fish survival rate of 90 percent or greater is observed. If the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new fish and shall continue as soon as practical until an acceptable test is completed (i.e., control fish survival rate is 90 percent or greater).

5. BYPASS MONITORING REQUIREMENTS

If the Discharger bypasses any portion of its treatment facility, the Discharger shall comply with the following monitoring requirements. For purposes of this Order, wastewater flows routed around the air stripper are not bypasses if conducted as described in Fact Sheet section 2.1 and in compliance with section 4.3 of this Order.

- 5.1. The Discharger shall record or calculate storm pump flow rates, the volume of water passing through the storm pumps, and bypass duration.

5.2. When bypassing for a cumulative duration of at least 60 minutes during any 24-hour period, the Discharger shall monitor at Monitoring Locations INF-001 and EFF-001 daily for all constituents that have effluent limits, except for acute toxicity.

6. REPORTING REQUIREMENTS

6.1. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachments D and G) 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](http://www.waterboards.ca.gov/water_issues/programs/ciwqs) (http://www.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. **Semi-annual SMRs** — Semi-annual SMRs shall be due on August 1 and February 1 after the end of each calendar semi-annual period. Each SMR shall contain the applicable items described in 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 SMRs** — Annual SMRs shall be due February 15 each year, covering the previous calendar year. The annual SMR shall contain the applicable items described in 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-3. CIWQS Reporting

Parameter	Method of Reporting: EDF/CDF data upload
All parameters identified in monitoring tables	Required for all results
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 ^[1]
Analytical Method	Not required (Discharger may select “data unavailable”) ^[2]

Parameter	Method of Reporting: EDF/CDF data upload
Collection Time, Analysis Time	Not required

Footnotes:

- ^[1] 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.
- ^[2] 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.

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

Table E-4. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On	Monitoring Period
Continuous	Order effective date	All times
1/Quarter	Closest January 1, April 1, July 1, or October 1 before or after Order effective date	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	January 1 through December 31
Once	Order effective date	Once during the term of the Order within 12 months prior to applying for permit reissuance

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 (\pm 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.

Compliance with effluent limitations during a bypass shall be determined with any of the following approaches. Monitoring results less than the RL shall be considered zeros for calculation purposes:

6.2.6.1. Demonstrate that influent data collected at Monitoring Location INF-001 comply with effluent limitations.

6.2.6.2. Demonstrate that the combined effluent discharge concentration calculated using the equation below to compute each daily discharge concentration complies with effluent limitations.

$$C_{discharge} = \frac{(Q_a \times C_a) + (Q_b \times C_b)}{Q_a + Q_b}$$

where:

Q_a is the flow at Monitoring Location EFF-001 (i.e., air stripper flow).

C_a is the pollutant concentration at Monitoring Location EFF-001 ($\mu\text{g/l}$).

Q_b is the highest storm pump flow (i.e., 1,200 gpm when one storm pump operates or 2,400 gpm when both storm pumps operate).

C_b is the pollutant concentration at Monitoring Location INF-001 ($\mu\text{g/l}$).

$C_{discharge}$ is the pollutant concentration of the combined effluent discharge ($\mu\text{g/l}$).

6.2.6.3. Demonstrate that the combined effluent discharge concentration calculated using the equation below to compute each daily discharge concentration complies with effluent limitations.

$$C_{discharge} = \frac{(V_a \times C_a) + (V_b \times C_b)}{V_a + V_b}$$

where:

V_a is the volume of water passing through the air stripper (calculated by multiplying Q_a by the duration of air stripper operation during the 24-hours subsequent to bypass initiation).

Q_a is the flow at Monitoring Location EFF-001 (i.e., air stripper flow rate).

C_a is the pollutant concentration at Monitoring Location EFF-001 ($\mu\text{g/l}$).

V_b is the volume of water passing through the storm pumps (calculated by multiplying Q_b by the duration of operation for each storm pump during the 24-hours subsequent to bypass initiation).

Q_b is the highest storm pump flow (i.e., 1,200 gpm when one storm pump operates or 2,400 gpm when both storm pumps operate).

C_b is the pollutant concentration at Monitoring Location INF-001 ($\mu\text{g/l}$).

$C_{discharge}$ is the pollutant concentration of the combined effluent discharge ($\mu\text{g/l}$).

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](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring) at: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

ATTACHMENT F – FACT SHEET

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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 the Order, the Regional Water Board incorporates this Fact Sheet as findings supporting the issuance of the Order.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	2 071045001
CIWQS Place ID	654813
Discharger	County of Santa Clara
Facility Name	Oregon Expressway Underpass
Facility Address	Oregon Expressway East and Alma Street Offramp South Palo Alto, CA 94143 Santa Clara County
Facility Contact, Title, and Phone	Chris Ellsbury, Environmental, Health & Safety Compliance Specialist, (408) 690-9190
Authorized Person to Sign and Submit Reports	Chris Ellsbury, Environmental, Health & Safety Compliance Specialist, (408) 690-9190
Mailing Address	Santa Clara County Roads and Airports Department 101 Skyport Drive, San Jose CA 95110
Billing Address	Santa Clara County Roads and Airports Department 101 Skyport Drive, San Jose CA 95110
Facility Type	Groundwater, Stormwater, and Urban Runoff Treatment System
Major or Minor Facility	Minor
Water Quality Threat	3
Complexity	B
Pretreatment Program	No
Recycling Requirements	No
Nutrients Requirements	No
Facility Permitted Flow	0.87 million gallons per day (MGD)
Facility Design Flow	0.87 MGD (hydraulic capacity)
Watershed	South Bay Basin
Receiving Water	Matadero Creek
Receiving Water Type	Freshwater

1.1. The County of Santa Clara (Discharger) is the owner and operator of the Oregon Expressway Underpass (Facility). The Facility discharges treated groundwater, stormwater, and urban runoff to Matadero Creek. During intense storms, whenever influent flows exceed the air stripper treatment capacity, the portion of the combined wastewater exceeding the air stripper capacity is discharged without passing through the air stripper through a separate conduit to the stormwater culvert.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and State laws, regulations, plans, and policies are held to be equivalent to references to the Discharger herein.

- 1.2. The Discharger was previously subject to National Pollutant Discharge Elimination System (NPDES) Permit CAG912002 (VOC and Fuel General Permit) issued through Order R2-2017-0048 and amended by Order R2-2018-0050 (previous order), and Time Schedule Order R2-2019-0016. The Discharger filed a Report of Waste Discharge and applied for individual Waste Discharge Requirements (WDRs) and an individual NPDES permit on May 8, 2020.
- 1.3. The Discharger is authorized to discharge subject to the WDRs in this Order at the discharge location described in Table 1 of this Order. Regulations in 40 C.F.R. section 122.46 limit 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 40 C.F.R. section 122.6(d) and 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 requirements for continuation of expired permits.
- 1.4. The Discharger is also regulated under NPDES Permit CAS612008 (Municipal Regional Stormwater Permit), which is currently issued through State Water Board Order R2-2015-0049, as amended by Order R2-2019-0004, and establishes requirements for stormwater and urban runoff discharges. This Order does not affect that permit.
- 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 Facility is located where Oregon Expressway passes under Alma Street in the City of Palo Alto. It collects stormwater, urban runoff, and groundwater to prevent underpass flooding. Urban runoff and stormwater originate from approximately 45 storm drain inlets and manholes in the vicinity of the Facility. The groundwater contains volatile organic compounds (VOCs) due to upgradient historical discharges by other parties. The Regional Water Board is overseeing the cleanup of these VOCs through Site Cleanup Requirements Order 94-130.

2.1. Wastewater Treatment

The Facility includes a wet well, four pumps, and an air stripper. During dry weather, the pumps direct groundwater and urban runoff collected in the wet well

to the air stripper for VOC removal. The treated wastewater flows to a stormwater culvert that discharges to Matadero Creek. Discharges to the stormwater culvert undergo further volatilization (i.e., VOC removal) as the wastewater flows approximately 2,200 feet to Matadero Creek. During dry weather, the Facility typically discharges 250 to 300 gpm of treated wastewater. The air stripper treatment capacity is 600 gpm.

