

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

RESPONSE TO WRITTEN COMMENTS

on the Tentative Order for
Discharge of Residual Firework Pollutants from Public Fireworks Displays
(Fireworks General Permit)
San Francisco Bay Region

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

1. Pyro Spectaculars North, Inc. (May 1, 2020)
2. San Francisco Baykeeper (May 1, 2020)

Regional Water Board staff has summarized the comments, shown below in *italics* (paraphrased for brevity), and followed each comment with staff's response. For the full content and context of the comments, please refer to the comment letters.

All revisions to the tentative order are shown with underline text for additions and strikethrough text for deletions.

Pyro Spectaculars North, Inc. (PSN)

PSN Comment 1: PSN is concerned that Provision VI.C gives the Executive Officer too much discretion to add Best Management Practices (BMPs) Plan requirements in Authorizations to Discharge. PSN asks about the conditions under which the Executive Officer could exercise this discretion and to what extent. PSN states that discretion should come with some standards and measures.

Response: We agree. The Executive Officer's ability to impose BMPs should not be limitless. We revised the first paragraph of Provision VI.C as follows:

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:

PSN Comment 2: PSN is concerned that listing the deployment of tarps and booms prior to fireworks displays as an example of control and response BMPs in Provision VI.C.2 suggests that these BMPs represent a minimum level of compliance. PSN requests these BMP examples be deleted because the deployment of booms and tarps is impracticable due to safety concerns and is not economically achievable for most dischargers.

Response: We agree that BMPs should not be selected or implemented if they are impracticable or not economically achievable, and certainly not if they pose safety concerns. The tentative order would require implementation of BMPs to the extent practicable and economically achievable considering the nature of the pyrotechnic industry, and, in doing so, it provides considerable flexibility. To determine practicability and economic achievability, dischargers must consider what BMPs are available for its industry and circumstances, and select and design BMPs that are viable in terms of cost and technology. Hence, the tentative order would not require implementation of any BMPs that are fundamentally incompatible with industry standards.

While we disagree that the BMP examples listed in parentheses are more than just examples, we revised Provision VI.C.2 as follows:

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).

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We also revised Fact Sheet Table F-2 as follows:

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, and nets, and tarps, are economically achievable in the context of fireworks display operations. ...
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.
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PSN Comment 3: PSN requests to delete Provisions VI.C.2.a and VI.C.2.b because the use of alternative fireworks or formulations that produce less pollutants is not practicable or

economically achievable. PSN adds that perchlorate-free fireworks may use pollutants that are more persistent in the environment.

Response: We did not revise the tentative order for the reasons described in our response to PSN Comment 2.

PSN Comment 4: *PSN asserts that it is infeasible to select firing range locations or designs that would eliminate residual firework debris.*

Response: We agree and revised Provision VI.C.2.c as follows:

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

PSN Comment 5: *PSN requests to delete Provision VI.C.2.g because the deployment of containment measures, such as booms and tarps, prior to fireworks displays to collect and control the mobility of fireworks debris, particulate matter, and waste within the design firing range is impracticable due to safety concerns and is not economically achievable for most dischargers.*

Response: We did not revise the tentative order for the reasons described in our response to PSN Comment 2.

PSN Comment 6: *PSN states that it is infeasible to collect firework debris, particulate matter, and waste immediately after fireworks displays to minimize the risk of detonating and launching fireworks not fired as planned. Additionally, PSN cannot immediately dispose of waste because, after collection, waste is returned to shore to be weighed, photographed, and then, after several days, disposed of as a solid waste or managed in accordance with applicable waste laws and regulations.*

Response: We agree and revised Provision VI.C.2.h. We also added a new Provision VI.C.2.i (and renumbered the subsequent provision) as follows:

- h.** Immediately As soon as practicable and no later than 24 hours after fireworks displays, collect, remove, and manage and properly dispose of fireworks debris, particulate matter, and waste from within the design firing ranges for all firework launch areas; and
- i.** As soon as practicable, properly dispose of fireworks debris, particulate matter, and waste collected from within the design firing ranges for all firework launch areas; and

PSN Comment 7: *PSN suggests it is more appropriate to conduct a BMP effectiveness evaluation in the days or weeks after a fireworks display instead of immediately after a display.*

Response: We agree and revised Provision VI.C.2.j (formerly Provision VI.C.2.i) as follows:

- i j.** Immediately As soon as practicable after fireworks displays, conduct BMP effectiveness evaluations.

