



San Francisco Bay Regional Water Quality Control Board

ORDER No. R2-2020-0028
NPDES No. CAG982001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR
Discharges from Aggregate Mining, Marine Sand Washing, and Sand Offloading Facilities

Table 1. Administrative Information

Table with 2 columns and 7 rows containing administrative details such as adoption date, effective date, expiration date, CIWQS numbers, and permit classification.

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

Michael Montgomery, Executive Officer

## Contents

I. Scope of General Permit.....	3
II. Findings.....	3
III. Discharge Prohibitions .....	4
IV. Effluent Limitations and Discharge Specifications.....	4
V. Receiving Water Limitations.....	6
VI. Provisions .....	7
A. Standard Provisions .....	7
B. Monitoring and Reporting .....	7
C. Special Provisions .....	8
1. Reopener Provisions.....	8
2. Application for General Permit Coverage and Authorization to Discharge .....	8
3. Construction, Operation, and Maintenance Specifications .....	10
4. Best Management Practices Plan .....	11

## Tables

Table 1. Administrative Information .....	1
Table 2. Aggregate Mining Facility Effluent Limitations .....	4
Table 3. Marine Sand Washing Facility Effluent Limitations .....	5
Table 4. Marine Sand Washing Facility Mercury Effluent Limitations .....	5
Table 5. Marine Sand Washing Facility PCBs Effluent Limitations.....	5
Table 6. Sand Offloading Facility Effluent Limitations .....	6
Table 7. Stormwater Action Levels .....	13

## Attachments

Attachment A – Definitions .....	A-1
Attachment B – Notice of Intent Form .....	B-1
Attachment C – Notice of Intent Form for Industrial Stormwater.....	C-1
Attachment D – Federal Standard Provisions.....	D-1
Attachment E – Monitoring and Reporting Program (MRP).....	E-1
Attachment F – Fact Sheet.....	F-1

## I. SCOPE OF GENERAL PERMIT

These Waste Discharge Requirements (WDRs) serve as an NPDES General Permit for discharges from aggregate mining, marine sand washing, and sand offloading facilities to surface waters, such as creeks, streams, rivers (including flood control canals), lakes, or San Francisco Bay. This General Permit covers the following discharges:

1. Aggregate mining, marine sand washing, and sand offloading facility wastewater discharges;
2. Stormwater from aggregate mining, marine sand washing, and sand offloading facilities commingled with other wastewater from such facilities; and
3. Stormwater runoff from aggregate mining, marine sand washing, and sand offloading facilities that also have coverage for wastewater discharges.

This General Permit does not cover:

1. Discharges to sanitary sewer systems;
2. Sanitary wastewater (sewage);
3. Discharges to the Pacific Ocean; or
4. Discharges covered under an individual NPDES permit or WDRs.

Fact Sheet (Attachment F) sections I and II provide additional information describing covered discharges.

## II. FINDINGS

The Regional Water Board finds:

- A. Legal Authorities.** This Order serves as WDRs pursuant to California Water Code (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).
- B. Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on 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 are also incorporated into this Order.
- C. Notification of Interested Parties.** The Regional Water Board notified prospective enrollees and interested agencies and persons of its intent to prescribe these WDRs and provided an opportunity to submit written comments and recommendations. The Fact Sheet provides details regarding the notification.
- D. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharges. The Fact Sheet provides details regarding the public hearing.

**THEREFORE, IT IS HEREBY ORDERED** that Order No. R2-2015-0035 (previous order) is rescinded upon the effective date of this Order, except for enforcement purposes, and in order to meet the provisions of Water Code division 7 (commencing with § 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, Dischargers

authorized to discharge pursuant to this Order shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous order.

### III. DISCHARGE PROHIBITIONS

- A. Discharge of waste at a location or in a manner different than described in an NOI and Authorization to Discharge is prohibited.
- B. Discharge of sanitary wastewater (sewage) is prohibited.
- C. Bypassing wastewater around retention ponds is prohibited.

### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

#### A. Effluent Limitations for Aggregate Mining Facilities

Discharge from each aggregate mining facility outfall, as defined in the NOI and Authorization to Discharge, shall comply with the following effluent limits, with compliance measured at Monitoring Location EFF-00*n* as described in the Monitoring and Reporting Program (MRP) (Attachment E):

**Table 2. Aggregate Mining Facility Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Suspended Solids (TSS)	mg/L	30	45	-	-	-
Turbidity	NTU	-	-	40	-	-
Settleable Matter	mL/L-hr	0.1	-	0.2	-	-
pH <sup>[1]</sup>	s.u.	-	-	-	6.5	8.5
Total Residual Chlorine <sup>[2]</sup>	mg/L	-	-	-	-	0.0
Acute Toxicity <sup>[3]</sup>	%	-	-	-	70	-
Benzo(b)Fluoranthene	µg/L	0.0044	-	0.0088	-	-

Abbreviations:

- µg/L = micrograms per liter
- mg/L = milligrams per liter
- mL/L-hr = milliliters per liter-hour
- NTU = nephelometric turbidity units
- % = percent
- s.u. = standard units

Footnotes:

- <sup>[1]</sup> Exceedance of the pH limit will not constitute a violation of this Order if the Discharger can demonstrate (e.g., through upstream and downstream receiving water monitoring) that the discharge does not cause the natural background pH of the receiving water to be depressed below 6.5 nor raised above 8.5, or, if outside this range, the natural background pH of the receiving water has not been altered by more than 0.5 standard units. In no case shall the effluent pH be below 6.0 or above 9.0.
- <sup>[2]</sup> The total residual chlorine limit applies only to facilities that use potable water supply as wash water.
- <sup>[3]</sup> A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

#### B. Effluent Limitations for Marine Sand Washing Facilities

- 1. Discharge from each marine sand washing facility discharge outfall, as defined in the NOI and Authorization to Discharge, shall comply with the following effluent limits, with compliance measured at Monitoring Location EFF-00*n* as described in the MRP:

**Table 3. Marine Sand Washing Facility Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Turbidity	NTU	-	-	50	-	-
Settleable Matter	mL/L-hr	0.1	-	0.2	-	-
pH <sup>[1]</sup>	s.u.	-	-	-	6.5	8.5
Total Residual Chlorine <sup>[2]</sup>	mg/L	-	-	-	-	0.0
Acute Toxicity <sup>[3]</sup>	%	-	-	-	70	-
Copper	µg/L	5.4	-	11	-	-
4,4'-DDT	µg/L	0.00059	-	0.0012	-	-
4,4'-DDE	µg/L	0.00059	-	0.0012	-	-

Abbreviations:

µg/L = micrograms per liter  
 mg/L = milligrams per liter  
 mL/L-hr = milliliters per liter-hour  
 NTU = nephelometric turbidity units  
 % = percent  
 s.u. = standard units

Footnotes:

- <sup>[1]</sup> Exceedance of the pH limit will not constitute a violation of this Order if the Discharger can demonstrate (e.g., through upstream and downstream receiving water monitoring) that the discharge does not cause the natural background pH of the receiving water to be depressed below 6.5 nor raised above 8.5, or, if outside this range, the natural background pH of the receiving water has not been altered by more than 0.5 standard units. In no case shall the effluent pH be below 6.0 or above 9.0.
- <sup>[2]</sup> The total residual chlorine limit applies only to facilities that use potable water supply as wash water.
- <sup>[3]</sup> A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

2. Discharge from each marine sand washing facility shall comply with the following mercury and PCBs effluent limits, unless and until a watershed permit (e.g., NPDES Permit No. CA0038849) covers mercury and PCBs discharges from such facilities. Compliance shall be determined for all discharge outfalls combined for each Discharger, as defined in the NOI and Authorization to Discharge, with compliance measured at Monitoring Location EFF-00*n* as described in the MRP:

**Table 4. Marine Sand Washing Facility Mercury Effluent Limitations**

Facility	Annual Maximum (kilograms/ year) <sup>[1]</sup>
Hanson Aggregates, Amador Street, San Francisco	0.000005
Hanson Aggregates, Tidewater Avenue, Oakland	0.000005
Other facilities	0.000000

Footnote:

- <sup>[1]</sup> Compliance with the mercury effluent limit is determined annually for each Discharger each calendar year and is attained if the sum of mercury emissions for the Dischargers covered by this Order plus those from all industrial dischargers subject to NPDES Permit No. CA0038849 is not greater than 1.0 kilogram. If the sum of all these emissions is greater than 1.0 kilogram, a Discharger whose mercury emissions exceed the annual maximum limit in Table 4 shall be deemed to be in violation. Not Detected (ND) results shall be treated as half the method detection limit in calculations. (Relevant calculations are described in Order No. R2-2017-0041, Table 5A, footnote 1.)

**Table 5. Marine Sand Washing Facility PCBs Effluent Limitations**

Facility	Annual Maximum (kilograms/ year) <sup>[1,2]</sup>
Hanson Aggregates, Amador Street, San Francisco	0.00003
Hanson Aggregates, Tidewater Avenue, Oakland	0.00003
Other facilities	0.00000

Footnotes:

- [1] Aroclor monitoring using U.S. EPA Method 608 shall be used to assess compliance with the above limits.
- [2] Compliance with these limits shall be determined by summing the annual loads for each facility outfall. The annual loads shall be calculated as the average concentration measured during the year multiplied by the total annual flow. Detected, but Not Quantified (DNQ) and/or Not Detected (ND) results shall be treated as zeros in the calculation of total PCBs.

**C. Effluent Limitations for Sand Offloading Facilities**

Discharge from each sand offloading facility discharge outfall, as defined in the NOI and Authorization to Discharge, shall comply with the following effluent limits, with compliance measured at Monitoring Location EFF-00*n* as described in the MRP:

**Table 6. Sand Offloading Facility Effluent Limitations**

Parameter	Units	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Settleable Matter	mL/L-hr	1.0	-	-
pH <sup>[1]</sup>	s.u.	-	6.5	8.5

Abbreviations:

mL/L-hr = milliliters per liter-hour  
s.u. = standard units

Footnote:

- [1] Exceedance of the pH limit will not constitute a violation of this Order if the Discharger can demonstrate (e.g., through upstream and downstream receiving water monitoring) that the discharge does not cause the natural background pH of the receiving water to be depressed below 6.5 nor raised above 8.5, or, if outside this range, the natural background pH of the receiving water has not been altered by more than 0.5 standard units. In no case shall the effluent pH be below 6.0 or above 9.0.

**V. RECEIVING WATER LIMITATIONS**

**A.** Discharges shall not cause or contribute to the following conditions in receiving waters at any place:

1. Floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses;
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;
3. Suspended material in concentrations that cause nuisance or adversely affect beneficial uses;
4. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
5. Alteration of temperature beyond present natural background levels;
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 NTU, or above 55 NTU in areas where natural turbidity is less than or equal to 50 NTU;
7. Coloration that causes nuisance or adversely affects beneficial uses;

8. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or
  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.
- B.** Discharges shall not cause the following limits to be exceeded in receiving waters at any place within one foot of the water surface:

**1. Dissolved Oxygen**

- a.** For San Francisco Bay and tidal water, the following limitations shall apply:

Downstream of Carquinez Bridge: 5.0 mg/L, minimum

Upstream of Carquinez Bridge: 7.0 mg/L, minimum

- b.** For non-tidal waters, the following limitations shall apply:

Cold habitat waters: 7.0 mg/L, minimum

Warm habitat waters: 5.0 mg/L, minimum

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

- 2. Dissolved Sulfide.** Dissolved sulfide shall not exceed natural background levels (0.1 mg/L maximum).

- 3. pH.** Receiving water pH shall not be depressed below 6.5 nor raised above 8.5. Moreover, discharges shall not change normal ambient pH more than 0.5 pH units.

- C.** Discharges shall not cause or contribute to 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. 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.

## **VI. PROVISIONS**

### **A. Standard Provisions**

The Discharger shall comply with all “Standard Provisions” in Attachment D.

### **B. Monitoring and Reporting**

The Discharger shall comply with the MRP and future revisions thereto, and applicable sampling and reporting requirements in Attachment D. The Executive Officer may specify additional monitoring requirements in the Authorizations to Discharge.

## C. Special Provisions

### 1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

- a. 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.
- b. If new or revised water quality standards 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 standards and wasteload allocations in the TMDLs. Adoption of the effluent limitations in this Order is not intended to restrict in any way future modifications based on legally-adopted water quality standards or TMDLs or as otherwise permitted under federal regulations governing NPDES permit modifications.
- c. If translator, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified.
- d. If State Water Board precedential decisions, new policies, new laws, or new regulations are adopted.
- e. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to those applicable to these discharges.
- f. Or as otherwise authorized by law.

A Discharger may request a permit modification based on any of the circumstances above. With any such request, the Discharger shall include antidegradation and anti-backsliding analyses.

### 2. Application for General Permit Coverage and Authorization to Discharge

- a. **Notice of Intent.** A prospective discharger seeking Authorization to Discharge pursuant to this Order shall complete and submit the NOI form in Attachment B (and Attachment C, if applicable). Dischargers authorized to discharge under the previous order that also submitted an NOI at the end of the previous order term need not submit a new NOI form. The Executive Officer may modify the NOI forms in Attachments B and C or require additional information prior to authorizing any discharge.
- b. **Facility Modifications.** At least 30 days prior to any significant facility modification (e.g., changes in treatment storage or location of ponds and outfalls), the Discharger proposing the modification shall submit a modified NOI form (e.g., a mark-up of the original NOI form showing all changes and including a new signature and date). The Discharger shall include a transmittal letter describing the changes, their purpose, when



they are to go into effect, and any new or different measures taken or planned to prevent potential non-compliance with this Order's requirements.

- c. NOI Review.** Upon receipt of a complete NOI for a proposed discharge (or a modified NOI for an existing discharge), the Executive Officer will review the application to determine whether the proposed Discharger is eligible to discharge under this Order.
- d. Authorization to Discharge.** If the Executive Officer concludes that a proposed discharge is eligible for coverage under this Order, the Executive Officer will issue an Authorization to Discharge (or a modified Authorization to Discharge, if appropriate). Upon the effective date of the Authorization to Discharge, the Discharger shall comply with the requirements of this Order and its attachments. Any non-compliance with this Order's requirements shall constitute a violation of the CWA and Water Code and may be grounds for enforcement; termination, revocation and reissuance, or modification of the Authorization to Discharge; issuance of an individual permit; or denial of an application for reissuance.
- e. Application to Extend Coverage.** A Discharger that intends to continue discharging after the expiration date stated on the first page of this Order shall file a new NOI form no later than March 31, 2025.
- f. Discharge Termination.** A Discharger may terminate its coverage under this Order by submitting a letter rescinding its Authorization to Discharge and stating the reason for termination. The Executive Officer may also terminate or revoke coverage under this Order for any of the causes specified for an individual permit as set forth in 40 C.F.R. section 122.28(b)(3). After providing notice and an opportunity for a hearing, coverage under this Order may be terminated or modified for cause, including, but not limited to, the following:

  - i.** Violation of any term or condition of this Order;
  - ii.** Misrepresentation or failure to disclose all relevant facts in obtaining coverage under this Order; or
  - iii.** Change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- g. Continuation of Expired Permit.** This Order continues in force and effect until the effective date of the new permit or it is rescinded. Only those Dischargers authorized to discharge prior to the expiration date on the first page of this Order may continue to discharge under the continued Order.
- h. Need for Individual NPDES Permit.** The Executive Officer may require any Discharger authorized to discharge pursuant to this Order to subsequently apply for and obtain an individual NPDES permit in the following circumstances:

  - i.** The Discharger is not in compliance with the requirements of this Order;
  - ii.** A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants from the facility;

- iii. Effluent limitation guidelines are promulgated for the discharges covered by this Order;
- iv. A new or revised water quality control plan containing requirements applicable to the discharge is approved;
- v. The requirements of 40 C.F.R. section 122.28(a) (the circumstances under which the Regional Water Board is authorized to issue a general permit) are not met; or
- vi. Any other condition specified in 40 C.F.R. section 122.28(b)(3) is met.

### **3. Construction, Operation, and Maintenance Specifications**

#### **a. Wastewater Facilities Review and Evaluation, and Status Reports**

- i. The Discharger shall operate and maintain wastewater treatment facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded, as necessary, in order to provide adequate and reliable treatment and disposal of all wastewater and to ensure all best management practices (BMPs) are implemented.
- ii. The Discharger shall regularly review and evaluate its wastewater facilities and operational practices in accordance with the paragraph above. The Discharger shall conduct these reviews and evaluations as an ongoing component of the administration of its wastewater facilities.
- iii. The Discharger shall provide the Executive Officer, upon request, a report describing the current status of wastewater facilities and operational practices, including any recommended or planned actions and a time schedule for these actions.
- iv. The Discharger shall describe its review and evaluation procedures, and applicable wastewater facility programs or capital improvement projects, in each annual self-monitoring report required by MRP section VII.B.2.b.iv.

#### **b. Operations and Maintenance Manual Review and Status Reports**

- i. The Discharger shall maintain Operations and Maintenance Manuals for its wastewater facilities in usable condition and make them available for reference and use by all relevant personnel and Regional Water Board staff.
- ii. The Discharger shall regularly review, and revise or update as necessary, its Operations and Maintenance Manuals so that they remain useful and relevant to current equipment and operational practices. In the event of any significant changes in treatment facility equipment or operational practices, the Discharger shall complete revisions within 90 days of completing such changes.
- iii. The Discharger shall provide the Executive officer, upon request, a report describing the current status of its Operation and Maintenance Manuals, including any recommended or planned actions and a time schedule for these actions.

- iv. The Discharger shall describe its review and evaluation procedures, and applicable changes to its Operations and Maintenance Manuals, in each annual self-monitoring report required by MRP section VII.B.2.b.v.

#### 4. Best Management Practices Plan

The Discharger shall prepare and implement a BMPs Plan that describes steps to ensure that discharges will not adversely affect receiving waters. The Discharger shall submit the BMPs Plan with its NOI form and implement it upon receipt of an Authorization to Discharge. The BMPs Plan shall be retained onsite, revised as necessary to maintain compliance with this Order, and made available upon request of any Regional Water Board representative. The Executive Officer may require additional pollutant control and treatment measures if existing measures are found to be inadequate to control pollutant discharges.

The BMPs Plan shall address potential discharges from all discharge points and must include the following elements:

- a. **Facility Characterization.** Identify the type of facility (e.g., aggregate mining, marine sand washing, or sand offloading), materials, equipment, and products associated with its operations.
- b. **Potential Pollutants.** Assess all individual activities conducted at the site, potential pollutant sources associated with each activity, and the nature of the pollutants that could be discharged, including but not limited to the following:
  - i. Soil, sediment, or silt from rock and sand washing;
  - ii. Discharges associated with equipment operations and maintenance, including but not limited to conveyor belts spilling over creeks, leaks, and spills;
  - iii. Debris; and
  - iv. Alkaline materials from cement mix operations.
- c. **BMP Identification.** Describe the BMPs to be implemented at the site to control pollutant discharges. BMPs shall be identified and described for each potential pollutant source, including the anticipated effectiveness of each BMP. Dischargers shall consider, and include as appropriate, the following:
  - i. **Preventative BMPs** – measures to reduce or eliminate the generation of pollutants and waste, including measures to prevent leaks and spills.
  - ii. **Control BMPs** – measures to control or manage pollutants and waste after they are generated and before they come into contact with water, including measures to contain dust and particulate material.
  - iii. **Response to Release BMPs** – measures to respond to leaks, spills, and other releases with containment, control, and cleanup measures to prevent or minimize the potential for pollutant discharge and any adverse effects of such discharge.

The BMPs Plan shall address the following activities, if applicable:

- Control of large solid materials;
- Oil, grease, and fuel transfer;
- Dust and overspray;
- Segregation of water from debris;
- Material and waste storage;
- Discharges resulting from wind, and site runoff;
- Leaks and spills;
- Waste disposal; and
- Other activities with potential to result in the discharge of wastes or pollutants to the receiving water.

**d. Additional Stormwater BMPs.** If the Discharger received authorization for its non-commingled industrial stormwater discharges, the BMPs Plan shall also address the following objectives:

**i. Identify Pollutants.** Identify and evaluate all pollutant sources that may affect stormwater discharge quality.

**ii. Stormwater BMPs.** Select, design, install, and maintain BMPs that reduce or prevent discharges of pollutants in stormwater, including, at a minimum, the following:

- Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm.
- Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper) that can be transported or dispersed by the wind or contact with stormwater.
- Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use.
- Divert run-on and stormwater generated from within the facility away from all stockpiled materials.
- Clean all spills of industrial materials or wastes that occur during handling in accordance with spill response procedures.
- Prevent disposal of any rinse/wash waters or industrial materials into the stormwater conveyance system.
- Minimize stormwater discharges from non-industrial areas (e.g., stormwater flows from employee parking areas) that contact industrial areas of the facility,
- Minimize authorized non-stormwater discharges from non-industrial areas (e.g., potable water, fire hydrant water) that contact industrial areas of the facility.

