



Wastewater
Treatment



TRANSFORMING
WASTEWATER
TO RESOURCES



Recycled
Water



Energy
Production

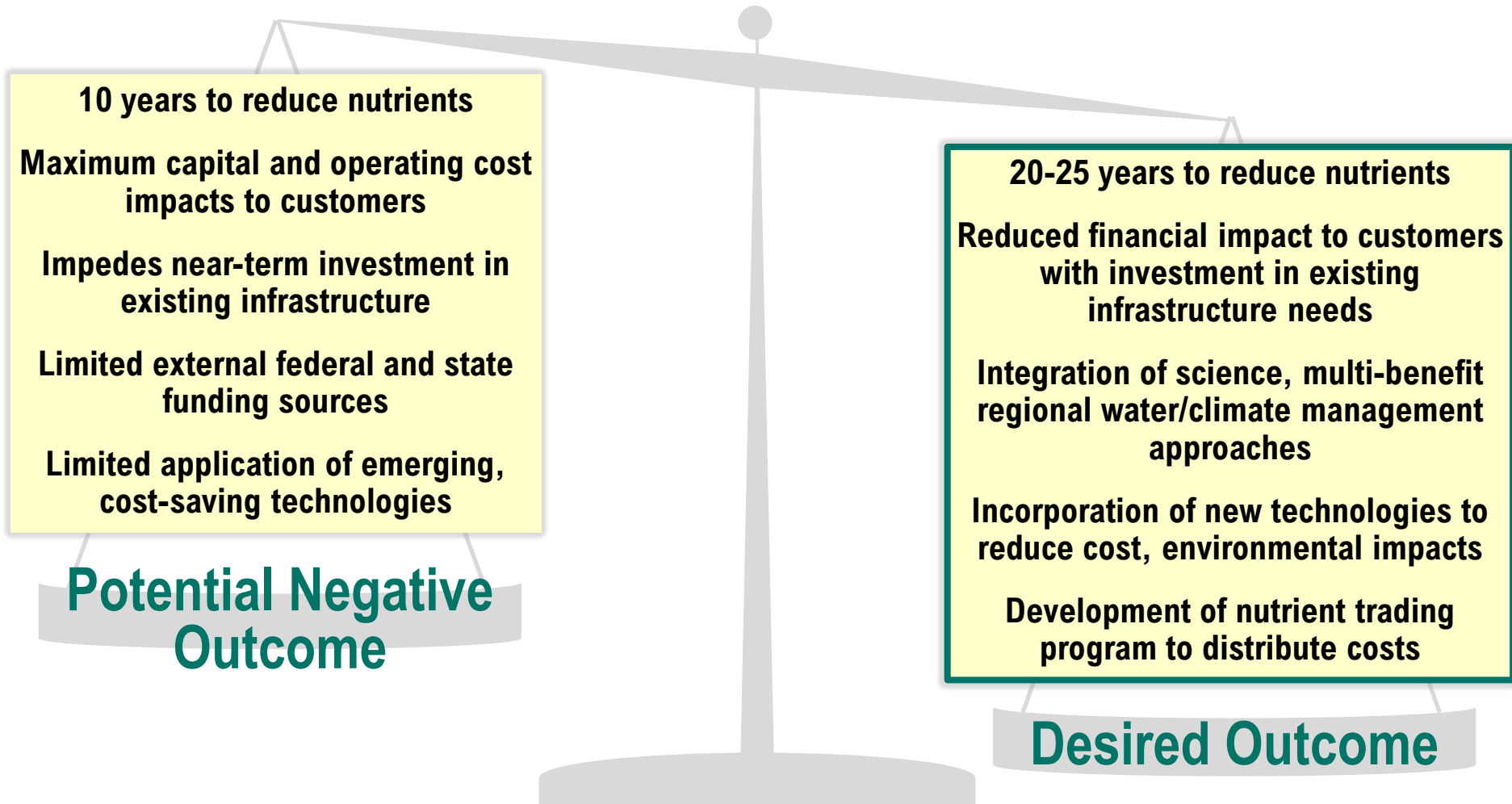


Biosolids
Reuse

SF Bay Nutrient Management and Key Regulatory Issues Update

Board of Directors Meeting
February 21, 2024

Potential Nutrient Management Regulatory Outcomes (from July 2023 Board Meeting)



Expected Nutrient Management Regulatory Outcome (Current)

- Recurrence of algal blooms in summer 2023
- Significant external pressure
- Foundational shift in regulatory approach



10 years to reduce nutrients

Maximum capital and operating cost impacts to customers

Impedes near-term investment in existing infrastructure

Limited external federal and state funding sources

Limited application of emerging, cost-saving technologies

Likely Negative Outcome

20-25 years to reduce nutrients

Reduced financial impact to customers with investment in existing infrastructure needs

