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Effluent discharges to the Southern California Bight from large municipal wastewater treatment facilities in 2003 and 2004

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ABSTRACT

Four large municipal wastewater treatment facilities (POTWs) each discharge upwards of 100 million gallons of treated wastewater to the Southern California Bight (SCB) every day and are a primary source of contaminants to the SCB. Since 1971 the Southern California Coastal Water Research Project (SCCWRP) has conducted annual assessments of contaminant loading to the SCB from the large POTWs. This report continues these assessments by characterizing effluents from large POTWs in 2003 and 2004. Data from compliance monitoring reports were used to evaluate large POTW effluents in terms of volume, constituent mass emissions, and average constituent concentration. Estimates were compared to results from previous years, and long-term trends in large POTW effluents were evaluated. Emphasis for historical comparisons focused on selected years from 1982 to 2004 to highlight changes in discharges associated with increases in secondary treatment. Effluent discharges in 2004 were generally lower than previous years in terms of volume, concentrations and mass emissions. The most significant reductions in constituent mass emissions followed increases in secondary treatment capacity. By 2003 both Hyperion Treatment Plant (HTP) and the Joint Water Pollution Control Plant (JWPCP) had converted to full secondary treatment. As a result, these two facilities went from having the greatest proportional discharge of most constituents to having the least, despite accounting for 60% of the total effluent volume. Still, large POTWs remain the leading point source of contaminants to the SCB.

Full Text

ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/AnnualReports/2005_06AnnualReport/AR0506_001-16.pdf