- Implement effective wind erosion controls, and provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to forecasted storms.
- Maintain effective perimeter controls and stabilize site entrances and exits to sufficiently control discharges of erodible materials, and divert run-on and stormwater generated from within the facility away from erodible materials.

**iii. Stormwater Monitoring and Action Levels.** The Discharger shall monitor its non-commingled industrial stormwater for the following parameters as described in the MRP:

**Table 7. Stormwater Action Levels**

Parameter	Units	Action Level
pH	s.u.	6.0-9.0 <sup>[1]</sup>
TSS	mL/L-hr	100
Oil & Grease	mg/L	15
Iron, Total <sup>[2]</sup>	mg/L	1.0
Nitrate + Nitrite (as Nitrogen) <sup>[3]</sup>	mg/L as N	0.68

Abbreviations:

mL/L-hr = milliliters per liter-hour  
mg/L = milligrams per liter  
s.u. = standard units

Footnotes:

- <sup>[1]</sup> Values below or above this range require action.  
<sup>[2]</sup> Applicable only to facilities with Standard Industrial Classification (SIC) code 144X (Sand and Gravel).  
<sup>[3]</sup> Applicable only to facilities with SIC code 327X (except 3274) (Concrete, Gypsum, Plaster Products).

Upon measurement of a pollutant at Monitoring Location STW-00n as described in the MRP in excess or out of range of an action level above, the Discharger shall review the BMPs Plan to identify appropriate modifications to existing BMPs or additional BMPs as necessary to reduce pollutant discharge concentrations to levels below or within the range of the action level. The Discharger shall revise the BMPs Plan accordingly before the next storm, if possible, or as soon as practical, and in no event later than three months following the exceedance.

If, upon subsequent monitoring, the pollutant measured at Monitoring Location STW-00n continues to exceed the action level above, the Discharger shall further evaluate its BMPs and update its BMPs Plan accordingly. Enhanced BMPs may include exposure minimization BMPs (e.g., shelters that prevent stormwater contact with industrial materials or activities), stormwater containment or discharge reduction BMPs (e.g., BMPs that divert, infiltrate, reuse, contain, retain, or reduce stormwater runoff volumes), or treatment control BMPs (e.g., mechanical, chemical, biological, or other treatment technologies). BMP enhancement shall continue until either the pollutant measured at Monitoring Location STW-00n is maintained below or within the range of the action level above or the Discharger has implemented all technically and economically-achievable control measures. In any case, the Discharger shall document its actions within its Annual Stormwater Report required by MRP section VII.B.2.c.

- e. Annual Evaluation.** Review and update the effectiveness and adequacy of the BMPs Plan as often as necessary and at least once each calendar year. The Discharger shall update the BMPs Plan as appropriate, and describe any revisions in each annual self-monitoring report required by MRP section VII.B.2.b.vi.

## ATTACHMENT A – DEFINITIONS

### **Arithmetic Mean ( $\mu$ )**

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

$$\text{Arithmetic mean} = \mu = \Sigma x / n \quad \text{where: } \Sigma x \text{ is the sum of the measured ambient water concentrations, and } n \text{ is the number of samples.}$$

### **Average Monthly Effluent Limitation (AMEL)**

The highest allowable average 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)**

The 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 surroundings medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

### **Carcinogenic**

Known to cause cancer in living organisms.

### **Daily Discharge**

Either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) 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 the constituent over the 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 result 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 by conducting a mixing zone study or modeling the discharge and receiving water.

### **Enclosed Bay**

Indentation along the coast that encloses an area of oceanic water within a 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 the substance below the ML value 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 are 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 include, 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 do not include 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 set of data. The median of a set of data 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, Attachment B.

**Minimum Level (ML)**

Concentration at which the entire analytical system gives 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.

**Pollution Prevention**

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

**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. 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 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 having a municipal or domestic supply (MUN) beneficial use.

### ATTACHMENT B – NOTICE OF INTENT FORM

This **NOTICE OF INTENT** form shall be completed and submitted to apply for NPDES Permit No. CAG982001, authorizing discharges from aggregate mining, marine sand washing, and sand offloading facilities to waters of the United States.

#### I. OWNER INFORMATION AND CERTIFICATION

This certification shall be signed in accordance with Attachment D section V.B.2. The Discharger hereby agrees to comply with and be responsible for all conditions specified in NPDES Permit No. CAG982001.

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).)		
<b>Signature</b>	<b>Date</b>	
<b>Printed Name</b>	<b>Title</b>	
<b>Company / Organization</b>	<b>Facility Owner Type (Check One)</b>	
	<input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Other, specify type:	
<b>Facility Street Address</b>		
<b>City, County</b>	<b>State</b>	<b>Zip Code</b>
<b>Contact Person Name and Title</b>		
<b>Contact Person Email</b>	<b>Contact Person Phone No.</b>	

Check here if additional owners information is attached to this form.

**II. DULY AUTHORIZED REPRESENTATIVE**

**Duly Authorized Representative:** The following individual (or any individual occupying the position listed below) may act as the facility’s duly authorized representative and may sign and certify submittals in accordance with Attachment D section V.B.3.a-c. This individual shall be responsible for the overall operation of the facility or for facility environmental matters.

<b>Name and Title</b>	
<b>Company / Organization</b>	
<b>Email</b>	<b>Phone Number</b>

Check here if information for additional duly authorized representatives is attached to this form.

**III. BILLING INFORMATION**

<b>Name</b>		
<b>Mailing Street Address</b>		
<b>City</b>	<b>State</b>	<b>Zip Code</b>
<b>Contact Person’s Name</b>		
<b>Contact Person’s Email</b>	<b>Contact Person Phone No.</b>	

**IV. DISCHARGE TYPE**

<p><b>Select One:</b></p> <p><input type="checkbox"/> Aggregate Mining Facility</p> <p><input type="checkbox"/> Marine Sand Washing Facility</p> <p><input type="checkbox"/> Sand Offloading Facility</p>	<p><b>Select One:</b></p> <p><input type="checkbox"/> New Facility</p> <p><input type="checkbox"/> Previously Permitted Facility</p>
---	--

**V. DISCHARGE POINTS AND RECEIVING WATERS**

Discharge Point	Latitude	Longitude	Receiving Water Name
<b>001</b>			
<b>002</b>			
<b>003</b>			
<b>004</b>			

\*If discharging to a storm drain system, attach documentation indicating approval to discharge from the agency responsible for the system.

Check here if information for additional outfalls is attached to this form.

**VI. EFFLUENT DESCRIPTION**

<p><b>Describe discharges and potential pollutants. Attach additional sheets if needed.</b></p>	
<p><b>Discharge Types</b></p> <p><input type="checkbox"/> Settling pond overflow</p> <p><input type="checkbox"/> Commingled stormwater</p> <p><input type="checkbox"/> San Francisco Bay water from sand piles</p> <p><input type="checkbox"/> Wash or screening water (specify source water composition (e.g., potable water, X%))</p> <p><input type="checkbox"/> Other, specify:</p>	<p><b>Discharge Frequency</b></p> <p><input type="checkbox"/> Continuous</p> <p><input type="checkbox"/> Daily</p> <p><input type="checkbox"/> Intermittent</p> <p><input type="checkbox"/> Emergency</p>
<p><b>Average daily discharge flow (gallons/day)</b></p>	<p><b>Maximum daily discharge flow (gallons/day)</b></p>

## VII. MONITORING DATA

Summarize or submit all monitoring data collected during the past five years, including effluent samples, receiving water samples, and background water samples. Complete the tables below or submit the data in an Excel document. New dischargers may estimate concentrations. Provide separate data summary tables for each discharge point (outfall) and receiving water.

- a. EFFLUENT DISCHARGE DATA.** Effluent monitoring shall be collected at any point between the point of discharge to the receiving water and the point at which all waste tributary to the outfall is present.

### Monitoring Location EFF-\_\_\_\_\_ — Conventional and Non-Conventional Pollutants

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
pH			s.u.			
Turbidity			NTU			
Total Suspended Solids			mg/L			
Settleable Matter			mL/L-hr			
Total Residual Chlorine <sup>[1]</sup>			mg/L			
Acute Toxicity			% survival			

### Monitoring Location EFF-\_\_\_\_\_ — Priority Pollutants

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
1	Antimony			µg/L			
2	Arsenic			µg/L			
3	Beryllium			µg/L			
4	Cadmium			µg/L			
5a	Chromium (III)			µg/L			
5b	Chromium (VI)			µg/L			
6	Copper			µg/L			
7	Lead			µg/L			
8	Mercury			µg/L			
9	Nickel			µg/L			
10	Selenium			µg/L			
11	Silver			µg/L			
12	Thallium			µg/L			
13	Zinc			µg/L			
14	Cyanide			µg/L			
15	Asbestos <sup>[2]</sup>			fibers/L			
16	2,3,7,8-TCDD (Dioxin)			µg/L			
17	Acrolein			µg/L			
18	Acrylonitrile			µg/L			
19	Benzene			µg/L			
20	Bromoform			µg/L			
21	Carbon Tetrachloride			µg/L			
22	Chlorobenzene			µg/L			
23	Chlorodibromomethane			µg/L			
24	Chloroethane			µg/L			
25	2-Chloroethylvinyl ether			µg/L			
26	Chloroform			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
27	Dichlorobromomethane			µg/L			
28	1,1-Dichloroethane			µg/L			
29	1,2-Dichloroethane			µg/L			
30	1,1-Dichloroethylene			µg/L			
31	1,2-Dichloropropane			µg/L			
32	1,3-Dichloropropylene			µg/L			
33	Ethylbenzene			µg/L			
34	Methyl Bromide			µg/L			
35	Methyl Chloride			µg/L			
36	Methylene Chloride			µg/L			
37	1,1,2,2-Tetrachloroethane			µg/L			
38	Tetrachloroethylene			µg/L			
39	Toluene			µg/L			
40	1,2-Trans-Dichloroethylene			µg/L			
41	1,1,1-Trichloroethane			µg/L			
42	1,1,2-Trichloroethane			µg/L			
43	Trichloroethylene			µg/L			
44	Vinyl Chloride			µg/L			
45	2-Chlorophenol			µg/L			
46	2,4-Dichlorophenol			µg/L			
47	2,4-Dimethylphenol			µg/L			
48	2-Methyl- 4,6-Dinitrophenol			µg/L			
49	2,4-Dinitrophenol			µg/L			
50	2-Nitrophenol			µg/L			
51	4-Nitrophenol			µg/L			
52	3-Methyl 4-Chlorophenol			µg/L			
53	Pentachlorophenol			µg/L			
54	Phenol			µg/L			
55	2,4,6-Trichlorophenol			µg/L			
56	Acenaphthene			µg/L			
57	Acenaphthylene			µg/L			
58	Anthracene			µg/L			
59	Benzidine			µg/L			
60	Benzo(a)Anthracene			µg/L			
61	Benzo(a)Pyrene			µg/L			
62	Benzo(b)Fluoranthene			µg/L			
63	Benzo(ghi)Perylene			µg/L			
64	Benzo(k)Fluoranthene			µg/L			
65	Bis(2-Chloroethoxy)Methane			µg/L			
66	Bis(2-Chloroethyl)Ether			µg/L			
67	Bis(2-Chloroisopropyl)Ether			µg/L			
68	Bis(2-Ethylhexyl)Phthalate			µg/L			
69	4-Bromophenyl Phenyl Ether			µg/L			
70	Butylbenzyl Phthalate			µg/L			
71	2-Chloronaphthalene			µg/L			
72	4-Chlorophenyl Phenyl Ether			µg/L			
73	Chrysene			µg/L			
74	Dibenzo(a,h)Anthracene			µg/L			
75	1,2-Dichlorobenzene			µg/L			
76	1,3-Dichlorobenzene			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
77	1,4-Dichlorobenzene			µg/L			
78	3,3 Dichlorobenzidine			µg/L			
79	Diethyl Phthalate			µg/L			
80	Dimethyl Phthalate			µg/L			
81	Di-n-Butyl Phthalate			µg/L			
82	2,4-Dinitrotoluene			µg/L			
83	2,6-Dinitrotoluene			µg/L			
84	Di-n-Octyl Phthalate			µg/L			
85	1,2-Diphenylhydrazine			µg/L			
86	Fluoranthene			µg/L			
87	Fluorene			µg/L			
88	Hexachlorobenzene			µg/L			
89	Hexachlorobutadiene			µg/L			
90	Hexachlorocyclopentadiene			µg/L			
91	Hexachloroethane			µg/L			
92	Indeno(1,2,3-cd)Pyrene			µg/L			
93	Isophorone			µg/L			
94	Naphthalene			µg/L			
95	Nitrobenzene			µg/L			
96	N-Nitrosodimethylamine			µg/L			
97	N-Nitrosodi-n-Propylamine			µg/L			
98	N-Nitrosodiphenylamine			µg/L			
99	Phenanthrene			µg/L			
100	Pyrene			µg/L			
101	1,2,4-Trichlorobenzene			µg/L			
102	Aldrin			µg/L			
103	Alpha-BHC			µg/L			
104	Beta-BHC			µg/L			
105	Gamma-BHC			µg/L			
106	Delta-BHC			µg/L			
107	Chlordane			µg/L			
108	4,4'-DDT			µg/L			
109	4,4'-DDE			µg/L			
110	4,4'-DDD			µg/L			
111	Dieldrin			µg/L			
112	Alpha-Endosulfan			µg/L			
113	beta-Endosulfan			µg/L			
114	Endosulfan Sulfate			µg/L			
115	Endrin			µg/L			
116	Endrin Aldehyde			µg/L			
117	Heptachlor			µg/L			
118	Heptachlor Epoxide			µg/L			
119-125	PCBs sum			µg/L			
126	Toxaphene			µg/L			

Footnotes:

- <sup>(1)</sup> Total residual chlorine monitoring is only required for facilities using potable water as wash or screening water.
- <sup>(2)</sup> Monitoring for asbestos is only required for aggregate mining facilities.

**Monitoring Location EFF-\_\_\_\_\_ — Other Pollutants (aggregate mining facilities only)**

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Color			color unit			
Total Dissolved Solids			mg/L			
Electric conductivity			mmhos/cm			
Aluminum			mg/L			
Barium			mg/L			
Chloride			mg/L			
Fluoride			mg/L			
Iron			mg/L			
Manganese			mg/L			
Nitrate (as N)			mg/L			
Nitrate + Nitrite (as N)			mg/L			
Nitrite (as N)			mg/L			
Sulfate			mg/L			
MBAS (foaming agent)			mg/L			
Trihalomethanes			mg/L			
Lindane			mg/L			
Methoxychlor			mg/L			
2,4-D			mg/L			
2,4,4-TP Silvex			mg/L			
Alachlor			mg/L			
Atrazine			mg/L			
Bentazon			mg/L			
Dalapon			mg/L			
Dinoseb			mg/L			
Diquat			mg/L			
Endothall			mg/L			
Ethylene dibromide			mg/L			
Glyphosate			mg/L			
Hexachloreycyclopentadiene			mg/L			
Molinate			mg/L			
Oxaryl			mg/L			
Picloram			mg/L			
Simazine			mg/L			
Thiobencarb			mg/L			
1,2-dibromo-3-chloropropane			mg/L			
Cis-1,2-dichloroethylene			mg/L			
Methyl-tert-butyl ether			mg/L			
Monochlorobenzene			mg/L			
Styrene			mg/L			
Trichlorofluoromethane			mg/L			
1,1,2-trichloro-1,2,2-trifluoromethane			mg/L			
Boron <sup>[1]</sup>			mg/L			
Cobalt <sup>[1]</sup>			mg/L			
Lithium <sup>[1]</sup>			mg/L			
Molybdenum <sup>[1]</sup>			mg/L			
Sodium <sup>[1]</sup>			mg/L			



Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Vanadium <sup>[1]</sup>			mg/L			

Footnote:

<sup>[1]</sup> Monitoring for these pollutants is only required for those facilities that discharge to receiving waters with agricultural water supply listed as an existing or potential beneficial use in Basin Plan Table 2-1.

**b. RECEIVING WATER DATA.** Receiving water monitoring data shall be collected within one hour of effluent sampling at a point 50 feet from the point of discharge into the receiving water or, if access is limited, the first accessible point. For aggregate mining facilities, this point must be downstream from the point of discharge.

**Monitoring Location RSW-00 \_\_\_D — Conventional and Non-Conventional Pollutants**

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
pH			s.u.			
Turbidity			NTU			
Total Suspended Solids			mg/L			
Settleable Matter			mL/L-hr			
Total Residual Chlorine <sup>[1]</sup>			mg/L			
Acute Toxicity			% survival			

**Monitoring Location RSW-00 \_\_\_D — Priority Pollutants**

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
1	Antimony			µg/L			
2	Arsenic			µg/L			
3	Beryllium			µg/L			
4	Cadmium			µg/L			
5a	Chromium (III)			µg/L			
5b	Chromium (VI)			µg/L			
6	Copper			µg/L			
7	Lead			µg/L			
8	Mercury			µg/L			
9	Nickel			µg/L			
10	Selenium			µg/L			
11	Silver			µg/L			
12	Thallium			µg/L			
13	Zinc			µg/L			
14	Cyanide			µg/L			
15	Asbestos <sup>[1]</sup>			fibers/L			
16	2,3,7,8-TCDD (Dioxin)			µg/L			
17	Acrolein			µg/L			
18	Acrylonitrile			µg/L			
19	Benzene			µg/L			
20	Bromoform			µg/L			
21	Carbon Tetrachloride			µg/L			
22	Chlorobenzene			µg/L			
23	Chlorodibromomethane			µg/L			
24	Chloroethane			µg/L			
25	2-Chloroethylvinyl ether			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
26	Chloroform			µg/L			
27	Dichlorobromomethane			µg/L			
28	1,1-Dichloroethane			µg/L			
29	1,2-Dichloroethane			µg/L			
30	1,1-Dichloroethylene			µg/L			
31	1,2-Dichloropropane			µg/L			
32	1,3-Dichloropropylene			µg/L			
33	Ethylbenzene			µg/L			
34	Methyl Bromide			µg/L			
35	Methyl Chloride			µg/L			
36	Methylene Chloride			µg/L			
37	1,1,2,2-Tetrachloroethane			µg/L			
38	Tetrachloroethylene			µg/L			
39	Toluene			µg/L			
40	1,2-Trans-Dichloroethylene			µg/L			
41	1,1,1-Trichloroethane			µg/L			
42	1,1,2-Trichloroethane			µg/L			
43	Trichloroethylene			µg/L			
44	Vinyl Chloride			µg/L			
45	2-Chlorophenol			µg/L			
46	2,4-Dichlorophenol			µg/L			
47	2,4-Dimethylphenol			µg/L			
48	2-Methyl- 4,6-Dinitrophenol			µg/L			
49	2,4-Dinitrophenol			µg/L			
50	2-Nitrophenol			µg/L			
51	4-Nitrophenol			µg/L			
52	3-Methyl 4-Chlorophenol			µg/L			
53	Pentachlorophenol			µg/L			
54	Phenol			µg/L			
55	2,4,6-Trichlorophenol			µg/L			
56	Acenaphthene			µg/L			
57	Acenaphthylene			µg/L			
58	Anthracene			µg/L			
59	Benzidine			µg/L			
60	Benzo(a)Anthracene			µg/L			
61	Benzo(a)Pyrene			µg/L			
62	Benzo(b)Fluoranthene			µg/L			
63	Benzo(ghi)Perylene			µg/L			
64	Benzo(k)Fluoranthene			µg/L			
65	Bis(2-Chloroethoxy)Methane			µg/L			
66	Bis(2-Chloroethyl)Ether			µg/L			
67	Bis(2-Chloroisopropyl)Ether			µg/L			
68	Bis(2-Ethylhexyl)Phthalate			µg/L			
69	4-Bromophenyl Phenyl Ether			µg/L			
70	Butylbenzyl Phthalate			µg/L			
71	2-Chloronaphthalene			µg/L			
72	4-Chlorophenyl Phenyl Ether			µg/L			
73	Chrysene			µg/L			
74	Dibenzo(a,h)Anthracene			µg/L			
75	1,2-Dichlorobenzene			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
76	1,3-Dichlorobenzene			µg/L			
77	1,4-Dichlorobenzene			µg/L			
78	3,3 Dichlorobenzidine			µg/L			
79	Diethyl Phthalate			µg/L			
80	Dimethyl Phthalate			µg/L			
81	Di-n-Butyl Phthalate			µg/L			
82	2,4-Dinitrotoluene			µg/L			
83	2,6-Dinitrotoluene			µg/L			
84	Di-n-Octyl Phthalate			µg/L			
85	1,2-Diphenylhydrazine			µg/L			
86	Fluoranthene			µg/L			
87	Fluorene			µg/L			
88	Hexachlorobenzene			µg/L			
89	Hexachlorobutadiene			µg/L			
90	Hexachlorocyclopentadiene			µg/L			
91	Hexachloroethane			µg/L			
92	Indeno(1,2,3-cd)Pyrene			µg/L			
93	Isophorone			µg/L			
94	Naphthalene			µg/L			
95	Nitrobenzene			µg/L			
96	N-Nitrosodimethylamine			µg/L			
97	N-Nitrosodi-n-Propylamine			µg/L			
98	N-Nitrosodiphenylamine			µg/L			
99	Phenanthrene			µg/L			
100	Pyrene			µg/L			
101	1,2,4-Trichlorobenzene			µg/L			
102	Aldrin			µg/L			
103	Alpha-BHC			µg/L			
104	Beta-BHC			µg/L			
105	Gamma-BHC			µg/L			
106	Delta-BHC			µg/L			
107	Chlordane			µg/L			
108	4,4'-DDT			µg/L			
109	4,4'-DDE			µg/L			
110	4,4'-DDD			µg/L			
111	Dieldrin			µg/L			
112	Alpha-Endosulfan			µg/L			
113	beta-Endosulfan			µg/L			
114	Endosulfan Sulfate			µg/L			
115	Endrin			µg/L			
116	Endrin Aldehyde			µg/L			
117	Heptachlor			µg/L			
118	Heptachlor Epoxide			µg/L			
119-125	PCBs sum			µg/L			
126	Toxaphene			µg/L			

Footnotes:

- [1] Total residual chlorine monitoring is only required for facilities using potable water as wash or screening water.
- [2] Monitoring for asbestos is only required for aggregate mining facilities.

