TENTATIVE ORDER No. R2-2020-XXXX
NPDES PERMIT No. CAG992001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR Discharge of Residual Firework Pollutants from Public Fireworks Displays (Fireworks General Permit)

Table 1. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), on:	<Adoption Date>
This Order shall become effective on:	August 1, 2020
This Order shall expire on:	July 31, 2025
CIWQS Place Number:	860226
CIWQS Regulatory Measure Number:	<TBD>
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified the discharges under this general National Pollutant Discharge Elimination System (NPDES) permit (General Permit) as minor discharges based on their impact to receiving waters.	
To obtain coverage under this General Permit, prospective Dischargers must submit a Notice of Intent (NOI) using the form in Attachment B and a filing fee equivalent to the first year's annual fee. If the NOI is complete, the Regional Water Board Executive Officer will issue an Authorization to Discharge to the Discharger.	
Authorized Dischargers that intend to continue discharging after this Order's expiration date shall file a new NOI no later than November 4, 2024. Such discharges may become subject to a reissued order upon Executive Officer authorization.	

I do 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

Attachments

I. SCOPE OF GENERAL PERMIT

These Waste Discharge Requirements (WDRs) serve as an NPDES General Permit for the discharge of residual firework pollutants associated with public fireworks displays.

This General Permit covers discharges to San Francisco Bay (i.e., the Sacramento/San Joaquin River Delta, Suisun Bay, Carquinez Strait, San Pablo Bay, Central San Francisco Bay, Richardson Bay, Lower San Francisco Bay, and South San Francisco Bay) and other inland waters (e.g., Foster City Lagoon in San Mateo County, Lake Merritt in Alameda County, and Lake Chabot in Solano County).

This General Permit does not cover the following:

1. Discharges from individuals who use fireworks;
2. Discharges to the Pacific Ocean;
3. Discharges covered by individual NPDES permits or WDRs; or
4. Discharges to sanitary and storm sewer systems.

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 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 available information. The Fact Sheet (Attachment F) 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 D are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. No provision or requirement in this Order is included to implement State law only.

D. 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.

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

THEREFORE, IT IS HEREBY ORDERED that to meet the provisions of Water Code division 7 (commencing with § 13000) and regulations adopted thereunder, and the provisions of the Clean Water

Act and regulations and guidelines adopted thereunder, Dischargers authorized to discharge pursuant to this Order shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of residual firework pollutants at a location or in a manner different than described in a Notice of Intent (NOI) and Authorization to Discharge pursuant to this Order is prohibited.

B. Discharge of pollutants so as to create pollution, contamination, or nuisance as defined by Water Code section 13050 is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The Discharger shall implement best management practices in accordance with Provision VI.C.

V. RECEIVING WATER LIMITATIONS

A. Discharge shall not cause the following conditions to exist in receiving waters:

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 to adversely affect beneficial uses, or to cause 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 relatable to waste discharge greater than 10 percent in areas where natural turbidity is greater than 50 nephelometric turbidity units (NTU), or turbidity increases above 55 NTU in areas where natural turbidity is less than 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. Discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or State Water Resources Control Board (State Water Board) as required by the Clean Water Act and regulations adopted thereunder.

VI. PROVISIONS

A. Application for General Permit Coverage and Authorization to Discharge

1. Notice of Intent (NOI)

A prospective Discharger seeking Authorization to Discharge pursuant to this Order shall complete and submit the NOI form in Attachment B and include all applicable documentation (e.g., Best Management Practices Plan). The NOI shall be submitted at least 60 days before any planned discharge. A prospective Discharger seeking coverage for similar discharges from multiple events or multiple locations may complete one NOI form that describes all proposed discharges. A Discharger may be the fireworks event host, fireworks display operator, or any other entity that agrees to be responsible for compliance with all conditions specified in this Order. The Executive Officer may modify the NOI form in Attachment B or require additional information prior to authorizing any discharge.

2. Authorization to Discharge

Upon receipt of a complete NOI, the Executive Officer will review the NOI to determine whether the proposed discharges may be authorized pursuant to this Order. If the Executive Officer concludes that a proposed discharge is eligible for coverage, the Executive Officer will issue an Authorization to Discharge. Upon the effective date of the Authorization to Discharge, the Discharger shall comply with the requirements of this Order, including its attachments. Any non-compliance with this Order's requirements shall constitute a violation of the Clean Water Act 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.

3. NOI Modification

A Discharger may modify its NOI by submitting a modified NOI form (e.g., a mark-up of the original NOI form showing all changes and including a new signature and date) at least 30 days before it proposes to implement changes. 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 comply with this Order's requirements. Changes shall be authorized if and when the Executive Officer modifies the Authorization to Discharge.

4. Application to Extend Coverage

A Discharger that intends to continue discharging after the expiration date stated on the first page of this Order shall submit a new NOI by November 4, 2024.

5. Discharge Termination

A Discharger may terminate its coverage under this Order by submitting a letter rescinding its NOI and stating the reason for termination.

The Executive Officer may terminate or revoke coverage under this Order for any of the causes set forth in 40 C.F.R. section 122.28(b)(3). After providing notice and opportunity for a hearing, coverage under this Order may be terminated or modified for cause, including, but not limited to, the following:

a. Violation of any term or condition of this Order;

b. Misrepresentation or failure to disclose all relevant facts in obtaining coverage under this Order; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

6. 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:

a. The Discharger is not in compliance with the requirements of this Order;

b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants associated with the discharge;

c. Effluent limitation guidelines are promulgated for the discharges covered by this Order;

d. A new or revised water quality control plan containing requirements applicable to the discharges covered by this Order is approved;

e. The requirements of 40 C.F.R. section 122.28(a) (the circumstances under which the Regional Water Board may issue a general permit) are not met; or

f. Any other condition specified in 40 C.F.R. section 122.28(b)(3) is met.