During wet weather, stormwater commingles with urban runoff and groundwater in the wet well, and combined wastewater flows up to 600 gpm are directed to the air stripper for treatment. Whenever stormwater, urban runoff, and groundwater in the wet well exceed the air stripper treatment capacity, the portion of the combined wastewater exceeding the air stripper capacity is routed through a separate conduit to the stormwater culvert and discharged without passing through the air stripper. The capacity to pump this wastewater via the separate conduit to the stormwater culvert is 2,400 gpm. These discharges occur during intense storms, particularly when rainfall exceeds 0.5 inches over short periods. Nine times from November 22, 2018, through October 24, 2021, the Discharger discharged commingled stormwater, urban runoff, and groundwater without passing it through the air stripper for more than 60 minutes.

On October 23, 2018, the Discharger submitted a feasibility study concluding that it cannot prevent these discharges due to Facility-specific site constraints that prevent the Discharger from providing more treatment, and controlling stormwater, urban runoff, and groundwater flowing into the underpass is needed to ensure public safety and to prevent severe property damage (Stantec, *Notice of Anticipated Storm Pump Operation – Oregon Expressway Underpass Pump Station*, October 2018).

When the air stripper is not operating (e.g., during routine maintenance), the Discharger can direct wastewater flows up to 450 gpm to the City of Palo Alto's sanitary sewer collection system.

2.2. Discharge Points and Receiving Waters

The Facility discharges to a 2,200-foot-long stormwater culvert that discharges treated wastewater through Discharge Point 001 to Matadero Creek, a water of the State and United States.

2.3. Planned Changes

No significant changes to the Facility are planned.

2.4. Sea Level Rise

Sea level rise does not threaten the Facility because it is located approximately 2 miles upstream of South San Francisco Bay.

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 location 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).

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 or domestic supply. Beneficial uses applicable to Matadero Creek are as follows:

Table F-2. Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Matadero Creek	Municipal and Domestic Supply (MUN) Cold Freshwater Habitat (COLD) Fish Migration (MIGR) Preservation of Rare and Endangered Species (RARE) Non-Contact Water Recreation (REC2) Water Contact Recreation (REC1) Fish Spawning (SPWN) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD)

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. **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 establish mercury fish tissue water quality objectives based on beneficial uses and translate those objectives into mercury water column criteria. The water quality objectives supersede the four-day average freshwater mercury objective in Basin Plan Table 3-4. Requirements of this Order implement the Mercury Provisions.
- 3.3.5. **Domestic Water Quality.** In accordance with Water Code section 106.3, it is 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 advances that policy by requiring discharges to meet maximum contaminant levels (MCLs) designed to protect human health and ensure that water is safe for domestic use.
- 3.3.6. **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 No. 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.

- 3.3.7. **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, receiving water 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.

3.4. Impaired Water Bodies on CWA section 303(d) List

On April 6, 2018, 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.

Matadero Creek is listed as impaired by trash and diazinon. The Facility is a potential source of these pollutants because it collects stormwater and urban runoff. However, this Order does not contain effluent limits for trash and diazinon because TMDLs and load reduction programs for these pollutants are implemented through the Municipal Regional Stormwater Permit.

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 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. **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.
- 4.1.2. **Discharge Prohibition 3.2 (No bypass):** This prohibition is based on 40 C.F.R. section 122.41(m). Bypass of untreated or partially-treated wastewater from any portion of the Facility is prohibited except in accordance with 40 C.F.R. section 122.41 (see Attachment D § 1.7). For purposes of this Order, wastewater flows routed around the air stripper are not considered to be bypasses if conducted as described in Fact Sheet section 2.1 and in compliance with section 4.3 of this Order.

4.2. Basin Plan Discharge Prohibition 1

Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharge to any non-tidal water. Discharge Point 001 discharges to Matadero Creek, a non-tidal water. Basin Plan section 4.2 allows the Regional Water Board to grant exceptions to Basin Plan Discharge Prohibition 1 under the following 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; or
- A discharge is approved as part of reclamation project; or
- A net environmental benefit 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:

In reviewing requests for exceptions, the Water Board will consider 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 to Basin Plan Discharge Prohibition 1 for the following reasons:

- An inordinate burden would be placed on the Discharger relative to the beneficial uses protected if this Order were to require discharge to non-tidal waters (i.e., San Francisco Bay) due to the necessary construction and operation of a discharge pipe several miles long.

- An equivalent level of environmental protection is provided because section 4.3 of this Order requires the Discharger to maximize air stripper treatment and wastewater diversions to the sanitary sewer system prior to routing excess wastewater flows around the air stripper. If a treatment system upset were to occur, wastewater would accumulate in the wet well and not be discharged right away. If necessary, the wastewater would be pumped through a separate conduit to the stormwater culvert and discharged to Matadero Creek. Such discharges would undergo incidental volatilization (i.e., VOC removal) as the wastewater flows approximately 2,200 feet before reaching Matadero Creek, thereby providing a buffer against the effects of such abnormal discharges caused by possible temporary upsets. Moreover, the Discharger is subject to the Municipal Regional Stormwater Permit, which also reduces pollutant loadings in urban runoff and stormwater.

4.3. Technology-Based Effluent Limitations

4.3.1. Scope and Authority

CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include conditions meeting technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet water quality standards. The CWA requires that technology-based effluent limitations be established based on several levels of control:

- **Best practicable treatment control technology (BPT).** BPT represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- **Best available technology economically achievable (BAT).** BAT represents the best existing 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 pollutant control technology (BCT).** BCT represents the control from existing industrial point sources of conventional pollutants, including biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. BCT standards are established after considering 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).** NSPS represent the best available demonstrated control technology standards. 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 the application of BPT, BAT, BCT, and NSPS. There are no promulgated effluent limitations, guidelines, or standards for the types of discharges this Order covers. CWA section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of best professional judgment 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 best professional judgment is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

Basin Plan Table 4-2 contains technology-based effluent limitations for pH, residual chlorine, and oil and grease that apply to all treatment facilities; and settleable matter effluent limitations that apply to sedimentation. It also contains effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS) that the Regional Water Board may, at its option, apply to non-sewage discharges as long as doing so does not preempt any of U.S. EPA's effluent limitations, guidelines, and standards.

4.3.2. Effluent Limitations

- 4.3.2.1. **Dry Weather.** This Order imposes the technology-based pH effluent limitation from Basin Plan Table 4-2 because this limitation applies to all treatment facilities. It does not impose the residual chlorine or oil and grease limitations from Basin Plan Table 4-2 because the Discharger's treatment system was not designed to remove oil and grease and does not use chlorine. It also does not impose BOD or TSS effluent limitations because the discharge does not contain sewage. Finally, it does not impose the settleable matter effluent limitations because the treatment system does not involve sedimentation.

Based on best professional judgment, this Order imposes a technology-based effluent limitation for tetrachloroethylene because it was consistently detected in the effluent from January 2019 through June 2021 at concentrations higher than RLs. Trichloroethylene was also consistently detected in the effluent above RLs, but it is more volatile and therefore easier to treat. Thus, tetrachloroethylene is a better performance indicator of VOC removal for the air stripper. Data collected prior to January 2019 are not representative of the discharge because the Discharger collected samples at a point after the effluent mixed with other wastewater streams in the stormwater culvert.

Tetrachloroethylene is a toxic pollutant and, therefore, subject to BPT and BAT levels of control. BCT controls do not apply because they only apply to conventional pollutants. NSPS controls do not apply because the Facility is not a "new source" (i.e., a source created after U.S. EPA establishes NSPS effluent limitations, guidelines, and standards).

The current air stripping technology is the best technology available for the Facility because it is the best technology that can operate within the Facility’s restricted footprint while achieving relatively high pollutant removal rates. The Discharger’s 2018 feasibility study evaluates six potential alternatives, including the addition of granular activated carbon treatment and the separation of stormwater and groundwater influent flows to reduce pollutant loads (Stantec, *Notice of Anticipated Storm Pump Operation – Oregon Expressway Underpass Pump Station*, October 2018). The study concludes that alternatives other than the existing air stripper are infeasible. Air stripping is a common groundwater treatment technology that can achieve VOC removal efficiencies of up to 98 percent and remove up to 80 percent of certain semi-volatile compounds (U.S. EPA. *EPA Facts About Air Stripping*, June 1992). VOC removal is a good indicator of treatment system performance.

The technology-based effluent limitation for tetrachloroethylene is based on existing treatment performance. Specifically, it is the estimated 99th percentile of the lognormal distribution of available effluent data expressed as a maximum daily effluent limitation. This approach is consistent with U.S. EPA guidance (*Technical Support Document for Water Quality-based Toxics Control*, March 1991, second printing, EPA/505/2-90-001) and section 5.2.3.5 of the *NPDES Permit Writer’s Manual* (U.S. EPA, September 2010), which allow maximum daily effluent limitations based on best professional judgement to be developed using the estimated 99th percentile of the distribution of effluent values.