**Monitoring Location RSW-00\_\_D — Other Pollutants (aggregate mining facilities only)**

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Color			color unit			
Total Dissolved Solids			mg/L			
Electric conductivity			mmhos/cm			
Aluminum			mg/L			
Barium			mg/L			
Chloride			mg/L			
Fluoride			mg/L			
Iron			mg/L			
Manganese			mg/L			
Nitrate (as N)			mg/L			
Nitrate + Nitrite (as N)			mg/L			
Nitrite (as N)			mg/L			
Sulfate			mg/L			
MBAS (foaming agent)			mg/L			
Trihalomethanes			mg/L			
Lindane			mg/L			
Methoxychlor			mg/L			
2,4-D			mg/L			
2,4,4-TP Silvex			mg/L			
Alachlor			mg/L			
Atrazine			mg/L			
Bentazon			mg/L			
Dalapon			mg/L			
Dinoseb			mg/L			
Diquat			mg/L			
Endothall			mg/L			
Ethylene dibromide			mg/L			
Glyphosate			mg/L			
Hexachloreycyclopentadiene			mg/L			
Molinate			mg/L			
Oxarnyl			mg/L			
Picloram			mg/L			
Simazine			mg/L			
Thiobencarb			mg/L			
1,2-dibromo-3-chloropropane			mg/L			
Cis-1,2-dichloroethylene			mg/L			
Methyl-tert-butyl ether			mg/L			
Monochlorobenzene			mg/L			
Styrene			mg/L			
Trichlorofluoromethane			mg/L			
1,1,2-trichloro-1,2,2-trifluoromethane			mg/L			
Boron <sup>[1]</sup>			mg/L			
Cobalt <sup>[1]</sup>			mg/L			
Lithium <sup>[1]</sup>			mg/L			
Molybdenum <sup>[1]</sup>			mg/L			
Sodium <sup>[1]</sup>			mg/L			

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Vanadium <sup>[1]</sup>			mg/L			

**Footnote:**

<sup>[1]</sup> Monitoring for these pollutants is only required for those facilities that discharge to receiving waters with agricultural water supply listed as an existing or potential beneficial use in Basin Plan Table 2-1.

**c. BACKGROUND WATER DATA (aggregate mining facilities only).** Background water monitoring data shall be collected at a point in the receiving water where discharge effects would not be expected (e.g., upstream of the outfall).

**Monitoring Location RSW-00\_\_\_U — Conventional and Non-Conventional Pollutants**

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
pH			s.u.			
Turbidity			NTU			
Total Suspended Solids			mg/L			
Settleable Matter			mL/L-hr			
Total Residual Chlorine			mg/L			
Acute Toxicity			% survival			

**Monitoring Location RSW-00\_\_\_U — Priority Pollutants**

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
1	Antimony			µg/L			
2	Arsenic			µg/L			
3	Beryllium			µg/L			
4	Cadmium			µg/L			
5a	Chromium (III)			µg/L			
5b	Chromium (VI)			µg/L			
6	Copper			µg/L			
7	Lead			µg/L			
8	Mercury			µg/L			
9	Nickel			µg/L			
10	Selenium			µg/L			
11	Silver			µg/L			
12	Thallium			µg/L			
13	Zinc			µg/L			
14	Cyanide			µg/L			
15	Asbestos <sup>[1]</sup>			fibers/L			
16	2,3,7,8-TCDD (Dioxin)			µg/L			
17	Acrolein			µg/L			
18	Acrylonitrile			µg/L			
19	Benzene			µg/L			
20	Bromoform			µg/L			
21	Carbon Tetrachloride			µg/L			
22	Chlorobenzene			µg/L			
23	Chlorodibromomethane			µg/L			
24	Chloroethane			µg/L			
25	2-Chloroethylvinyl ether			µg/L			
26	Chloroform			µg/L			
27	Dichlorobromomethane			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
28	1,1-Dichloroethane			µg/L			
29	1,2-Dichloroethane			µg/L			
30	1,1-Dichloroethylene			µg/L			
31	1,2-Dichloropropane			µg/L			
32	1,3-Dichloropropylene			µg/L			
33	Ethylbenzene			µg/L			
34	Methyl Bromide			µg/L			
35	Methyl Chloride			µg/L			
36	Methylene Chloride			µg/L			
37	1,1,2,2-Tetrachloroethane			µg/L			
38	Tetrachloroethylene			µg/L			
39	Toluene			µg/L			
40	1,2-Trans-Dichloroethylene			µg/L			
41	1,1,1-Trichloroethane			µg/L			
42	1,1,2-Trichloroethane			µg/L			
43	Trichloroethylene			µg/L			
44	Vinyl Chloride			µg/L			
45	2-Chlorophenol			µg/L			
46	2,4-Dichlorophenol			µg/L			
47	2,4-Dimethylphenol			µg/L			
48	2-Methyl- 4,6-Dinitrophenol			µg/L			
49	2,4-Dinitrophenol			µg/L			
50	2-Nitrophenol			µg/L			
51	4-Nitrophenol			µg/L			
52	3-Methyl 4-Chlorophenol			µg/L			
53	Pentachlorophenol			µg/L			
54	Phenol			µg/L			
55	2,4,6-Trichlorophenol			µg/L			
56	Acenaphthene			µg/L			
57	Acenaphthylene			µg/L			
58	Anthracene			µg/L			
59	Benzidine			µg/L			
60	Benzo(a)Anthracene			µg/L			
61	Benzo(a)Pyrene			µg/L			
62	Benzo(b)Fluoranthene			µg/L			
63	Benzo(ghi)Perylene			µg/L			
64	Benzo(k)Fluoranthene			µg/L			
65	Bis(2-Chloroethoxy)Methane			µg/L			
66	Bis(2-Chloroethyl)Ether			µg/L			
67	Bis(2-Chloroisopropyl)Ether			µg/L			
68	Bis(2-Ethylhexyl)Phthalate			µg/L			
69	4-Bromophenyl Phenyl Ether			µg/L			
70	Butylbenzyl Phthalate			µg/L			
71	2-Chloronaphthalene			µg/L			
72	4-Chlorophenyl Phenyl Ether			µg/L			
73	Chrysene			µg/L			
74	Dibenzo(a,h)Anthracene			µg/L			
75	1,2-Dichlorobenzene			µg/L			
76	1,3-Dichlorobenzene			µg/L			
77	1,4-Dichlorobenzene			µg/L			

CTR No.	Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
78	3,3 Dichlorobenzidine			µg/L			
79	Diethyl Phthalate			µg/L			
80	Dimethyl Phthalate			µg/L			
81	Di-n-Butyl Phthalate			µg/L			
82	2,4-Dinitrotoluene			µg/L			
83	2,6-Dinitrotoluene			µg/L			
84	Di-n-Octyl Phthalate			µg/L			
85	1,2-Diphenylhydrazine			µg/L			
86	Fluoranthene			µg/L			
87	Fluorene			µg/L			
88	Hexachlorobenzene			µg/L			
89	Hexachlorobutadiene			µg/L			
90	Hexachlorocyclopentadiene			µg/L			
91	Hexachloroethane			µg/L			
92	Indeno(1,2,3-cd)Pyrene			µg/L			
93	Isophorone			µg/L			
94	Naphthalene			µg/L			
95	Nitrobenzene			µg/L			
96	N-Nitrosodimethylamine			µg/L			
97	N-Nitrosodi-n-Propylamine			µg/L			
98	N-Nitrosodiphenylamine			µg/L			
99	Phenanthrene			µg/L			
100	Pyrene			µg/L			
101	1,2,4-Trichlorobenzene			µg/L			
102	Aldrin			µg/L			
103	Alpha-BHC			µg/L			
104	Beta-BHC			µg/L			
105	Gamma-BHC			µg/L			
106	Delta-BHC			µg/L			
107	Chlordane			µg/L			
108	4,4'-DDT			µg/L			
109	4,4'-DDE			µg/L			
110	4,4'-DDD			µg/L			
111	Dieldrin			µg/L			
112	Alpha-Endosulfan			µg/L			
113	beta-Endosulfan			µg/L			
114	Endosulfan Sulfate			µg/L			
115	Endrin			µg/L			
116	Endrin Aldehyde			µg/L			
117	Heptachlor			µg/L			
118	Heptachlor Epoxide			µg/L			
119-125	PCBs sum			µg/L			
126	Toxaphene			µg/L			

Footnote:

<sup>(1)</sup> Monitoring for asbestos is only required for aggregate mining facilities.

**Monitoring Location RSW-00\_\_U — Other Pollutants**

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Color			color unit			
Total Dissolved Solids			mg/L			
Electric conductivity			mmhos/cm			
Aluminum			mg/L			
Barium			mg/L			
Chloride			mg/L			
Fluoride			mg/L			
Iron			mg/L			
Manganese			mg/L			
Nitrate (as N)			mg/L			
Nitrate + Nitrite (as N)			mg/L			
Nitrite (as N)			mg/L			
Sulfate			mg/L			
MBAS (foaming agent)			mg/L			
Trihalomethanes			mg/L			
Lindane			mg/L			
Methoxychlor			mg/L			
2,4-D			mg/L			
2,4,4-TP Silvex			mg/L			
Alachlor			mg/L			
Atrazine			mg/L			
Bentazon			mg/L			
Dalapon			mg/L			
Dinoseb			mg/L			
Diquat			mg/L			
Endothall			mg/L			
Ethylene dibromide			mg/L			
Glyphosate			mg/L			
Hexachloreyclopentadiene			mg/L			
Molinate			mg/L			
Oxaryl			mg/L			
Picloram			mg/L			
Simazine			mg/L			
Thiobencarb			mg/L			
1,2-dibromo-3-chloropropane			mg/L			
Cis-1,2-dichloroethylene			mg/L			
Methyl-tert-butyl ether			mg/L			
Monochlorobenzene			mg/L			
Styrene			mg/L			
Trichlorofluoromethane			mg/L			
1,1,2-trichloro-1,2,2-trifluoromethane			mg/L			
Boron <sup>[1]</sup>			mg/L			
Cobalt <sup>[1]</sup>			mg/L			
Lithium <sup>[1]</sup>			mg/L			
Molybdenum <sup>[1]</sup>			mg/L			
Sodium <sup>[1]</sup>			mg/L			



Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Vanadium <sup>[1]</sup>			mg/L			

Footnote:

<sup>[1]</sup> Monitoring for these pollutants is only required for those facilities that discharge to receiving waters with agricultural water supply listed as an existing or potential beneficial use in Basin Plan Table 2-1.

**VIII. VICINITY MAP AND SITE LAYOUT MAP**

Include vicinity map and site layout map. The vicinity map must show facility location and surrounding landmarks. Site layout map must be topographic with the following information:

1. Legal facility boundaries;
2. Location and treatment units and processes, such as detention ponds;
3. Intake and discharge point locations; and
4. Receiving waters (or storm drains).

**IX. FLOW CHART**

Attach a flow chart, line drawing, or diagram showing the water flow from intake to discharge.

**X. BEST MANAGEMENT PRACTICES PLAN**

Attach a site-specific BMPs Plan that addresses all specific means of controlling pollutant discharges from the facility (see Provision VI.C.4 of the Order).

**XI. APPLICATION FEE AND MAILING INSTRUCTIONS**

Submit check payable to “State Water Resources Control Board” for appropriate application fee to this address:

San Francisco Bay Regional Water Quality Control Board  
Attn: NPDES Wastewater Division  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

For the **current** fee for general NPDES permit category 2, see Water Code section 2200(b)(10) or visit [https://www.waterboards.ca.gov/resources/fees/water\\_quality/#npdes](https://www.waterboards.ca.gov/resources/fees/water_quality/#npdes).

For Dischargers authorized under the previous order and who wish to continue discharge under this Order, a check for permit application fee is not required with the NOI for continued coverage. Instead, these authorized Dischargers must continue to pay the annual fee.

Submit this form (with signature and attachments) via email to [R2NPDES.GeneralPermits@waterboards.ca.gov](mailto:R2NPDES.GeneralPermits@waterboards.ca.gov) or as otherwise indicated at [www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/general\\_permits.shtml](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.shtml).

**ATTACHMENT C – NOTICE OF INTENT FORM FOR INDUSTRIAL STORMWATER**

This **NOTICE OF INTENT** form shall be completed and submitted to apply for authorization or reauthorization to discharge non-commingled industrial stormwater associated with aggregate mining, marine sand washing, and sand offloading facilities covered facilities aggregate under NPDES Permit No. CAG982001 to waters of the United States.

**I. FACILITY INFORMATION**

<b>Facility Name</b>	<b>Applicable SIC Codes</b>	
<b>Site Size (acres):</b>	<b>Industrial Area Exposed to Stormwater (acres):</b>	<b>Percent of Site Impervious (including rooftops):</b>
<b>Contact Person's Name and Title</b>		
<b>Contact Person's Email</b>		<b>Contact Person's Phone No.</b>

**II. DISCHARGE INFORMATION AND RECEIVING WATERS**

<b>Discharge to Receiving Water:</b> <input type="checkbox"/> Direct <input type="checkbox"/> Via storm drain system	<b>Storm Drain System Owner:</b>
<b>RECEIVING WATER NAME:</b>	

**III. MONITORING LOCATIONS**

<b>MONITORING LOCATIONS</b>		
<b>Stormwater Monitoring Location Name (STW-00n)</b>	<b>Latitude (degrees, to five decimal places)</b>	<b>Longitude (degrees, to five decimal places)</b>
STW-001		
STW-002		
STW-003		
STW-004		

Check here if information for additional monitoring locations is attached to this form.

#### **IV. SITE LAYOUT MAP**

Include a site layout map. The site layout map must show facility location and surrounding landmarks, including storm drain system, stormwater discharge points. Site layout map must be topographic with the following information:

1. Legal facility boundaries;
2. Stormwater discharge point(s);
3. Stormwater monitoring location(s) (i.e., STW-00*n*);
4. Stormwater drainage area(s); and
5. Receiving water.

#### **V. APPLICATION MAILING INSTRUCTIONS**

Submit this form (with signature and attachments) via email to [R2NPDES.GeneralPermits@waterboards.ca.gov](mailto:R2NPDES.GeneralPermits@waterboards.ca.gov) or as otherwise indicated at [www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/general\\_permits.shtml](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.shtml).

## **ATTACHMENT D – STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS—PERMIT COMPLIANCE**

#### **A. Duty to Comply**

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; for permit termination, revocation and reissuance, or modification; or 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.)
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).)

#### **B. 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).)

#### **C. 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).)

#### **D. 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) which 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).)

#### **E. Property Rights**

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

## F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, 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. 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);
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);
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
4. Sample or monitor, at reasonable times, for the purposes of assuring 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.)

## G. Bypass

### 1. Definitions

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

**2. Bypass not exceeding limitations.** The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

**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)):

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

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

**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 I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

## 5. Notice

**a. 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, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J 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).)

**b. Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Regional Water Board. As of December 21, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J 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).)

## H. 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. 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 I.H.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).)

**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)):

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



high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

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).)

#### **IV. STANDARD PROVISIONS—RECORDS**

- A. 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).)
- B. Records of monitoring information shall include the following:
  1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
  2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
  3. The date(s) the analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
  4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
  5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
  6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)
- C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
  1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
  2. Permit applications and attachments, permits, and effluent data. (40 C.F.R. § 122.7(b)(2).)

#### **V. STANDARD PROVISIONS—REPORTING**

##### **A. 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 which 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.)

## **B. Signatory and Certification Requirements**

- 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 V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k).)
- 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: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which 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 assure 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 municipality, 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 (i) the chief executive officer of the agency, or (ii) 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).)

- 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 V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a.** The authorization is made in writing by a person described in Standard Provisions—Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
  - b.** 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

- c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.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 V.B.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. Any person signing a document under Standard Provisions—Reporting V.B.2 or V.B.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).)
6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, 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).)

### **C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. (40 C.F.R. § 122.22(l)(4).)
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. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J 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).)
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 reporting form specified by the Regional Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

#### **D. 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).)

#### **E. Twenty-Four Hour Reporting**

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, 2020, 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 V.J. 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).)

2. The following shall be included as information that must be reported within 24 hours:
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

#### **F. 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)):

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
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. (Alternatively, for 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 VII.A.1).) (40 C.F.R. § 122.41(l)(1)(ii).)

### **G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Regional Water Board or State 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).)

### **H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions—Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provisions—Reporting V.E 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 V.E 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).)

### **I. 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).)

### **J. 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. § 127.2(c)). U.S. EPA will update and maintain this list. (40 C.F.R. § 122.41(l)(9).)

## **VI. STANDARD PROVISIONS—ENFORCEMENT**

- A. The Regional Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13268, 13350, 13385, 13386, and 13387.

## VII. ADDITIONAL PROVISIONS—NOTIFICATION LEVELS

### A. 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)):

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)):
  - a. 100 micrograms per liter ( $\mu\text{g/L}$ ) (40 C.F.R. § 122.42(a)(1)(i));
  - b. 200  $\mu\text{g/L}$  for acrolein and acrylonitrile; 500  $\mu\text{g/L}$  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));
  - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
  - d. 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).)
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)):
  - a. 500 micrograms per liter ( $\mu\text{g/L}$ ) (40 C.F.R. § 122.42(a)(2)(i));
  - b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
  - d. 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).)

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

### Contents

I. General Monitoring Provisions .....	E-2
II. Monitoring Locations .....	E-2
III. Effluent Monitoring Requirements .....	E-3
IV. Acute Toxicity Testing Requirements .....	E-5
V. Receiving Water Monitoring .....	E-6
VI. Stormwater Monitoring .....	E-7
VII. Reporting .....	E-8
A. General Reporting Requirements .....	E-8
B. Self-Monitoring Reports (SMRs) .....	E-8
C. Discharge Monitoring Reports (DMRs) .....	E-15
D. Violations and Unauthorized Discharges .....	E-15

### Tables

Table E-1. Monitoring Locations .....	E-2
Table E-2. Effluent Monitoring for Aggregate Mining Facilities .....	E-3
Table E-3. Effluent Monitoring for Marine Sand Washing Facilities .....	E-4
Table E-4. Effluent Monitoring for Sand Offloading Facilities .....	E-5
Table E-5. Receiving Water Monitoring .....	E-7
Table E-6. Stormwater Monitoring .....	E-7
Table E-7. Monitoring Periods .....	E-10
Table E-8. Minimum Levels .....	E-11

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Clean Water Act section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State laws and regulations.

