



Wastewater
Treatment



TRANSFORMING
WASTEWATER
TO RESOURCES



Recycled
Water



Energy
Production



Biosolids
Reuse

SF Bay Nutrient Management and Key Regulatory Issues Update

Special Board of Directors Meeting
September 18, 2024

SF Bay Nutrient Management Key Focus Areas

- Nutrient Watershed Permit (NWP) adopted by Regional Water Board on July 10, 2024
 - Nutrient reductions required with **10-year compliance schedule**
 - District filed petition with State Water Board to preserve future legal challenge to NWP on August 9, 2024 (held in abeyance)
- Secondary Process Improvements Project includes ~\$120M to meet nutrient removal requirements in 10+ years
- BACWA is actively working with regulators to **extend 10-year compliance schedule** requirement to address concerns
- BACWA is focusing on near-term viability of a formal **Nutrient Trading Program** in SF Bay Area (District supports)



Nutrient
Management

Bioassay

PFAS

Microplastics

Wipes
Legislation

Zero-Emission
Fleets

Climate Change

External
Funding

Regulatory Compliance Challenge

Bioassay Testing



- District's NPDES permit requires “bioassay testing” with WWTP effluent (treated wastewater)
 - Test organisms based on screening for “most sensitive species”
 - Quarterly **acute testing** (fathead minnows), **chronic testing** (mussels)
- District **failed acute bioassay test** for third quarter of 2024
 - Permit limit: 3-sample median >90% survival; District result = 85%
 - Accelerated testing restored compliance, but unable to determine cause
- Upcoming NPDES permit may eliminate acute testing, increase chronic testing frequency to monthly
- **Potential regulatory compliance impacts** associated with Antioch Brackish Water Desalination Facility
 - Changes in effluent salinity; Antioch to pay ~\$60k for species testing
 - Staff is working to finalize O&M agreement with City of Antioch

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Emerging Regulatory Compliance Issue

PFAS—“Forever Chemicals”

- Thousands of long-lasting PFAS chemicals in use with negative human health and environmental impacts
- Significant regulatory focus—drinking water MCLs for six PFAS chemicals issued by EPA in April 2024
- EPA expected to release draft biosolids risk assessment and water quality criteria for PFOA/PFOS in fall 2024
- Staff is monitoring potential impacts to WWTP effluent and biosolids regulations
 - Monitoring studies related to PFAS in influent, effluent, and biosolids
 - In September 2023, EPA released rule requiring manufacturers to report PFAS products
 - Maintain focus on source control, “polluter pays”



Emerging Regulatory Compliance Issue

Microplastics

- Microplastics (particles <5 mm) pose both physical and chemical challenges, and are persistent in the environment
- San Francisco Estuary Institute (SFEI) and other entities are conducting research on sources, pathways, and impacts
- Significant increase in regulatory focus and public awareness
- Staff will continue monitoring progress of science studies and potential for future regulations



Successful Legislative Advocacy

Wipes Legislation

- In June 2024, the House approved HR 2964, “Wastewater Infrastructure Pollution Prevention and Environmental Safety (WIPPEES) Act by a vote of 351-56 (bipartisan bill)
 - Manufacturers must label products as non-flushable to protect wastewater infrastructure
 - Federal Trade Commission must issue regulations on product labeling within two years of passage
- District will continue to monitor bill as it progresses through legislative process
- Potential long-term reduction in O&M costs and associated sanitary sewer overflows



Addressing New Regulatory Requirements

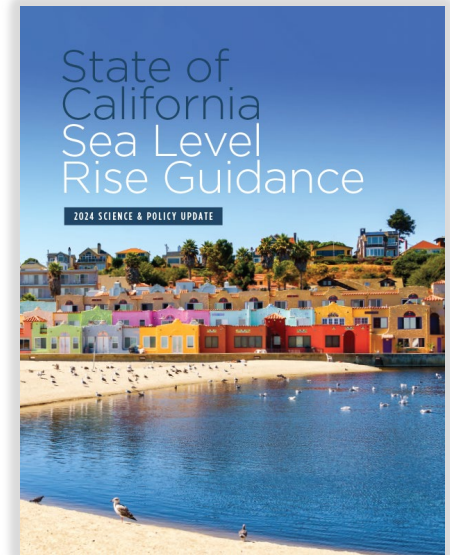
Zero-Emission Fleet Regulations

- CARB regulates mobile sources with primary responsibility for regulating GHGs
- “Advanced Clean Fleets” regulations (effective, Oct 2023) requires conversion to zero-emission vehicles (ZEVs)
 - **Early adoption requirements for public fleets** (state, local) (50% of medium- and heavy-duty vehicle purchases must be ZEV)
 - District is **developing a “ZEV Transition Roadmap”** to determine vehicle replacement strategies and fueling/charging station needs
 - Project to install charging stations at WWTP is included in 5-year CIP



Monitoring New Regulatory Requirements Climate Change

- Continuing regulatory focus on climate change, sea level rise, and adaptation measures
 - Ocean Protection Council released Sea Level Rise Planning Guidance in June 2024
 - California Natural Resources Agency, California Coastal Commission, and State Water Board are updating associated guidance, policies
- SB 272 requires local governments within SF BCDC jurisdiction to develop an adaptation plan by 2034
- Staff participated in EPA's Climate Resilience Evaluation and Awareness Tool (CREAT) training to support conducting climate change risk assessments



Mitigating Financial Impacts to Customers

External Funding Sources



- Securing **~\$130M** loan under Water Infrastructure Finance and Innovation Act (WIFIA) for Secondary Process Improvements
- Pursuing **\$6.0-6.5M** in federal tax credits under Inflation Reduction Act for Cogeneration System Improvements
- Anticipating **\$300k** in grant funding from CalRecycle for marine flare collections (supports HHW collection efforts)
- Continuing to monitor potential funding programs
 - DOE Industrial Assessment Centers Implementation Grant for energy-efficiency projects (\$300K)
 - PG&E funding for electric vehicle charging stations
 - Climate change, adaptation grants



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