When using best professional judgment to impose technology-based effluent limitations based on BPT and BAT controls, 40 C.F.R. section 125.3(d) requires that the Regional Water Board consider the following factors:

Table F-3. Factors Considered Pursuant to 40 C.F.R. Section 125.3(d)(1) and (3)

Factors	Considerations
Cost of application of technology relative to effluent reduction benefits	The costs of applying this technology are reasonable given that the Discharger does not have to modify its existing process. The effluent reduction benefits of air strippers are well-established and are significant here given the absence of other feasible technologies.
Cost of effluent pollutant load reduction	The cost of achieving the effluent load reduction is reasonable because the reduction can be achieved with existing equipment and processes.
Age of equipment and facilities	The limitations can be met with existing equipment and facilities. The equipment has been in place for many years. Given the simplicity of air stripper technology, the equipment is easily repaired and maintained.
Process employed	The limitations can be met with the existing process, which is reliable and has been in place for many years.
Engineering aspects of various controls	Air stripping technology is relatively simple and does not require complex engineering.

Factors	Considerations
Process changes	No process change is necessary to meet the limitations.
Non-water quality environmental impacts	Use of an air stripper to reduce VOC concentrations in groundwater does release VOCs to the air. However, this facility is subject to air emission regulations by the Bay Area Air Quality Management District.

Regulations at 40 CFR section 125.3(c)(2) further require the consideration of “(i) the appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and (ii) any unique factors relating to the applicant.” Here, air strippers are an appropriate technology for small-scale groundwater treatment facilities like the Discharger. Given the unique physical constraints at the site, other appropriate treatment technologies, such as granular activated carbon, would be infeasible. Similarly, the significant resources that would be required to reconfigure the underpass or re-route the sewer collection system, make discharge options other than the discharge into Matadero Creek unworkable with the Discharger’s limited budget for capital projects.

4.3.2.2. **Wet Weather.** This Order relies on narrative technology-based requirements for wet weather discharges because 40 C.F.R. section 122.44(k) allows narrative requirements when numeric effluent limitations are infeasible. During wet weather, numeric effluent limitations are infeasible because the influent wastewater that originates from groundwater is significantly diluted by stormwater, and stormwater is typically unpredictable. The Discharger cannot readily anticipate when the auxiliary pumps operate, and stormwater pollutant concentrations are highly variable. For these reasons, it is infeasible to collect reliably representative stormwater samples.

The Discharger’s stormwater and urban runoff discharges are subject to the requirements of the Municipal Regional Stormwater Permit, which requires stormwater and urban runoff control measures and best management practices. These technology-based requirements reduce or prevent discharges of pollutants in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Section 4.3 of this Order requires the Discharger to implement the best available technology to the maximum extent practicable during wet weather (i.e., maximize treatment during wet weather).

4.4. Water Quality-Based Effluent Limitations

4.4.1. 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, water quality-based effluent limitations (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.

4.4.2. Beneficial Uses and Water Quality Criteria and Objectives

Discharge Point 001 discharges to Matadero Creek. Fact Sheet section 3.3.1 identifies the beneficial uses of Matadero Creek. Water quality criteria and objectives to protect these beneficial uses are described below.

- 4.4.2.1. **Basin Plan Objectives.** The Basin Plan specifies numerous water quality objectives, including numeric objectives for 10 priority pollutants and narrative objectives for toxicity and bioaccumulation. Because Matadero Creek supports the municipal and domestic supply (MUN) beneficial use, the drinking water standards (i.e., MCLs) specified in Basin Plan section 3.3.22 also apply as water quality objectives.
- 4.4.2.2. **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 Matadero Creek because it is a potential source of drinking water.
- 4.4.2.3. **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 Suisun Bay and the Sacramento-San Joaquin Delta. The NTR criteria apply to Matadero Creek.
- 4.4.2.4. **Mercury Objectives.** The Mercury Provisions specify water column criteria for mercury depending on water body type and beneficial uses. Matadero Creek is a flowing water body that supports cold freshwater habitat; warm freshwater habitat; fish migration; preservation of rare, threatened, or endangered species; fish spawning; and wildlife habitat beneficial uses. Therefore, pursuant to Table 1 of the Mercury Provisions, the applicable water column mercury criterion is 12 ng/l.

- 4.4.2.5. **Receiving Water Hardness.** Ambient hardness samples collected at Matadero Creek between January and March 2020, were used to calculate freshwater objectives that are hardness dependent. The geometric mean of the resulting data, 402 mg/L as calcium carbonate (CaCO₃), was used to determine the water quality objectives.
- 4.4.2.6. **Metals Translators.** Regulations at 40 C.F.R. section 122.45(c), require effluent limitations for metals to be expressed as total recoverable metal. Since the water quality objectives for metals are typically expressed as dissolved metal, translators must be used to convert metals concentrations from dissolved to total recoverable and vice versa. The CTR contains default translators; however, site-specific conditions, such as water temperature, pH, total suspended solids, and organic carbon may affect the form of metal (dissolved, non-filterable, or otherwise) present and therefore available to cause toxicity. In general, dissolved metals are more available and more toxic to aquatic life than other forms. In the absence of site-specific translators that account for site-specific conditions, CTR default translators were used for all metals in this Order's reasonable potential analysis.

4.4.3. Reasonable Potential Analysis

- 4.4.3.1. **Dry Weather.** The reasonable potential analysis below is based on effluent monitoring data the Discharger collected from January 2019 through June 2021, and ambient background data the Discharger collected from January through March 2020.

In some cases, reasonable potential cannot be determined because effluent data are limited, or ambient background concentrations are unavailable. The MRP requires the Discharger to monitor for these constituents in its effluent using analytical methods that provide the best feasible detection limits as needed to inform future permit development. When additional data become available, further analysis will be conducted to determine whether numeric effluent limitations are necessary.

This Order does not contain WQBELs for constituents that do not demonstrate reasonable potential.

- 4.4.3.1.1. **Priority Pollutants.** 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. SIP section 1.3 sets forth the methodology used for this Order for assessing whether a priority pollutant has reasonable potential to exceed a water quality objective.

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.

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 (yes, no, or unknown) for each pollutant. Based on this analysis, the only priority pollutants that demonstrate reasonable potential are tetrachloroethylene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene.

Table F-4. Reasonable Potential Analysis

CTR No.	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Result ^[3]
1	Antimony	6.0	0.46	-	No
2	Arsenic	10	0.65	-	No
3	Beryllium	4.0	<0.5	-	No
4	Cadmium	3.4	<1.0	-	No
5a	Chromium (III) ^[4]	50	0.45	-	No
5b	Chromium (VI)	11	<0.5	-	No
6	Copper	31	1.8	3.3	No
7	Lead	15	1.5	0.2	No
8	Mercury	0.012	0.001	-	No
9	Nickel	100	3.9	-	No
10	Selenium	5.0	4.3	2.5	No
11	Silver	44	<1.0	-	No
12	Thallium	1.7	<1.0	-	No
13	Zinc	390	10	9.0	No
14	Cyanide	5.2	3.6	-	No