### I. GENERAL MONITORING PROVISIONS

- A. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5.
- B. The Discharger shall conduct all monitoring in accordance with Attachment D section III. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. part 136 and must be specified in this Order or the Discharger’s Authorization to Discharge. Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with Water Code section 13176.
- C. All monitoring instruments, flowmeters, and equipment shall be properly calibrated according to manufacturer’s instructions and maintained to ensure accurate measurements.
- D. The Discharger shall implement a Quality Assurance-Quality Control Program for any onsite field tests (e.g., turbidity, pH, temperature, dissolved oxygen, conductivity, disinfectant residual) analyzed by a noncertified laboratory. The Discharger shall keep a manual onsite containing the steps followed in this program and must 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.

### II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with this Order:

**Table E-1. Monitoring Locations**

Monitoring Location Type	Monitoring Location Name <sup>[1]</sup>	Monitoring Location Description
Effluent	EFF-001 through EFF-00 <i>n</i> (where <i>n</i> is a sequential number above 001)	A point in the outfall between the point of discharge to the receiving water and the point at which all waste tributary to the outfall is present. <sup>[2]</sup>
Receiving Water	RSW-001U through RSW-00 <i>n</i> U (where <i>n</i> is a sequential number above 001)	A point in the receiving water where discharge effects would not be expected (e.g., upstream of the outfall).
	RSW-001D through RSW-00 <i>n</i> D (where <i>n</i> is a sequential number above 001)	A point 50 feet from the point of discharge into the receiving water where discharge effects would be expected (e.g., downstream of the outfall) or, if access is limited, the first accessible point. For aggregate mining facilities, this point must be downstream from the point of discharge. <sup>[3]</sup>
Stormwater	STW-001 through STW-00 <i>n</i> (where <i>n</i> is a sequential number above 001)	A point representative of each industrial stormwater discharge prior to contact with the receiving water.

Footnotes:

- <sup>[1]</sup> The previous order used the following monitoring location names: EFF-00n, RSW-001(A, B, C), and RSW-002(A, B, C).
- <sup>[2]</sup> If discharge is to a storm drain system prior to reaching the receiving water, the monitoring location shall be a point before the discharge commingles with storm drain water.
- <sup>[3]</sup> A Discharger that cannot safely access receiving water within 50 feet downstream of the outfall may collect samples at the nearest safe alternative location after receiving written Executive Officer concurrence.

**III. EFFLUENT MONITORING REQUIREMENTS**

- A.** When discharging, the Discharger shall monitor discharges at Monitoring Locations EFF-001 through EFF-00n in accordance with the applicable tables below.
- B.** Grab samples shall be collected on random days during periods of daytime maximum flow (if flow varies significantly during the day).
- C.** If a sampling result exceeds a maximum daily or average weekly effluent limitation, or is outside the pH effluent limitation range, 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 indicate compliance with the limitation.
- D.** If the results from two consecutive samples of a constituent monitored in a particular month exceed the average monthly effluent limitation for any parameter, the Discharger shall, within 24 hours after the results are received, increase its sampling frequency to daily until the results from the additional sampling indicates that the parameter complies with the average monthly effluent limitation.

**Table E-2. Effluent Monitoring for Aggregate Mining Facilities**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG	Continuous or Daily	1/day
Total Suspended Solids	mg/L	Grab	1/week
Turbidity	NTU	Grab	1/week
Settleable Matter	mL/L-hr	Grab	1/week
pH	s.u.	Grab	1/week
Total Residual Chlorine <sup>[2]</sup>	mg/L	Grab	1/week
Acute Toxicity <sup>[3]</sup>	% survival	Grab	2/year
Benzo(b)Fluoranthene	µg/L	Grab	1/year
Priority Pollutants (see Fact Sheet Table F-6) <sup>[4]</sup>	µg/L	Grab	once <sup>[6]</sup>
Municipal and Agricultural Supply Pollutants <sup>[5]</sup>	mg/L	Grab	once <sup>[6]</sup>
Standard Observations <sup>[7]</sup>	-	-	1/day

Abbreviations:

- µg/L = micrograms per liter
- mg/L = milligrams per liter
- mL/L-hr = milliliters per liter per hour
- MG = million gallons
- NTU = nephelometric turbidity units
- % = percent
- s.u. = standard units



**Footnotes:**

- [1] Flow shall be monitored at each outfall by flow meter or estimated if no flow meter is in place. The following flow information shall be reported in quarterly self-monitoring reports:
  - Daily total flow volume (MG)
  - Total monthly flow volume (MG)
- [2] Total residual chlorine monitoring is only required for facilities using potable water as wash or screening water. The Discharger shall calibrate and maintain total residual chlorine analyzers to reliably quantify values of 0.1 mg/L and greater. This 0.1 mg/L shall be the minimum level (ML) and reporting limit (RL) for total residual chlorine.
- [3] Acute bioassay tests shall be performed in accordance with MRP section IV.
- [4] The Discharger shall monitor for the pollutants listed in Fact Sheet Table F-6. For mercury, the Discharger shall use ultra-clean sampling methods (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The Discharger may use alternative methods of analysis (such as U.S. EPA Method 245) if the alternate method has a method detection limit (MDL) of 0.0002 µg/L or less. For chlorinated dibenzodioxins and chlorinated dibenzofurans, the Discharger shall use U.S. EPA Method 1613.
- [5] The Discharger shall monitor for the pollutants listed in Basin Plan Tables 3-5 and 3-6, except for odor and radioactivity. Monitoring for pollutants in Basin Plan Table 3-6 (not otherwise in Basin Plan Table 3-5) is only required for those facilities that discharge to receiving waters with agricultural water supply listed as an existing or potential beneficial use in Basin Plan Table 2-1 (i.e., boron, cobalt, lithium, molybdenum, sodium adsorption ratio, and vanadium).
- [6] Monitoring shall be completed within 12 months prior to March 31, 2025, and submitted with the new NOI for Dischargers that intend to continue discharging after December 31, 2025.
- [7] Standard observations shall include visual monitoring for the presence or absence of floating and suspended materials (e.g., oil, grease, algae, sand, and other macroscopic particulate matter).

**Table E-3. Effluent Monitoring for Marine Sand Washing Facilities**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG	Continuous or Daily	1/day
Turbidity	NTU	Grab	1/week
Total Settleable Matter	mL/L-hr	Grab	1/week
pH	s.u.	Grab	1/week
Total Residual Chlorine <sup>[2]</sup>	mg/L	Grab	1/week
Mercury <sup>[3]</sup>	µg/L	Grab	2/year
PCBs, Total (as Aroclors) <sup>[4]</sup>	µg/L	Grab	2/year
PCBs (as congeners) <sup>[5]</sup>	µg/L	Grab	2/year
Acute Toxicity <sup>[6]</sup>	% survival	Grab	2/year
4,4'-DDT	µg/L	Grab	1/year
4,4'-DDE	µg/L	Grab	1/year
Priority Pollutants (see Fact Sheet Table F-7) <sup>[7]</sup>	µg/L	Grab	once <sup>[8]</sup>
Standard Observations <sup>[9]</sup>	-	-	1/day

**Abbreviations:**

- µg/L = micrograms per liter
- mg/L = milligrams per liter
- mL/L-hr = milliliters per liter per hour
- MG = million gallons
- NTU = nephelometric turbidity units
- % = percent
- s.u. = standard units

**Footnotes:**

- [1] Flow shall be monitored at each outfall by flow meter or estimated if no flow meter is in place. The following flow information shall be reported in quarterly self-monitoring reports:
  - Daily total flow volume (MG)
  - Total monthly flow volume (MG)

- [2] Total residual chlorine monitoring is only required for facilities using potable water as wash or screening water. The Discharger shall calibrate and maintain total residual chlorine analyzers to reliably quantify values of 0.1 mg/L and greater. This 0.1 mg/L shall be the minimum level (ML) and reporting limit (RL) for total residual chlorine.
- [3] The Discharger shall use ultra-clean sampling methods (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The Discharger may use alternative methods of analysis (such as U.S. EPA Method 245) if the alternate method has a method detection limit (MDL) of 0.0002 µg/L or less.
- [4] Dischargers shall use U.S. EPA Method 608 for Aroclor monitoring. These data will be used to assess compliance with effluent limitations.
- [5] PCBs congeners monitoring is for informational purposes. Dischargers shall use U.S. EPA Method 1668C. A summation for total PCBs is not required.
- [6] Acute bioassay tests shall be performed in accordance with MRP section IV.
- [7] Discharger shall monitor for the pollutants listed in Fact Sheet Table F-7 (except asbestos). For chlorinated dibenzodioxins and chlorinated dibenzofurans, the Discharger shall use U.S. EPA Method 1613.
- [8] Monitoring shall be completed within 12 months prior to March 31, 2025, and submitted with the new NOI for Dischargers that intend to continue discharging after December 31, 2025.
- [9] Standard observations shall include visual monitoring for presence or absence of floating and suspended materials (e.g., oil, grease, algae, sand, and other macroscopic particulate matter).

**Table E-4. Effluent Monitoring for Sand Offloading Facilities**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG	Continuous or Daily	1/day
Total Settleable Matter	mL/L-hr	Grab	1/week
pH	s.u.	Grab	1/week
Priority Pollutants (see Fact Sheet Table F-7) <sup>[2]</sup>	µg/L	Grab	once <sup>[3]</sup>
Standard Observations <sup>[4]</sup>	-	-	1/day

Abbreviations:

- µg/L = micrograms per liter
- mL/L-hr = milliliters per liter per hour
- MG = million gallons
- s.u. = standard units

Footnotes:

- [1] Flow shall be monitored at each outfall by flow meter or estimated if no flow meter is in place. The following flow information shall be reported in quarterly self-monitoring reports:
  - Daily total flow volume (MG)
  - Total monthly flow volume (MG)
- [2] Discharger shall monitor for the pollutants listed in Fact Sheet Table F-7 (except asbestos). For mercury, the Discharger shall use ultra-clean sampling methods (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The Discharger may use alternative methods of analysis (such as U.S. EPA Method 245) if the alternate method has a method detection limit (MDL) of 0.0002 µg/L or less. For chlorinated dibenzodioxins and chlorinated dibenzofurans, the Discharger shall use U.S. EPA Method 1613.
- [3] Monitoring shall be completed within 12 months prior to March 31, 2025, and submitted with the new NOI for Dischargers that intend to continue discharging after December 31, 2025.
- [4] Standard observations shall include visual monitoring for presence or absence floating and suspended materials (e.g., oil, grease, algae, sand, and other macroscopic particulate matter).

**IV. ACUTE TOXICITY TESTING REQUIREMENTS**

- A.** Compliance with the acute toxicity effluent limitations shall be evaluated at Monitoring Locations EFF-001 through EFF-00n by measuring survival of test organisms exposed to 96-hour static renewal bioassays. Samples shall be collected on days coincident with effluent sampling.

- B.** For Dischargers enrolled under the previous order, the same approved test organism shall be used. For new discharges, two fish species shall be tested concurrently to determine the most sensitive species, and that species shall be used for monitoring thereafter. Tests completed within ten days of the initial test are considered concurrent. For new discharges to freshwater, the Discharger shall conduct the screening with fathead minnow (*Pimephales promelas*) and rainbow trout (*Oncorhynchus mykiss*). For discharges to estuarine and marine waters, the Discharger shall conduct the screening with sheepshead minnow (*Cyprinodon variegatus*) and inland silverside (*Menidia beryllina*). The Executive Officer may specify a more sensitive species or, if testing a particular species proves unworkable, the most sensitive species available.
- C.** 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.
- D.** 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. The Discharger may manually adjust the pH of whole effluent acute toxicity samples prior to performing bioassays. Effluent shall be dechlorinated prior to testing if it contains chlorine.
- E.** Bioassay water monitoring shall include pH, dissolved oxygen, and temperature on a daily basis; and hardness and alkalinity on the first day. These results shall be reported.
- F.** 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. The Discharger shall investigate the cause of the mortalities and report its findings in the next self-monitoring report.

## **V. RECEIVING WATER MONITORING**

Aggregate mining facilities shall monitor receiving waters at Monitoring Locations RSW-00nU and RSW-00nD as indicated in the table below. Marine sand washing and sand offloading facilities shall monitor receiving waters only at Monitoring Location RSW-00nD.

- A.** Receiving water samples shall be collected on days coincident with effluent sampling and within one hour of effluent sampling. Samples shall be collected within one-foot depth of the surface.
- B.** Receiving water monitoring is not required when no water is in the receiving water other than the discharge.
- C.** The Executive Officer may waive receiving water monitoring requirements for discharges where access for sampling is excessively difficult (e.g., estuarine wetlands).

**Table E-5. Receiving Water Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	s.u.	Grab	1/week
Priority Pollutants (see Fact Sheet Tables F-6 and F-7) <sup>[1]</sup>	µg/L	Grab	once <sup>[2]</sup>
Standard Observations <sup>[3]</sup>	-	-	1/day
<b>Aggregate Mining Facilities only</b>			
Turbidity	NTU	Grab	1/month
Hardness	mg/L as CaCO <sub>3</sub>	Grab	1/month
Salinity	ppt	Grab	1/month
Municipal and Agricultural Supply Pollutants <sup>[4]</sup>	mg/L	Grab	once <sup>[2]</sup>

Abbreviations:

- mg/L = milligrams per liter
- µg/L = micrograms per liter
- NTU = nephelometric turbidity units
- ppt = parts per trillion
- s.u. = standard units

Footnotes:

- <sup>[1]</sup> Monitoring is required for all pollutants listed in Fact Sheet Tables F-6 and F-7 (except asbestos monitoring is only required for aggregate mining facilities). For mercury, the Discharger shall use ultra-clean sampling methods (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The Discharger may use alternative methods of analysis (such as U.S. EPA Method 245) if the alternate method has a method detection limit (MDL) of 0.0002 µg/L or less. For chlorinated dibenzodioxins and chlorinated dibenzofurans, the Discharger shall use U.S. EPA Method 1613.
- <sup>[2]</sup> Monitoring shall be completed within 12 months prior to March 31, 2025, and submitted with the new NOI for Dischargers that intend to continue discharging after December 31, 2025.
- <sup>[3]</sup> Standard observations include the following:
  - a. Floating and suspended materials (e.g., oil, grease, algae, sand, and other macroscopic particulate matter): presence or absence.
  - b. Discoloration and turbidity: description of color, source, and size of affected area.
- <sup>[4]</sup> For aggregate mining facilities only, the Discharger shall monitor for the pollutants listed in Basin Plan Tables 3-5 and 3-6 except for odor and radioactivity. Monitoring for pollutants in Basin Plan Table 3-6 (not otherwise in Basin Plan Table 3-5) is only required for those facilities that discharge to receiving waters with agricultural water supply listed as an existing or potential beneficial use in Basin Plan Table 2-1 (i.e., boron, cobalt, lithium, molybdenum, sodium adsorption ratio, and vanadium).

**VI. STORMWATER MONITORING**

If the Discharger receives authorization to discharge non-commingled stormwater, it shall conduct stormwater monitoring as specified below:

**Table E-6. Stormwater Monitoring**

Parameter	Unit	Sample Type	Minimum Sampling Frequency
pH	s.u.	Grab	4 Storms/Year
Total Suspended Solids	mg/L	Grab	4 Storms/Year
Oil and Grease	mg/L	Grab	4 Storms/Year
Iron, Total <sup>[1]</sup>	mg/L	Grab	4 Storms/Year
Nitrite + Nitrite (as Nitrogen) <sup>[2]</sup>	mg/L as N	Grab	4 Storms/Year
Sampling Event Visual Observations <sup>[3]</sup>	-	-	4 Storms/Year
BMP Visual Observations <sup>[4]</sup>	-	-	1/Month

Abbreviations:

mg/L = milligrams per liter  
s.u. = standard units

Footnotes:

- [1] Applicable only to facilities with Standard Industrial Classification (SIC) code 144X (Sand and Gravel).
- [2] Applicable only to facilities SIC Code 327x (except 3274) (Concrete, Gypsum, Plaster Products).
- [3] Standard observations shall include visual observations of the following:
- a. Floating and suspended materials (e.g., oil, grease, algae, sand, and other macroscopic particulate matter): presence or absence.
  - b. Discoloration and turbidity: description of color, source, and size of affected area.
  - c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
- [4] The Discharger shall visually observe equipment, storage areas, and BMPs within each drainage area for the presence or indication of prior, current, or potential unauthorized non-stormwater discharges and their sources; and correct BMP implementation if necessary.

The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. The Discharger shall provide an explanation in the Annual Stormwater Report for any uncompleted monthly visual observations.

The Discharger shall conduct stormwater monitoring at all locations identified in its NOI and Authorization to Discharge (e.g., Monitoring Locations STW-00n). Grab samples shall be collected when precipitation produces a discharge from at least one drainage area and the precipitation is preceded by 48 hours with no discharge from any drainage area. Samples shall be collected within four hours of the start of the stormwater discharge or the start of facility operations if the storm occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Samples shall represent the quality of stormwater discharged from the facility.

## VII. REPORTING

### A. General Reporting Requirements

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

### B. Self-Monitoring Reports (SMRs)

1. **Format.** The Discharger shall submit self-monitoring reports and cover letters via email to [R2NPDES.GeneralPermits@waterboards.ca.gov](mailto:R2NPDES.GeneralPermits@waterboards.ca.gov). However, at any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) 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.
2. **Due Dates and Contents.** The Discharger shall submit quarterly SMRs and annual reports by the due dates and with the contents specified below.
  - a. **Quarterly SMRs** — Quarterly SMRs shall be due 30 days after the end of each calendar quarter, covering that calendar quarter. The quarterly SMR shall contain the items listed below:
    - i. **Transmittal Letter.** Transmittal letter that includes the following:

- (a) Clear identification of any violations or a clear statement that there were no violations.
  - (b) Detailed description of any violations, their causes, and corrective actions taken or planned to resolve them and prevent recurrence. This shall include violations of any prohibition, effluent limitation, discharge specification, or receiving water limitation, and a detailed description of any failure to follow the BMPs Plan.
  - (c) Explanation for any data invalidation. Data should not be submitted in an SMR if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate any measurement after it was submitted in an SMR, a letter 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. This 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 the corrective actions taken or planned (with a time schedule for completion) to prevent recurrence of the sampling or measurement problem.
  - (d) Signature and certification in accordance with Attachment D sections V.B and V.C.
- ii. **Required Monitoring.** Each SMR shall include tabulations of all required analyses and observations, including parameters, dates, times, monitoring locations, 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.
  - iii. **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 SMR.
  - iv. **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 SMR and include the data for these parameters and relevant discussions of any violations in the next SMR due after the results are available.
- b. **Annual SMRs** — Annual reports shall be due February 15 each year, covering the previous calendar year. Annual reports shall cover the period of January 1 through December 31. Annual reports shall contain the items described below:
    - i. Annual compliance summary.
    - ii. Comprehensive discussion of performance and compliance. This summary shall include any corrective actions taken or planned, such as changes to equipment or operations that may be needed to achieve compliance and any other actions taken or planned that are intended to improve the performance and reliability of the Discharger's practices.

- iii. Both tabular (one year) and graphical (five years) summaries of monitoring data. The Discharger shall identify trends, if any, in pollutant concentrations found in effluent or receiving water samples for previous years.
  - iv. Annual Wastewater Facilities Review and Evaluation status report as required by Provision VI.C.3.a.iv.
  - v. Annual Operations and Maintenance Manual Review status report as required by Provision VI.C.3.b.iv.
  - vi. Annual BMPs Plan evaluation as required by Provision VI.C.4.e.
- c. **Annual Stormwater Reports.** The Discharger shall submit an Annual Stormwater Report by July 15 each year covering the previous year (July 1 through June 30). The Annual Stormwater Report shall, at a minimum, include the following:
- i. Identification of any non-compliance within the reporting year, with discussion of response actions.
  - ii. Tabulated summary of all monitoring results and visual observations taken during inspections (see MRP section VI).
  - iii. Comprehensive discussion of source identification and control programs for oil and grease, pH, TSS, iron, nitrate, nitrite, and any other chemical constituents that should not be present in stormwater.
  - iv. Comprehensive discussion of corrective actions taken or planned, including but not limited to a summary of BMP changes implemented during the previous year and changes planned for the following year.

