



ADMINISTRATION COMMITTEE

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Agenda Report

File #: 2022-2373

Agenda Date: 6/22/2022

Agenda Item No: 17.

FROM: James D. Herberg, General Manager
Originator: Lan C. Wiborg, Director of Environmental Services

SUBJECT:

ENVIRONMENTAL REGULATORY REPORTS

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Receive and file environmental regulatory reports: Annual Biosolids Management Compliance Report CY 2021, Annual Pretreatment Program Report FY 2021 (July 2020-June 2021), Semi-Annual Pretreatment Program Report (July-December 2021), Annual Mandatory Reporting of Greenhouse Gas Emissions Report CY 2021, Annual Emission Report CY 2021, Annual Marine Monitoring Annual Report FY 2021 (July 2020-June 2021), Quinquennial Sewer System Management Plan, and the Biannual Wastewater Discharge Requirements Sewer System Management Plan Audit.

BACKGROUND

The Orange County Sanitation District (OC San) is subject to environmental regulatory oversight by the U.S. Environmental Protection Agency (EPA), Regional Water Quality Control Board (Santa Ana Region), California Air Resources Board (CARB), and South Coast Air Quality Management District (SCAQMD). These regulatory bodies require routine reporting, which is prepared by OC San's Environmental Services Department. These reports include:

1. Annual Biosolids Management Compliance Report required by OC San's National Pollutant Discharge Elimination System (NPDES) permit for ocean discharge. Due February 19th of every year. Reporting based on calendar year.
2. Annual and Semi-Annual Pretreatment Program Reports required by OC San's NPDES permit. Due March 31st and October 31st of every year. Reporting based on fiscal year.
3. Annual Mandatory Reporting of Greenhouse Gas Emissions required by CARB. This report uses an online portal for report preparation and submission. Due April 10th of every year. Reporting based on calendar year.
4. Annual Emission Report required by SCAQMD. Due March of every year (exact date varies). Reporting based on calendar year.

5. Annual Marine Monitoring Report required by OC San's NPDES ocean discharge permit. Due March 15th of every year. Reporting based on fiscal year.
6. Quinquennial Wastewater Discharge Requirements Sewer System Management Plan. Due July 1st of every 5th year. Reporting based on calendar year.
7. Biannual Wastewater Discharge Requirements Sewer System Management Plan Audit. Due every 2nd year (exact date varies). Reporting based on calendar year.

RELEVANT STANDARDS

- Comply with environmental permit requirements
- Safe, beneficial reuse of Biosolids
- Comply with transparency and communication requirements, including the Brown Act
- Comply with sanitary sewer overflow regulations (SSS WDR Order)

ADDITIONAL INFORMATION

Environmental regulatory reporting is required by local, state, and federal regulatory bodies to ensure protection of water, air, and land resources. Some of the routine reporting is completed using online reporting portals, which may perform calculations based on user input of operational data. The following key regulatory reports were filed.

Annual Biosolids Management Compliance Report:

The Annual Biosolids Management Compliance Report describes in detail the management of OC San's biosolids, including volume, quality, and locations. During calendar year 2021, OC San produced approximately 543 tons of biosolids per day. The biosolids were anaerobically digested and dried to about 24-27% solids. The biosolids were managed via composting, land application, and heat-dried pellets. Reporting is based on calendar year and the Annual Biosolids Management Compliance Report was electronically submitted on February 19, 2022, via Central Data Exchange as required by the USEPA's Electronic Reporting Rule.

Annual and Semi-Annual Pretreatment Program Reports:

Under its NPDES permit, OC San is required to establish and implement an approved pretreatment program to control the level of pollutants discharged into the sewer system. OC San is also required to submit Pretreatment Program Annual and Semi-Annual Reports detailing the status of the approved program. The reports identified and characterized all dischargers permitted by OC San and the Santa Ana Watershed Project Authority (SAWPA). All permittees were required to submit timely and accurate information to OC San and SAWPA in accordance with USEPA's Cross-Media Electronic Reporting Rule that sets the legal framework for electronic reporting. Reporting is based on fiscal year and the Annual and Semi-Annual reports were successfully completed and submitted by the October 31, 2021 and March 31, 2022 deadlines, respectively.

Annual Emissions and Greenhouse Gas Emissions Reports:

The SCAQMD's Annual Emissions Report (AER) represents a facility's annual inventory of criteria pollutants (VOC, NOx, SOx, CO, PM) and toxic air emissions. The emissions are calculated based on throughput volume and emissions measured at applicable process areas and emission units. The report assesses fees based on a facility's emissions of air contaminants for the reportable year, as specified in SCAQMD Rule 301. The AER reports for OC San Plant Nos. 1 and 2 are prepared and submitted using SCAQMD's web-based emission reporting tool. Reporting is based on calendar year.