CTR No.	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Result ^[3]
15	Asbestos (fibers/L)	7,000,000	-	-	U
16	2,3,7,8-TCDD	1.3 x 10 ⁻⁸	-	-	U
17	Acrolein	320	-	-	U
18	Acrylonitrile	0.059	-	-	U
19	Benzene	1	<0.5	-	No
20	Bromoform	4.3	<0.5	-	No
21	Carbon Tetrachloride	0.25	<0.5	-	No
22	Chlorobenzene	680	<0.5	-	No
23	Chlorodibromomethane	0.40	<0.5	-	No
24	Chloroethane	No Criterion	<0.5	-	U
25	2-Chloroethylvinyl ether	No Criterion	-	-	U
26	Chloroform	No Criterion	<0.5	-	U
27	Dichlorobromomethane	0.56	<0.5	-	No
28	1,1-Dichloroethane	5	<0.5	<0.11	No
29	1,2-Dichloroethane	0.38	<0.5	-	No
30	1,1-Dichloroethylene	0.057	<0.5	<0.2	No
31	1,2-Dichloropropane	0.52	<0.5	-	No
32	1,3-Dichloropropylene	0.5	<0.5	-	No
33	Ethylbenzene	300	<0.5	-	No
34	Methyl Bromide	48	<0.5	-	No
35	Methyl Chloride	No Criterion	<0.5	-	U
36	Methylene Chloride	4.7	<2.0	-	No
37	1,1,2,2-Tetrachloroethane	0.17	<0.5	-	No
38	Tetrachloroethylene	0.8	1.2	<0.2	Yes
39	Toluene	150	<0.5	-	No
40	1,2-Trans-Dichloroethylene	10	0.1	-	No
41	1,1,1-Trichloroethane	200	0.062	<0.2	No
42	1,1,2-Trichloroethane	0.60	<0.5	-	No
43	Trichloroethylene	2.7	2.4	<0.2	No
44	Vinyl Chloride	0.5	<0.5	-	No
45	2-Chlorophenol	120	<0.02	-	No
46	2,4-Dichlorophenol	93	0.025	-	No
47	2,4-Dimethylphenol	540	<1.0	-	No
48	2-Methyl- 4,6-Dinitrophenol	13.4	<5.0	-	No
49	2,4-Dinitrophenol	70	<0.5	-	No
50	2-Nitrophenol	No Criterion	<2	-	U
51	4-Nitrophenol	No Criterion	<5	-	U
52	3-Methyl 4-Chlorophenol	No Criterion	<1	-	U
53	Pentachlorophenol	0.28	<0.25	-	No
54	Phenol	21,000	0.056	-	No
55	2,4,6-Trichlorophenol	2.1	<0.5	-	No

CTR No.	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) [1][2]	B or Minimum DL (µg/L) [1][2]	RPA Result [3]
56	Acenaphthene	1,200	<0.05	-	No
57	Acenaphthylene	No Criterion	<0.05	-	U
58	Anthracene	9,600	<0.05	-	No
59	Benzidine	0.00012	<5.0	-	No
60	Benzo(a)Anthracene	0.0044	<0.02	-	No
61	Benzo(a)Pyrene	0.0044	0.048	<0.03	Yes
62	Benzo(b)Fluoranthene	0.0044	<0.025	<0.04	No
63	Benzo(ghi)Perylene	No Criterion	<0.02	-	U
64	Benzo(k)Fluoranthene	0.0044	0.051	<0.04	Yes
65	Bis(2-Chloroethoxy)Methane	No Criterion	<1.0	-	U
66	Bis(2-Chloroethyl)Ether	0.031	<0.005	-	No
67	Bis(2-Chloroisopropyl)Ether	1,400	<0.1	-	No
68	Bis(2-Ethylhexyl)Phthalate	1.8	0.054	-	No
69	4-Bromophenyl Phenyl Ether	No Criterion	<1.0	-	U
70	Butylbenzyl Phthalate	3,000	<0.05	-	No
71	2-Chloronaphthalene	1,700	<1.0	-	No
72	4-Chlorophenyl Phenyl Ether	No Criterion	<1.0	-	U
73	Chrysene	0.0044	0.044	<0.03	Yes
74	Dibenzo(a,h)Anthracene	0.0044	<0.01	-	No
75	1,2-Dichlorobenzene	600	<2.0	-	No
76	1,3-Dichlorobenzene	400	<2.0	-	No
77	1,4-Dichlorobenzene	5	<2.0	-	No
78	3,3 Dichlorobenzidine	0.04	<0.02	-	No
79	Diethyl Phthalate	23,000	<0.02	-	No
80	Dimethyl Phthalate	313,000	<0.02	-	No
81	Di-n-Butyl Phthalate	2,700	0.016	-	No
82	2,4-Dinitrotoluene	0.11	<0.025	-	No
83	2,6-Dinitrotoluene	No Criterion	<0.01	-	U
84	Di-n-Octyl Phthalate	No Criterion	<0.012	-	U
85	1,2-Diphenylhydrazine	0.04	<1.0	-	No
86	Fluoranthene	300	<0.01	-	No
87	Fluorene	1,300	<0.01	-	No
88	Hexachlorobenzene	0.00075	<0.005	-	No
89	Hexachlorobutadiene	0.44	<0.01	-	No
90	Hexachlorocyclopentadiene	1	5.0	-	No
91	Hexachloroethane	1.9	<0.01	-	No
92	Indeno(1,2,3-cd)Pyrene	0.0044	<0.0051	-	Yes
93	Isophorone	8.4	<1.0	-	No
94	Naphthalene	No Criterion	-	-	U
95	Nitrobenzene	17	<1.0	-	No
96	N-Nitrosodimethylamine	0.00069	-	-	U

CTR No.	Pollutant	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Result ^[3]
97	N-Nitrosodi-n-Propylamine	0.005	<1.0	-	No
98	N-Nitrosodiphenylamine	5	<1.0	-	No
99	Phenanthrene	No Criterion	<0.02	-	U
100	Pyrene	960	<0.05	-	No
101	1,2,4-Trichlorobenzene	5	<1.0	-	No
102	Aldrin	0.00013	-	-	U
103	Alpha-BHC	0.0039	-	-	U
104	Beta-BHC	0.014	-	-	U
105	Gamma-BHC	0.063	-	-	U
106	Delta-BHC	No Criterion	-	-	U
107	Chlordane	0.00057	-	-	U
108	4,4'-DDT	0.00059	-	-	U
109	4,4'-DDE	0.00059	-	-	U
110	4,4'-DDD	0.00083	-	-	U
111	Dieldrin	0.00014	-	-	U
112	Alpha-Endosulfan	0.056	-	-	U
113	Beta-Endosulfan	0.056	-	-	U
114	Endosulfan Sulfate	110	-	-	U
115	Endrin	0.036	-	-	U
116	Endrin Aldehyde	0.76	-	-	U
117	Heptachlor	0.00021	-	-	U
118	Heptachlor Epoxide	0.0001	-	-	U
119-125	PCBs sum	0.00017	-	-	U
126	Toxaphene	0.00020	-	-	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 (DL).
- ^[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 maximum effluent concentration is the total chromium concentration. The chromium (III) concentration is unknown but less than this value.
- ^[5] Asbestos sampling is only required for discharges to waters with the municipal or domestic supply (MUN) beneficial use.

4.4.3.1.2. **Acute Toxicity.** Basin Plan section 4.5.5.3.1 requires acute toxicity monitoring and limitations.

4.4.3.2. **Wet Weather.** Wet weather discharges do not have reasonable potential to cause or contribute to an exceedance of a water quality objective. In its 2018 feasibility study, the Discharger submitted a mass balance study showing that, under conservative conditions, stormwater flows dilute influent groundwater VOC concentrations by about 83 percent (Stantec, *Notice of*

Anticipated Storm Pump Operation – Oregon Expressway Underpass Pump Station, October 2018). Urban runoff and stormwater flows do not have reasonable potential because they are already regulated under the Municipal Regional Stormwater Permit, which imposes a number of urban runoff control measures and best management practices to minimize pollutant discharges, and compliance with these conditions and section 4.3 of this Order is expected to control discharges sufficiently to meet water quality objectives.

4.4.4. Water Quality-Based Effluent Limitations

WQBELs were developed for the pollutants determined to have reasonable potential to cause or contribute to exceedances of water quality objectives. Apart from acute toxicity (discussed below), the WQBEL calculations are based on the procedures in SIP section 1.4 and they are for dry weather discharges only. There is no reasonable potential for wet weather discharges to cause or contribute to an exceedance of a water quality objective. Therefore, there are no WQBELs for wet weather discharges.

4.4.4.1. **WQBEL Calculations.** The following table shows the WQBEL calculations for tetrachloroethylene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. The WQBELs are calculated as required by SIP section 1.4.