**3. Monitoring Periods.** Monitoring periods for all required monitoring shall be completed as set forth in the table below:

**Table E-7. Monitoring Periods**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Effective date of Authorization to Discharge	All times while the facility is discharging
1/Day	Effective date of Authorization to Discharge	Midnight through 11:59 p.m.
1/Week	First Sunday following (or on) effective date of Authorization to Discharge	Sunday through Saturday
1/Month	First day of calendar month following (or on) effective date of Authorization to Discharge	First day of calendar month through last day of calendar month
1/Year	Closest January 1 before or after effective date of Authorization to Discharge	January 1 through December 31
2/Year	Closest January 1 or July 1 before or after effective date of Authorization to Discharge	January 1 through June 30 July 1 through December 31
4 Storms/Year	Closest January 1 or July 1 before or after effective date of Authorization to Discharge	January 1 through June 30 (two storms) July 1 through December 31 (two storms)
Once	Effective date of Authorization to Discharge	Once during the permit term within 12 months prior to applying for permit reissuance

- 4. RL and MDL Reporting.** The Discharger shall report the Reporting Level (RL) and Method Detection Limit (MDL) with each sample result as determined by the procedure in 40 C.F.R. part 136. The Discharger may select any analytical methods described in 40 C.F.R. part 136; however, the RLs shall be below applicable water quality objectives. Otherwise, RLs shall be as low as possible. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:
- a. 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).
  - b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported. For purposes of data collection, the laboratory shall 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.
  - c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected” or “ND.”
  - d. The Discharger shall instruct laboratories to establish calibration standards so that the lowest calibration standard is at or below the minimum level specified below (or its equivalent if there is differential treatment of samples relative to calibration standards). At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. The table below lists minimum levels for priority pollutants:

**Table E-8. Minimum Levels**

CTR No.	Pollutant	Suggested Analytical Method <sup>[1]</sup>	Minimum Level for Aggregate Mining Facilities (µg/L)	Minimum Level for Marine Sand Washing (µg/L)
1	Antimony	204.2	5	1000
2	Arsenic	206.3	2	20
3	Beryllium		2	1000
4	Cadmium	200 or 213	0.5	0.5
5a	Chromium (III)	SM 3500		
5b	Chromium (VI)	SM 3500	5	10
6	Copper	200.9	10	5
7	Lead	200.9	5	5
8	Mercury	1631	0.002	0.002
9	Nickel	249.2	50	5
10	Selenium	200.8 or SM 3114B or C	2	2
11	Silver	272.2	2	2
12	Thallium	279.2	1	5
13	Zinc	200 or 289	20	20



CTR No.	Pollutant	Suggested Analytical Method <sup>[1]</sup>	Minimum Level for Aggregate Mining Facilities (µg/L)	Minimum Level for Marine Sand Washing (µg/L)
14	Cyanide	SM 4500 CN-C or I	5	5
15	Asbestos	0100.2	[2]	[2]
16	2,3,7,8-TCDD (Dioxin)	1613		
17	Acrolein	603	5	5
18	Acrylonitrile	603	2	2
19	Benzene	602	0.5	2
33	Ethylbenzene	602	2	2
39	Toluene	602	2	2
20	Bromoform	601	2	2
21	Carbon Tetrachloride	601	0.5	2
22	Chlorobenzene	601	2	2
23	Chlorodibromomethane	601	0.5	2
24	Chloroethane	601	2	2
25	2-Chloroethylvinyl Ether	601	1	1
26	Chloroform	601	2	2
27	Dichlorobromomethane	601	0.5	2
28	1,1-Dichloroethane	601	1	1
29	1,2-Dichloroethane	601	0.5	2
30	1,1-Dichloroethylene	601	0.5	2
31	1,2-Dichloropropane	601	0.5	1
32	1,3-Dichloropropylene	601	0.5	2
34	Methyl Bromide	601	2	2
35	Methyl Chloride	601	2	2
36	Methylene Chloride	601	2	2
37	1,1,2,2-Tetrachloroethane	601	0.5	1
38	Tetrachloroethylene	601	0.5	2
40	1,2-Trans-Dichloroethylene	601	1	1
41	1,1,1-Trichloroethane	601	2	2
42	1,1,2-Trichloroethane	601	0.5	2
43	Trichloroethylene	601	2	2
44	Vinyl Chloride	601	0.5	2
75	1,2-Dichlorobenzene	601	2	2
76	1,3-Dichlorobenzene	601	2	2
77	1,4-Dichlorobenzene	601	2	2
45	2-Chlorophenol	604	5	5
46	2,4-Dichlorophenol	604	5	5
47	2,4-Dimethylphenol	604	2	2
48	2-Methyl-4,6-Dinitrophenol	604	10	10
49	2,4-Dinitrophenol	604	5	5
50	2-Nitrophenol	604	10	10
51	4-Nitrophenol	604	10	10
52	3-Methyl-4-Chlorophenol	604	5	5
53	Pentachlorophenol	604	1	5

CTR No.	Pollutant	Suggested Analytical Method <sup>[1]</sup>	Minimum Level for Aggregate Mining Facilities (µg/L)	Minimum Level for Marine Sand Washing (µg/L)
54	Phenol	604	50	50
55	2,4,6-Trichlorophenol	604	10	10
56	Acenaphthene	610 HPLC	1	1
57	Acenaphthylene	610 HPLC	10	10
58	Anthracene	610 HPLC	10	10
60	Benzo(a)Anthracene	610 HPLC	5	5
61	Benzo(a)Pyrene	610 HPLC	2	2
62	Benzo(b)Fluoranthene	610 HPLC	10	10
63	Benzo(ghi)Perylene	610 HPLC	5	5
64	Benzo(k)Fluoranthene	610 HPLC	2	2
74	Dibenzo(a,h)Anthracene	610 HPLC	0.1	0.1
86	Fluoranthene	610 HPLC	10	10
87	Fluorene	610 HPLC	10	10
92	Indeno(1,2,3-cd) Pyrene	610 HPLC	0.05	0.05
100	Pyrene	610 HPLC	10	10
68	Bis(2-Ethylhexyl)Phthalate	606 or 625	5	5
70	Butylbenzyl Phthalate	606 or 625	10	10
79	Diethyl Phthalate	606 or 625	10	10
80	Dimethyl Phthalate	606 or 625	10	10
81	Di-n-Butyl Phthalate	606 or 625	10	10
84	Di-n-Octyl Phthalate	606 or 625	10	10
59	Benzidine	625	5	5
65	Bis(2-Chloroethoxy)Methane	625	5	5
66	Bis(2-Chloroethyl)Ether	625	1	1
67	Bis(2-Chloroisopropyl)Ether	625	10	10
69	4-Bromophenyl Phenyl Ether	625	10	10
71	2-Chloronaphthalene	625	10	10
72	4-Chlorophenyl Phenyl Ether	625	5	5
73	Chrysene	625	5	5
78	3,3-Dichlorobenzidine	625	5	5
82	2,4-Dinitrotoluene	625	5	5
83	2,6-Dinitrotoluene	625	5	5
85	1,2-Diphenylhydrazine	625	1	1
88	Hexachlorobenzene	625	1	1
89	Hexachlorobutadiene	625	1	5
90	Hexachlorocyclopentadiene	625	5	5
91	Hexachloroethane	625	1	5
93	Isophorone	625	1	10
94	Naphthalene	625	10	10
95	Nitrobenzene	625	10	10
96	N-Nitrosodimethylamine	625	5	5
97	N-Nitrosodi-n-Propylamine	625	5	5
98	N-Nitrosodiphenylamine	625	1	10
99	Phenanthrene	625	5	5

CTR No.	Pollutant	Suggested Analytical Method <sup>[1]</sup>	Minimum Level for Aggregate Mining Facilities (µg/L)	Minimum Level for Marine Sand Washing (µg/L)
101	1,2,4-Trichlorobenzene	625	1	5
102	Aldrin	608	0.005	0.005
103	alpha-BHC	608	0.01	0.01
104	beta-BHC	608	0.005	0.005
105	gamma-BHC (Lindane)	608	0.02	0.02
106	delta-BHC	608	0.005	0.005
107	Chlordane	608	0.1	.01
108	4,4'-DDT	608	0.01	0.01
109	4,4'-DDE	608	0.05	0.05
110	4,4'-DDD	608	0.05	0.05
111	Dieldrin	608	0.01	0.01
112	alpha-Endosulfan	608	0.02	0.02
113	beta-Endosulfan	608	0.01	0.01
114	Endosulfan Sulfate	608	0.05	0.05
115	Endrin	608	0.01	0.01
116	Endrin Aldehyde	608	0.01	0.01
117	Heptachlor	608	0.01	0.01
118	Heptachlor Epoxide	608	0.01	0.01
119-125	PCBs sum	608 and 1668C <sup>[3]</sup>	0.5	0.5
126	Toxaphene	608	0.5	0.5

Abbreviation:

µg/L = micrograms per liter

Footnotes:

<sup>[1]</sup> 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 have the discretion to use any standard method.

<sup>[2]</sup> Asbestos sampling is only required for discharges to waters with the municipal or domestic supply (MUN) beneficial use (i.e., aggregate mining facilities). Units of measurement for asbestos is fibers/liter.

<sup>[3]</sup> MRP Table E-3 requires analysis using both methods.

## 5. Compliance Determination

- a. **Reporting Levels.** Compliance with effluent limitations shall be determined using sample reporting protocols defined above and in the Fact Sheet and Attachments A and D. For purposes of reporting and administrative enforcement, 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.
- b. **Multiple Samples.** 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:

- i. 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.
  - ii. 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).
- c. **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 section VII.B.5.b, above]).

### C. Discharge Monitoring Reports (DMRs)

The Discharger shall submit Discharge Monitoring Reports (DMRs) in accordance with Attachment D section V.C.2 if instructed to do so by the Regional Water Board or State Water Board.

### D. Violations and Unauthorized Discharges

1. The Discharger shall report by telephone and email to Regional Water Board staff overseeing this Order (see Authorization to Discharge) within 24 hours of becoming aware of a bypass or violation of this Order.
2. The Discharger shall report spills to the California Office of Emergency Services (telephone 800-852-7550) when spills meet or exceed applicable reportable quantities for hazardous materials.
3. The Discharger shall submit a written report to the Regional Water Board within five days following the telephone and email notification described above unless directed otherwise by Regional Water Board staff in writing. Electronic submittal is acceptable. The written report shall include the following:
  - a. Date, time, and duration of violation or spill;
  - b. Location of violation or spill (map, street address, and description of location);
  - c. Nature of violation or material spilled;
  - d. Volume and quantity of any material involved;
  - e. Affected receiving water, if any;
  - f. Cause of violation or spill;
  - g. Estimated size of affected area;
  - h. Observed receiving water impacts (e.g., oil sheen, fish kill, or water discoloration);

- i.** Actions taken to correct violation or to contain, minimize, or clean up spill;
- j.** Future corrective actions planned to prevent recurrence and implementation schedule;  
and
- k.** Persons or agencies notified.

## ATTACHMENT F – FACT SHEET

### Contents

I. Permit Information .....	F-3
II. Facility Descriptions.....	F-3
A. Aggregate Mining Facilities.....	F-3
B. Marine Sand Washing Facilities.....	F-3
C. Sand Offloading Facilities.....	F-4
D. Industrial Stormwater .....	F-4
E. Discharge Points and Receiving Waters .....	F-4
F. Previous Requirements.....	F-5
G. Compliance Summary .....	F-6
III. Applicable Plans, Policies, and Regulations .....	F-6
A. Legal Authorities.....	F-6
B. California Environmental Quality Act .....	F-6
C. State and Federal Regulations, Policies, and Plans .....	F-7
D. Impaired Waters on CWA 303(d) List.....	F-8
IV. Rationale For Effluent Limitations and Discharge Specifications.....	F-9
A. Discharge Prohibitions .....	F-9
B. Basin Plan Discharge Prohibitions.....	F-9
C. Technology-Based Effluent Limitations .....	F-11
1. Scope and Authority.....	F-11
2. Applicable Limitations.....	F-12
3. Best Professional Judgment.....	F-13
D. Water Quality-Based Effluent Limitations (WQBELs).....	F-14
1. Scope and Authority.....	F-14
2. Beneficial Uses and Water Quality Criteria and Objectives .....	F-15
3. Need for WQBELs .....	F-16
4. Water Quality-Based Effluent Limitations (WQBELs).....	F-26
E. Discharge Requirement Considerations .....	F-28
V. Rationale for Receiving Water Limitations.....	F-29
VI. Rationale for Provisions .....	F-29
A. Standard Provisions.....	F-29
B. Monitoring and Reporting Provisions .....	F-29
C. Special Provisions .....	F-29
1. Reopener Provisions.....	F-29
2. Application for General Permit Coverage and Authorization to Discharge .....	F-30
3. Construction, Operation, and Maintenance Specifications .....	F-30
4. Best Management Practices Plan .....	F-30
VII. Rationale for Monitoring and Reporting Requirements.....	F-30
VIII. Public Participation .....	F-31

## Tables

Table F-1. Previous Aggregate Mining Facility Effluent Limitations.....	F-5
Table F-2. Previous Marine Sand Washing Facility Effluent Limitations .....	F-5
Table F-3. Previous Sand Offloading Facility Effluent Limitations.....	F-6
Table F-4. Factors Considered Pursuant to 40 C.F.R. sections 125.3(d)(1) and 125(d)(3) .....	F-14
Table F-5. Site-Specific Copper and Nickel Translators .....	F-16
Table F-6. Reasonable Potential Analysis – Aggregate Mining Facilities .....	F-18
Table F-7. Reasonable Potential Analysis – Marine Sand Washing Facilities.....	F-21
Table F-8. Reasonable Potential Analysis – Municipal and Agricultural Supply Pollutants .....	F-25
Table F-9. WQBEL Calculations.....	F-26

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

### I. PERMIT INFORMATION

- A. This Order regulates discharges from aggregate mining, marine sand washing, and sand offloading facilities. It reissues NPDES General Permit No. CAG982001, which the Regional Water Board issued through Order No. R2-2015-0035 (previous order).
- B. Site owners and operators that complete a Notice of Intent (NOI) form (Attachment B) and apply for an Authorization to Discharge under this Order, and that are granted such authorization, are hereinafter called “Dischargers.” For the purposes of this Order, references to “discharger” or “permittee” in applicable federal and State laws, regulations, plans, and policies are held to be equivalent to references to the Discharger herein.

### II. FACILITY DESCRIPTIONS

#### A. Aggregate Mining Facilities

- 1. **Description.** Aggregate mining facilities produce various grades of aggregates for construction. Some aggregate mining facilities may also involve other types of industrial activities, such as ready-mix concrete plants or asphalt plants, on the same property. Most store oil, grease, fuel, and other chemicals onsite to maintain equipment.

Aggregate mining results in a pit in the ground. Inactive mining pits serve as water detention ponds. Groundwater that seeps into the active mining pit is pumped through a series of detention ponds. Water from the last detention pond is used for aggregate screening and washing and dust control. Some facilities have onsite wells to supply additional water. Others may use potable water to wash or screen aggregate. Wash water is sent to the detention ponds for treatment and reuse before discharge.

Five facilities of this type enrolled under the previous order.

- 2. **Discharges.** Aggregate mining facility wastewater, such as groundwater seepage diverted from active mining pits, stormwater runoff from facility yards, wash water, and runoff from dust control, flow through a series of detention ponds. Pollutants of concern in these discharges consist mainly of solids that do not settle out in the detention ponds and dissolved solids. Other pollutants of concern potentially include toxic pollutants if nearby groundwater is polluted, or if runoff occurs from inadequately contained hazardous materials storage areas, and chlorine residual if potable water is used to wash aggregate.

#### B. Marine Sand Washing Facilities

- 1. **Description.** Marine sand washing facilities mainly process sand mined from San Francisco Bay. Sand or aggregate may also be transported from surface mines. The sand or aggregate is transported by barge, offloaded by conveyor belt, and stockpiled on the ground or in settling ponds. Most of the sand or aggregate is screened and sold for construction. Some sand is



washed (to remove salt) for concrete production. Potable water may be used to wash or screen sand or aggregate, or for dust control. Most marine sand washing facilities store oil, grease, fuel, and other chemicals onsite to maintain equipment.

Four facilities of this type enrolled under the previous order.

- 2. Discharges.** Marine sand washing facility discharges consist of San Francisco Bay water drained from sand piles; water that overflows settling ponds when hydraulic dredging is used; water used to wash and screen sand or aggregate, or for dust control; and stormwater runoff from facility yards. Pollutants of concern in the discharge consist mainly of solids not settled out in the detention ponds. Other pollutants of concern potentially include chlorine residual for facilities that use potable water to wash or screen the sand or aggregate, to increase its moisture content, or for dust control; copper, such as from potable water if the water purveyor used copper to control algae; metals from San Francisco Bay water and sediment entrained with the sand; and toxic pollutants if runoff occurs from inadequately contained hazardous materials storage areas.

### C. Sand Offloading Facilities

- 1. Description.** Sand mined from various locations (e.g., San Francisco Bay) is transported by barge and offloaded by hydraulic slurry. Wet sand is stockpiled on the ground or stored in settling ponds. The reclaimed sand is screened and sold for construction uses. Sand offloading facilities do not use potable water for screening.

No facility of this type enrolled under the previous order.

- 2. Discharges.** Sand offloading facility discharges consist of water drained from sand piles, water that overflows settling ponds when hydraulic dredging is used, and stormwater runoff from facility yards. Pollutants of concern in the discharge consist mainly of solids not settled out in the detention ponds. Other pollutants of concern potentially include toxic pollutants if runoff occurs from inadequately contained hazardous materials storage areas, and pollutants present in the source water and sediment.

### D. Industrial Stormwater

This Order covers non-commingled industrial stormwater discharges for Dischargers that also have wastewater discharges. Runoff from these industrial areas may carry sediment, discarded materials, oil and grease, fuel, and plastics. Dischargers may enroll under this Order or retain coverage under the *Statewide General Permit for Storm Water Discharges Associated with Industrial Activities* (Industrial General Permit), NPDES No. CAS000001, currently State Water Board Order No. 2014-0057-DWQ. Dischargers may terminate coverage under the Industrial General Permit for any industrial stormwater discharges covered under this Order as of the effective date of an Authorization to Discharge under this Order.

### E. Discharge Points and Receiving Waters

Dischargers may discharge to any receiving waters in the San Francisco Bay Region, including inland surface waters and enclosed bays, but excluding the Pacific Ocean. Aggregate mining facilities typically discharge to inland surface waters (e.g., freshwater creeks). Marine sand washing and sand offloading facilities typically discharge to enclosed bays (e.g., San Francisco

Bay). The NOI Form in Attachment B requires each Discharger to specify its discharge locations and to provide a map indicating all discharge paths to surface waters.

## F. Previous Requirements

The tables below present the previous order’s effluent limitations from the previous order term:

**Table F-1. Previous Aggregate Mining Facility Effluent Limitations**

Parameter	Units	Monthly Average	Weekly Average	Daily Maximum
Total Suspended Solids (TSS)	mg/L	30	45	-
Turbidity	NTU	-	-	40
Settleable Matter	mL/L-hr	0.1	-	0.2
pH	s.u.	6.5 - 8.5 <sup>[1]</sup>		
Total Dissolved Solids (TDS)	mg/L	-	-	500
Chloride	mg/L	-	-	250
Total Residual Chlorine	mg/L	0.0 maximum <sup>[2]</sup>		
Whole Effluent Acute Toxicity	%	Not less than 70%		

Abbreviations:

mg/L = milligrams per liter  
 mL/L-hr = milliliters per liter-hour  
 NTU = nephelometric turbidity units  
 % = percent  
 s.u. = standard units

Footnotes:

- <sup>[1]</sup> Instantaneous minimum and instantaneous maximum.  
<sup>[2]</sup> Instantaneous maximum.

**Table F-2. Previous Marine Sand Washing Facility Effluent Limitations**

Parameter	Units	Monthly Average	Daily Maximum
Turbidity	NTU	-	50
Settleable Matter	mL/L-hr	0.1	0.2
pH	s.u.	6.5 - 8.5 <sup>[1]</sup>	
Total Residual Chlorine	mg/L	0.0 maximum <sup>[2]</sup>	
Whole Effluent Acute Toxicity	%	Not less than 70%	
Copper	µg/L	5.4	11
Mercury (Hanson Aggregates, Amador Street, San Francisco)	kg/year	0.000005 maximum	
Mercury (Hanson Aggregates, Tidewater Avenue, Oakland)	kg/year	0.000005 maximum	
Mercury (other facilities)	kg/year	0.000000 maximum	
PCBs (Hanson Aggregates, Amador Street, San Francisco)	kg/year	0.00003 maximum	
PCBs (Hanson Aggregates, Tidewater Avenue, Oakland)	kg/year	0.00003 maximum	
PCBs (other facilities)	kg/year	0.00000 maximum	

Abbreviations:

mg/L = milligrams per liter  
 mL/L-hr = milliliters per liter-hour  
 NTU = nephelometric turbidity units  
 s.u. = standard units  
 % = percent

Footnotes:

- [1] Instantaneous minimum and instantaneous maximum.
- [2] Instantaneous maximum.

