2024 Regional Water Reuse System Compliance Update

May 15, 2025

Board of Public Utilities Meeting

Presented by Heather Johnson
Environmental Services Officer

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Overview

- Applicable Rules, Regulations, Permit Requirements and any Non-Compliance Events:
  - Wastewater Treatment
  - Biosolids
  - Recycled Water
  - Air Quality and Emissions

- Discharge Season Phosphorus Compliance

- UV System Compliance Schedule

- LTP NPDES Permit Renewal

Wastewater Treatment, Recycled Water, and Biosolids

- NPDES Discharge Permit
- Recycled Water – Notice of Applicability
- Biosolids – Notice of Applicability

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Wastewater Treatment & Monitoring

Non-compliant Events	Description	Cause
Monitoring	Missed monitoring for Total Coliform.	Analytical error in the Laboratory
Treatment System Bypass	1.03 million gallons of wastewater bypassed a portion of the treatment system	Operator error
10 Periods of under disinfection: UV Dosage <100 mJ/cm^2 UVT Below 50%	Duration from 3 seconds to 57 hrs. 19 minutes Total Duration ~70 hours	High turbidity, process control equipment failure, power loss, UV channel repair work, flow surge after shutdown, high flows caused by rainfall
Total Coliform 7-day median exceedance – total of 13 days	7-day median exceedance (greater than 2.2 MPN/100mL) and exceeded 23 MPN/100mL more than once in a 30-day period	Exact reasons are unknown, theoretically possible that algae caused particle shielding in the UV channels

Recycled Water & Discharge

Non-compliant Events	Description	Cause
Recycled Water leaks & spill	Total of 8 events in 2024 ranging from <50 gallons to 16,000 gallons	Line breaks, damaged equipment, broken sprinklers, overwatering
Discharge to Santa Rosa Creek co-mingled with off-spec water	Discharge in December 2024 included a nominal amount of off-spec water	Check valve failed causing water from a pond storing off-spec water to enter the distribution system and 1.7 million gallons reached Delta Pond

Title V Air Quality Permit and Permit to Operate

- Federal Clean Air Act Title V Air Permit for Major Sources
- Permit to Operate

Air Quality and Emissions Compliance Summary

Non-compliant Events	Description	Cause
Exceeded permitted natural gas usage on Engines 1 & 2	Engines 1 & 2 are subject to natural gas usage limitations of 15.55 MMscf/year	Due to failed oxidation catalysts on Engines 3 & 4 the City was unable to operate the Combined Heat and Power as intended, causing excess natural gas usage on Engines 1 & 2
Low use boiler exemption	City exceeded the low use boiler threshold	Operational error when equipment was placed from “auto” to “hand” causing excessive boiler usage
Settlement of past Notice of Violation	The Air District provided a civil penalty settlement offer of $25,000 for permit exceedances that occurred in 2023	High Strength Waste throughput limit of 46,000 gallons per day was exceeded 4 times in early 2023

24/25 Discharge Season Phosphorus Compliance

SUMMARY OF DISCHARGE SEASON 2024-2025

Phosphorus Credits Available At Start of Discharge Season	2023-2024 Phosphorus Credits Generated				Credits Retired	Credits Used	Total Credits Available
	Beretta	Pepperwood	Laguna 1 & 2	Purchased			
17,286	412*	337.5*	92*	0	0	5,555*	12,572*

*Credits are estimated until all projects have been validated, and credits have been entered into the City's tracking database

Laguna Treatment Plant UV System Compliance Schedule

- **Submitted a Request for Extension in September 2024**
  - One-year extension requested for UV system Compliance Schedule
  - Permit was reopened and an Amendment Order went out for public comment
  - On December 5, 2024, the North Coast Regional Water Quality Control Board adopted the Amendment Order with the proposed compliance schedule dates

Task	Proposed Action	Compliance Date
1	Submit Progress reports to the Regional Water Board Executive Officer.	March 1, Annually
2	Complete construction of on-site diversion system and UV disinfection system upgrade project.	December 31, 2025
3	Achieve full compliance with UV system operational requirements and effluent limitations.[1]	September 30, 2026

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Laguna Treatment Plant NPDES Permit Renewal

- **Report of Waste Discharge (ROWD) submitted to Regional Board in September 2024**
  - Application forms, site layout maps, updated schematics
  - Reasonable Potential Analysis data set
  - Submittal of required Discharge Model Validation Reports
  - Updated Trucked Waste Management Plan
  - Discharge Management Plan
  - Radioactiviity and Acute Toxicity Monitoring Reports

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Questions?

Thank you.

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