Table F-5. WQBEL Calculations

Pollutant	Tetrachloro-ethylene	Benzo(a)-pyrene	Benzo(k)-fluoranthene	Chrysene	Indeno(1,2,3-cd)pyrene
Units	µg/L	µg/L	µg/L	µg/L	µg/L
Basis and Criteria type	CTR Human Health	CTR Human Health	CTR Human Health	CTR Human Health	CTR Human Health
CTR Aquatic Life Criteria - Acute	None	None	None	None	None
CTR Aquatic Life Criteria - Chronic	None	None	None	None	None
CTR Human Health Criteria - Organisms Only	8.85	0.049	0.049	0.049	0.049
CTR Human Health Criteria - Water & Organisms	0.8	0.0044	0.0044	0.0044	0.0044
Title 22 Municipal Supply - Primary MCL	5	0.2	None	None	None
Title 22 Municipal Supply - Secondary MCL	None	None	None	None	None
Water Effects Ratio (WER)	1	1	1	1	1
Lowest WQO	0.8	0.0044	0.0044	0.0044	0.0044
Dilution Factor (D)	1	1	1	1	1
No. of samples per month	4	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	N	N	N	N	N

Pollutant	Tetrachloro-ethylene	Benzo(a)-pyrene	Benzo(k)-fluoranthene	Chrysene	Indeno(1,2,3-cd)pyrene
HH criteria analysis required? (Y/N)	Y	Y	Y	Y	Y
Applicable HH Criteria	0.8	0.0044	0.0044	0.0044	0.0044
Background (Average Conc. for Human Health Calc.)	0.20	0.030	0.040	0.030	No data
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?	N	N	N	N	N
ECA HH	1.4	0.0044	0.0044	0.0044	0.0044
No. of data points <10 or at least 80% of data reported non-detect? (Y/N)	N	Y	Y	Y	Y
Avg of effluent data points	0.67	0.052	0.073	0.080	0.089
Std Dev of effluent data points	0.21	0.021	0.13	0.13	0.14
CV Calculated	0.31	N/A	N/A	N/A	N/A
CV (Selected) - Final	0.31	0.6	0.6	0.6	0.6
AMEL Mult95	1.3	1.6	1.6	1.6	1.6
MDEL Mult99	1.9	3.1	3.1	3.1	3.1
MDEL/AMEL Multiplier	1.5	2.0	2.0	2.0	2.0
Final Calculated Limit - AMEL (Human Health)	1.4	0.0044	0.0044	0.0044	0.0044
Final Calculated Limit - MDEL (Human Health)	2.1	0.0088	0.0088	0.0088	0.0088
Previous Order Limit - AMEL	None	0.0044	0.0044	0.0044	0.0044
Previous Order Limit - MDEL	0.50	0.0088	0.0088	0.0088	0.0088

4.4.4.2. **Acute Toxicity.** This Order includes acute toxicity effluent limitations based on Basin Plan Table 4-3.

4.5. Discharge Requirement Considerations

4.5.1. **Anti-Backsliding.** The term “anti-backsliding” refers to statutory and regulatory provisions that prohibit, except in limited circumstances, the renewal, reissuance, or modification of an existing NPDES permit to contain effluent limitations, permit conditions, or standards less stringent than those established in the previous order (40 C.F.R. § 122.44(l); 33 U.S.C. § 1342(o)(1).) While this Order relaxes the tetrachloroethylene effluent limit, this backsliding meets an exception to the prohibition against backsliding. Regulations at 40 C.F.R. section 122.44(l) prohibit backsliding from the effluent limitations in a prior permit, unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance. Regulations at 40 C.F.R. sections 122.62 and 122.64 provide the circumstances under which permits may be modified, terminated, or reissued. The two circumstances justifying backsliding here are new information

(40 C.F.R. § 122.62(a)(2)) and noncompliance by the permittee (40 C.F.R. §§ 122.62(b)(1) and 122.64(a)(1)).

Here, the previous effluent limitations were based on use of granular activated carbon (GAC) treatment, which has higher VOC removal performance than the air stripper treatment system at the Facility. The GAC-based limits were included in the general permit under which the Discharger was previously a permittee based on the expectation that all permittees would be able to install GAC treatment or reduce pollutants to the same extent that GAC does. However, subsequent to the issuance of the general permit, the Discharger completed a feasibility study indicating that physical constraints at the Facility prohibited installation of GAC or any other equivalent treatment. The Discharger thus risked continuous noncompliance with the limits in the general permit. Based on this new information, the Regional Water Board determined that termination of the Discharger's general permit coverage and issuance of an individual permit with effluent limitations reflecting air stripping technology was appropriate. As discussed in Fact Sheet section 4.3.2.1, the best available technology that can operate within the Facility's footprint is the existing air stripping technology.

This Order does not retain effluent limits for other VOCs, semivolatile organic compounds, fuel-related compounds, and metals from the previous order because Facility-specific data do not indicate reasonable potential for these pollutants to exceed water quality objectives. This is consistent with State Water Board Order WQ 2001-16.

- 4.5.2. **Antidegradation.** This Order complies with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16, which require that existing water quality be maintained unless degradation is justified based on specific findings. Where a receiving water is of higher quality than applicable water quality standards, the higher water quality must be maintained unless certain conditions are met. Any decrease in water quality must be consistent with the maximum benefit to the people of the State, will not unreasonably affect any current or anticipated beneficial uses, and will not result in lower quality than that prescribed in the policies. Activities that produce an increased volume or concentration of waste and that discharge to existing high quality waters must meet waste discharge requirements that will "result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained" (Resolution 68-16).

This Order does not authorize lowering water quality as compared to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increased flow or a reduced level of treatment relative to the previous order. In fact, section 4.3 of this Order requires the Discharger to maximize air stripper

treatment and wastewater diversions to the sanitary sewer, and establishes a new tetrachloroethylene technology-based effluent limitation based on Facility-specific treatment performance. In addition, effluent tetrachloroethylene concentrations are expected to decrease over the permit term due to upgradient groundwater cleanup efforts performed by other parties.

In contrast to the previous order, the revised tetrachloroethylene effluent limitation reflects the true performance of the Facility's treatment system while still ensuring water quality criteria will be met in Matadero Creek. Compliance with the new effluent limitation will not unreasonably affect current or anticipated beneficial uses because it is more stringent than the water quality-based effluent limitations calculated for the protection of water quality, including municipal and domestic water supply. It will not result in water quality less than prescribed in the Basin Plan.

- 4.5.3. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based requirements 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 RECEIVING WATER LIMITATIONS

The receiving water limitations in sections 5.1 and 5.2 of the Order are based on Basin Plan narrative and numeric water quality objectives. The receiving water limitation in section 5.3 of the Order requires compliance with federal and State water quality standards in accordance with the CWA and regulations adopted thereunder.

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

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.

In accordance with 40 C.F.R. section 123.25(a)(12), states may omit or modify conditions to impose more stringent requirements. Attachment G contains standard provisions that supplement the provisions in Attachment D. In lieu of the bypass monitoring requirements in Attachment G section 3.1.3.2.5, this Order imposes the requirements listed in MRP section 5 because the Discharger cannot reliably monitor combined wastewater effluent discharges in the stormwater culvert. This Order also 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.

6.2. 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 7.

6.3. 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.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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 Monitoring and Reporting Program (Attachment E) of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements.

Attachment E contains the MRP for this Order. It specifies sampling stations, 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.

7.1. Influent Monitoring

Influent flow monitoring is necessary to identify pollutants and determine pollutant loads entering the Facility, and to evaluate treatment performance.

7.2. Effluent Monitoring

Effluent flow monitoring is necessary to understand Facility operations. Monitoring for the other parameters is necessary to evaluate compliance with this Order's effluent limitations and to conduct future reasonable potential analyses.

7.3. Toxicity Monitoring

Acute toxicity monitoring is necessary to evaluate compliance with this Order's effluent limitations and to conduct future reasonable potential analyses.

7.4. Receiving Water Monitoring

Receiving water monitoring is necessary to characterize the receiving water and to conduct future reasonable potential analyses.

7.5. Bypass Monitoring

Bypass monitoring is necessary to evaluate compliance with this Order's effluent limitations during a bypass.

8. 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.

- 8.1. 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 at waterboards.ca.gov/sanfranciscobay.

- 8.2. 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, by email, or by mail to the attention of Marcos De la Cruz.

Written comments were due at the Regional Water Board office by 5:00 p.m. on **March 14, 2022**.

- 8.3. Public Hearing.** The Regional Water Board held a public hearing on the tentative Order during its regular meeting at the following date and time:

Date: **April 13, 2022**
Time: 9:00 a.m.
Contact: Marcos De la Cruz, (510) 622-2365,
marcos.delacruz@waterboards.ca.gov

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

Dates and venue can change. The Regional Water Board's web address is <https://www.waterboards.ca.gov/sanfranciscobay>, where one can access the current agenda for changes.

- 8.4. 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, section 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 [waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml).

- 8.5. 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 by making an appointment with the Regional Water Board's custodian of records. Document copying may be arranged by calling (510) 622-2300.