**Table F-3. Previous Sand Offloading Facility Effluent Limitations**

Parameter	Units	Maximum Daily
Settleable Matter	mL/L-hr	1.0
pH	s.u.	6.5 - 8.5 <sup>[1]</sup>

Abbreviations:

- mL/L-hr = milliliters per liter-hour
- s.u. = standard units

Footnote:

- [1] Instantaneous minimum and instantaneous maximum.

**G. Compliance Summary**

- 1. Aggregate Mining Facilities.** During the previous order term, there were 2 turbidity effluent limit violations, 1 total suspended solids (TSS) effluent limit violation, and 1 total dissolved solids (TDS) effluent limit violation. The Regional Water Board issued mandatory minimum penalties for 3 effluent limit violations. The most recent violation is pending review and resolution.
- 2. Marine Sand Washing Facilities.** During the previous order term, there were 7 turbidity effluent limit violations, 7 residual chlorine effluent limit violations, 7 pH effluent limit violations, and 6 copper effluent limit violations. The Regional Water Board issued mandatory minimum penalties for 25 effluent limit violations. The most recent violations are pending review and resolution.
- 3. Sand Offloading Facilities.** No sand offloading facility was enrolled under the previous order; thus, no violations were reported.

**III. APPLICABLE PLANS, POLICIES, AND REGULATIONS**

**A. Legal Authorities**

This Order serves as Waste Discharge Requirements (WDRs) pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260) for discharges to waters of the State. This Order is also issued pursuant to 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 for point source discharges to surface waters from enrolled facilities.

**B. California Environmental Quality Act**

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100).

### C. State and Federal Regulations, Policies, and Plans

**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 No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Receiving water beneficial uses include some or all of the following:

- Agricultural Supply
- Areas of Special Biological Significance
- Cold Freshwater Habitat
- Commercial and Sport Fishing
- Estuarine Habitat
- Freshwater Replenishment
- Groundwater Recharge
- Industrial Service Supply
- Marine Habitat
- Fish Migration
- Municipal and Domestic Supply
- Navigation
- Industrial Process Supply
- Preservation of Rare and Endangered Species
- Water Contact Recreation
- Non-Contact Water Recreation
- Shellfish Harvesting
- Fish Spawning
- Warm Freshwater Habitat
- Wildlife Habitat

**2. Sediment Quality.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* on September 16, 2008, and it became effective on August 25, 2009. The State Water Board adopted amendments to the plan on June 5, 2018, that became effective on March 11, 2019. This plan supersedes other narrative sediment quality objectives, and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries.

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

**4. 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 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 in 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. The SIP establishes implementation provisions for priority pollutant criteria and objectives, and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

5. **Mercury Provisions.** On May 2, 2017, the State Water Board adopted Resolution 2017-0027, which approved Final Part 2 of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (Mercury Provisions), thereby establishing water quality objectives for mercury in most State waters. The Mercury Provisions (section III.D.3) supersede the freshwater mercury water quality objectives in Basin Plan Table 3-4. Requirements of this Order implement the Mercury Provisions.
6. **Domestic Water Quality.** In accordance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order complies with that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
7. **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 requires 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 No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," which is deemed to incorporate 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 No. 68-16.
8. **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.
9. **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 the federal Endangered Species Act (16 U.S.C. §§ 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.

#### **D. Impaired Waters on CWA 303(d) List**

On April 6, 2018, U.S. EPA approved a revised list of impaired waters prepared 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 for the impaired waters.

The SIP requires effluent limitations for all 303(d)-listed pollutants to be consistent with TMDLs and associated wasteload allocations. This Order is not expected to contribute to any water quality impairment because the effluent limitations included in this Order are based on water quality objectives protective of receiving water beneficial uses. A TMDL for mercury in San Francisco Bay became effective February 12, 2008, and a TMDL for PCBs in San Francisco Bay became effective March 29, 2010. Effluent limitations for mercury and PCBs are based on TMDL wasteload allocations in Basin Plan sections 7.2.2 and 7.2.3. A TMDL for selenium in North San Francisco Bay became effective on August 23, 2016. This TMDL does not contain effluent limitations for aggregate mining, marine sand washing, or sand offloading facilities because these facilities are not known to be significant sources of selenium and none have obtained authorization to discharge to North San Francisco Bay. Facilities that discharge to waters with TMDLs may be required to obtain coverage under an individual permit.

#### **IV. 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.

##### **A. Discharge Prohibitions**

- 1. Discharge Prohibition III.A (No discharge of waste other than as described in NOI and Authorization to Discharge):** 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 discharge can occur. Discharges not described in an NOI and Authorization to Discharge are prohibited.
- 2. Discharge Prohibition III.B (No discharge of sanitary wastewater):** This prohibition is necessary because the requirements of this Order do not address sanitary wastewater. Sanitary wastewater discharges must meet secondary treatment standards and other requirements. This Order's requirements do not implement these standards so sanitary discharges are prohibited.
- 3. Discharge Prohibition III.C (No bypass of retention ponds):** This prohibition requires that wastewater discharges not bypass retention ponds because the ponds are the primary form of treatment at the facilities this Order covers. Bypassing ponds could greatly reduce effluent quality. This prohibition is based on 40 C.F.R. section 122.41(m) (see Attachment D, section I.G).

##### **B. Basin Plan Discharge Prohibitions**

###### **1. Shallow Water and Dead-End Slough Discharge Prohibition**

Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharge of "any wastewater which has particular characteristics of concern to beneficial uses at any point at which the

wastewater does not receive a minimum initial dilution of at least 10:1....” This prohibition is intended to provide an added degree of protection from the continuous effect of discharges and provide a buffer against the effects of abnormal discharges caused by temporary upsets or malfunctions. As explained in Basin Plan section 4.2, the Regional Water Board reviews requests for exceptions to this prohibition based in part on the reliability of a discharger’s system in preventing inadequately treated wastewater from being discharged to the receiving water. Basin Plan section 4.2 allows exceptions in 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;
- A discharge is approved as part of a reclamation project; or
- Net environmental benefits will be derived as a result of the discharge; or
- A discharge is approved as part of a groundwater cleanup project and, in accordance with Resolution No. 88-160 “Regional Board Position on the Disposal of Extracted Groundwater from Groundwater Clean-Up Projects,” it has been demonstrated that neither reclamation nor discharge to a POTW is technically and economically feasible, and the discharger has provided certification of the adequacy and reliability of treatment facilities and a plan that describes procedures for proper operation and maintenance of all treatment facilities.

The Basin Plan further states:

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

Discharges from aggregate mining, marine sand washing, and sand offloading facilities are not continuous or subject to upset. The 10:1 dilution requirement was intended to accommodate treatment plant upsets. In any case, providing an initial dilution of at least 10:1 would be impracticable for this type of discharge and thus would constitute an inordinate burden for dischargers. Moreover, Provision VI.C.4 of the Order requiring development and implementation of best management practices to control all potential pollutants provides an equivalent level of water quality protection.

## **2. Other Basin Plan Discharge Prohibitions**

Basin Plan Discharge Prohibitions 8 and 13 prohibit discharge of floating oil or other materials to protect wildlife and discharge of oil except in accordance with waste discharge requirements. This Order requires acute toxicity testing and establishes receiving water limits to ensure treated effluent is protective of wildlife in accordance with waste discharge requirements (see Receiving Water Limitations V.A.1 and V.A.8).

Basin Plan Discharge Prohibition 9 prohibits discharge of silt, sand, clay, or other earthen materials in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters, or to unreasonably affect or threaten to affect beneficial uses.

This Order establishes receiving water limits to protect the beneficial uses of receiving waters (see Receiving Water Limitations V.A.2, V.A.3, V.A.4, V.A.6, and V.A.7). This Order also establishes effluent limits for TSS, turbidity, and settleable matter. It also requires Dischargers to prepare and implement a BMPs Plan that describes steps to ensure that discharges will not adversely affect receiving waters.

## C. Technology-Based Effluent Limitations

### 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:

- a. **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.
- b. **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.
- c. **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 a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly-owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.
- d. **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 application of BPT, BAT, BCT, and NSPS. CWA section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of best professional judgment to derive technology-based effluent limitations on a case-by-case basis when 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.

U.S. EPA established effluent limitations, guidelines, and standards for mineral mining and processing, including construction sand and gravel mining (i.e., aggregate mining) at 40 C.F.R. section 436 subpart C. These regulations specify that the pH of aggregate mining



discharges must be within 6.0 and 9.0. Basin Plan Table 4-2 contains additional technology-based requirements.

## 2. Applicable Limitations

### a. Aggregate Mining Facilities

- i. **Total Suspended Solids.** The total suspended solids limitations are based on Basin Plan Table 4-2.
- ii. **Turbidity.** The turbidity limitation is based on best professional judgment (see section IV.B.3, below). Toxic pollutants can attach to solids (suspended, settleable, etc.); therefore, improving solids removal will help remove potential toxic pollutants in the discharge. The limitation in this Order is based on the historical ability of some Dischargers to comply with the limitation. The previous order and individual NPDES permits adopted prior to this general permit (i.e., Order Nos. R2-1996-0045 and R2-1997-0037, which have been rescinded) contained the same limitation. Although there have been occasional exceedances, Dischargers are generally able to manage their settling ponds to comply with this limitation; some Dischargers have never violated it.
- iii. **Settleable Matter.** The settleable matter limitations are based on Basin Plan Table 4-2.
- iv. **Total Residual Chlorine.** The total residual chlorine limitation is based on Basin Plan Table 4-2 and applies only to those facilities that use potable water in their processes.
- v. **pH.** The pH limitations are based on Basin Plan Table 4-2 and are more stringent than those required by the effluent limitations, guidelines, and standards at 40 C.F.R. section 436, subpart C. The additional requirements in Table 2, footnote 1, of the Order reflect Basin Plan section 3.3.9 and the effluent limitations, guidelines, and standards at 40 C.F.R. section 436, subpart C. They are necessary because the pH of some upstream receiving waters (e.g., Alameda Creek and Arroyo Mocho) exceeds 8.5.

### b. Marine Sand Washing Facilities

- i. **Settleable Matter.** The settleable matter limitations are based on Basin Plan Table 4-2.
- ii. **Total Residual Chlorine.** The chlorine residual limitation is based on Basin Plan Table 4-2 and applies only to those facilities that use potable water in their processes.
- iii. **pH.** The pH limitations are based on Basin Plan Table 4-2. The additional requirements in Table 3, footnote 1, of the Order reflect Basin Plan section 3.3.9. They are necessary because the pH of San Francisco Bay waters sometimes exceeds 8.5.

- iv. Turbidity.** The turbidity limitation is based on best professional judgment (see section IV.B.3, below). Toxic pollutants can attach to solids (suspended, settleable, etc.); therefore, improving solids removal will help remove potential toxic pollutants in the discharge. The limitation was derived during the 2008 reissuance of this general permit (see Order No. R2-2008-0011) by calculating the 95th percentile of three facilities' monitoring data collected from 2003 through 2007. Based on monitoring data collected from 2015 through 2019, this limitation is still protective. Although there have been occasional exceedances, Dischargers are generally able to manage their settling ponds to comply with this turbidity limitation.

The turbidity limit serves, in part, as a proxy for TSS. Basin Plan Table 4-2 calls for a 7-day average TSS effluent limitation of 45 mg/L for sewage treatment facilities and some non-sewage discharges. In the past, a Discharger that owns marine sand washing facilities reported difficulty accurately and reliably quantifying TSS in salty discharge samples (*Evaluation of the accuracy and reliability of EPA test method 160.2 to measure total suspended solids [TSS] in effluent from marine sand processing facilities* [2005]; *Total Suspended Solids [TSS] Special Study for Marine Sand Washing and Offloading Facilities, Annual Progress Reports* [2006, 2009, 2011, 2013]). Based on *Summary of Suspended-Sediment Concentration Data, San Francisco Bay, California, Water Year 2010* (U.S. Geological Survey, 2014, <http://pubs.usgs.gov/ds/808/pdf/ds808.pdf>), the maximum daily turbidity limit in this Order is roughly equivalent to 40 mg/L of TSS.

### c. Sand Offloading Facilities

- i. Settleable Matter.** The settleable matter limitation is based on Basin Plan Table 4-2 and best professional judgment (see section IV.B.3, below). The limitation accounts for natural matter that may be entrained with San Francisco Bay sand (as opposed to solids introduced during the more aggressive processing operations that occur at marine sand washing facilities). The limit is appropriately protective because sand offloading facilities generally discharge into marshes or wetlands, which remove some of the settleable solids before the discharges reach the deeper waters of San Francisco Bay. If a new sand offloading facility were to discharge directly into open water, more stringent effluent limits may be necessary. The Regional Water Board could consider incorporating new limits when reissuing this permit or by amending this Order.
- ii. pH.** The pH limitations are based on Basin Plan Table 4-2. The additional requirements in Table 6, footnote 1, of the Order are based on Basin Plan section 3.3.9. They are necessary because the pH of San Francisco Bay waters sometimes exceeds 8.5.

### 3. Best Professional Judgment

The turbidity effluent limitation for aggregate mining and marine sand washing facilities, and the settleable matter effluent limitation for sand offloading facilities, are based on past performance and represent BPT and BAT controls based on best professional judgment. BPT and BAT controls are required for non-conventional pollutants (i.e., turbidity and settleable matter). BCT controls do not apply to these discharges because they only apply to

conventional pollutants (i.e., biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease). NSPS controls do not apply to these discharges because they are not “new sources.”

Discharger data demonstrate that compliance with these limitations is feasible because Dischargers have been able to comply with them with few exceptions (see section II.F, above). In establishing these limitations, the Regional Water Board considered the factors specified in 40 C.F.R. sections 125.3(d)(1) and 125(d)(3), as indicated in the table below:

**Table F-4. Factors Considered Pursuant to 40 C.F.R. sections 125.3(d)(1) and 125(d)(3)**

Factors	Considerations
Cost relative to benefits	The cost of imposing these limits is reasonable given that existing Dischargers can comply without modifying their existing processes.
Comparison of cost and pollutant reductions from publicly owned treatment works to cost and pollutant reductions from facilities subject to this permit	The facilities subject to this Order provide the equivalent of primary treatment for process wastewater (sedimentation); therefore, the cost of continuing such operations is considerably less than the cost of operating publicly owned treatment works, which must comply with the secondary treatment standards of 40 C.F.R. section 133.
Age of equipment and facilities involved	These limits can be met with existing equipment and facilities.
Process employed	These limits can be met with existing processes.
Engineering aspects of application of control techniques	Existing controls are practicable and capable of meeting these limits.
Process changes	No process changes are necessary to meet these limits.
Non-water-quality environmental impact (including energy requirements)	Because no process changes are necessary, no non-water-quality impacts are foreseeable.

## D. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

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

## 2. Beneficial Uses and Water Quality Criteria and Objectives

Fact Sheet section III.C.1 identifies the potential beneficial uses of the receiving waters for discharges subject to this Order. Water quality criteria and objectives to protect these beneficial uses are described below.

- a. **Basin Plan.** The Basin Plan specifies numeric water quality objectives for many pollutants to protect aquatic life, municipal drinking water supplies, and agricultural water supplies (see Basin Plan sections 3.3.21 and 3.3.22). It also specifies narrative water quality objectives, such as the narrative toxicity objective: “All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.”
- b. **CTR.** 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.” Waters with the municipal or domestic supply beneficial use designation are subject to the “water and organisms” criteria.
- c. **NTR.** The NTR establishes numeric aquatic life and human health criteria for a number of pollutants for San Francisco Bay waters upstream to and including Suisun Bay and the San Joaquin-Sacramento River Delta.
- d. **Sediment Quality Objectives.** The *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality* contains a narrative water quality objective: “Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California.” This objective is to be implemented by integrating three lines of evidence: sediment toxicity, benthic community condition, and sediment chemistry. The policy requires that if the Regional Water Board determines that a discharge has reasonable potential to cause or contribute to an exceedance of this objective, it is to impose the objective as a receiving water limit.
- e. **Mercury Provisions Objectives.** The Mercury Provisions specify water column criteria for mercury depending on water body type and beneficial use. Aggregate mining facilities may discharge to flowing waters that support commercial and sport fishing; wildlife habitat; marine habitat; warm freshwater habitat; cold freshwater habitat; estuarine habitat; and preservation of rare and endangered species. Mercury Provisions section IV.D.2.b, Table 1, establish an annual average total mercury criterion of 0.012 µg/L for these receiving waters.
- f. **Receiving Water Salinity.** Basin Plan section 4.6.2 (like the CTR and NTR) states that the salinity characteristics (i.e., freshwater versus saltwater) of the receiving water are to be considered in determining the applicable water quality objectives. Freshwater criteria apply to discharges to waters with salinities equal to or less than one part per thousand (ppt) at least 95 percent of the time. Saltwater criteria apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For the aggregate mining facilities, the reasonable potential analyses and WQBELs are based on freshwater water quality criteria and objectives because these facilities discharge to creeks at locations with no tidal effects. For the marine sand washing and

sand offloading facilities, the reasonable potential analyses and WQBELs are based on saltwater water quality criteria because these facilities discharge to San Francisco Bay. The analysis could be revisited if any new facility were to discharge to estuarine waters.

- g. Receiving Water Hardness.** Some freshwater objectives for metals are hardness dependent (as hardness increases, the toxicity of certain metals decreases). The Alameda County Water District collected hardness data in 2003 and 2007 at two receiving water monitoring locations near aggregate mining facilities: (1) AC-AADLL (Alameda Creek above Arroyo de la Laguna), the closest station to the Hanson Mission Valley Rock and CEMEX Sunol aggregate mining facility outfalls; and (2) AM-AALP (Arroyo Mocho above Arroyo las Positas), the closest station to the Vulcan Materials Company and CEMEX Eliot Pleasanton aggregate mining facility outfalls. None of the 244 samples contained hardness greater than 400 mg/L as CaCO<sub>3</sub>. Freshwater objectives were calculated using the geometric mean of 164 mg/L as CaCO<sub>3</sub>.
- h. Site-Specific Translators.** Effluent limitations for metals must be expressed as total recoverable metal (40 C.F.R. § 122.45[c]). Since 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, suspended solids, and organic carbon 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. Site-specific translators can account for site-specific conditions, thereby preventing overly stringent or under protective water quality objectives.

This Order covers discharges to various receiving waters; therefore, site-specific conditions vary. CTR default translators were used for all metals, except for copper and nickel within the context of San Francisco Bay. Basin Plan Table 7.2.1-2 sets forth site-specific copper translators. The Clean Estuary Partnership’s *North of Dumbarton Bridge Copper and Nickel Development and Selection of Final Translators* (March 2005) contains site-specific nickel translators. Site-specific translators for Lower San Francisco Bay are used because they are the most protective and existing marine sand washing facilities discharge to Lower San Francisco Bay. These translators are listed below:

**Table F-5. Site-Specific Copper and Nickel Translators**

Parameter	Site Specific Translators	
	Chronic	Acute
Copper	0.73	0.87
Nickel	0.65	0.85

### 3. Need for WQBELs

Assessing whether a pollutant has reasonable potential to exceed a water quality objective is the fundamental step in determining whether a WQBEL is required.

- a. Effluent Data.** The reasonable potential analysis for this Order is based on effluent monitoring data collected during the previous order term and submitted by five aggregate mining facilities and three marine sand washing facilities with their NOIs.

**b. Ambient Background Data.** The reasonable potential analysis for this Order is based on receiving water monitoring data collected during the previous order term by five aggregate mining facilities (freshwater receiving waters) and three marine sand washing facilities (saltwater receiving waters). The SIP states that, when calculating WQBELs, ambient background concentrations are to be either the observed maximum ambient water column concentrations or, for water quality objectives intended to protect human health from carcinogenic effects, the arithmetic mean of observed ambient water concentrations.

**c. Priority Pollutants**

**i. Methodology.** SIP section 1.3 sets forth the methodology used to assess whether priority pollutants have reasonable potential to exceed CTR and NTR water quality objectives. Here, SIP section 1.3 is also used as guidance to assess whether priority pollutants have reasonable potential to exceed water quality objectives designed to protect municipal and agricultural supply, including maximum contaminant levels. 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:

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

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

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

**ii. Analysis.** Reasonable potential analyses were conducted for aggregate mining and marine sand washing facilities. 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 tables, along with the reasonable potential analysis results (yes or no) for each pollutant. For aggregate mining facilities, the reasonable potential analysis for priority pollutants incorporates applicable water quality objectives designed to protect municipal and agricultural supply, including maximum contaminant levels. The pollutants that exhibit reasonable potential are benzo(b)fluoranthene for aggregate mining facilities and copper, DDT, and DDE for marine sand washing facilities. The mercury and PCBs TMDLs found in Basin Plan sections 7.2.2 and 7.2.3 contain specific wasteload allocations for two marine sand washing facilities (the Hanson Aggregates facilities on Amador Street in San Francisco and Tidewater Avenue in Oakland); thus, these facilities require effluent limitations. For sand offloading facilities, no pollutants

demonstrate reasonable potential since no sand offloading facilities enrolled under the previous order.