B. Standard Provisions

The Discharger shall comply with the "Standard Provisions" in Attachment D of this Order, as applicable (e.g., Attachment D provisions I.G, V.D, and VII.B do not apply).

C. Best Management Practices (BMPs)

Prior to commencing discharge pursuant to this Order, the Discharger shall prepare and implement a Best Management Practices Plan (BMPs Plan) that describes steps to ensure that residual firework pollutant discharges will not adversely affect receiving waters. The BMPs Plan shall include the following elements, and the Executive Officer may require additional elements through individual Authorizations to Discharge:

1. Discharge Characterization

Describe activities conducted within the firing range, potential pollutant sources associated with each activity, and the nature of the pollutants that could be discharged.

2. BMP Identification

Describe the BMPs to be implemented to control pollutant discharges, including BMPs for each potential pollutant source that represent the best available technology that is economically achievable. Describe the anticipated effectiveness of each BMP. Consider, and include as appropriate, the following:

- Preventative BMPs – measures to reduce or eliminate the generation of pollutants and waste (e.g., use of perchlorate-free fireworks).
- Control BMPs – measures to control or manage pollutants and waste after they are generated and before they come in to contact with water (e.g., deployment of tarps prior to fireworks displays).
- Response BMPs – measures to respond to discharges with containment control, or cleanup measures to minimize the potential adverse effects of pollutant discharge (e.g., deployment of booms prior to fireworks displays).

Implement each of the following minimum BMPs to the extent practicable and economically achievable:

a. Use alternative fireworks that replace perchlorate with other oxidizers and contain biodegradable components;

b. Use propellants that burn cleaner, produce less smoke, and reduce residual firework pollutant loading to surface waters;

c. Select firing range locations and designs that eliminate or reduce residual firework pollutant discharges;

d. Secure all pyrotechnic equipment and fireworks in a manner that minimizes the risk of such materials and objects entering receiving waters before, during, and after fireworks displays;

e. Inspect each firework launch area for potential safety issues on an ongoing basis;

f. Perform visual observations and monitoring activities to assess BMP performance;

g. Prior to fireworks displays, deploy containment measures to collect and control the mobility of fireworks debris, particulate matter, and waste from within the design firing ranges for all firework launch areas;

h. Immediately after fireworks displays, collect and properly dispose of fireworks debris, particulate matter, and waste from within the design firing ranges for all firework launch areas; and

i. Immediately after fireworks displays, conduct BMP effectiveness evaluations.

3. Employee Training

Ensure that all personnel implementing the BMPs Plan are properly trained regarding BMP implementation. Identify the personnel to be trained, their responsibilities, and the type of training they are to receive.

4. Record Keeping

Develop and implement management procedures to track and record implementation of the BMPs required by Provision VI.C.2 and the training required by Provision VI.C.3, and maintain implementation records for a minimum of five years.

5. Annual Evaluation

At least once each calendar year, evaluate the effectiveness of the BMPs Plan, update the BMPs Plan as appropriate, and describe any revisions in the self-monitoring report required by Provision VI.D.3.

D. Reporting Provisions

1. Fireworks Display Notifications

At least 21 calendar days prior to each fireworks display, the Discharger shall notify the Regional Water Board, via email to R2NPDES.GeneralPermits@waterboards.ca.gov, of its intent to conduct a public fireworks display so Regional Water Board staff may inspect the site and evaluate compliance with this Order.

2. Fireworks Display Reports

The Discharger shall complete and maintain a Fireworks Display Report (see Attachment C) for each fireworks display within 14 calendar days following each fireworks display. Fireworks Display Reports shall be provided to the Regional Water Board upon request and shall be submitted with the self-monitoring reports required by Provision VI.D.3.

3. Self-Monitoring Reports

a. Format. The Discharger shall submit self-monitoring reports (SMRs) via email to R2NPDES.GeneralPermits@waterboards.ca.gov. At any time during the term of this Order, the State Water Board 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 (htttp://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS website will provide additional information for SMR submittal in the event of a planned service interruption.

b. Due Dates and Contents. The Discharger shall submit SMRs annually by February 15 each year, covering the previous calendar year (January 1 through December 31). If there has been no discharge during the year, the Discharger must still submit an SMR to report the status of the discharge. SMRs shall contain the items described below:

i. Transmittal letter that includes the following:

(a) CIWQS Place Identification Number as shown in the Authorization to Discharge;

(b) List of fireworks displays and their locations, if any, held during the year;

(c) Clear identification of any violations of this Order or clear statement that there were no violations;

(d) Detailed description of any violations, their causes, and proposed time schedule for corrective actions taken or planned to resolve the violations and prevent recurrence (if previous reports address the corrective actions, then reference the earlier reports);

(e) Documentation that the annual fee has been paid; and

(f) Signature in accordance with Attachment D section V.B.

ii. Fireworks Display Report (see Attachment C) for each fireworks display.

iii. Comprehensive discussion of performance and compliance, including any corrective actions taken or planned, such as changes to equipment or operations 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.

iv. Documentation that the Discharger evaluated and updated its BMPs Plan, as appropriate, in accordance with Provision VI.C.5, including evaluation dates, personnel who performed the evaluations, and descriptions of any revisions.

4. Discharge Monitoring Reports

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.