- 8.6. 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.
- 8.7. Additional Information.** Requests for additional information or questions regarding this Order should be directed to Marcos De la Cruz, (510) 622-2365, marcos.delacruz@waterboards.ca.gov.

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

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**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 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 No. 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. Expedient 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. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or 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 G-2 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 un-ionized 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 G-1:

$$\text{Dioxin-TEQ} = \sum (\text{Cx} \times \text{TEF}_x \times \text{BEF}_x)$$

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

Table G-1
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**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 PROVISION – 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:

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

or

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

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:

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

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):

$$\text{Removal Efficiency (\%)} = 100 \times [1 - (\text{Effluent Concentration} / \text{Influent Concentration})]$$

- 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 G-2
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	Trichloroethylene	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.

Appendix B Comments

In accordance with Section 11546.7 of the California Government Code, an electronic version of the comments received has not been posted online as it does not meet specified accessibility standards. For an electronic copy of the comments, please see the contact information provided in Fact Sheet section 8.7 of the Revised Tentative Order.

County of Santa Clara
Roads and Airports Department



101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

March 11, 2022

Via Electronic Mail

Marcos De la Cruz
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
marcos.delacruz@waterboards.ca.gov

Re: California Regional Water Quality Control Board San Francisco Bay
Region Tentative Order, County of Santa Clara, Oregon Expressway
Underpass, Santa Clara County, NPDES Permit CA0038784

Dear Mr. De la Cruz:

The County of Santa Clara ("County") is in receipt of the above-referenced Tentative Order for the National Pollution Discharge Elimination System ("NPDES") permit for the Oregon Expressway Underpass ("OEU") pump station ("OEU NPDES Permit") and hereby provides the following comments.

As an initial matter, the County thanks staff at the San Francisco Bay Regional Water Quality Control Board ("Regional Board") for their efforts in the development of the Tentative Order. The OEU pump station is a unique system that was constructed in the 1950s. It plays a critical role in protecting public health and safety by preventing roadway flooding. Its operation is subject to numerous constraints given its location and complicated intertwined network that simultaneously prevents flooding due to groundwater as well as stormwater and runoff. The draft Tentative Order recognizes the unusual circumstances and allows the County to continue to protect the public while also preventing negative impacts to the environment.

Please consider the below comments:

Comment 1

1. Section 4.1 - Discharges Containing PAHs Are Already Regulated And Therefore The Effluent Limits For These Parameters Should be Removed From This Permit

Section 4.1 of the Tentative Order identifies average monthly and maximum daily effluent limits for four Polycyclic Aromatic Hydrocarbons ("PAHs") (Benzo(a)pyrene,

Marcos De la Cruz

March 11, 2022

Benzo(k)fluoranthene, Chrysene, and Indeno (1,2,3-cd)pyrene). These parameters come from urban runoff (primarily sprinkler irrigation) from the Oregon Expressway, discharges already regulated by the California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (“Municipal Regional Stormwater Permit”).

As noted by the Municipal Regional Stormwater Permit, stormwater and irrigation-related runoff often contains PAHs:

Certain pollutants present in stormwater and/or urban runoff can be derived from extraneous sources over which the Permittees have limited or no direct jurisdiction. Examples of such pollutants and their respective sources are polycyclic aromatic hydrocarbons (PAHs), which are products of internal combustion engine operation and other sources; heavy metals, such as copper from vehicle brake pad wear and zinc from vehicle tire wear; dioxins as products of combustion; polybrominated diphenyl ethers that are incorporated in many household products as flame retardants; mercury resulting from atmospheric deposition; and naturally occurring minerals from local geology. All these pollutants, and others, can be deposited on paved surfaces, rooftops, and other impervious surfaces as fine airborne particles—thus yielding stormwater runoff pollution that is unrelated to the activity associated with a given project site. Municipal Regional Stormwater Permit, FINDINGS, No. 16 (emphasis added).

The Municipal Regional Stormwater Permit requires implementation of best management practices to minimize urban runoff and pollutant loading from irrigation-related activities and includes various monitoring requirements. See Municipal Regional Stormwater Permit, §§ C.15.b.vi, C.8. The County implements the best management practices and required monitoring identified in the Municipal Regional Stormwater Permit and it participates in the Santa Clara Valley Urban Runoff Pollution Prevention Program (“SCVURPPP”). SCVURPPP is an association of municipal entities involved in (1) implementing pollution prevention, source control, monitoring and outreach programs to reduce pollution in runoff, and (2) protecting water quality and beneficial uses of San Francisco Bay and Santa Clara Valley creeks and rivers. See <https://scvurppp.org/about-scvurppp/>. As part of its participation in SCVURPPP, the County also participates in the Bay Area Stormwater Management Agencies Association (“BASMAA”), which engages in numerous activities focused on improving the quality of stormwater flowing to local creeks, the Delta, San Francisco Bay, and the Pacific Ocean. See <https://basmaa.org/>.

The Tentative Order acknowledges that the OEU NPDES Permit does not affect the Municipal Regional Stormwater Permit:

Marcos De la Cruz
March 11, 2022

The Discharger is also regulated under NPDES Permit CAS612008 (Municipal Regional Stormwater Permit), which is currently issued through State Water Board Order R2-2015-0049, as amended by Order R2-02019-0004, and establishes requirements for stormwater and urban runoff discharges. This order does not affect that permit.
Tentative Order, Attachment F § 1.4.

PAHs have not been detected in groundwater upgradient of the wet well. Instead, the only identified source is the Oregon Expressway, due to vehicle traffic, asphalt and other sources of PAHs associated with roadways over which the County has no control. As discharges due to runoff from the Oregon Expressway already are regulated by the Municipal Regional Stormwater Permit, which prescribes limits by way of best management practices that are implemented by the County, the same discharges should not be regulated under the NPDES permit issued for operation of the OEU pump station. Therefore, the PAH limits should be removed.

Comment 2

2. **Section 6.3.1.3 – The Term “Translator” Should Be Clarified**

Please clarify that the term “translator” is referring to metals translators.

Comment 3

3. **Attachment F- “FACT SHEET,” Section 2.1 Should Identify Storm Pump Operations When Flow Exceeds POTW Diversion Capacity**

The second paragraph of Section 2.1 of Attachment F should note that storm pumps also activate when the amount of flow entering the wet well exceeds the County’s permitted capacity of 450 gallons per minute to discharge to the City of Palo Alto’s publicly owned treatment works (“POTW”). Water is diverted to the POTW when the air stripper is not functioning, such as when storm-related debris interferes with the system.

Comment 4

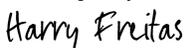
4. **Attachment G – “REGIONAL STANDARD PROVISIONS,” § 3.1.2 Should Reference Table G-2 Not Table G-1**

The reference to Table G-1 in Attachment G, Section 3.1.2 should be a reference to Table G-2.

The County appreciates the Regional Board’s consideration of the above comments. Please let me know if the Regional Board has any questions.

Very truly yours,

DocuSigned by:



Harry Freitas, Director

Roads & Airports Department, County of Santa Clara



Guadalupe-Coyote Resource Conservation District (GCRCD)

An independent special district of the State of California

Via e-mail

Gary Jahns, Ph.D.
President

March 14, 2022

Susan Hare
Vice-President

Marcos De la Cruz

Gail Bautista
Director

California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400

Rick Lanman, M.D.
Director

Oakland, CA 94612

marcos.delacruz@waterboards.ca.gov

Paula Quintero
Director

RE: Proposed Tentative Order for County of Santa Clara, Oregon Expressway Underpass,
NPDES Permit CA0038784

Roger Castillo
Associate Director
Director Emeritus

Dear Mr. De la Cruz:

Larry Johmann
Associate Director
Director Emeritus

The Guadalupe-Coyote Resource Conservation District (GCRCD) appreciates this opportunity to provide comments regarding the Tentative Order for Waste Discharge Requirements for the Oregon Expressway Underpass Facility (TO), operated by the County of Santa Clara (Permittee) and located at Oregon Expressway East and Alma Street Offramp South, Palo Alto, CA 94143. As an independent special district of the State of California dedicated to the conservation of natural resources in Santa Clara County, we are concerned that the proposed TO would permit potentially significant unmitigated impacts on the watershed. Although we recognize that there may not be a way to avoid untreated discharges in the near-term, we believe any such discharges should be subject to robust monitoring and mitigation measures, and that the RWQCB should pursue a long-term plan that minimizes or avoids untreated discharges within the watershed.