**Table F-6. Reasonable Potential Analysis – Aggregate Mining Facilities**

CTR No.	Pollutant	Units	Governing Criteria or Objective	MEC or Minimum DL <sup>[1,2]</sup>	Background or Minimum DL <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
1	Antimony	µg/L	6	2.9	1.4	No
2	Arsenic	µg/L	10	3.8	3.9	No
3	Beryllium	µg/L	4	< 0.056	< 0.05	No
4	Cadmium	µg/L	1.7	< 0.06	< 0.05	No
5a	Chromium (III)	µg/L	50	3.7	2.7	No
5b	Chromium (VI)	µg/L	11	1.5	1.7	No
6	Copper	µg/L	14	8.5	5.6	No
7	Lead	µg/L	6	3.4	1.5	No
8	Mercury	µg/L	0.012 <sup>[4]</sup>	0.0013	0.0028	No
9	Nickel	µg/L	79	9.4	4.8	No
10	Selenium	µg/L	5	0.51	2.2	No
11	Silver	µg/L	9.5	< 0.042	< 0.042	No
12	Thallium	µg/L	1.7	< 0.047	< 0.047	No
13	Zinc	µg/L	180	19	8.1	No
14	Cyanide	µg/L	5.2	< 0.77	0.8	No
15	Asbestos	fibers/L	7x10 <sup>6</sup>	< 0.5	< 0.01	No
16	2,3,7,8-TCDD (Dioxin)	µg/L	1.3x10 <sup>-8</sup>	2.3x10 <sup>-6</sup>	< 1.0x10 <sup>-6</sup>	No
17	Acrolein	µg/L	320	< 2	< 2	No
18	Acrylonitrile	µg/L	0.059	< 0.4	< 0.4	No
19	Benzene	µg/L	1.0	< 0.051	< 0.051	No
20	Bromoform	µg/L	4.3	< 0.066	< 0.066	No
21	Carbon Tetrachloride	µg/L	0.25	< 0.069	< 0.069	No
22	Chlorobenzene	µg/L	70	< 0.05	< 0.05	No
23	Chlorodibromomethane	µg/L	0.40	< 0.08	< 0.08	No
24	Chloroethane	µg/L	No Criteria	< 0.31	< 0.31	U
25	2-Chloroethylvinyl Ether	µg/L	No Criteria	< 0.5	< 0.5	U
26	Chloroform	µg/L	No Criteria	< 0.064	< 0.064	U
27	Dichlorobromomethane	µg/L	0.56	< 0.2	< 0.08	No
28	1,1-Dichloroethane	µg/L	5	< 0.06	< 0.06	No
29	1,2-Dichloroethane	µg/L	0.38	< 0.09	0.24	No
30	1,1-Dichloroethylene	µg/L	0.057	< 0.086	< 0.086	No
31	1,2-Dichloropropane	µg/L	0.52	< 0.55	< 0.055	No
32	1,3-Dichloropropylene	µg/L	0.5	< 0.07	< 0.07	No
33	Ethylbenzene	µg/L	300	< 0.05	< 0.05	No
34	Methyl Bromide	µg/L	48	< 0.05	< 0.05	No
35	Methyl Chloride	µg/L	No Criteria	< 0.13	< 0.13	U
36	Methylene Chloride	µg/L	4.7	< 0.5	< 0.5	No
37	1,1,2,2-Tetrachloroethane	µg/L	0.17	< 0.11	< 0.11	No

CTR No.	Pollutant	Units	Governing Criteria or Objective	MEC or Minimum DL <sup>[1,2]</sup>	Background or Minimum DL <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
38	Tetrachloroethylene	µg/L	0.80	< 0.082	< 0.082	No
39	Toluene	µg/L	150	< 0.25	< 0.25	No
40	1,2-Trans-Dichloroethylene	µg/L	10	< 0.06	< 0.06	No
41	1,1,1-Trichloroethane	µg/L	200	< 0.05	< 0.05	No
42	1,1,2-Trichloroethane	µg/L	0.6	< 0.18	< 0.18	No
43	Trichloroethylene	µg/L	2.7	< 0.06	< 0.06	No
44	Vinyl Chloride	µg/L	0.5	< 0.07	< 0.07	No
45	2-Chlorophenol	µg/L	120	< 0.0097	< 0.0085	No
46	2,4-Dichlorophenol	µg/L	93	< 0.0069	< 0.0061	No
47	2,4-Dimethylphenol	µg/L	540	< 0.91	< 0.046	No
48	2-Methyl-4,6-Dinitrophenol	µg/L	13	< 2	< 1.7	No
49	2,4-Dinitrophenol	µg/L	70	< 0.17	< 0.15	No
50	2-Nitrophenol	µg/L	No Criteria	< 0.09	< 0.069	U
51	4-Nitrophenol	µg/L	No Criteria	< 1.2	< 0.16	U
52	3-Methyl-4-Chlorophenol	µg/L	No Criteria	< 0.62	< 0.069	U
53	Pentachlorophenol	µg/L	0.28	< 0.062	< 0.055	No
54	Phenol	µg/L	2.1x10 <sup>4</sup>	< 0.0099	0.51	No
55	2,4,6-Trichlorophenol	µg/L	2.1	< 0.0055	< 0.0049	No
56	Acenaphthene	µg/L	1200	< 0.0057	< 0.0051	No
57	Acenaphthylene	µg/L	No Criteria	< 0.0056	< 0.005	U
58	Anthracene	µg/L	9600	< 0.0048	< 0.0043	No
59	Benzidine	µg/L	0.00012	< 0.62	< 0.55	No
60	Benzo(a)Anthracene	µg/L	0.0044	< 0.021	< 0.019	No
61	Benzo(a)Pyrene	µg/L	0.0044	< 0.0072	< 0.0064	No
<b>62</b>	<b>Benzo(b)Fluoranthene</b>	<b>µg/L</b>	<b>0.0044</b>	<b>0.011</b>	<b>&lt; 0.005</b>	<b>Yes</b>
63	Benzo(ghi)Perylene	µg/L	No Criteria	< 0.008	< 0.0071	U
64	Benzo(k)Fluoranthene	µg/L	0.0044	< 0.0071	< 0.0063	No
65	Bis(2-Chloroethoxy)Methane	µg/L	No Criteria	< 0.9	< 0.075	U
66	Bis(2-Chloroethyl)Ether	µg/L	0.031	< 0.0024	< 0.0021	No
67	Bis(2-Chloroisopropyl)Ether	µg/L	1400	< 0.01	< 0.0088	No
68	Bis(2-Ethylhexyl)Phthalate	µg/L	1.8	0.061	3.6 <sup>[5]</sup>	No
69	4-Bromophenyl Phenyl Ether	µg/L	No Criteria	< 0.51	< 0.071	U
70	Butylbenzyl Phthalate	µg/L	3000	< 0.032	< 0.028	No
71	2-Chloronaphthalene	µg/L	1700	< 0.6	< 0.066	No
72	4-Chlorophenyl Phenyl Ether	µg/L	No Criteria	< 0.54	< 0.069	U
73	Chrysene	µg/L	0.0044	< 0.01	0.015	No
74	Dibenzo(a,h)Anthracene	µg/L	0.0044	< 0.011	< 0.0093	No
75	1,2-Dichlorobenzene	µg/L	600	< 0.08	< 0.08	No
76	1,3-Dichlorobenzene	µg/L	400	< 0.071	< 0.071	No



CTR No.	Pollutant	Units	Governing Criteria or Objective	MEC or Minimum DL <sup>[1,2]</sup>	Background or Minimum DL <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
77	1,4-Dichlorobenzene	µg/L	5	< 0.072	< 0.072	No
78	3,3-Dichlorobenzidine	µg/L	0.04	< 0.0091	< 0.0081	No
79	Diethyl Phthalate	µg/L	2.3x10 <sup>4</sup>	0.48	0.066	No
80	Dimethyl Phthalate	µg/L	3.1x10 <sup>5</sup>	< 0.012	< 0.011	No
81	Di-n-Butyl Phthalate	µg/L	2700	1.2	0.035	No
82	2,4-Dinitrotoluene	µg/L	0.11	< 0.0074	< 0.0066	No
83	2,6-Dinitrotoluene	µg/L	No Criteria	< 0.006	< 0.0053	U
84	Di-n-Octyl Phthalate	µg/L	No Criteria	< 0.023	< 0.02	U
85	1,2-Diphenylhydrazine	µg/L	0.04	< 0.45	< 0.055	No
86	Fluoranthene	µg/L	300	< 0.0077	< 0.0068	No
87	Fluorene	µg/L	1300	< 0.0072	< 0.0064	No
88	Hexachlorobenzene	µg/L	0.00075	< 0.0048	< 0.0043	No
89	Hexachlorobutadiene	µg/L	0.44	< 0.0039	< 0.0035	No
90	Hexachlorocyclopentadiene	µg/L	50	< 0.54	< 0.48	No
91	Hexachloroethane	µg/L	1.9	< 0.0077	< 0.0068	No
92	Indeno(1,2,3-cd) Pyrene	µg/L	0.0044	< 0.0073	< 0.0065	No
93	Isophorone	µg/L	8.4	< 0.3	< 0.061	No
94	Naphthalene	µg/L	No Criteria	< 0.0054	< 0.0048	U
95	Nitrobenzene	µg/L	17	< 0.9	< 0.19	No
96	N-Nitrosodimethylamine	µg/L	0.00069	< 0.3	< 0.075	No
97	N-Nitrosodi-n-Propylamine	µg/L	0.005	< 0.73	< 0.08	No
98	N-Nitrosodiphenylamine	µg/L	5	< 0.46	< 0.13	No
99	Phenanthrene	µg/L	No Criteria	< 0.0062	< 0.0055	U
100	Pyrene	µg/L	960	< 0.0064	< 0.0057	No
101	1,2,4-Trichlorobenzene	µg/L	5	< 0.086	< 0.058	No
102	Aldrin	µg/L	0.00013	< 0.00034	< 0.00013	No
103	alpha-BHC	µg/L	0.0039	< 0.00037	0.013	No
104	beta-BHC	µg/L	0.014	< 0.00083	0.009	No
105	gamma-BHC (Lindane)	µg/L	0.019	< 0.00054	0.011	No
106	delta-BHC	µg/L	No Criteria	< 0.00017	0.00052	U
107	Chlordane	µg/L	0.00057	< 0.001	< 0.001	No
108	4,4'-DDT	µg/L	0.00059	< 0.0002	0.0024	No
109	4,4'-DDE	µg/L	0.00059	< 0.00022	< 0.00011	No
110	4,4'-DDD	µg/L	0.00083	< 0.00013	< 0.00011	No
111	Dieldrin	µg/L	0.00014	< 0.00017	< 0.00014	No
112	alpha-Endosulfan	µg/L	0.056	< 0.00013	0.016	No
113	beta-Endosulfan	µg/L	0.056	< 0.00055	0.014	No
114	Endosulfan Sulfate	µg/L	110	< 0.0004	0.091	No
115	Endrin	µg/L	0.036	< 0.00022	< 0.00018	No
116	Endrin Aldehyde	µg/L	0.76	< 0.00064	0.02	No
117	Heptachlor	µg/L	0.00021	< 0.00049	< 0.00041	No
118	Heptachlor Epoxide	µg/L	0.0001	< 0.0003	< 0.00015	No

CTR No.	Pollutant	Units	Governing Criteria or Objective	MEC or Minimum DL <sup>[1,2]</sup>	Background or Minimum DL <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
119-125	PCBs sum	µg/L	0.00017	< 0.02	< 0.02	No
126	Toxaphene	µg/L	0.0002	< 0.0024	< 0.002	No

Abbreviations:

DL = detection level  
MEC = maximum effluent concentration  
µg/L = micrograms per liter  
RPA = reasonable potential analysis

Footnotes:

- <sup>[1]</sup> The MEC and ambient background concentration are the actual detected concentrations unless preceded by a “<” sign, in which case the value shown is the minimum detection level (MDL).
- <sup>[2]</sup> The MEC or ambient background concentration is “Unavailable” when there are no monitoring data for the constituent.
- <sup>[3]</sup> 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.
- <sup>[4]</sup> This water quality objective is from the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*. These Mercury Provisions supersede Basin Plan Table 3-4 (see Fact Sheet section III.C.5).
- <sup>[5]</sup> The maximum bis(2-ethylhexyl)phthalate background concentration exceeds the water quality objective at one location; however, the corresponding effluent concentration at the same location was not detected (ND). The second highest measured background concentration is below the objective. Thus, there is no reasonable potential.

**Table F-7. Reasonable Potential Analysis – Marine Sand Washing Facilities**

CTR No.	Pollutant	Governing Criteria or Objective (µg/L)	MEC or Minimum DL (µg/L) <sup>[1,2]</sup>	Background or Minimum DL (µg/L) <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
1	Antimony	4,300	< 2.0	< 4	No
2	Arsenic	36	7.1	2.7	No
3	Beryllium	No Criteria	< 0.56	< 1.1	No
4	Cadmium	9.4	< 0.6	< 1.2	No
5a	Chromium (III)	No Criteria	< 3.6	< 7.2	No
5b	Chromium (VI)	50	< 0.24	< 0.74	No
<b>6</b>	<b>Copper</b>	<b>8.2</b>	<b>12</b>	<b>&lt; 8.6</b>	<b>Yes</b>
7	Lead	8.5	3.2	< 6.4	No
8	Mercury <sup>[4]</sup>	—	—	—	—
9	Nickel	13	< 5.8	< 12	No
10	Selenium	5	1.9	< 3.6	No
11	Silver	2.2	< 0.42	< 0.84	No
12	Thallium	6.3	< 0.47	< 0.94	No
13	Zinc	86	< 110	< 220	No
14	Cyanide	22	0.92	< 0.77	No
15	Asbestos <sup>[5]</sup>	—	—	—	—
16	2,3,7,8-TCDD	1.4x10 <sup>-8</sup>	< 1.9x10 <sup>-6</sup>	1.9x10 <sup>-6</sup>	No
17	Acrolein	780	< 2.5	< 2.5	No
18	Acrylonitrile	0.66	< 1	< 1	No
19	Benzene	71	< 0.051	< 0.051	No

CTR No.	Pollutant	Governing Criteria or Objective (µg/L)	MEC or Minimum DL (µg/L) <sup>[1,2]</sup>	Background or Minimum DL (µg/L) <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
20	Bromoform	360	< 0.066	< 0.066	No
21	Carbon Tetrachloride	4.4	< 0.069	< 0.069	No
22	Chlorobenzene	2.1x10 <sup>4</sup>	< 0.05	< 0.05	No
23	Chlorodibromomethane	34	< 0.08	< 0.08	No
24	Chloroethane	No Criteria	< 0.31	< 0.31	U
25	2-Chloroethylvinyl Ether	No Criteria	< 0.5	< 0.5	U
26	Chloroform	No Criteria	1.3	< 0.064	U
27	Dichlorobromomethane	46	< 0.02	< 0.2	No
28	1,1-Dichloroethane	No Criteria	< 0.06	< 0.06	No
29	1,2-Dichloroethane	99	< 0.09	< 0.09	No
30	1,1-Dichloroethylene	3.2	< 0.086	< 0.086	No
31	1,2-Dichloropropane	39	< 0.055	< 0.055	No
32	1,3-Dichloropropylene	1,700	< 0.09	< 0.09	No
33	Ethylbenzene	2.9x10 <sup>4</sup>	< 0.05	< 0.05	No
34	Methyl Bromide	4,000	< 0.16	< 0.16	No
35	Methyl Chloride	No Criteria	< 0.13	< 0.13	U
36	Methylene Chloride	1,600	< 1.2	< 1.2	No
37	1,1,2,2-Tetrachloroethane	11	< 0.11	< 0.11	No
38	Tetrachloroethylene	8.6	< 0.082	< 0.082	No
39	Toluene	2.0x10 <sup>5</sup>	< 0.25	< 0.25	No
40	1,2-Trans-Dichloroethylene	1.4x10 <sup>5</sup>	< 0.06	< 0.06	No
41	1,1,1-Trichloroethane	No Criteria	< 0.05	< 0.05	No
42	1,1,2-Trichloroethane	42	< 0.18	< 0.18	No
43	Trichloroethylene	81	< 0.06	< 0.06	No
44	Vinyl Chloride	525	< 0.07	< 0.07	No
45	2-Chlorophenol	400	< 0.011	< 0.01	No
46	2,4-Dichlorophenol	790	< 0.0059	< 0.0057	No
47	2,4-Dimethylphenol	2,300	< 0.5	< 0.48	No
48	2-Methyl-4,6-Dinitrophenol	770	< 3	< 2.9	No
49	2,4-Dinitrophenol	1.4x10 <sup>4</sup>	< 0.16	< 0.16	No
50	2-Nitrophenol	No Criteria	< 3.2	< 3	U
51	4-Nitrophenol	No Criteria	< 0.06	< 0.58	U
52	3-Methyl-4-Chlorophenol	No Criteria	< 0.24	< 0.23	U
53	Pentachlorophenol	7.9	< 0.11	< 0.1	No
54	Phenol	4.6x10 <sup>6</sup>	< 0.0065	0.02	No
55	2,4,6-Trichlorophenol	6.5	0.009	< 0.0044	No
56	Acenaphthene	2,700	0.008	0.0043	No
57	Acenaphthylene	No Criteria	< 0.0038	< 0.0037	U
58	Anthracene	1.1x10 <sup>5</sup>	0.0049	0.0073	No
59	Benzidine	0.00054	< 0.67	< 0.65	No
60	Benzo(a)Anthracene	0.049	0.024	0.02	No
61	Benzo(a)Pyrene	0.049	0.009	0.0099	No

CTR No.	Pollutant	Governing Criteria or Objective (µg/L)	MEC or Minimum DL (µg/L) <sup>[1,2]</sup>	Background or Minimum DL (µg/L) <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
62	Benzo(b)Fluoranthene	0.049	0.013	0.012	No
63	Benzo(ghi)Perylene	No Criteria	0.01	0.01	U
64	Benzo(k)Fluoranthene	0.049	< 0.0055	< 0.0054	No
65	Bis(2-Chloroethoxy)Methane	No Criteria	< 0.68	< 0.66	U
66	Bis(2-Chloroethyl)Ether	1.4	< 0.0018	0.0041	No
67	Bis(2-Chloroisopropyl)Ether	1.7x10 <sup>5</sup>	< 0.005	< 0.0048	No
68	Bis(2-Ethylhexyl)Phthalate	5.9	0.071	1.1	No
69	4-Bromophenyl Phenyl Ether	No Criteria	< 0.5	< 0.48	U
70	Butylbenzyl Phthalate	5,200	0.033	0.044	No
71	2-Chloronaphthalene	4,300	< 0.37	< 0.36	No
72	4-Chlorophenyl Phenyl Ether	No Criteria	< 0.18	< 0.18	U
73	Chrysene	0.049	0.013	0.0087	No
74	Dibenzo(a,h)Anthracene	0.049	< 0.0051	< 0.0049	No
75	1,2-Dichlorobenzene	1.7x10 <sup>4</sup>	< 0.15	< 0.15	No
76	1,3-Dichlorobenzene	2,600	< 0.11	< 0.1	No
77	1,4-Dichlorobenzene	2,600	< 0.11	< 0.1	No
78	3,3-Dichlorobenzidine	0.077	< 0.011	< 0.011	No
79	Diethyl Phthalate	1.2x10 <sup>5</sup>	0.024	< 0.011	No
80	Dimethyl Phthalate	2.9x10 <sup>6</sup>	< 0.011	< 0.01	No
81	Di-n-Butyl Phthalate	1.2x10 <sup>4</sup>	0.057	0.53	No
82	2,4-Dinitrotoluene	9.1	< 0.0041	< 0.0041	No
83	2,6-Dinitrotoluene	No Criteria	< 0.0087	< 0.0086	U
84	Di-n-Octyl Phthalate	No Criteria	< 0.012	< 0.012	U
85	1,2-Diphenylhydrazine	0.54	< 0.11	< 0.1	No
86	Fluoranthene	370	0.027	0.02	No
87	Fluorene	1.4x10 <sup>4</sup>	< 0.0048	< 0.0047	No
88	Hexachlorobenzene	0.00077	< 0.0046	< 0.0044	No
89	Hexachlorobutadiene	50	< 0.0059	< 0.0057	No
90	Hexachlorocyclopentadiene	1.7x10 <sup>4</sup>	< 0.62	< 0.60	No
91	Hexachloroethane	8.9	< 0.0057	< 0.0055	No
92	Indeno(1,2,3-cd) Pyrene	0.049	0.0053	0.0071	No
93	Isophorone	600	< 0.52	< 0.5	No
94	Naphthalene	No Criteria	0.017	0.0084	U
95	Nitrobenzene	1,900	< 0.84	< 0.81	No
96	N-Nitrosodimethylamine	8.1	< 3.3	< 3.2	No
97	N-Nitrosodi-n-Propylamine	1.4	< 0.81	< 0.79	No
98	N-Nitrosodiphenylamine	16	< 0.29	< 0.28	No
99	Phenanthrene	No Criteria	0.03	0.014	U
100	Pyrene	1.1x10 <sup>4</sup>	0.024	0.018	No
101	1,2,4-Trichlorobenzene	No Criteria	< 0.086	< 0.083	No
102	Aldrin	0.00014	< 0.00028	< 0.00028	No
103	alpha-BHC	0.013	< 0.00031	< 0.00031	No