5. Violations and Unauthorized Discharges

a. The Discharger shall report by telephone and email to Regional Water Board staff who oversees the implementation of this Order (Authorizations to Discharge will identify the staff contact) within 24 hours of becoming aware of a violation of this Order.

b. The Discharger shall report spills or unauthorized discharges to the California Office of Emergency Services (telephone 800-852-7550) when spills meet or exceed applicable reportable quantities for hazardous materials.

c. The Discharger shall submit a written report to the Regional Water Board within five calendar days following the telephone and email notification described above unless directed otherwise by Regional Water Board staff in writing. Electronic submittal is acceptable. The report shall include the following:

i. Date, time, and duration of violation;

ii. Location of violation (map, street address, and description of location);

iii. Nature of violation;

iv. Volume and quantity of any material involved;

v. Affected receiving water, if any;

vi. Cause of violation;

vii. Estimated size of affected area;

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

ix. Actions taken to correct violation or to contain, minimize, or clean up discharges;

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

xi. Persons or agencies notified.

E. 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:

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

2. If new or revised water quality standards or total maximum daily loads (TMDLs) come into effect for receiving waters (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 or TMDL wasteload allocations. Adoption of the effluent limitations in this Order is not intended to restrict in any way future modifications based on legally adopted water quality standards or TMDLs or as otherwise permitted under federal regulations governing NPDES permit modifications;

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

4. If State Water Board-precedential decisions, new policies, new laws, or new regulations are adopted;

5. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to those applicable to these discharges; or

6. 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.

ATTACHMENT A – DEFINITIONS

Aerial Fireworks
Aerial fireworks provide their own propulsion or are shot into the air in an aerial shell by a mortar using a black powder lift charge or propellant.

Aerial Shell
Cylinder or spherical cartridge containing a burst charge and pyrotechnic or non-pyrotechnic effects, a fuse, and a black powder lift charge that is fired from a mortar (19 CCR § 980[a][1]). Aerial shells are typically designed to burst between 200 and 1,000 feet above ground level.

Alternative Fireworks
Fireworks produced with new pyrotechnic formulas that replace perchlorate with other oxidizers and propellants that burn cleaner, produce less smoke, and reduce residual firework pollutant loading to surface waters.

Barge
Water vessel with from which fireworks are launched or ignited.

Best Management Practices (BMPs)
Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices that prevent or reduce the pollution of water of the United States.

Break
Individual burst from an aerial shell, producing either a visible or audible effect, or both, that may consist of a single burst or multiple effects (19 CCR § 980[b][7]).

Dud
Pyrotechnic item that leaves the mortar and returns to earth without producing the intended burst or effect (19 CCR § 980[d][4]).

Fallout Area
Area in which firework debris and pollutants fall after a pyrotechnic device is burst. The extent of the fallout area depends on the wind and the angle of mortar placement.

Fireworks
Device containing chemical elements and chemical compounds capable of burning independently of the oxygen in the atmosphere and producing an audible, visual, mechanical, or thermal effect that is useful as a pyrotechnic device or for entertainment. The term “fireworks” includes, but it is not limited to, devices designated by the manufacturer as fireworks, torpedoes, skyrockets, roman candles, rockets, Daygo bombs, sparklers, party poppers, paper caps, chasers, fountains, smoke sparks, aerial bombs, and fireworks kits (California Health and Safety Code § 12511).

Fireworks Display
See *Public Fireworks Display*.

Firing Range
Area over which fireworks may travel by design or accident and upon which residual firework pollutants may fall, including fireworks launch areas and adjacent shorelines, quays, docks, barges, and fireworks fallout areas.

Ground Display Piece
Pyrotechnic device that functions on the ground (as opposed to an aerial shell that functions in the air) and that includes fountains, wheels, and set pieces.

Low-level Fireworks
Low-level fireworks consist of stars or other components that produce single or multi-colored fountain effects or sparks. They are designed to burn at less than 200 feet above ground level.

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.

Misfire
Pyrotechnic item that fails to function as designed after initiation (19 CCR § 980[m][5]).

Mortar
Cylinder used to hold and fire public display or special effects pyrotechnic items or compositions (19 CCR § 980[m][8]).

Multiple Break
Aerial shell that has two or more breaks (19 CCR § 980[m][11]).

Net Explosive Weight
Weight of all pyrotechnic compositions, explosives material, and fuse (22 CCR § 67384.3).

Pier
Structure extending from the land out over a body of water to afford convenient passage for persons, property, and vessels.

Public Fireworks Display (also referred to as Fireworks Display)
Entertainment feature where the public or a private group is admitted or permitted to view a display or discharge of fireworks (22 CCR § 67384.3).

Pyrotechnic Operator
Licensed pyrotechnic operator, who by examination, experience, and training, has demonstrated required skill and ability in the use and discharge of fireworks as authorized by the license granted (22 CCR § 67384.3).

Pyrotechnic Compositions
Combination of chemical elements or chemical compounds capable of burning independently of the oxygen of the atmosphere (California Health and Safety Code § 12525).

Quay
Wharf for loading and unloading goods carried by ships.

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.

Roman Candle
Heavy paper or cardboard tube containing pellets of pyrotechnic composition that, when ignited, are expelled into the air at several second intervals (19 CCR § 980[r][3]).

Salute
Aerial shell or another pyrotechnic item whose primary effects are detonation and flash of light (19 CCR § 980[s][1]).

Star
Small pellet of composition that produces a pyrotechnic effect. A single aerial firework shell could contain several hundred stars (22 CCR § 67384.3).

Set Piece Fireworks
Set piece firework devices are primarily static and typically do not launch into the air. They produce effects at less than 50 feet above ground level.