Bill Leikam
Associate Director
Director Emeritus

Mel Sarmiento
Associate Director

Kat Wilson
Associate Director

Stephanie Moreno
Executive Director
District Clerk

Nathan Hale
Program Manager

The following is a brief summary of issues we believe need to be addressed prior to the RWQCB authorizing the discharge of untreated flows: **Comment 1**

1. The proposed TO identifies six categories of beneficial uses related to wildlife habitat. It imposes only standard, instream monitoring requirements even though the intent of this permit to allow the Permittee to discharge untreated water to Matadero Creek during high water events. During these same high water events, Matadero Creek may flood, which we understand could cause the overflow channel that runs parallel to the Creek to discharge water into the floodplain. These marshy areas are home to many species, including the endangered salt marsh harvest mouse, which is endemic to the marshes of San Francisco Bay.¹ Additionally, there is gray fox occupying habitat at the John Fletcher Byxbee Recreation Area (also known as The Baylands) use Matadero Creek. It is not clear how the Permittee's proposed discharge of untreated groundwater in addition to the discharge of untreated or partially-treated stormwater runoff in

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¹ Salt Marsh Harvest Mice, Urban Development, and Rising Sea Levels; April 2005 *Conservation Biology*; 3(1):59 - 65

floodplain habitat will affect imperiled wildlife. While the proposed TO references the Permittee's obligations to separately comply with the Endangered Species Act, it is not clear how the proposed TO will facilitate such compliance or how the RWQCB will enforce it under the Water Code. We request that the RWQCB provide additional explanation for how this issue is addressed by the proposed TO, and that the RWQCB further consider specific monitoring requirements for fish and wildlife habitat beneficial uses be added to the proposed TO prior to adoption to address potential impacts from contaminants.

Comment 2 2. Untreated urban runoff also poses significant water quality threats to aquatic organisms due to the transport of microplastics, including tire debris from the wear and tear from tires. The relative contribution of tire wear and tear to the total global amount of plastics ending up in our oceans is estimated to be 5–10%.² Chemicals in run-off from tire microplastics has been shown to be toxic to fish, including salmonids, and other species.^{3,4} Again, it is not clear whether the proposed TO considered whether and to what extent the approval of the same level of discharge would cumulatively contribute to a lowering of water quality in Matadero Creek, and specifically adverse impacts to fish and wildlife habitat downstream or in adjacent floodplain habitat, given the concurrent impacts of stormwater runoff, which are separately permitted by RWQCB.

Comment 3 3. The three monitoring locations described in the proposed TO do not appear to be located optimally for monitoring impacts to downstream or floodplain habitat, particularly for discharges that bypass the treatment facility. We request that additional monitoring locations be added further downstream of the discharge to provide more comprehensive data on the impacts of untreated water on beneficial uses.

Comment 4 4. The Northwest County Recycled Water Strategic Plan⁵ indicated the Oregon Expressway site could supply an average of 350,000 gpd and up to 450,000 gpd (0.5 MGD) of additional water to the Regional Water Quality Control Plan using existing pumps and sewer infrastructure, and would likely be an acceptable additional supply for a potable reuse project. The technical memorandum further indicates that Oregon Expressway dewatering data shows that flows are typically higher in the spring and early summer. Conducting additional studies to determine feasibility were included in next steps. This potential project appears to be a more environmentally sound alternative to discharging untreated water to Matadero Creek due to facility limitations, yet is not mentioned in the proposed order. We request that the relationship of this proposed project to the proposed discharge be further explained and potentially investigated prior to adoption of the proposed TO. If the RWQCB decides to proceed with the TO prior to such investigation, we request that the alternative be referenced in the TO and that mitigation include Permittee's cooperation with and defined financial participation in the stated feasibility studies.

Comment 5 5. Time Schedule Order R2-2019-0016 (TSO) provided up to five years for the Permittee to develop and implement a plan to comply with the General Permit. As an alternative, the

² Kole, P. J., Löhr, A. J., Van Belleghem, F. G. A. J. & Ragas, A. M. J. Wear and Tear of Tyres: A Stealthy Source of Microplastics in the Environment. *Int J Environ Res Public Health* **14**, E1265 (2017).

³ Cunningham, B., Harper, B., Brander, S. & Harper, S. Toxicity of micro and nano tire particles and leachate for model freshwater organisms. *J Hazard Mater* **429**, 128319 (2022).

⁴ Tian, Z. *et al.* A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon. *Science* **371**, 185–189 (2021).

⁵ Technical Memorandum; Northwest County Recycled Water Strategic Plan; *Subject: Task 6.5 – Increasing Flow to RWQCP by Redirecting Existing Permanent Dewatering Systems to Sewers*; December 30, 2020

order indicated the Permittee could choose to apply for an individual NPDES permit with requirements tailored for its specific circumstances. The order further indicated that it included “new and increased monitoring requirements” to provide data needed to develop individual permit requirements. The proposed TO does not appear to reference the data that was intended to be produced by the TSO to guide individual permit issuance. We request that the RWQCB more clearly explain and report on the data that was collected and how it was used to inform permit requirements in the TO prior to its adoption.

Comment 6 6. The RWQCB Staff Summary Report for the TSO indicated the following: “The groundwater requires treatment because it contains volatile organic compounds (VOCs) that emanate from nearby historic industrial sources that are part of the Hewlett-Packard Superfund Site. We are addressing these sources under separate site cleanup requirements and the remedy is performing effectively. Unfortunately, the existing facility air stripping treatment system is insufficient to consistently reduce pollutant levels in groundwater to comply with the General Permit’s effluent limitations.” This appears to be crucial information that is not adequately addressed in the proposed TO. We request an explanation of the cumulative impact of these separate orders within the TO.

Comment 7 7. R2-2019-0016 is scheduled to be rescinded upon approval of the TO, “except for enforcement purposes.” The proposed TO does not appear to provide specific explanation for the how the TSO may be used for ongoing and/or proposed enforcement action to be taken against the Permittee. We request that information related to past, current and anticipated enforcement action as a result of discharges be provided in the TO.

Comment 8 8. The City of Palo Alto is considering possible renaturalization of a portion of Matadero Creek that would aim to enhance recreational, environmental and public safety benefits.⁶ We request that the TO consider potential environmental impacts from untreated discharges that could impact the success of that project.

Comment 9 9. The RWQCB finds that the proposed TO complies with the State’s antidegradation provisions because it “does not authorize lowering water quality as compared to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increased flow or a reduced level of treatment relative to the previous order.” Attachment F, p. F-22. Based on our review, the proposed TO does not show the RWQCB’s approval of the same level of discharge approved in 2018 will not contribute to a lowering of water quality in Matadero Creek. Water quality on Matadero Creek, particularly beneficial uses, are cumulatively affected by multiple discharges and activities that may have been added or modified since the previous order. For example, as indicated in the proposed TO, Matadero Creek also receives stormwater runoff from County facilities and other discharges from municipal treatment facilities. Accordingly, it is not self-evident that continuation of the level of discharge approved in 2018 will avoid degradation of water quality standards, particularly beneficial uses, of Matadero Creek based on current conditions. We request the RWQCB provide additional information to support the proposed finding that the approval of the discharge as proposed in the TO will comply with the State’s antidegradation provisions and will not cumulatively contribute to a lowering of water quality in Matadero Creek.

GCRCD respectfully requests that the RWQCB address these issues, including reconsidering the

⁶ City of Palo Alto; *Matadero Creek Renaturalization Conceptual Alternative Analysis*; September 2020

need for more robust monitoring and mitigation requirements to ensure adequate protection of beneficial uses related to fish and wildlife, prior to finalizing the TO for board action. Please feel free to contact me if you would like additional clarification or information regarding any of the issues identified in this letter.

Sincerely,

Stephanie Moreno

Stephanie Moreno

Executive Director

smoreno@gcrcd.org

Appendix C
Response to Comments

**California Regional Water Quality Control Board
San Francisco Bay Region**

RESPONSE TO WRITTEN COMMENTS

On the Tentative Order for
County of Santa Clara, Oregon Expressway Underpass, Palo Alto, Santa Clara County

The Regional Water Board received written comments on a tentative order distributed for public comment from the following:

1. County of Santa Clara (County), March 11, 2022
2. Guadalupe-Coyote Resource Conservation District (District), March 14, 2022

The comments are summarized below in *italics* (paraphrased for brevity), followed by a staff response. For the full content and context of the comments, please refer to the comment letters. To request a copy of the comment letters, see the contact information provided in Fact Sheet section 8.7 of the Revised Tentative Order.