PSN Comment 8: *PSN contends that the reporting requirements in Provision VI.D are excessive for small family-run companies that have previously been unregulated. PSN points out that the*

San Diego Regional Water Board is the only agency in the United States that regulates fireworks with an NPDES permit, which PSN argues has simpler and sufficient post-fireworks display reporting requirements.

Response: We disagree. As described in Fact Sheet section VI.D, the notification and reporting requirements are necessary to evaluate compliance with the tentative order, assess BMP performance and implementation, and inform the next permit reissuance. Provision VI.D requires dischargers to complete Fireworks Display Reports within 14 days of each fireworks display, submit one annual report containing the Fireworks Display Reports, and notify the Regional Water Board of fireworks displays, violations, and unauthorized discharges. These requirements are not excessive.

Regarding the post-fireworks display reporting requirements, the tentative order contains requirements similar to those in the San Diego Regional Water Board's NPDES permit. In fact, the Fireworks Display Report templates are almost identical (see Attachment C of the tentative order and the San Diego Region NPDES permit). Although the tentative order requires these reports be completed within 14 days (as opposed to 30 days), the San Diego Regional Water Board's permit imposes an additional requirement to complete a written log within five days with much of the same information.

PSN Comment 9: PSN warns that conducting an inspection during a fireworks display could be dangerous and access to some areas may require advance consent from local, state, or federal agencies.

Response: We agree, and no change is necessary.

PSN Comment 10: PSN requests to extend the deadline to submit Fireworks Display Reports from 14 to 30 calendar days after a fireworks display because it is infeasible to meet this deadline after major events (e.g., Fourth of July).

Response: We disagree. Two weeks is sufficient time to complete brief reports. See our response to PSN Comment 8.

PSN Comment 11: PSN reiterates its safety and access concerns regarding inspections conducted during fireworks displays (see PSN Comment 9).

Response: We agree, and no change is necessary.

PSN Comment 12: PSN points out that the bypass requirements in Attachment D provision I.G do not apply to fireworks displays.

Response: We agree. Although some provisions of Attachment D do not apply (as noted in Provision VI.B and Fact Sheet section VI.B), pursuant to 40 C.F.R. section 122.41, all of these standard conditions must be incorporated into NPDES permits either expressly or by reference. We include the federal standard provisions as Attachment D in all NPDES permits.

PSN Comment 13: PSN asks whether Attachment D section III would require it to sample and analyze specific pollutants because PSN would oppose such a requirement.

Response: We confirm that Attachment D does not establish any requirement to sample and analyze specific pollutants.

PSN Comment 14: *PSN asks for clarification regarding the record-keeping requirements in Attachment D section IV because it would oppose any requirement to sample and analyze specific pollutants.*

Response: See our response to PSN Comment 13.

PSN Comment 15: *PSN requests that Attachment D section V.A contain a reference to the records required by the tentative order as opposed to general references to the Water Code and federal regulations.*

Response: We disagree. Attachment D section V.A requires dischargers to provide certain types of information to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time. Pursuant to 40 C.F.R. section 122.41, this standard condition must be incorporated into the permit either expressly or by reference.

PSN Comment 16: *PSN states it is unclear how the requirement to notify the Regional Water Board of planned facility modifications could apply to fireworks displays.*

Response: Pursuant to 40 C.F.R. section 122.41, this condition must be incorporated into the permit either expressly or by reference.

PSN Comment 17: *PSN states that the publicly owned treatment works requirements set forth in Attachment D provision VII.B should not apply to fireworks displays.*

Response: We agree. See our response to PSN Comment 12.

PSN Comment 18: *PSN points out that discharges from fireworks displays are different from many regulated discharges because they are infrequent and rarely last more than 40 to 45 minutes. PSN provides additional information about the pyrotechnic industry and its historical importance, asserting that fireworks displays have occurred for decades with little significant or distinguishable water quality impacts.*

Response: We recognize the value and significance of fireworks displays for those who enjoy them. We disagree, however, that fireworks displays pose insignificant water quality impacts (see Baykeeper Comment 2). Moreover, the Clean Water Act does not exempt fireworks discharges from NPDES permitting requirements. We revised the second paragraph of Fact Sheet section II.C as follows:

Various factors can affect residual firework pollutant concentrations in receiving waters adjacent to fireworks displays, including event frequency, **duration**, 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.