ATTACHMENT B – NOTICE OF INTENT FORM

This Notice of Intent form shall be completed and submitted to apply for Authorization to Discharge under NPDES Permit No. CAG992001 (Fireworks General Permit) to waters of the United States.

I. DISCHARGER 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 the Fireworks General Permit.

<table>
<tr><td colspan="3">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.</td></tr>
<tr><td colspan="2">Signature:</td><td>Date:</td></tr>
<tr><td>Printed Name:</td><td colspan="2"></td></tr>
<tr><td>Title:</td><td colspan="2"></td></tr>
<tr><td>Discharger Type
(Check One)
☐ Public
☐ Private
☐ Other, specify type:</td><td colspan="2">New or Previously Authorized Discharger (Check One)
☐ New
☐ Previously Authorized</td></tr>
<tr><td>Discharger Name:</td><td colspan="2"></td></tr>
<tr><td>Mailing Address:</td><td colspan="2"></td></tr>
<tr><td colspan="3">Duly Authorized Representative (DAR): The following individual (or any individual occupying the position listed below) may act as the Discharger's duly authorized representative and may sign and certify submittals in accordance with Attachment D section V.B.3. The individual shall be responsible for the overall operation of the regulated facility or activity or an individual position having overall responsibility for environmental matters for the Discharger.</td></tr>
<tr><td>DAR Name and Title:</td><td colspan="2"></td></tr>
<tr><td>DAR Email:</td><td colspan="2"></td></tr>
<tr><td>DAR Phone Number:</td><td colspan="2"></td></tr>
</table>

☐ Check here if additional Discharger information is attached to this form.

II. BILLING INFORMATION

☐ Check this box if same as Section I (otherwise, complete this section).
Discharger Name:
Mailing Address:
Billing Contact Name and Title:
Billing Contact Email:
Billing Contact Phone Number:

III. DISCHARGE INFORMATION

Receiving Water:
Discharge Frequency: □ Once □ Annual □ Other (please describe):

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

IV. BEST MANAGEMENT PRACTICES PLAN

Attach a Best Management Practices Plan (BMPs Plan) as described in Provision VI.C of this Order.

V. APPLICATION FEES 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 current fees for general NPDES permit category 3, see Water Code section 2200(b)(9) or visit www.waterboards.ca.gov/resources/fees.

Submit this form (with signature and attachments) via email or as otherwise indicated on the Regional Water Board's website: www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.html.

ATTACHMENT C – FIREWORKS DISPLAY REPORT FORM

The Fireworks Display Report shall be completed no later than 14 calendar days following each fireworks display. The Discharger may attach additional information as necessary. Fireworks Display Reports shall be made available to the San Francisco Bay Regional Water Quality Control Board upon request and shall be submitted with self-monitoring reports in accordance with Provision VI.D.3 of this Order.

I. GENERAL EVENT INFORMATION

Discharger Name: Event Name:	
Event Contact Person Name: Phone Number: Email:	
Event Location Address: GPS Coordinates:	
Receiving Water Name:	
Event Date:	Event Start and End Time:

II. FIRING RANGE MAP

Attach an aerial or satellite map identifying the firing range, fireworks fallout area, affected receiving waters, and adjacent shorelines, barges, docks, piers, quays, and any other relevant features or landmarks.

III.PYROTECHNIC OPERATORS

Name	License Number	Date Issued	Expiration Date

IV. FIREWORKS INFORMATION

Aerial Fireworks			Low Level Fireworks		Set Piece Fireworks	
Shell Size	**No. Single Breaks**	**No. Multiple Breaks**	**Type**	**No.**	**Type**	**No.**
25 mm			Mines		Sets	
80 mm			Romans		Devices	
2”			Comets			
3”			Cakes			
4”						
5”						
6”						
8”						
9”						
10”						
11”						
12”						

Net Explosive Weight: _____ pounds (lbs)

Were alternative fireworks used? If so, describe:

Were the entire firing range (including the fireworks launching area and adjacent shorelines, quays, docks, and fireworks fallout area), barges (if used), and adjacent surface waters inspected and cleaned of particulate matter and debris from ignited and un-ignited pyrotechnic material within 24 hours following the display?

☐ Yes Date: _____ Time: _____

☐ No

If no, explain:

Total amount of debris collected from receiving water: _____ lbs wet weight

_____ lbs dry weight (if known)

Total amount of debris collected: _____ lbs wet weight

V. 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. Signature: Date:	
Printed Name:	
Title:	
Discharger Name:	
Address:	
Email:	Phone No.:

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 and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under Clean Water Act 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, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1. 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 Clean Water Act 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 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 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));

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

c. The Discharger submitted notice of the upset as required in Standard Provisions—Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions—Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

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

II. STANDARD PROVISIONS—PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS—MONITORING

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

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

1. The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either (a) the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter, or (b) the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in a facility's discharge is 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, subchapters N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 1221.21(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, and 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 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. 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 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 and written 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 Provision—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 (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
   - **b.** 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
   - **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 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 (µg/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 section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

B. Publicly Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Clean Water Act sections 301 or 306 if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order. (40 C.F.R. § 122.42(b)(2).)

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

ATTACHMENT E – NOT USED

ATTACHMENT F – FACT SHEET

Contents

Tables

ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. As described in section 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 residual firework pollutant discharges to San Francisco Bay associated with public fireworks displays.

B. Entities that submit a Notice of Intent (NOI) (see Attachment B) and thus apply for Authorization to Discharge pursuant to this Order, and that are subsequently granted such authorization, are hereinafter called "Dischargers." For 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 any Discharger herein.

