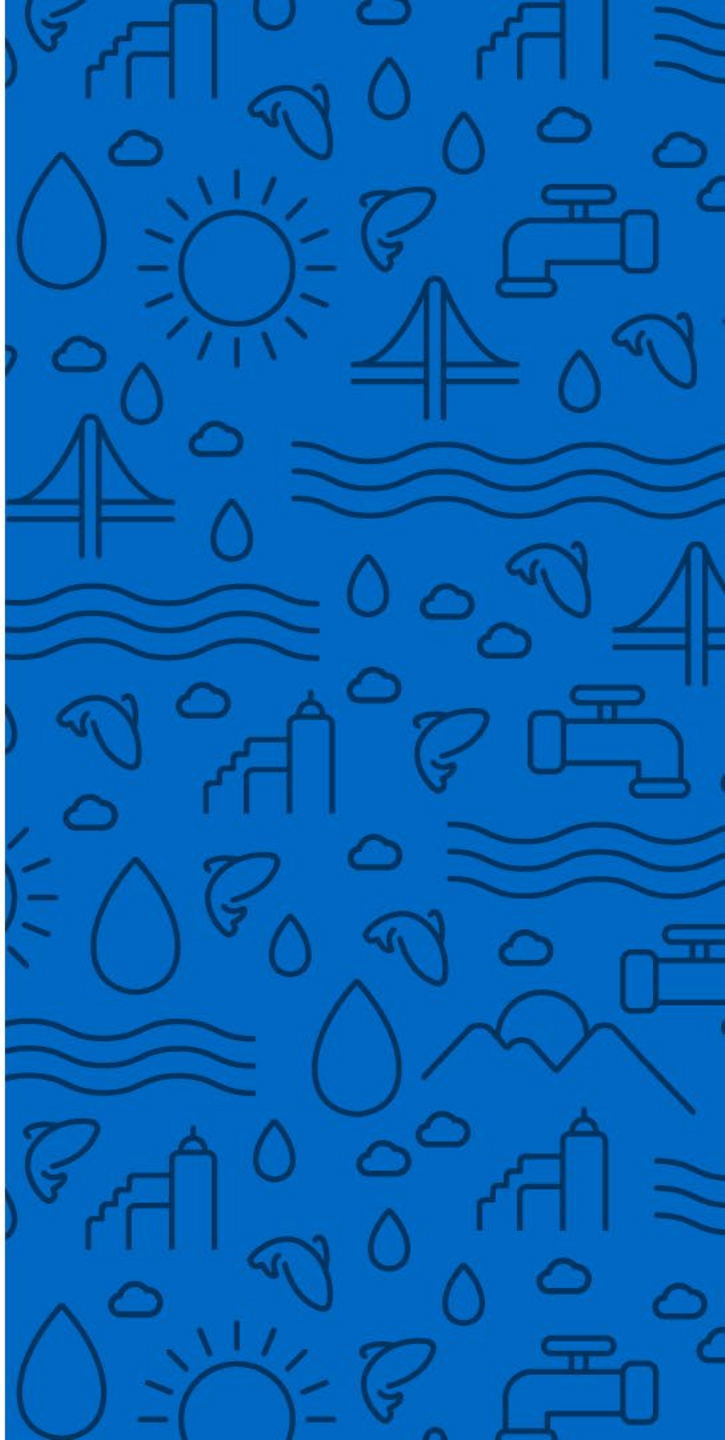
Proposed Amendments to the Wastewater Control Ordinance *(Second Reading)*