Integration of science, multi-benefit regional water/climate management approaches

Incorporation of new technologies to reduce cost, environmental impacts

Development of nutrient trading program to distribute costs

Unlikely Outcome

Expected Nutrient Management Regulatory Outcome (Current) (cont'd)

- Recurrence of algal blooms in summer 2023
- Significant external pressure
- Foundational shift in regulatory approach

10 years to reduce nutrients

Maximum capital and operating cost impacts to customers

Impedes near-term investment in existing infrastructure

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Current Regional Water Board Approach

- Achieve **40% reduction** in nutrient loading to SF Bay in **10 years** based on **2022 effluent discharges** from 37 POTWs via **individual POTW final nutrient limits**
- Replaces **prior assumption** (July 2023) of **“voluntary” actions** by Bay Area POTWs in near term with **extended compliance schedule**
- Significant financial impacts to District—expected to **add >\$140-200 million+** to **10-year CIP** with associated **rate impacts** and **external funding** needs (WIFIA, debt)
- District met with Regional Water Board staff on 2/7 to request **adjustment** to proposed final nutrient limit—**positive outcome**

Nutrient Management

Current Activities/Next Steps

- Review and comment on administrative draft Watershed Permit 3.0; participate in associated meetings via BACWA
- Initiate detailed design for **Phase 1** of Secondary Process Improvements (SPI) Project (**no nutrient removal**)
 - Design services contract awarded by Board in November 2023
- Continue evaluating project alternatives for **Phase 2** of SPI Project (**nutrient removal**)
- Staff will provide more detailed update at March 2024 Board Meeting
 - Recommended approach for Phase 2 of SPI Project, preliminary capital cost estimates, funding plan (cash, WIFIA, debt)
 - Met w/EPA re: WIFIA on 2/20—**positive outcome**



Nutrient
Management

WWTP NPDES
Permit Issuance

Air Permit
Conditions

Fleet Electrification

Wipes Legislation

PFAS

Upcoming NPDES Permit Process for District's Wastewater Treatment Plant



- Regional Water Board issues individual National Pollutant Discharge Elimination System (NPDES) permits to WWTPs
 - Reissued every 5 years
 - NPDES permits in region have similar conditions when global regulatory requirements are implemented
- Staff is not anticipating significant new compliance issues in upcoming NPDES permit renewal
 - Renewal application is due on May 1, 2024
 - District's NPDES permit expires on January 31, 2025

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Cogeneration System Improvements Project

New Air Permit Conditions



- Recent air permit conditions issued by Bay Area Air Quality Management District (BAAQMD) is good indicator of expected permit requirements
 - New processes and equipment that have air emissions are subject to Best Available Control Technology (BACT)
 - Air permit for new cogeneration engine will require advanced emission controls
 - Coordinating with FSSD, BACWA, and CASA to remove onerous BAAQMD monitoring and reporting requirements on gas conditioning system (more typical for refineries)

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Fleet Electrification Requirements

- California Air Resource Board (CARB) regulates mobile sources of air emissions and has primary responsibility for regulating greenhouse gases (GHGs)
- Advanced Clean Fleets regulations became effective 10/1/23 to advance the electrification of specific fleets
 - Manufacturers may only sell zero emission medium- and heavy-duty vehicles starting in 2036
 - Public fleets (state and local agencies) are subject to early adoption requirements to help advance market
 - Staff is currently evaluating two compliance pathways
 - Project to install charging stations at WWTP is included in upcoming 5-year CIP

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- On 12/5/23, House Committee on Energy and Commerce approved H.R. 2964, Wastewater Infrastructure Pollution Prevention and Environmental Safety (WIPPES) Act by 42-0 vote
- Bipartisan bill requires manufacturers to label products as non-flushable to protect wastewater infrastructure
- Bill requires Federal Trade Commission to issue regulations on 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 sanitary sewer overflows



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PFAS

Per- and Polyfluoroalkyl Substances (PFAS)—“Forever Chemicals”

- PFAS chemicals are widely used and long lasting in the environment (thousands of chemicals)
- Significant regulatory focus on PFAS, particularly in drinking water; EPA is adopting enforceable drinking water standards for six PFAS chemicals
- Staff is monitoring potential impacts to District on effluent and biosolids (currently no limits) regulations
 - Federal, state, and regional monitoring for and studies of PFAS in influent, effluent, and biosolids
 - On 9/28/23, EPA released rule requiring all manufacturers to report products containing PFAS
 - Maintain focus on source control and “polluter pays” principle

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