State of California Regional Water Quality Control Board San Diego Region

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# EXECUTIVE OFFICER SUMMARY REPORT May 11, 2011

- ITEM:
- SUBJECT: New General Permit: Residual Firework Pollutant Waste Discharges to Waters of the United States in the San Diego Region (Tentative Order No. R9-2011-0122, NPDES No. CAG999002) (*Michelle Mata*)
- PURPOSE: To issue a general National Pollutant Discharge Elimination System (NPDES) permit for residual firework pollutant waste discharges to waters of the U.S. in the San Diego Region from the public display of fireworks.
- PUBLIC NOTICE: A public notice of the Tentative Order was published in the San Diego Union Tribune, the Orange County Register, and the (Riverside) Press-Enterprise on March 21, 2011. Copies of the Tentative Order were electronically e-mailed on March 21, 2010 to all known interested persons. Copies were made available for public review at the San Diego Water Board office and posted on the San Diego Water Board's web site on March 21, 2010.
- DISCUSSION: The Tentative Order is a General NPDES permit regulating discharges of residual firework pollutant waste to waters of the U.S. in the San Diego Region. In the Tentative Order the public display of fireworks refers to an entertainment feature where the public or a private group is admitted to, or permitted to, view the display or discharge of fireworks. Enrollees under the Tentative Order will be required to a) develop and implement Best Management Practices to reduce the introduction of firework pollutants into receiving waters; b), conduct post firework event monitoring and submit reports; c) conduct receiving water monitoring and submit reports for discharges meeting certain criteria described below.

#### Background

With the exception of SeaWorld San Diego, discharges associated with public displays of fireworks (also referred to as a fireworks show or event) have previously been unregulated in the San Diego Region by the San Diego Water Board.

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Typical fireworks constituents include, but are not limited to, aluminum, antimony, barium, carbon, calcium, chlorine, cesium, copper, iron, potassium, lithium, magnesium, oxidizers including nitrates, chlorates and perchlorates, phosphorus, sodium sulfur, strontium, titanium, and zinc. Fireworks events also result in a discharge of exploded and unexploded shells and debris, including paper, cardboard, fuses, and wires to surface waters.

#### Public Workshops

Prior to the issuance of the Tentative Order, San Diego Water Board staff held two (2) public workshops to discuss at length the conditions and requirements to be included in the Tentative Order and to consider comments from interested persons. Significant revisions have been made to the tentative Order based on comments received at the workshops.

The most significant changes are outlined below:

- The Tentative Order initially required all dischargers, regardless of the number of shows or receiving water, to conduct receiving water monitoring. The Tentative Order subsequently was changed to:
  - a. Specify a firework pollutant mass-based net explosive weight threshold of 1,000 pounds or more to classify dischargers who must conduct or participate in receiving water monitoring in Mission Bay or San Diego Bay; and
  - Eliminate all receiving water monitoring requirements for firework events conducted in or adjacent to the Pacific Ocean and all water bodies in the San Diego Region other than Mission Bay or San Diego Bay;
- The Tentative Order initially required the submittal of a monitoring plan for the receiving waters within 180 days of enrollment under the Order. For Category 1 Dischargers, the current monitoring program increases the allowable time period to develop and submit the monitoring plan to twelve (12) months;
- 3. The Tentative Order initially prohibited discharges into the La Jolla and Heisler Park ASBS. Provisions now allow for

continuance of annual Fourth of July firework events over or adjacent to the La Jolla Area of Special Biological Significance ASBS in San Diego County and the Heisler Park ASBS in Orange County; and

4. The Tentative Order initially required the submittal of a preevent notification form for each public fireworks event. The Tentative Order was subsequently changed to eliminate the pre-firework event reporting and consolidate the reporting of firework event information into one report submitted following the firework event.

## Net Explosive Weight Threshold

The San Diego Water Board reviewed the monitoring conducted to date by SeaWorld San Diego and summarized the results of this review in the Fact Sheet (Attachment F) of the Tentative Order. Based on this review the San Diego Water Board concluded that the discharge of fireworks containing a net explosive weight of 1000 pounds is the estimated threshold at which water quality effects from residual firework pollutant discharges may be detected in the receiving water and/or sediment.