II. DISCHARGE DESCRIPTION

This Order covers residual fireworks pollutant discharges to waters of the United States associated with public fireworks displays. Dischargers enrolled under this Order conduct public fireworks displays for community celebrations, such as for Fourth of July and New Year's Eve, and entertainment associated with sporting, business, and school events. Fireworks are a class of low explosive pyrotechnic devices used for aesthetic or entertainment purposes (e.g., noise, light, smoke, or confetti).

A. Firework Categories. Fireworks vary in design but can be grouped according to their design detonation height:

1. **Aerial Fireworks.** Aerial fireworks are typically shot into the air by a mortar using a black powder lift charge or propellant. The aerial shell typically consists of a cylinder or spherical cartridge, usually constructed of paper, plastic, or cardboard, and may include some plastic or paper internal components within the shell. The shell casing contains a burst charge, pyrotechnic material that emits prescribed colors and effects when burst, a fuse, and a black powder lift charge. Aerial shells are often combined in a fireworks display to create a variety of shapes and colors upon detonation.

   The lift charge and shell are placed at the bottom of a mortar partially buried in earth or sand, or placed within a rack. Shells can be launched one at a time or in a barrage of simultaneous launches or launches in quick succession. Shells are typically designed to perform between 200 and 1,000 feet above ground level. Most of the incendiary elements and shell casings burn up in the atmosphere; however, portions of the casings and some internal structural components and chemical residue fall back to the ground or receiving waters.

2. **Low-level Fireworks.** Low-level fireworks devices consist of pyrotechnic pellets packed linearly within a tube. When the device is ignited, the pellets exit the tube in succession producing a fountain effect of single or multi-colored lights as the pellets burn through the course of their flight. Typically, the pellets burn rather than explode, thus producing a ball or trail of sparkling light to a prescribed altitude, then extinguish. Sometimes they may

terminate with a small explosion similar to a firecracker. Other low-level fireworks devices emit a projected hail of colored sparks or perform erratic low-level flight while emitting a high-pitched whistle. Some emit a pulsing light pattern, or crackling or popping sound effects. Generally, low-level launch devices and encasements remain on the ground or attached to a fixed structure and can be removed upon completion of the display. They are generally designed to produce effects between 0 and 200 feet above ground level.

3. **Set Piece Fireworks.** Set piece fireworks are primarily static and remain close to the ground. They are usually attached to a frame that may be crafted in the design of a logo or familiar shape, and illuminated by pyrotechnic devices, such as flares, sparklers, or strobes. Set pieces are typically used in concert with low-level effects or an aerial show, and sometimes act as a centerpiece for the display. Set pieces may have moving parts, but typically do not launch devices into the air. Set piece displays are typically designed to produce effects between 0 and 50 feet above ground level.

B. Firework Chemical Constituents. The following table includes a partial list of chemicals used in fireworks as fuels, oxidizers, binding agents, and coloration and sound effects:

Table F-1. Firework Chemical Constituents

Constituent	Function
Aluminum	Creates silver and white flames and sparks.
Antimony	Creates glitter effects.
Barium	Creates green colors and stabilizes other volatile elements.
Carbon	Provides fuel as a main component of black powder.
Calcium	Enhances fireworks colors; calcium salts produce orange fireworks.
Chlorine	Enhances volatility and light emission of color-producing metals.
Cesium	Creates indigo colors.
Copper	Creates blue colors.
Iron	Creates sparks that vary in color according to the heat of the metal.
Lithium	Creates red colors; lithium carbonate is a common colorant.
Magnesium	Creates white sparks or improves firework brilliance.
Phosphorus	Creates glow-in-the-dark effects and burns spontaneously in air; found in some firework fuels.
Potassium	Creates violet colors; provides oxygen as a salt compound (e.g., potassium nitrate, potassium perchlorate) in black powder.
Sodium	Creates gold or yellow colors frequently masking less intense colors.
Strontium	Creates red colors and stabilizes fireworks mixtures.
Sulfur	Provides fuel as a main component of black powder.

Constituent	Function
Titanium	Creates silver sparks.
Zinc	Creates smoke effects.

C. Fireworks Discharges. Fireworks chemical constituents burn at high temperatures when the fireworks are burst. The burst charge scatters the chemical constituents within the fireworks, separating them from the fireworks casing and internal shell components. Combustion residues are produced in the form of smoke, airborne particulates, chemical pollutants, and debris, including paper, cardboard, and fuses. Combustion residues can fall into receiving waters. Un-ignited pyrotechnic material, such as duds, can also fall into receiving waters.

Various factors can affect residual firework pollutant concentrations in receiving waters adjacent to fireworks displays, including event frequency, number of ignited fireworks per event, type and size of fireworks, burn efficiency, and wind direction and velocity. The receiving water fallout area affected by residual fireworks pollutants varies depending on wind speed and direction, shell size, mortar placement angle, type and height of fireworks explosions, and other environmental factors. Wind shear and tidal action can transport residual fireworks pollutants to waters and shorelines outside the fallout area.

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). This Order is also issued pursuant to Clean Water Act 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 as described in Authorizations to Discharge issued pursuant to this Order.

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. **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.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP 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.

4. **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. This Order implements the sediment quality objectives of this plan.

5. **Safe Clean Water.** In compliance with Water Code section 106.3, it is State of California policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy because, as explained in Fact Sheet section IV.C.3, the reasonable potential analysis considers applicable water quality objectives, including maximum contaminant levels designed to protect human health and to ensure that water is safe for domestic use, where applicable.

6. **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.