Board of Directors

August 13, 2024

Agenda

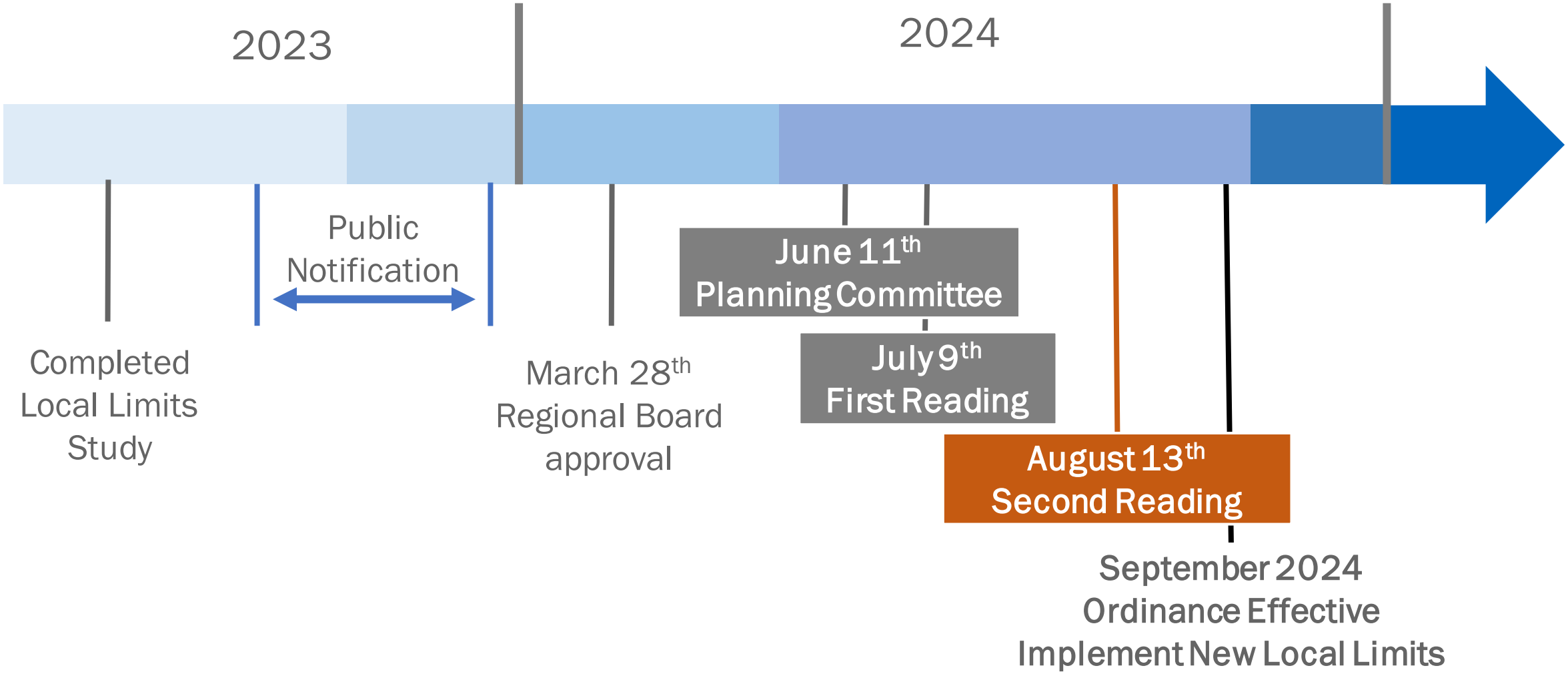
- Background: Ordinance
- Timeline
- Summary of Changes
- Next Steps



Background: Wastewater Control Ordinance

- Establishes regulations for the collection, treatment and disposal of wastewater
- Provides District authority to operate the Pretreatment Program
- Lists prohibited substances, effects, and numeric limits for wastewater quality (Local Limits)

Timeline


2023
2024
Public Notification
Completed Local Limits Study
March 28th Regional Board approval
June 11th Planning Committee
July 9th First Reading
August 13th Second Reading
September 2024 Ordinance Effective Implement New Local Limits

Summary of Proposed Changes

Title I – General

Title II – Regulation of Wastewater Discharges **Local Limits**

Title III – Discharger Classification and Calc of WW Disposal Charges

Title IV – Wastewater Discharge Permits **Permit Types**

Title V – Administration

Title VI – Enforcement and Penalties **Appeal Processes**

Title VII – Resource Recovery Program

Title VIII – Severability

Title IX – Effective Date

Minor Edits Following First Reading

- Consistent capitalization of defined terms, such as “Slug Discharge”

> (o) Protection From Accidental or Slug Discharge. Each Discharger shall provide protection from accidental or ~~slug~~ **Slug** Discharge of prohibited materials or other wastes regulated by this Ordinance. Such facilities shall be provided and maintained at the Discharger’s expense. These facilities shall be approved by the Director but such approval shall not relieve the Discharger from the responsibility of modifying the facilities to provide the protection necessary to meet the requirements of this section.

- Minor typographical corrections, e.g., eliminating extra spaces

Next Steps

- Publish notification of amended Ordinance in local newspapers
- Effective Date: September 13, 2024
- Transmit updated Ordinance to the San Francisco Bay Regional Water Quality Control Board
- Implement new local limits in all new permits and update existing permits

Questions?

