STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF MARCH 20-21, 2008
Prepared on February 28, 2008

ITEM NUMBER: **9**

SUBJECT: **Reissuance of Waste Discharge Requirements, National Pollutant Discharge Elimination System Permit No. CA0047996 for the Carmel Area Wastewater District and Pebble Beach Community Services District, Monterey County, Order No. R3-2008-0007**

KEY INFORMATION

Location:	26900 State Route One, Carmel, Monterey County
Type of Discharge:	Secondary treated municipal wastewater and reverse osmosis reject
Permitted Flow:	3.0 million gallons per day (MGD; dry weather flow design capacity)
Average Flow:	1.9 - 2.0 MGD (range of 2002 - 2005 of monthly average flows)
Type of Treatment:	Secondary via activated sludge with disinfection and dechlorination
Disposal:	Ocean discharge to Carmel Bay ASBS through a 600-foot long outfall/diffuser
Recycling:	Golf course irrigation (approximately 1.1 MGD – average monthly) with tertiary treated effluent
Solid Wastes:	Offsite disposal of biosolids at McCarthy Farms composting facility in Kern County
Existing Orders:	NPDES Permit, Waste Discharge Requirements Order No. R3-2002-0046 Water Reclamation Requirements Order No. 93-72
This Action:	**Adopt Revised Waste Discharge Requirements (NPDES Permit)**

SUMMARY

The proposed Order is presented in the new statewide format for National Pollutant Discharge Elimination System (NPDES) permits. This standardized format presents the proposed Order with all supporting information appended as associated attachments. Consequently, the facility information and permit evaluation discussion normally contained within the staff report are presented in the Fact Sheet as Attachment F to the proposed Order. Attachments to the proposed Order consist of the following:

Attachment A – Definitions
Attachment B – Topographic Map
Attachment C – Wastewater Flow Schematic
Attachment D – Standard Provisions
Attachment E – Monitoring and Reporting Program (MRP) No. R3-2008-0007
Attachment F – Fact Sheet
Attachment G – Comments and Changes

The following discussion briefly outlines significant changes to the proposed Order. Additional changes made to the draft Order submitted for public comment are outlined and discussed in Attachment G along with other less substantive changes to the draft Order. See the Order attachments for additional detail regarding the proposed Order.

DISCUSSION

Significant changes

Aside from the new format the proposed Order only contains one major modification from the previous permit.

The proposed Order allows the discharge of tertiary treatment system reverse osmosis reject (brine) from the Discharger's reclamation facility to the Pacific Ocean via the existing ocean outfall. The Discharger is currently upgrading its tertiary treatment system from a media (sand) filtration system to a combined microfiltration (MF) and reverse osmosis (RO) system. The upgraded system will have a capacity to treat approximately 1.9 MGD (versus 1.8 MGD for the sand filters) and produce a blended MF/RO product water with lower total dissolved solids (TDS) that is more suitable for reuse on the area golf courses. The new tertiary treatment system coupled with a new storage reservoir will allow the Discharger to generally operate the tertiary treatment facility continuously throughout the year (during periods of low irrigation demand). Although annual reclaimed water use and ocean discharge rates will not change from current rates, the ocean discharge effluent will contain up to approximately 400,000 gallons per day (gpd) of RO reject water that is higher in dissolved constituents. The RO reject water will be blended with MF and/or secondary effluent prior to discharge and will not result in an annual net increase in constituent loading to the Pacific Ocean. The Discharger is currently evaluating seasonal RO reject disposal (non-NPDES) alternatives to augment the Carmel River Lagoon in lieu of discharging it through the ocean outfall.

Other modifications

The Central Coast Long-Term Environmental Assessment Network (CCLEAN) program monitoring requirements contained within Attachment E of the proposed Order under section IX. A., have been updated in conjunction with the three other Monterey Peninsula ocean dischargers, Monterey Regional Water Pollution Control Agency, City of Watsonville and City of Santa Cruz. Specific CCLEAN program modifications are discussed under Item 8 of this agenda package and are not repeated here.

The Ocean Plan was amended in 2005 to include a procedure for determining "reasonable potential" by characterization of effluent monitoring data. The results of the reasonable potential analysis (RPA) are presented in Attachment F of the proposed Order under section IV. C. "Water Quality-Based Effluent Limitations (WQBELs). The RPA using effluent data and the updated Ocean Plan procedure only resulted in "reasonable potential" for the Table B pollutants copper, zinc, and DDT. A conclusion of "reasonable potential" for whole effluent, acute and chronic toxicity, and total chlorine residual is based on the nature of the treatment and discharge instead of characterization of effluent monitoring data. The RPA was inconclusive (Endpoint 3) for all remaining Table B pollutants. Therefore, WQBELs were retained for all of the Ocean Plan Table B pollutants.

Based on the result of the RPA, effluent monitoring for the Table B pollutants with reasonable potential to exceed the water quality objectives, copper, zinc, and DDT, was increased from annually to quarterly.

Although the Ocean Plan only requires a minimum annual sampling frequency for the Table B pollutants for discharges between 1 and 10 MGD, effluent monitoring for Table B pollutants was

increased from annually to semiannually. Semiannual sampling is required once during the dry season and once during the wet season to evaluate effluent quality when RO reject flows are at the expected seasonal high and low, respectively, as compared to secondary effluent flows. Whole effluent toxicity effluent monitoring was decreased from quarterly to semiannually, and is required to be conducted concurrently with Table B pollutant monitoring.

Effluent monitoring for a list of "Remaining Priority Pollutants" three times during the next permit cycle was added to the Monitoring and Reporting Program (Attachment E) requirements to facilitate a complete NPDES permit renewal application per 40 CFR 122.21. The "Remaining Priority Pollutants" consist of the priority pollutants listed in Part D of EPA Form 3510-2A (Rev. 1-99) that currently do not have ocean criteria (water quality objectives) per Table B of the Ocean Plan. A complete EPA Form 3510-2A is required for all new and renewal NPDES permit applications pursuant to 40 CFR 122.21.

The proposed Order requires the Discharger to utilize high volume water sampling (HVWS) methods employed by the CCLEAN program for compliance determination of the Table B pollutants and the implementation of all other pollutant monitoring requirements contained within the proposed Order, when appropriate, given the subsequent analytical methods are in accordance with 40 CFR PART 136 or as allowable per the Implementation Provisions for Table B contained in section III.C.5.b of the Ocean Plan. The CCLEAN steering committee is required to evaluate appropriate HVWS methods as part of the forthcoming CCLEAN Quality Assurance Project Plan (QAPP).

Effluent total coliform monitoring and triggered shoreline bacteria monitoring for total and fecal coliform and *Enterococus* bacteria were retained from the previous permit. However, water contact (surface water) limitations for bacteria were updated and resampling requirements were added per the Implementation Provisions for Bacterial Characteristics for Water Contact Monitoring in the Ocean Plan.

The proposed Order also includes requirements for a Pollutant Minimization Program per the Ocean Plan.

The proposed Order includes the addition of annual visual outfall monitoring and reporting requirements to inspect the physical integrity of the outfall. This requirement is based on failure of the outfall structure during 2004 that resulted in the authorized discharge of tertiary effluent to the Carmel River as noted in section II.D, Compliance History, of the Fact Sheet.

RECOMMENDATION

Adopt Order R3-2008-0007 as proposed.

ATTACHMENTS

1. Proposed Order No. R3-2007-0025 and associated attachments
2. Waste Discharge Requirements Order No. R3-2002-0026

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