# **Receiving Waters With Required Monitoring**

The majority of public fireworks displays in the San Diego Region occur over or within the vicinity of Mission Bay or San Diego Bay, therefore it is reasonable to mandate and concentrate receiving water monitoring activities in these two water bodies. The San Diego Water Board currently does not have any specific information regarding the number and frequency of fireworks events discharging to other surface water bodies within the San Diego Region, with the exception of the Pacific Ocean. No monitoring data has been provided to the San Diego Water Board for these discharges. The Tentative Order does not require receiving water monitoring for fireworks displays over the Pacific Ocean.

# Discharger Classification for Monitoring

The Tentative Order establishes a classification of the Dischargers as either Category 1 or Category 2 to identify the

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Dischargers who are required to conduct or participate in receiving water monitoring. Category 1 is a Discharger that discharges fireworks containing a net explosive weight of 1,000 pounds or more, in any calendar year, from a single event to Mission Bay or San Diego Bay. Category 1 also includes fireworks discharges from SeaWorld San Diego to Mission Bay.

Category 2 is a Discharger that either 1) discharges fireworks containing a net explosive weight less than 1,000 pounds, in any calendar year, from a single event to Mission Bay or San Diego Bay, or 2) discharges fireworks of any net explosive weight from a single event or multiple events to any other surface water of the U.S. within the San Diego Region. Dischargers classified as Category 2 Dischargers are not required to conduct or participate in receiving water monitoring unless the San Diego Water Board determines monitoring is needed based on the considerations listed in Attachment E of the Tentative Order in Section IX.B of the Monitoring and Reporting Program.

#### Category 1 Discharge Monitoring

Category 1 Dischargers of 1,000 pounds or more of pyrotechnic weight in any calendar year from any single event into Mission Bay or San Diego Bay are required to monitor in accordance with Attachment E of the Tentative Order in Section IX.A. of the Monitoring and Reporting Program. This monitoring is needed to ensure compliance with receiving water limitations contained in section VI.A of the Tentative Order.

Water chemistry monitoring requirements were developed based on the results obtained from the SeaWorld San Diego monitoring, which are discussed in Attachment F of the Tentative Order in Section I.D of the Fact Sheet.

The basis for sediment monitoring under the Tentative Order is largely based on the requirements in the State Water Resources Control Board (State Water Board) Sediment Quality Control Plan.

The monitoring requirements under the Order do not specify a required frequency of monitoring for water chemistry, and require a minimum number of one sediment monitoring event (using all lines of evidence) every 3 years. The frequency of sediment

monitoring is based upon the guidelines from the SWRCB Sediment Quality Control Plan, which specifies a minimum frequency for minor discharges and regional monitoring groups (see Section VII.D of the SWRCB Sediment Quality Control Plan).

## Comments on Tentative Order

To date, the Regional Board has received numerous comments from interested persons. Comment letters received to date are included in this Agenda mailing. A Response to Comments Document and Errata (if needed) will be included in the supplemental mailing.

## General Permit Coverage

If the Tentative Order is adopted at today's meeting, the permit will become effective on June 1, 2011 allowing Dischargers to obtain permit coverage for the July 4, 2011 public fireworks displays. Dischargers will not be required to conduct receiving water monitoring for the July 4, 2011 event.

- KEY ISSUES: The following issues were raised by several commenters regarding the revised tentative Order:
  - The San Diego Water Board's decision to regulate fireworks pollutants as a point source discharge. A memo from the Office of Chief Counsel supporting the San Diego Water Board's decision to regulate fireworks as a point source discharge will be included in the supplemental mailing.
  - 2. The development of threshold criteria that would trigger receiving water monitoring.
  - 3. The cost associated with Category 1 monitoring requirements. Additional information on the associated costs will be provided in the supplemental mailing.
  - 4. Allowing discharges into ASBS.

COMPLIANCE: Not Applicable

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#### LEGAL ISSUES: None

# SUPPORTING DOCS: 1. Transmittal Letter for Tentative Order No. R9-2011-0022 (Version 3-21-2011) dated March 21, 2011

- 2. Tentative Order No. R9-2011-0022 (Version 3-21-2011)
- 3. Comments on Tentative Order No. R9-2011-0022 (Version 3-21-2011)
- 4. Comments on Tentative Order No. R9-2011-0022 (Version 2-8-2011)
- 5. Comments on Tentative Order No. R9-2010-0124 (Version 9-23-2010)
- RECOMMENDATION: Adoption of Tentative Order No. R9-2011-0022 is recommended.