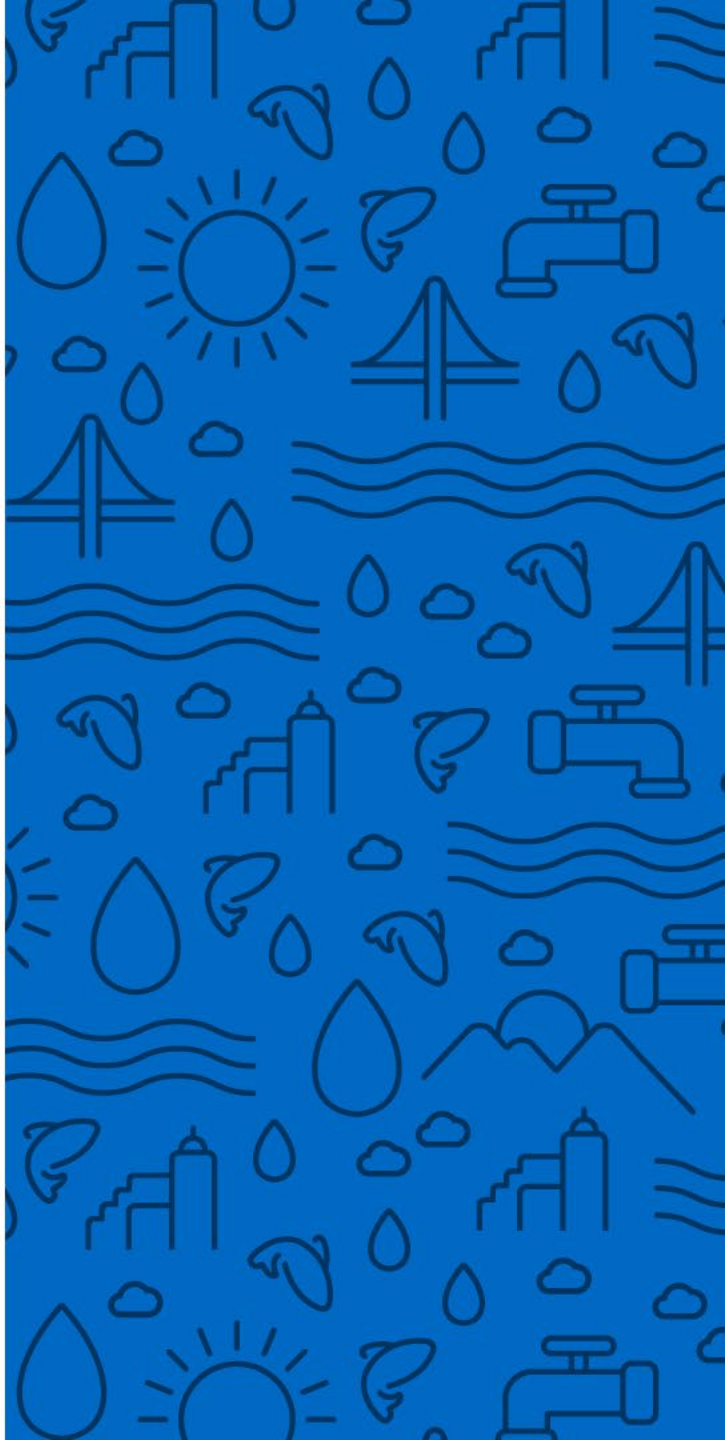
Update on Nutrient Watershed Permit

Board of Directors

August 13, 2024

Agenda

- Background
- Nutrient Watershed Permit
- Comments and Response
- Next Steps



Background

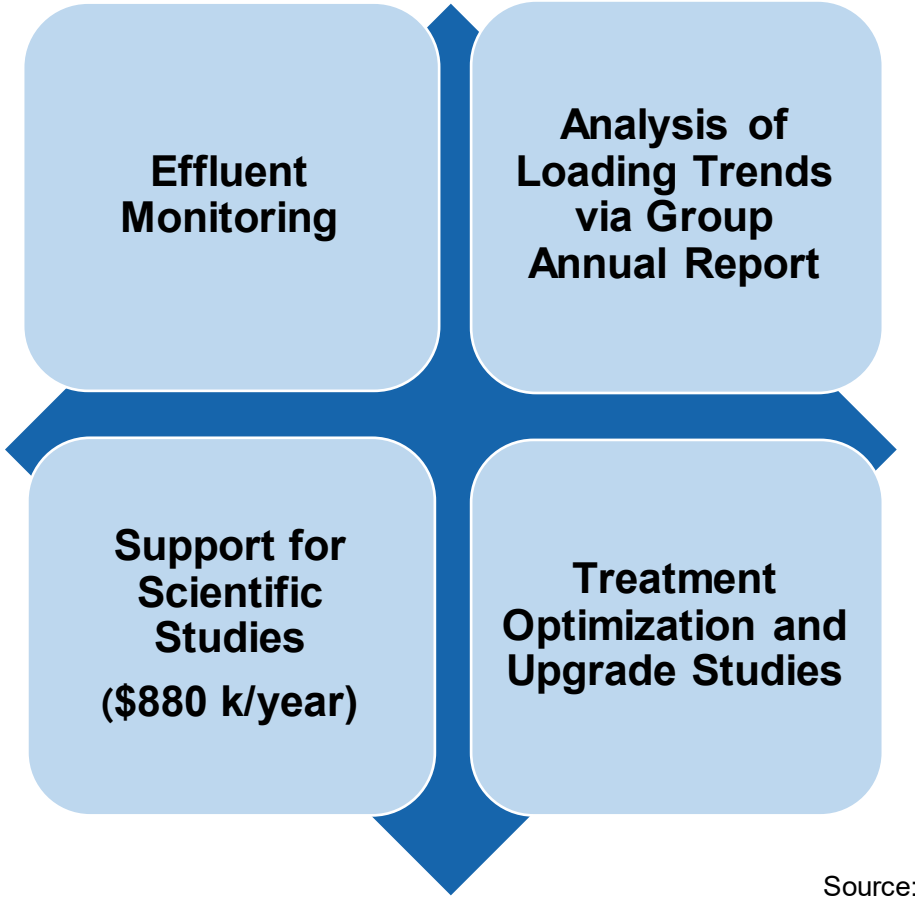
- 40 Wastewater Plants
- 7.1M service population
- Individual permitted flows from **0.03 mgd** to **167 mgd**