7. **Anti-Backsliding Requirements.** Clean Water Act 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 version of the permit, with some exceptions in which limitations may be relaxed.

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

D. Impaired Waters on Clean Water Act 303(d) List

In April 2018, U.S. EPA approved a revised list of impaired waters prepared pursuant to Clean Water Act section 303(d), which requires identification of specific waters 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 non-point sources and are established to achieve the water quality standards for the impaired waters. The discharges regulated through this Order are not expected to contribute to any water quality impairment because the requirements of Provision VI.C of this Order will sufficiently control potential pollutant discharges.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The Clean Water Act requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) more stringent than federal technology-based requirements where necessary 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 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 subsequent Authorization to Discharge are prohibited.

2. **Discharge Prohibition III.B** (No discharge causing pollution, contamination, or nuisance): This prohibition is based on California Water Code section 13263, which requires the Regional Water Board to prescribe WDRs that prevent nuisance conditions.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Clean Water Act 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 Clean Water Act 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 Clean Water Act requires U.S. EPA to develop effluent limitations, guidelines, and standards representing application of BPT, BAT, BCT, and NSPS. There are no promulgated effluent limitations, guidelines, or standards for the types of discharges this Order covers.

Clean Water Act section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of best professional judgment to derive technology-based effluent limitations on a case-by-case basis whenever U.S. EPA has not promulgated effluent limitations, guidelines, and standards. When best professional judgement is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Limitations

Since U.S. EPA has not issued effluent limit guidelines for the pyrotechnic industry, Provision VI.C of this Order imposes narrative BMP-based requirements that represent BPT and BAT controls based on best professional judgment. BPT and BAT controls are required because typical fireworks constituents include toxic and non-conventional pollutants (e.g., aluminum, antimony, barium, carbon, calcium, chlorine, cesium, copper, iron, potassium, lithium, magnesium, oxidizers such as nitrates, chlorates and perchlorates, phosphorus, sodium sulfur, strontium, titanium, and zinc). 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" (i.e., sources created after U.S. EPA established NSPS effluent limitations, guidelines, and standards for the pyrotechnic industry, which it has not done).

This narrative approach is authorized by 40 C.F.R. section 122.44(k), which allows BMPs to be used to control or abate pollutant discharges when numeric effluent limitations are infeasible. Numeric effluent limitations for residual fireworks pollutants are infeasible because it is impracticable to capture, treat, and monitor pollutants dispersed in the air before they enter the receiving waters.

In establishing these limits, the Regional Water Board considered the factors specified in 40 C.F.R. sections 125.3(d)(1) and 125.3(d)(3), as indicated in the table below:

Table F-2. Factors Considered Pursuant to 40 C.F.R. sections 125.3(d)(1) and 125.3(d)(3)

Factor	Considerations
Cost of achieving effluent reduction and cost relative to benefits	BMPs, such as cleaning firework launch and fallout areas using boats, booms, brushes, brooms, nets, and tarps, are economically achievable in the context of fireworks display operations. For example, readily available motorized equipment and existing fireworks personnel can be used to remove potential pollutants in cleanup efforts. The costs are anticipated to be relatively small relative to the benefits of preventing pollutants from harming receiving water quality.
Age of equipment and facilities	Dischargers may need to acquire new equipment to implement appropriate BMPs (e.g., rental or purchase of boats for cleanup). Dischargers may also be able to rely on some existing equipment, such as booms, brooms, brushes, nets, tarps, and boats.
Process employed	These limits can be met with readily implemented processes, such as sweeping, wiping, and collecting debris with nets, tarps, and booms. No unusual or technically challenging processes are required.
Engineering aspects of application of control techniques	Readily available controls are practicable and capable of meeting the requirements of this Order. For example, cleaning fireworks launch and fallout areas does not require sophisticated engineering controls.

Factor	Considerations
Process changes	New processes may be needed to comply with this Order, but necessary equipment is readily available.
Non-water-quality environmental impact (including energy requirements)	No significant non-water-quality impacts are foreseeable beyond the minimal impacts of using limited amounts of fuel to operate boats needed for cleanup efforts. Waste materials must be removed from fireworks launch and fallout areas and be properly disposed of.

C. Water Quality-Based Effluent Limitations

1. Scope and Authority

Clean Water Act 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 Clean Water Act 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.

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 numerous water quality objectives, including numeric objectives for 10 priority pollutants, to protect aquatic life, human health, and other beneficial uses. These objectives include the primary and secondary maximum contaminant levels for waters designated for use as domestic or municipal supply.

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

f. Receiving Water Hardness. Some freshwater objectives for metals are hardness dependent (as hardness increases, the toxicity of certain metals decreases). This Order assumes a hardness of 100 milligrams per liter as calcium carbonate to calculate freshwater water quality objectives that are hardness-dependent based on Basin Plan Table 3-4. The hardness value is conservative and generally protective of aquatic life in all circumstances contemplated by this permit considering that mean and median hardness values in San Francisco Bay Region surface waters are 250 mg/L and 232 mg/L, as determined from data collected through the Surface Water Ambient Monitoring Program.

g. Site Specific Translators. 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 includes default translators. 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. CTR default translators were used for priority pollutant metals, except copper in San Francisco Bay. Basin Plan Tables 7.2.1-1 and 7.2.1-2 set forth site-specific copper translators for San Francisco Bay segments. The site-specific translators for Central and Lower San Francisco Bay result in the most stringent copper criteria. These translators are listed in the table below:

