

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF JULY 6, 2007

Prepared May 25, 2007

ITEM NUMBER 21

SUBJECT Issuance of Waste Discharge Requirements/NPDES Permit for Ocean View Community Services District, Ocean View Plaza Desalination Facility, Monterey County, Order No. R3-2007-0040, NPDES Permit No. CA0050016

KEY INFORMATION

Location: 470 Cannery Row
Type of Waste: Reverse Osmosis Brine
Design Capacity: 0.116 MGD
Present Volume: Not yet constructed
Current Treatment: The desalination system produces drinking-quality product water and includes pretreatment by ultra filtration (UF), desalination by reverse osmosis (RO), and chlorination capability.
Disposal: The UF system is periodically backwashed. The resultant backwash stream is treated, producing a high solids waste stream, which is discharged to the sanitary sewer, and a higher quality waste stream, which is discharged to the Ocean with the RO brine.
Existing Order: No existing order
This Action: Adopt Waste Discharge Requirements Order No. R3-2007-0040

SUMMARY

This proposed Order No. R3-2007-0040 is a new permit for a new brine discharge from a proposed reverse osmosis facility. The facility will provide potable water to a proposed commercial and residential development on Cannery Row. The proposed Order utilizes the statewide standardized permit format that includes a Fact Sheet (Attachment F of the Order) detailing the basis for requirements specified in the Order and Monitoring Program. The standardized permit format also includes Definitions and Standard Provisions consistent with permits issued state-wide. The proposed Order incorporates requirements of the 2005 California Ocean Plan.

DISCUSSION

Purpose of Proposed Order: Order No. R3-2007-0040 is proposed as new Waste Discharge Requirements (WDR) for Ocean View Community Services District (CSD) Ocean View Plaza Desalination Facility, Monterey County. The proposed Order is based on the federal Clean Water Act as it applies to municipal dischargers. The proposed Order implements discharge requirements specified in the California Water Code; National Toxics Rule; California Toxics Rule; State Implementation Policy; the Water Quality Control Plan, Central Coast Basin (Basin Plan); the 2005 California Ocean Plan; and those based on staff's best judgment. The source of each specific

requirement is described in the Fact Sheet (Attachment F of the proposed Order).

Facility Description: The desalination system produces drinking-quality product water and includes pretreatment by ultra filtration (UF), desalination by reverse osmosis (RO), and chlorination capability. Using 100-micron disc filters, UF removes suspended and colloidal matter from incoming seawater, thereby protecting downstream RO membranes from clogging by particulate matter and micro-organisms. After pretreatment by UF, seawater passes through the RO desalination equipment, which produces a low salt, high quality product stream and concentrated or high salt reject stream (brine). Product water is chlorinated and pH adjusted to meet drinking water standards. The UF system is periodically backwashed. The resultant backwash stream is treated, producing a high solids waste stream, which is discharged to the sanitary sewer, and a higher quality waste stream, which is discharged to the Ocean with the RO brine through Discharge Point 001. The desalination facility has a design capacity to discharge up to 0.116 MGD. The treatment plant location and processes are depicted on Attachments B and C of the proposed Order.

Discharge Limitations: Discharges in excess of 0.116 MGD and discharges other than reverse osmosis brine or concentrate are prohibited. Effluent limitations based on the Ocean Plan and on the Basin Plan are specified in Section IV.A.1. Additionally, final technology-based and water quality-based effluent limitations established by the Order are discussed in sections IV.B. and IV.C of the fact sheet.

Monitoring and Reporting Program: The proposed Order includes a monitoring and reporting program to evaluate compliance with requirements. The monitoring program specifies effluent and receiving water monitoring, and whole effluent toxicity testing.

RECOMMENDATION

Adopt Waste Discharge Requirements Order No. R3-2007-0040, as proposed.

ATTACHMENTS

1. Proposed Order No. R3-2007-0040 with Attachments
 - A. Definitions
 - B. Map of Facility Location
 - C. Treatment Facility Flow Schematic
 - D. Standard Provisions
 - E. Monitoring & Reporting Program
 - F. Fact Sheet