Revisions are shown with ~~strikethrough~~ for deletions and underline for additions.

County of Santa Clara

County Comment 1: The County requests that we remove the effluent limits for the four polycyclic aromatic hydrocarbons (PAHs)—benzo(a)pyrene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene—because these parameters come from urban runoff, which is already regulated by the Municipal Regional Stormwater Permit (MRP). The County points out that these parameters have not been detected in groundwater upgradient of the Facility. The County asserts that it implements best management practices and monitoring required by the MRP to minimize urban runoff and pollutant loading from irrigation-related activities. The County opposes what it considers to be duplicate regulation. The County adds that it has no control over the source of PAHs.

Response

We disagree. There is no duplicate regulation. The MRP does not cover discharges of urban runoff commingled with contaminated groundwater. It only covers the County's stormwater, urban runoff discharges, and certain non-stormwater discharges. In accordance with 40 C.F.R. section 122.44(d)(1)(i), NPDES permits must include effluent limitations for all pollutants that are or may be discharged at levels that have reasonable potential to cause or contribute to an exceedance of a water quality standard. As explained in Fact Sheet (Attachment F) section 4.4.3.1 of the Revised Tentative Order, PAHs in the combined urban runoff and groundwater have reasonable potential to cause or contribute to exceedances of water quality standards. Thus, the Revised Tentative Order contains effluent limits. The County's previous order similarly contained effluent limitations for PAHs. The County is not expected to have trouble complying with the effluent limits because it has not detected PAHs above reporting levels. (See Monitoring and Reporting Program [Attachment E] section 6.2.6 of the Revised Tentative Order.)

County Comment 2: *The County requests that we clarify that the term “translator” in Provision 6.3.1.3 refers to metals translators.*

Response

We agree and revised Provision 6.3.1.3 as follows:

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

County Comment 3: *The County requests that we add language to Attachment F section 2.1 stating that when the air stripper is not operating, such as when storm-related debris interferes with the treatment system, flows that exceed the capacity to divert wastewater to the City of Palo Alto sanitary sewer collection system are routed through a separate conduit to the stormwater culvert and discharged without passing through the air stripper.*

Response

We disagree. The Revised Tentative Order does not automatically authorize routing wastewater around the air stripper due to lack of maintenance (e.g., interference of the air stripper caused by storm-related debris). However, Standard Provisions (Attachment D) section 1.7 of the Revised Tentative Order may allow such bypasses if the County can demonstrate that specific conditions are met.

County Comment 4: *The County requests that we correct a typographical error in Attachment G, section 3.1.2.*

Response

We agree and revised Attachment G section 3.1.2 as follows:

Minimum Levels. For the 126 priority pollutants, the Discharger should use the analytical methods listed in Table ~~G-1~~ G-2 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.

Guadalupe-Coyote Resource Conservation District

District Comment 1: *The District is concerned about the impact of the discharge on wildlife, specifically during intense storms, when the portion of the combined wastewater exceeding the air stripper capacity is routed through a separate conduit to the stormwater culvert and discharged without passing through the air stripper. The District requests that we consider adding monitoring requirements to ensure that the fish and wildlife habitat beneficial uses are protected. The District also requests that we clarify how the permit will facilitate compliance with the Endangered Species Act.*

Response

The Revised Tentative Order establishes requirements that ensure that water quality standards are met at the discharge point. These include effluent limits that implement

water quality criteria protective of Matadero Creek beneficial uses, including fish spawning, fish migration, preservation of rare and endangered species, cold freshwater habitat, warm freshwater habitat, and wildlife habitat. Compliance with the effluent limits will be determined at a monitoring location far upstream of the discharge point; additional receiving water monitoring downstream of the discharge is unnecessary to assess discharge impacts and ensure beneficial uses are protected.

The Regional Water Board is not responsible for enforcing the California Endangered Species Act or Federal Endangered Species Act. Fact Sheet section 3.3.8 of the Revised Tentative Order explains that this permit does not allow acts prohibited by these laws.

District Comment 2: *The District asks whether the tentative order accounts for microplastics (e.g., from vehicle tire wear and tear) and their effects on water quality, fish, and wildlife habitat in and adjacent to Matadero Creek, and requests that we consider the cumulative impacts of the discharge given the concurrent impacts of separately regulated stormwater runoff.*

Response

Microplastics are an evolving water quality concern. At this time, it is unclear whether and how NPDES permits should address them. The State Water Resources Control Board recently adopted a definition of microplastics for drinking water and is collaborating with others to develop a Statewide Microplastics Strategy. Because the amount of urban runoff and stormwater in the discharge is small relative to the amount discharged elsewhere in the watershed, the contribution of this discharge to any cumulative impact is insignificant.

District Comment 3: *The District states that the monitoring locations are not optimally located to monitor impacts to downstream or floodplain habitat. The District requests that we add downstream monitoring locations.*

Response

We disagree. The effluent limitations in the Revised Tentative Order were crafted to maintain water quality standards in receiving waters. The required influent and effluent monitoring is sufficient to evaluate compliance with the effluent limits. Additional downstream monitoring would serve no purpose. See our response to District Comment 1.

District Comment 4: *The District points out that the City of Palo Alto and Santa Clara Valley Water District's "Northwest County Recycled Water Strategic Plan" indicates that the County could potentially divert more wastewater from the Oregon Expressway underpass to the sanitary sewer collection system to increase recycled water supply. The District believes this is more environmentally sound than discharging to Matadero Creek. The District requests that we investigate this alternative prior to adoption of the Revised Tentative Order. The District also requests that we require the County's cooperation with, and financial participation in, related feasibility studies.*

Response

While we fully support water recycling, this NPDES permit is not an appropriate vehicle to force the County to cooperate with, or financially participate in, recycled water feasibility studies. The Revised Tentative Order responds to the County’s specific application to discharge and contains requirements as necessary to maintain water quality standards.

***District Comment 5:** The District requests that we clarify how monitoring data collected pursuant to Time Schedule Order R2-2019-0016 was used to inform the tentative order.*

Response

The Revised Tentative Order requirements are based on monitoring data collected pursuant to the Time Schedule Order from May 2019 through April 2020, and monitoring data collected pursuant to the previous order from January 2019 through June 2021. Fact Sheet sections 4.3.2 and 4.4.3 describe how we used these monitoring data to evaluate the need for and to calculate effluent limits.

***District Comment 6:** Pointing to language in Time Schedule Order R2-2019-0016, the District says the tentative order needs to address the fact that the air stripper is insufficient to consistently reduce pollutant levels to comply with the previous order.*

Response

The Revised Tentative Order addresses this point by superseding the County’s enrollment under the previous general order and imposing more appropriate technology-based effluent limitations, discussed in Fact Sheet section 4.3.2.

***District Comment 7:** The Revised Tentative Order would rescind Time Schedule Order R2-2019-0016 “except for enforcement purposes.” The District would like to understand how the Time Schedule Order might be used for enforcement and requests information related to past, current, and anticipated enforcement be included in the tentative order*

Response

There are no past or pending enforcement actions related to Time Schedule Order R2-2019-0016. We do not anticipate the need to enforce the Time Schedule Order, but the language in question preserves our ability to do so.

***District Comment 8:** The District states that the City of Palo Alto may renaturalize a segment of Matadero Creek to enhance recreational, environmental, and public safety benefits. The District requests that we consider the impact of the discharge on the success of this project.*

Response

The discharge would not adversely affect the project because the Revised Tentative Order imposes requirements to ensure that the discharge does not contribute to any exceedances of water quality standards. See our response to District Comment 1.

***District Comment 9:** The District states that the tentative order does not demonstrate that the discharge will not lower water quality in Matadero Creek when compared to the*

level of discharge authorized in the previous order. The District points out that there have been multiple new or modified discharges and activities that impact Matadero Creek; therefore, approving the same level of discharge may no longer be protective.

Response

We disagree. The Revised Tentative Order is based on recent discharge and receiving water monitoring data reflecting current creek conditions. It establishes requirements, including maximizing air stripper treatment and wastewater diversions to the sanitary sewer system, that ensure that the discharge will not lower water quality or otherwise cause or contribute to exceedances of water quality standards, including protection of Matadero Creek's beneficial uses. Other Matadero Creek discharges, including some that may be new or modified, are also subject to NPDES permit requirements that protect water quality and comply with applicable antidegradation provisions.