In calendar year 2021, Plant No. 1 emitted approximately 33.38 tons of criteria pollutants and OC San submitted an on-time payment for the annual emissions fee of \$18,877.00. Plant No. 2 emitted approximately 31.4 tons of criteria pollutants for which OC San paid \$25,370.81. The reports were electronically submitted on March 15, 2022.

In accordance with the California Global Warming Solutions Act (Assembly Bill 32, 2006), CARB requires all major sources that directly emit Greenhouse Gases (GHG) resulting from the combustion of fuel and importation of electrical power to report their GHG emissions each calendar year. The GHG inventory report is focused on the emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Similar to SCAQMD's AER reporting portal, the GHG report is electronically submitted via CARB's Cal e-GGRT reporting system. In calendar year 2021, Plant No. 1 reported roughly 22,383 metric tons of CO₂ emissions, while Plant No. 2 reported approximately 30,506 metric tons of CO₂ emissions. The reports were electronically submitted on April 7, 2022.

Annual Marine Monitoring Report:

OC San has completed its annual report for the marine monitoring program as required by its NPDES permit. The report evaluates and measures potential impacts of the final effluent (comprising treated wastewater and water reclamation flows) to water quality, sediment chemistry, fish and invertebrate communities, fish health, and sediment toxicity. OC San's Ocean Monitoring Program has three required components: Core Monitoring, Regional Monitoring, and Strategic Process Studies. This comprehensive program is implemented through rigorous monitoring of benthic sediments for chemical deposition, changes in biological communities, and the health of fish living near OC San's ocean outfall. Additionally, the program is tasked with profiling plume dynamics from the effluent discharge and with monitoring water chemistry, oxygen availability, and physical conditions throughout the water column to ensure regulatory compliance.

OC San's Annual Marine Monitoring Report continues to demonstrate that the discharge of final effluent does not affect the receiving environment and does not pose a risk to human health. Water quality measurements demonstrate no discernible environmental impacts from OC San's discharge. Sediment concentrations of metals and organic contaminants were well below the protective thresholds. The composition of marine invertebrates and fish communities is comparable near outfall and non-outfall stations alike. Concentrations of trace metals and chlorinated pesticides in fish tissue (muscle and/or liver) were comparable across outfall and non-outfall stations. Furthermore, concentrations of contaminants measured in sport fish samples did not exceed California's "Do not consume" Advisory Tissue Level. Reporting is based on fiscal year and the report was electronically submitted on March 14, 2022.

Quinquennial Wastewater Discharge Requirements Sewer System Management Plan:

The Sanitary Sewer System Waste Discharge Requirements Order (Order) requires the Sewer System Management Plan (SSMP) to be certified by the enrollee, OC San, every five years. The SSMP is aimed to reduce the occurrence of sanitary sewer overflows (SSOs) and to create uniformity on how sewer systems are managed throughout the state. To comply with the Order, OC San developed an SSMP establishing policies and procedures to direct sewer system management in its service area and uphold California water quality standards. The prior OC San SSMP was approved and filed by the Board of Directors on June 28, 2017. In accordance with the aforementioned five-year schedule, the SSMP was revised in 2022 and includes recommendations set forth in the 2021 SSMP audit report, such as mapping the stormwater conveyance system to recover SSOs, conduct emergency bypass training at selected high risk pump stations, etc. As required by the Order, the updated edition of the OC San SSMP is posted on the OC San website for public awareness.

Bi-Annual Wastewater Discharge Requirements Sewer System Management Plan Audit:

OC San completed its Wastewater Discharge Requirements Sewer System Management Plan Audit (Audit Report) as required by the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems as incorporated by reference in OC San's NPDES permit. The audit was completed in March 2021 and consisted of a desktop review of OC San's SSMP and supporting documentation, staff interviews, and development of recommendations for corrective actions and program enhancements. The audit found OC San's sewer system management operations to be consistent with the SSMP and effective in limiting SSOs in OC San's service area. The results of the 2021 audit identified no major nonconformances, three minor nonconformances, three recommended corrective actions, and 12 recommended enhancements. In accordance with the Order, the Audit Report is posted on the OC San website for public access and awareness.

CEQA

N/A

FINANCIAL CONSIDERATIONS

N/A

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Annual Biosolids Management Compliance Report CY 2021 (abbreviated)
- Annual Pretreatment Program Report FY 2021 (July 2020-June 2021)
- Semi-Annual Pretreatment Program Report (July-December 2021)
- Annual Greenhouse Gas Emissions Report CY 2021
- Annual Emissions Report CY 2021
- Annual Marine Monitoring Annual Report FY 2021 (July 2020-June 2021)
- Quinquennial Wastewater Discharge Requirements SSMP (Every 5th Year)
- Bi-Annual Wastewater Discharge Requirements SSMP Audit (Every 2nd Year)