Table F-3. Copper Translators

Acute	Chronic
0.87	0.73

3. Need for Limitations (Reasonable Potential Analysis)

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. Available Information. The reasonable potential analysis for this Order is based on receiving water and sediment monitoring conducted by SeaWorld San Diego (SeaWorld) from September 2012 through September 2018 to evaluate the potential impacts of its fireworks-related discharges to Mission Bay in the San Diego Region (Annual Fireworks Monitoring Reports, SeaWorld, 2013 – 2019). The effects of SeaWorld's fireworks displays on Mission Bay are representative of worst case conditions for the San Francisco Bay Region because SeaWorld conducts far more fireworks events each year than the number of events typically scheduled throughout the San Francisco Bay Region (SeaWorld conducted 378 fireworks displays from 2012 to 2018 compared to about 160 fireworks displays occurring throughout this Region). Moreover, SeaWorld implements BMPs similar to those specified in Provision VI.C of this Order before, during, and after each of its fireworks displays.

b. Priority Pollutants and Other Fireworks Pollutants of Concern

i. Methodology. SIP section 1.3 sets forth the methodology used for this Order for assessing whether a priority pollutant has reasonable potential to exceed a water quality objective. The same methodology is used as guidance for other fireworks pollutants of concern. 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.

(b) Trigger 2 is activated if the receiving water concentration is greater than the lowest applicable water quality objective *and* the pollutant is detected in effluent.

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

The reasonable potential analysis typically begins by considering Trigger 1 (i.e., identifying the maximum effluent concentration observed for each pollutant based on available effluent concentration data). However, effluent data are unavailable because the fireworks-related pollutants are dispersed in the air before they enter receiving waters. Thus, this analysis begins by considering Trigger 2 (i.e., identifying the estimated receiving water concentrations for the fireworks pollutants of concern listed in Fact Sheet Table F-1). SIP section 1.4.3 states that either the maximum receiving water concentration should be used or, for water quality objectives intended to protect human health, the arithmetic mean should be used.

ii. Analysis. The following table presents the most stringent applicable water quality criteria and objectives and estimated receiving water concentrations for the receiving waters potentially affected by authorized fireworks discharges. Metals are expressed in total recoverable concentrations. There is no reasonable potential for any of the pollutants considered to exceed a water quality criterion or objective because the estimated receiving water concentrations do not exceed the most stringent criteria and objectives.

Table F-4. Reasonable Potential Analysis – Water Quality

Pollutant	Unit	Governing Criterion or Objective	Estimated Receiving Water Concentration (SeaWorld, 2012 – 2018)
Aluminum	µg/L	200	80
Antimony	µg/L	6.0	0.23
Barium	µg/L	1,000	10
Copper	µg/L	8.2	7.5
Iron	µg/L	300	32
Perchlorate	µg/L	6.0	2.5
Phosphorus, Total	µg/L	No criteria	250
Potassium	mg/L	No criteria	450
Strontium	mg/L	No criteria	8.4
Titanium	µg/L	No criteria	72
Zinc	µg/L	86	14

Abbreviations:

µg/L = micrograms per liter
mg/L = milligrams per liter

c. Sediment Quality. Pollutants in some receiving water 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, available evidence does not link compromised sediment conditions in the San Francisco Bay Region to the discharges subject to this Order. Moreover, sediment monitoring SeaWorld conducted in San Diego's Mission Bay from September 2012 through September 2018 indicates fireworks discharges are unlikely to cause or contribute to exceedances of the sediment quality objectives (Annual Fireworks Monitoring Report, SeaWorld, 2019). The potential impacts of fireworks displays in the San Francisco Bay Region are expected to be significantly less than those in Mission Bay due to the lower event frequency and greater geographic distribution of the fireworks events.

In 2012, 2015, and 2018, SeaWorld assessed sediment chemistry, benthic community condition, and sediment toxicity at three Mission Bay locations within its fireworks fallout area and two reference locations. Its conclusions regarding Mission Bay sediment conditions are presented in the following table:

Table F-5. Mission Bay San Diego Sediment Assessments

Monitoring Location	Station No.	2012[1]	2015[1]	2018[1]
Fireworks Fallout Area	1	Unimpacted	Likely Impacted	Possibly Impacted
Fireworks Fallout Area	2	Unimpacted	Likely Unimpacted	Possibly Impacted

Monitoring Location	Station No.	2012[1]	2015[1]	2018[1]
Fireworks Fallout Area	3	Unimpacted	Unimpacted	Possibly Impacted
Reference	1	Likely Unimpacted	Likely Unimpacted	Unimpacted
Reference	2	Likely Unimpacted	Unimpacted	Unimpacted

Footnote:

[1] Impacts are determined based on three lines of evidence (LOE): sediment chemistry, benthic community condition, and sediment toxicity. Impact categories are defined based on *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality*:

- Unimpacted: Confident that sediment contamination is not causing significant adverse impacts to aquatic life living in the sediment at the site.
- Likely Unimpacted: Sediment contamination at the site is not expected to cause adverse impacts to aquatic life, but some disagreement among the LOE reduces certainty in classifying the site as unimpacted.
- Possibly Impacted: Sediment contamination at the site may be causing adverse impacts to aquatic life, but these impacts are either small or uncertain because of disagreement among LOE.
- Likely Impacted: Evidence for a contaminant-related impact to aquatic life at the site is persuasive, even if there is some disagreement among LOE.
- Clearly Impacted: Sediment contamination at the site is causing clear and severe adverse impacts to aquatic life.
- Inconclusive: Disagreement among the LOE suggests that either the data are suspect or that additional information is needed before a classification can be made.

