

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
August 16, 2006

- ITEM: 14
- SUBJECT: NPDES Permit Reissuance: South Orange County Wastewater Authority, Aliso Creek Ocean Outfall (tentative Order No. R9-2006-0055, NPDES No. CA0107611) (*Joann Lim*)
- PURPOSE: To adopt tentative Order No. R9-2006-0055, reissuing the NPDES permit to the South Orange County Wastewater Authority to discharge through the Aliso Creek Ocean Outfall up to 32.86 million gallons per day (MGD) of treated effluent and non-potable treated groundwater and brine discharges.
- PUBLIC NOTICE: Copies of the tentative Order were mailed on May 5, 2006 to the federal and local sewer collection agencies and to all known interested parties and agencies. Copies were made available for public review at the Regional Board office on May 8, 2006. The tentative Order was also posted on the Regional Board's website on July 3, 2006.
- DISCUSSION: The South Orange County Wastewater Authority (SOCWA) is comprised of 10 member agencies including the City of Laguna Beach, the City of San Clemente, the City of San Juan Capistrano, El Toro Water District, Emerald Bay Service District, Irvine Ranch Water District, Moulton Niguel Water District, Santa Margarita Water District, South Coast Water District, and Trabuco Canyon Water District. SOCWA operates the Aliso Creek Ocean Outfall, which receives treated effluent from the SOCWA Joint Regional Plant (JRP), the SOCWA Coastal Treatment Plant (TP), the Los Alisos Water Reclamation Plant, and the El Toro Water Recycling Plant. In addition, non-potable treated groundwater and brine discharges from the Irvine Desalter Project are also routed to the Aliso Creek Ocean Outfall.
- The Ocean Outfall has been in use since 1979. The outfall extends 7,900 feet offshore in a southwesterly direction from the mouth of Aliso Creek. The inshore end of the diffuser is located approximately 6,700 feet offshore at a depth of approximately 170 feet. The diffuser, which is collinear with

the rest of the outfall, is approximately 1,200 feet long and extends to a maximum depth of 195 feet. The design capacity of the Ocean Outfall is 50 MGD.

For the previous Order, the Regional Board, with assistance from the State Water Board, determined the minimum initial dilution factor to be 260 for the discharge of up to 27.0 MGD of effluent through the Ocean Outfall using the computer modeling package UMERGE. The Regional Water Board reassessed the initial dilution factor in 2004 when considering authorization of the brine discharge from the IDP. The result of this analysis indicated that the addition of the brine discharge would not have a significant impact on the initial dilution factor. Thus the previous initial dilution factor of 260 has been carried over for use in this Order.

SOCWA submitted an application for renewal of NPDES permit No. CA0107611 on August 11, 2005. This application was reviewed and tentative Order No. R9-2006-0055 was prepared with the assistance of PG Environmental under contract to the U.S. Environmental Protection Agency (USEPA).

Tentative Order No. R9-2006-0055 updates Order No. R9-2001-08 and makes changes to the effluent limits consistent with federal regulations and the 2005 California Ocean Plan (Ocean Plan). Pursuant to Sections 301(b)(1)(B) and 304(d)(1) of the Clean Water Act (CWA), USEPA has established standards of performance for secondary treatment at 40 CFR Part 133 (also referred to as technology-based effluent limits or TBELs). Secondary treatment is defined in terms of three parameters – 5-day biochemical oxygen demand (BOD₅), TSS, and pH. In accordance with the definition contained in 40 CFR 122.2, each of SOCWA's wastewater treatment plants is considered a POTW. Further, in accordance with 40 CFR 125.3(a)(1), all POTWs are required to achieve the secondary treatment standards contained in 40 CFR Part 133. Therefore, consistent with Order No. R9-2001-08, the permit independently applies the secondary treatment standards to the SOCWA JRP, the SOCWA Coastal TP, the Los Alisos Water Reclamation Plant, and the El Toro Water Recycling Plant (see the Errata Sheet No. 1, Supporting Document No. 7, No. 1 for more details regarding TBELs).

The need for water quality-based effluent limitations (WQBELs) for toxic pollutants listed under Table B of the

Ocean Plan was determined using the reasonable potential analysis (RPA) procedures of the Ocean Plan which were added in 2005. The RPA procedures use a statistical approach to determine if SOCWA's discharge has the potential to cause an exceedance of the water quality objectives for the Pacific Ocean for the toxic pollutants listed under Table B of the Ocean Plan, based on historical effluent data and the dilution factor for the Aliso Creek Ocean Outfall (see page F-22 of Supporting Document No. 5 for more details regarding WQBELs).

In response to a request from SOCWA, the comment period for this item was extended from June 14, 2006 to today's hearing. SOCWA had several comments (see Supporting Document No. 6), which have been addressed in the Response to Comments (Supporting Document No. 6). Some of the Discharger's comments resulted in recommending minor changes to the tentative Order. (Supporting Document No. 7). On August 31, 2006, a meeting was conducted with SOCWA to discuss their concern regarding the application of TBELs to the individual discharges from each SOCWA treatment facility. SOCWA's concern seems to be a perception that this change is a step towards the Regional Board issuing individual permits to each discharger when the NPDES permit is reissued in five years. As was explained to the SOCWA representatives, the basis for the current application of TBELs has to do with Federal Regulations and not with any approach to establish individual permits.

LEGAL CONCERNS:

none

SUPPORTING DOCUMENTS:

- 1) Transmittal letter to Dischargers
- 2) Tentative Order R9-2006-0055
- 3) Attachment B of Order No. R9-2006-0055, Map
- 4) Attachment E of Order No. R9-2006-0055, Monitoring and Reporting Program
- 5) Attachment F of Order No. R9-2006-0055, Fact Sheet
- 6) Comment Letters and Response to Comments
- 7) Errata Sheet for tentative Order R9-2006-0055

SIGNIFICANT CHANGES:

The following areas in tentative Order R9-2006-0055 differ from the SOCWA's current Order No. R9-2001-08:

1. The effluent flow limit has changed from average dry weather flow limit to a calendar-monthly average flow limit.

2. The technology-based effluent limits and monitoring are being applied at each wastewater treatment plant discharge, brine discharge, and each treated urban runoff discharge instead of only at the ocean outfall.
3. Temperature, salinity, and depth measurement at 1-meter intervals for the intensive off-shore monitoring period to better evaluate the initial dilution.

COMPLIANCE
RECORD:

The Discharger has complied with the effluent limitations of Order No. R9-2001-08. Over the previous permit term, there were no instances of non-compliance resulting in monetary penalties. (See page F-13 of Supporting Document No. 5 for more details regarding the Discharger's compliance record.)

RECOMMENDATION:

Adoption of Tentative Order R9-2006-0055 is recommended.