CTR No.	Pollutant	Governing Criteria or Objective (µg/L)	MEC or Minimum DL (µg/L) <sup>[1,2]</sup>	Background or Minimum DL (µg/L) <sup>[1][2]</sup>	RPA Result <sup>[3]</sup>
104	beta-BHC	0.046	< 0.00069	< 0.00069	No
105	gamma-BHC (Lindane)	0.063	< 0.00045	< 0.00045	No
106	delta-BHC	No Criteria	< 0.00014	< 0.00014	No
107	Chlordane	0.00059	< 0.0023	< 0.0023	No
<b>108</b>	<b>4,4'-DDT</b>	<b>0.00059</b>	<b>0.00089</b>	<b>0.0014</b>	<b>Yes</b>
<b>109</b>	<b>4,4'-DDE</b>	<b>0.00059</b>	<b>0.00068</b>	<b>&lt; 0.00018</b>	<b>Yes</b>
110	4,4'-DDD	0.00084	< 0.00011	< 0.00011	No
111	Dieldrin	0.00014	< 0.00014	< 0.00014	No
112	alpha-Endosulfan	0.0087	< 0.00011	< 0.00011	No
113	beta-Endosulfan	0.0087	< 0.00046	< 0.00046	No
114	Endosulfan Sulfate	240	< 0.00033	< 0.00033	No
115	Endrin	0.0023	< 0.00018	0.00041	No
116	Endrin Aldehyde	0.81	< 0.00053	< 0.00053	No
117	Heptachlor	0.00021	< 0.00041	< 0.00041	No
118	Heptachlor Epoxide	0.00011	< 0.00025	< 0.00025	No
119-125	PCBs sum <sup>[4]</sup>	—	—	—	—
126	Toxaphene	0.0002	< 0.002	0.002	No

Abbreviations:

- DL = detection level
- MEC = maximum effluent concentration
- µg/L = micrograms per liter
- RPA = reasonable potential analysis

Footnotes:

- <sup>[1]</sup> The MEC and ambient background concentration are the actual detected concentrations unless preceded by a “<” sign, in which case the value shown is the minimum detection level (MDL).
- <sup>[2]</sup> The MEC or ambient background concentration is “Unavailable” when there are no monitoring data for the constituent.
- <sup>[3]</sup> 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.
- <sup>[4]</sup> SIP section 1.3 excludes from its reasonable potential analysis procedure priority pollutants for which a TMDL has been developed. TMDLs have been developed for mercury and PCBs in San Francisco Bay. The mercury and PCBs TMDLs found in Basin Plan sections 7.2.2 and 7.2.3 contain specific wasteload allocations for two marine sand washing facilities: the Hanson Aggregates facilities on Amador Street in San Francisco and Tidewater Avenue in Oakland. The wasteload allocation for other facilities is zero. Therefore, this Order contains effluent limitations consistent with those wasteload allocations.
- <sup>[5]</sup> Asbestos sampling is only required for discharges to waters with the municipal or domestic supply (MUN) beneficial use (i.e., aggregate mining facilities).

**d. Municipal and Agricultural Supply Pollutants.** Municipal and agricultural supply are beneficial uses of the receiving waters for aggregate mining facility discharges. Basin Plan section 3.3.22 sets forth the water quality objectives designed to protect municipal and agricultural supply. Basin Plan section 3.6 sets forth additional surface water quality objectives to protect municipal supply in the Alameda Creek watershed above Niles. The reasonable potential analysis for municipal and agricultural supply pollutants that are not also priority pollutants is presented below, where the most stringent applicable water quality objectives and measured receiving water concentrations for monitored pollutants are compared. The use of measured receiving water concentrations to determine reasonable potential is consistent with an approach suggested in the *Technical Support*

*Document for Water Quality-based Toxics Control (Technical Support Document) (EPA/505/2-90-001).* The reasonable potential analysis for municipal and agricultural supply pollutants that are also priority pollutants is incorporated into Fact Sheet section IV.C.3.c, above. None of these pollutants exhibits reasonable potential.

**Table F-8. Reasonable Potential Analysis – Municipal and Agricultural Supply Pollutants**

Pollutant	Units	Governing Criteria or Objective <sup>[1]</sup>	Receiving Water Concentration <sup>[2]</sup>	RPA Result
Odor	odor number	3	0.75	No
Turbidity	NTU	5.0	0.0068	No
Total Dissolved Solids	mg/L	250	240	No
Color	color unit	15	20	No <sup>[4]</sup>
Aluminum	mg/L	1	0.18	No
Barium	mg/L	1	0.106	No
Chloride	mg/L	60	13	No
Iron	mg/L	0.3	0.32	No <sup>[4]</sup>
Manganese	mg/L	0.05	0.020	No
Nitrate (as N)	mg/L	10	1.1	No
Nitrate + Nitrite (as N)	mg/L	10	1.1	No
Nitrite (as N)	mg/L	1	0.006	No
Sulfate	mg/L	600 <sup>[3]</sup>	61	No

Abbreviations:

mg/L = milligram per liter  
 NTU = nephelometric turbidity units  
 RPA = reasonable potential analysis

Footnotes:

- <sup>[1]</sup> The agricultural supply water quality objectives listed in Basin Plan Table 3-6 include threshold and limit concentrations. Pollutant effects are observable at threshold concentrations and undesirable at limit concentrations; therefore, the limit concentrations listed in Basin Plan Table 3-6 are the applicable water quality objectives for this Order.
- <sup>[2]</sup> The receiving water concentrations are the actual detected concentrations unless preceded by a “<” sign, in which case the value shown is the minimum detection level (MDL). Receiving water concentrations are the arithmetic mean of observed concentrations because the water quality objectives reflect long-term averages.
- <sup>[3]</sup> The short-term range concentration specified in Title 22 of the California Code of Regulations, Table 64449-B, is the applicable water quality objective because discharges under this Order are intermittent.
- <sup>[4]</sup> The receiving water concentration is close to the governing objective (secondary maximum contaminant level), which is a federally established guideline to assist public water systems manage their drinking water for aesthetic considerations, and does not pose a risk to human health. The receiving water concentration is protective of the municipal and domestic supply (MUN) beneficial use because surface water treatment requirements include filtration (the equivalent of passing through a 1.5-micron filter), which removes iron and color. Therefore, assuming even a modest filtration removal efficiency, the concentration in potable water would remain below the governing objective.

- e. Acute Toxicity.** Basin Plan section 4.5.5.3.1 requires acute toxicity monitoring and limitations, implying there is reasonable potential for the discharge to cause or contribute to exceedances of the acute toxicity water quality objective.
- f. Sediment Discharges.** Pollutants in San Francisco Bay sediments may be present in quantities that alone or in combination are toxic to benthic communities. Efforts are underway to identify stressors causing such conditions. However, to date, there is no evidence directly linking compromised sediment conditions to the discharges subject to

this Order. Sediment chemistry, as a single line of evidence, is insufficient to assess sediment quality impacts; therefore, no conclusion may be drawn about reasonable potential for the discharges to cause or contribute to exceedances of the sediment quality objectives in San Francisco Bay. The Regional Monitoring Program monitors San Francisco Bay sediment and seeks to identify stressors responsible for degraded sediment quality.

- g. Stormwater Discharges.** There is reasonable potential for non-commingled industrial stormwater to cause or contribute to exceedances of water quality objectives because runoff from these industrial areas may carry particulate and residual material, including sediment, discarded materials, oil, grease, fuel, and plastics.

**4. Water Quality-Based Effluent Limitations (WQBELs)**

WQBELs were developed for the pollutants determined to have reasonable potential to cause or contribute to exceedances of water quality objectives. With the exception of acute toxicity, mercury, PCBs, and industrial stormwater pollutants (discussed below), the WQBEL calculations are based on the procedure specified in SIP section 1.4, with a default effluent data coefficient of variation (CV) of 0.60.

- a. Dilution Credits.** SIP section 1.4.2 allows dilution credits under certain circumstances. This Order assumes minimal dilution is available for discharges; therefore, no dilution credit is granted in calculating these WQBELs.

- b. WQBEL Calculations.** The following table shows the WQBEL calculations:

**Table F-9. WQBEL Calculations**

Facility Type	Aggregate Mining Facilities	Marine Sand Washing Facilities		
	Benzo(b)-Fluoranthene	Copper	DDT	DDE
Units	µg/L	µg/L	µg/L	µg/L
Basis and Criteria type	CTR Human Health	Basin Plan SSO	CTR Human Health	CTR Human Health
Criteria - Acute	-	-	0.13	-
Criteria - Chronic	-	-	0.0010	-
Site-Specific Objective Criteria - Acute	-	9.4	-	-
Site-Specific Objective Criteria - Chronic	-	6.0	-	-
Water Effects Ratio (WER)	1.0	1.0	1.0	1.0
Lowest WQO	0.0044	6.0	0.00059	0.00059
Site Specific Translator - MDEL	-	0.87	-	-
Site Specific Translator - AMEL	-	0.73	-	-
Dilution Factor (D)	0	0	0	0
No. of samples per month	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	N	Y	Y	N
HH criteria analysis required? (Y/N)	Y	Y	Y	Y
Applicable Acute WQO	-	11	0.13	-
Applicable Chronic WQO	-	8.2	0.0010	-

Facility Type	Aggregate Mining Facilities	Marine Sand Washing Facilities		
Pollutant	Benzo(b)-Fluoranthene	Copper	DDT	DDE
Units	µg/L	µg/L	µg/L	µg/L
HH Criteria	0.0044	1000	0.00059	0.00059
Background (Maximum Conc. for Aquatic Life Calc.)	-	ND	0.0014	-
Background (Average Conc. for Human Health Calc.)	ND	ND	0.00061	ND
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?	N	N	Y	N
ECA Acute	-	11	0.13	-
ECA Chronic	-	8.2	0.0010	-
ECA HH	0.0044	1000	0.00059	0.00059
CV (Selected) - Final	0.60	0.60	0.60	0.60
ECA Acute Mult99	-	0.32	0.32	-
ECA Chronic Mult99	-	0.53	0.53	-
LTA Acute	-	3.5	0.0	-
LTA Chronic	-	4.3	0.0	-
Minimum of LTAs	-	3.5	0.0	-
AMEL Mult95	1.6	1.6	1.6	1.6
MDEL Mult99	3.1	3.1	3.1	3.1
AMEL (Aquatic Life)	-	5.4	0.0	-
MDEL (Aquatic Life)	-	11	0.0	-
MDEL/AMEL Multiplier	2.0	2.0	2.0	2.0
AMEL (Human Health)	0.0044	1000	0.00059	0.00059
MDEL (Human Health)	0.0088	2006	0.0012	0.0012
Minimum of AMEL for Aq. Life vs HH	0.0044	5.4	0.00059	0.00059
Minimum of MDEL for Aq. Life vs HH	0.0088	11	0.0012	0.0012
Previous Order Limit - AMEL	No Limit	5.4	No Limit	No Limit
Previous Order Limit - MDEL	No Limit	11	No Limit	No Limit
<b>Final Limit - AMEL</b>	0.0044	5.4	0.00059	0.00059
<b>Final Limit - MDEL</b>	0.0088	11	0.0012	0.0012

- c. **Acute Toxicity.** This Order includes acute toxicity effluent limitations for aggregate mining and marine sand washing facilities based on Basin Plan Table 4-3, assuming intermittent discharges.
- d. **Mercury and PCBs.** The mercury and PCBs effluent limits for marine sand washing discharges are based on the TMDL wasteload allocations set forth in Basin Plan sections 7.2.2 and 7.2.3. If in the future a watershed permit (e.g., NPDES Permit No. CA0038849) covers mercury and PCBs discharges from marine sand washing facilities, the limits in this Order may be unnecessary.
- e. **Industrial Stormwater.** Non-commingled industrial stormwater discharges containing sediments, oil and grease, and particulate material can cause or contribute to exceedances of water quality objectives. However, the establishment, evaluation, and enforcement of numeric effluent limitations for these pollutants are infeasible because representative



effluent samples cannot readily be obtained from these types of discharges. These discharges are most appropriately controlled through BMPs, as set forth in Provision VI.C.4 of the Order. CWA section 304(e) authorizes the use of BMPs as narrative effluent limitations. In accordance with 40 C.F.R. section 122.44(k), BMPs can be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible, or when BMPs are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. This Order, therefore, contains narrative discharge specifications that require implementation of BMPs that cover the pollutants with reasonable potential.

## E. Discharge Requirement Considerations

- 1. Anti-backsliding.** This Order complies with the anti-backsliding provisions of CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l), which generally require effluent limitations in a reissued permit to be as stringent as those in the previous permit. The requirements of this Order are at least as stringent as those in the previous order, except for total dissolved solids and chloride. This Order does not retain the previous order's total dissolved solids and chloride effluent limits for aggregate mining facility discharges because data for those pollutants no longer indicate reasonable potential to exceed water quality objectives. Not retaining those limits is consistent with State Water Board Order No. WQ 2001-16 and CWA section 303(d)(4)(B).
- 2. Antidegradation.** This Order complies with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16, which requires that existing water quality be maintained unless degradation is justified based on specific findings. It continues the status quo with respect to the discharges authorized in the previous order. It does not degrade water quality by allowing industrial stormwater discharges because it retains essentially the same requirements as those in the Industrial General Permit. It does not allow for a reduced level of treatment or increase effluent limitations. It holds Dischargers to the same performance as the previous order. Therefore, further analysis and findings authorizing degradation are unnecessary.
- 3. Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based effluent limits and WQBELs. 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 requirements 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 applicable water quality standards pursuant to 40 C.F.R. section 131.21(c)(2).

## **V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

The receiving water limits are based on the water quality objectives listed in Basin Plan chapter 3 and are intended to ensure that receiving waters meet water quality standards in accordance with the CWA and regulations adopted thereunder.

## **VI. RATIONALE FOR PROVISIONS**

### **A. 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. Dischargers 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 the 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. This Order contains provisions that supplement the federal standard provisions in Attachment D. This Order omits 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.

### **B. 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 sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP) in Attachment E establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. For more information regarding these requirements, see Fact Sheet section VII.

### **C. Special Provisions**

#### **1. Reopener Provisions**

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

## 2. Application for General Permit Coverage and Authorization to Discharge

Based on 40 C.F.R. section 122.28(b), this provision requires each Discharger to submit an NOI form and, upon receiving an Authorization to Discharge from the Executive Officer, comply with this Order. Pursuant to 40 C.F.R. section 122.28(b)(3), it also authorizes the Executive Officer to terminate any Authorization to Discharge or require a Discharger to apply for an individual permit. The provision regarding continuation of an expired permit is based on 40 C.F.R. section 122.6(d) and California Code of Regulations, title 23, section 2235.4.

## 3. Construction, Operation, and Maintenance Specifications

- a. **Wastewater Facilities Review and Evaluation, and Status Reports.** The purpose of this provision is to ensure adequate and reliable treatment and disposal of all wastewater. This provision is based on 40 C.F.R. section 122.41(e).
- b. **Operations and Maintenance Manual Review and Status Reports.** The purpose of this provision is to ensure that operations and maintenance procedures are in place that are useful and relevant to current equipment and operational practices. This provision is based on 40 C.F.R. section 122.41(e).

## 4. Best Management Practices Plan

This provision requires Dischargers to develop and implement BMPs plans to control and abate pollutant discharges to surface waters and in stormwater. This provision is based on 40 C.F.R. section 122.41 and provides an equivalent level of environmental protection, partly justifying the exception to the Basin Plan Discharge Prohibition 1.

Non-commingled industrial stormwater requirements are water quality-based effluent limitations, as described in Fact Sheet section IV.C.4.e, and are based on U.S. EPA regulations in 40 C.F.R. section 122.44(k), which refer to U.S. EPA's *Guidance Manual for Developing Best Management Practices* (October 1993, EPA 833-B-93-004), and requirements of the Industrial General Permit. Stormwater monitoring and action levels establish pollutant concentrations to be used to evaluate BMP effectiveness. These requirements are consistent with, and at least as stringent as, the requirements of the Industrial General Permit.

## VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The MRP is a standard requirement in all NPDES permits issued by the Regional Water Board, including this Order. It specifies sampling stations, pollutants to be monitored (including parameters for which effluent limitations are specified), monitoring frequencies, and additional reporting requirements. The principal purposes of a monitoring program are to document compliance with WDRs and prohibitions established by the Regional Water Board; to facilitate self-policing by dischargers in the prevention and abatement of pollution arising from waste discharges; to develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards; and to prepare water and wastewater quality inventories.

The following provides the rationale for the monitoring and reporting requirements contained in the MRP for the facilities covered under this Order:

- A. Effluent Monitoring.** Effluent monitoring is necessary to evaluate compliance with the Order’s prohibitions and effluent limitations and to inform the next permit reissuance (e.g., to conduct reasonable potential analyses). Acute toxicity testing is not required for sand offloading facilities because any pollutants discharged would simply be returned to their source, San Francisco Bay.
- B. Receiving Water Monitoring.** Receiving water monitoring is necessary to inform the next permit reissuance (e.g., to characterize the effects that discharges could have on receiving waters and thereby conduct reasonable potential analyses) and to evaluate compliance with receiving water limits. Freshwater monitoring is also necessary to calculate some water quality objectives.
- C. Stormwater Monitoring.** Stormwater monitoring is necessary to evaluate BMP effectiveness and to determine whether additional BMPs are necessary to control non-commingled industrial stormwater discharges.

## VIII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as an NPDES permit for aggregate mining, marine sand washing, and sand offloading facilities in the San Francisco Bay Region. As a step in the WDRs adoption process, the Regional Water Board developed tentative WDRs and encouraged public participation in the WDRs adoption process.

- A. Notification of Interested Parties.** The Regional Water Board notified Dischargers and interested agencies and persons of its intent to prescribe WDRs 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 [www.waterboards.ca.gov/sanfranciscobay](http://www.waterboards.ca.gov/sanfranciscobay).
- B. Written Comments.** Interested persons were invited to submit written comments concerning the tentative WDRs as explained through the notification process. Comments were due by email, in person, or by traditional mail, to the attention of Debbie Phan.

For full staff response and Regional Water Board consideration, the written comments were due by **5:00 p.m. on September 8, 2020.**

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

Date: Wednesday, October 14, 2020  
Time: 9:00 a.m.  
Contact: Debbie Phan, (510) 622-2116, [debbie.phan@waterboards.ca.gov](mailto:debbie.phan@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 discharges, WDRs, and permit. For accuracy of the record, important testimony was requested to be in writing.

Dates and venues can change. The Regional Water Board web address is [www.waterboards.ca.gov/sanfranciscobay](http://www.waterboards.ca.gov/sanfranciscobay), where one could access the current agenda for changes.

- D. Reconsideration of Waste Discharge Requirements.** Any aggrieved person may petition the State Water Board to review the Regional Water Board decision regarding the final WDRs. The State Water Board must receive the petition within 30 calendar days of the Regional Water Board action. For instructions on how to file a petition for review, see [www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml).
- E. Information and Copying.** Supporting documents and comments received are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m. (except noon to 1:00 p.m.), Monday through Friday. Copying of documents may be arranged by calling (510) 622-2300.
- F. 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 general permit, and provide a name, address, and phone number.
- G. Additional Information.** Requests for additional information or questions regarding this Order should be directed to Debbie Phan at (510) 622-2116 or [debbie.phan@waterboards.ca.gov](mailto:debbie.phan@waterboards.ca.gov).