In 2012 and 2015, five of six results indicated no or likely no sediment impact in Mission Bay. In 2018, three results indicated a potential sediment impact, but the 2018 assessment is questionable because the sediment sampling coincided with an extensive dredge and fill program in Mission Bay that took place from January through October 2018. Furthermore, the sediment quality assessment occurred in September 2018, at the end of the 2016-18 triennial period, when the number of fireworks displays was considerably lower than during the previous triennial period (i.e., 86 versus 273 events). This indicates that the "possibly impacted" results were unlikely the result of the fireworks displays since fewer impacts were observed when more fireworks displays took place. Moreover, as indicated above, the potential impacts of fireworks displays in the San Francisco Bay Region are expected to be far less.

4. Limitations

This Order does not contain WQBELs because the narrative technology-based requirements of Provision VI.C of this Order will control discharges sufficiently to meet applicable water quality standards (i.e., there is no reasonable potential for the discharges to cause exceedances of water quality objectives).

D. Discharge Requirement Considerations

1. **Anti-backsliding.** Clean Water Act sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l) require effluent limitations in a reissued permit to be as stringent as those in the previous permit. This is the first NPDES permit issued for the discharge of residual fireworks pollutants in the San Francisco Bay Region; therefore, there is no backsliding.

2. **Antidegradation**. Antidegradation policies require that existing water quality be maintained unless degradation is justified based on specific findings. State Water Board Resolution No. 68-16 sets forth California's Antidegradation policy. Consistent with 40 C.F.R section 131.12, Resolution No. 68-16 incorporates the federal antidegradation policy. The

Basin Plan implements, and incorporates by reference, the State and federal antidegradation policies. Permitted discharges must be consistent with these policies.

In accordance with State Water Board Administrative Procedures Update No. 90-004, the potential for degradation is evaluated by comparing the receiving water quality likely to result from the new permit to the water quality baseline. The water quality baseline is the best receiving water quality that has existed since 1968 when considering Resolution No. 68-16 or since 1975 under the federal policy, unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies. If poorer water quality was permitted, the most recent water quality resulting from permitted action is the baseline water quality. For purposes of this analysis, existing water quality is assumed to be the best that has existed since 1968 and 1975. Water quality in 1968 and 1975 was worse than it is now because most Clean Water Act controls, such as the secondary treatment standards for municipal wastewater treatment, were not yet in place. Fireworks displays have taken place, unregulated, for decades, and no poorer water quality has been permitted. This Order will improve water quality in the San Francisco Bay Region and will thus comply with the intent and purpose of the antidegradation policies.

3. **Stringency of Requirements for Individual Pollutants**. This Order contains technology-based effluent limitations that implement minimum applicable federal technology-based requirements. This Order's restrictions on individual pollutants are no more stringent than required to implement Clean Water Act requirements.

   This Order's requirements maintain water quality standards, including beneficial uses and water quality objectives approved pursuant to federal law. 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 Clean Water Act" 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 Clean Water Act and regulations adopted thereunder.

VI. RATIONALE FOR PROVISIONS

A. 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 (see Attachment B) 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.

B. 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 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. This Order also recognizes that Attachment D provisions I.G, V.D, and VII.B do not apply to the types of discharges covered by this Order.

C. Best Management Practices (BMPs)

This provision is based on Clean Water Act section 304(e) and 40 C.F.R. section 122.44(k), which allow the use of BMPs to control or abate pollutant discharges when numeric effluent limitations are infeasible. BMPs are derived from 22 CCR section 67384.8 and guidance targeting perchlorate-containing fireworks (i.e., Massachusetts Department of Environmental Protection, Fireworks Best Environmental Management Practices, May 2011). This guidance is also relevant to preventing, controlling, and responding to discharges associated with other types of fireworks. Based on this guidance, these BMPs reflect best available technology economically achievable (BAT) and best practicable treatment control technology (BPT) to reduce or prevent discharges of pollutants in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. The requirements of this provision serve as narrative effluent limitations and facilitate compliance with Discharge Prohibition III.B.

D. Reporting Provisions

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 NPDES permits specify reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish inspection, entry, reporting, and recordkeeping requirements. This provision establishes reporting, and recordkeeping requirements that implement federal and State requirements. The Executive Officer may amend these requirements pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5. Pursuant to Water Code section 13267, the Executive Officer may specify additional monitoring and reporting requirements in individual Authorizations to Discharge, such as, but not limited to, monitoring in response to a complaint and additional discharge observations. The notification and reporting requirements are necessary to evaluate compliance with this Order, to assess BMP performance and implementation, and to inform the next permit reissuance.

E. 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.

VII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as an NPDES permit for the discharge of residual firework pollutants associated with public fireworks displays 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.

B. Written Comments. Interested persons were invited to submit written comments concerning the tentative WDRs as explained through the notification process. Comments were due either in person or by mail at the Regional Water Board office at 1515 Clay Street, Suite 1400, Oakland, California 94612, to the attention of Marcos De la Cruz.

For full staff response and Regional Water Board consideration, the written comments were due at the Regional Water Board office by **5:00 p.m. on May 1, 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, and at the following location:

Date:	June 10, 2020
Time:	9:00 a.m.
Location:	Elihu Harris State Office Building 1515 Clay Street, 1st Floor Auditorium Oakland, CA 94612
Contact:	Marcos De la Cruz, (510) 622-2365, marcos.delacruz@waterboards.ca.gov

Interested persons were invited to attend. At 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 change. The Regional Water Board's website at www.waterboards.ca.gov/sanfranciscobay can be used to access the current agenda for changes in dates and locations.

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.

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 Marcos De la Cruz at (510) 622-2365 or marcos.delacruz@waterboards.ca.gov.