PSN Comment 19: *PSN contends that fireworks displays and associated celebrations are beneficial uses of the receiving waters. PSN argues that the beneficial use is not protected if overregulation of these activities curtails the use.*

Response: We disagree. The Basin Plan establishes the beneficial uses of the receiving waters as listed in Fact Sheet section III.C.1. As drafted, the tentative order does not regulate fireworks displays more than necessary to protect these beneficial uses. In fact, as a general permit, the tentative order provides dischargers a streamlined means to comply with applicable State and federal water quality laws and regulations, without preventing public fireworks displays.

PSN Comment 20: PSN reiterates its concern that the deployment of booms and tarps is impracticable due to safety concerns and not economically achievable for most dischargers.

Response: See our response to PSN Comment 2.

PSN Comment 21: PSN argues that there is no need for containment or collection BMPs, especially not the deployment of tarps and booms, given the spatial and temporal characteristics of fireworks displays.

Response: See our response to PSN Comment 2.

PSN Comment 22: PSN reiterates its concern about the deployment of booms and tarps and what it views as excessive reporting requirements that do little to improve water quality.

Response: See our responses to PSN Comments 2 and 8.

PSN Comment 23: PSN states that the required BMPs far exceed those suggested by cited guidance documents, which primarily address perchlorate-containing and un-ignited fireworks discharged to areas that may affect drinking water.

Response: We disagree. Provision VI.C of the tentative order only requires BMPs that are practicable and economically achievable. Fact Sheet section VI.C cites guidance documents to assist dischargers with BMP selection. See our response to PSN Comment 2.

San Francisco Baykeeper

Baykeeper Comment 1: Baykeeper agrees that the discharge of residual firework pollutants from public fireworks displays should be regulated by an NPDES permit.

Response: No response is necessary.

Baykeeper Comment 2: Baykeeper explains that it began advocating for the regulation of public displays of fireworks after Super Bowl 50 fireworks shows in January and February 2016 caused fireworks debris, including cardboard, plastic, fuses, and wires, to wash up on the San Francisco Bay shoreline at Aquatic Park for a month after the events. In July 2016, Baykeeper and PSN signed a Memorandum of Understanding requiring PSN to implement BMPs similar to those in the tentative order. Baykeeper reports that PSN has consistently implemented the BMPs.

Response: Baykeeper provides important context that supports the tentative order. We revised Fact Sheet section IV.C.4 as follows:

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). There is evidence that the implementation of BMPs is sufficient to maintain water quality standards. After the Super Bowl 50 fireworks shows in January and February 2016, fireworks debris, including cardboard, plastic, fuses, and wires, washed up on the San Francisco Bay shoreline at Aquatic Park for roughly one month after the events. In July 2016, Baykeeper and a fireworks contractor signed a Memorandum of Understanding committing the contractor to implement BMPs similar to those required by Provision VI.C of this Order. Baykeeper confirmed that the contractor consistently implemented the BMPs and, thus, significant fireworks debris has not been reported since.

Baykeeper Comment 3: *Baykeeper supports that the tentative order covers not only discharges to San Francisco Bay but also discharges to inland waters.*

Response: No response is necessary.

Baykeeper Comment 4: *Baykeeper agrees that it is appropriate to impose narrative effluent limitations and supports the requirement to prepare and implement a BMPs Plan that describes steps to ensure that residual firework pollutant discharges will not adversely affect receiving waters.*

Response: No response is necessary.

Baykeeper Comment 5: *Baykeeper requests to revise the tentative order to clarify how the public can access self-monitoring reports and asks what a Place Identification Number is.*

Response: Fact Sheet section VII describes how to obtain additional information by email, by phone, or in person at our office in Oakland. We recommend requesting information from the staff person identified in Fact Sheet section VII.G, the Authorization to Discharge, or our website

(https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.html).

The public may also request information through a California Public Records Act request by mail, email, fax, or phone, or in-person, as described on our website

(https://www.waterboards.ca.gov/sanfranciscobay/about_us/public_request.html).

The Place Identification Number is a number created for each regulated facility in the State Water Board's California Integrated Water Quality System (CIWQS) online database used to manage NPDES permits, track inspections, and manage violations and enforcement activities. The Place Identification Number is provided to dischargers with Authorizations to Discharge. The public may also determine Place Identification Numbers by searching CIWQS's Facility-At-A-Glance Report

(https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.html) or by contacting Water Board staff.

Baykeeper Comment 6: *Baykeeper supports adoption of the tentative order.*

Response: No response is necessary.

Staff Initiated Changes

In addition to making minor editorial and formatting changes, we corrected two typographical errors in the last paragraph of Attachment D section III.B as follows:

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).)

We also corrected a typographical error in section VI.D.3.a of the tentative order as follows:

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 (<http://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.