- Individual dry season total inorganic nitrogen loads **0** to **10,000 kg/day**

Wastewater Plants discharge ~ 80% of the annual nitrogen loads to San Francisco Bay

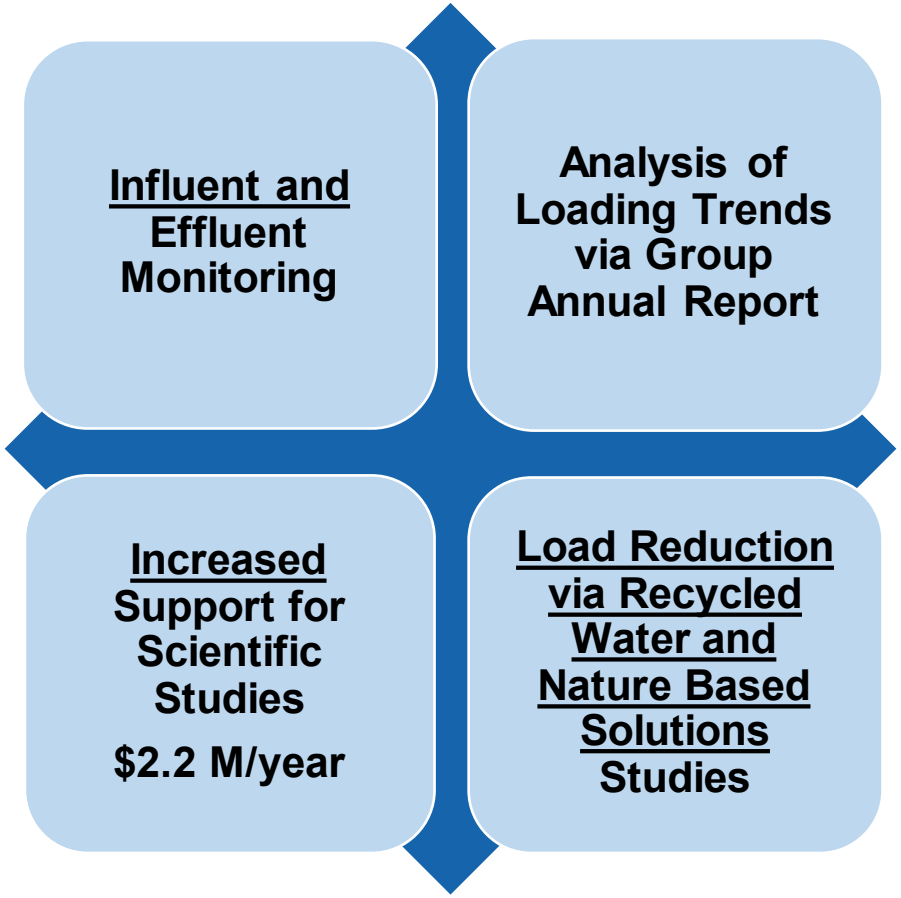
Source: Bay Area Clean Water Agencies

Nutrient Watershed Permits (Old)

Watershed Permit 1: 2014 – 2019



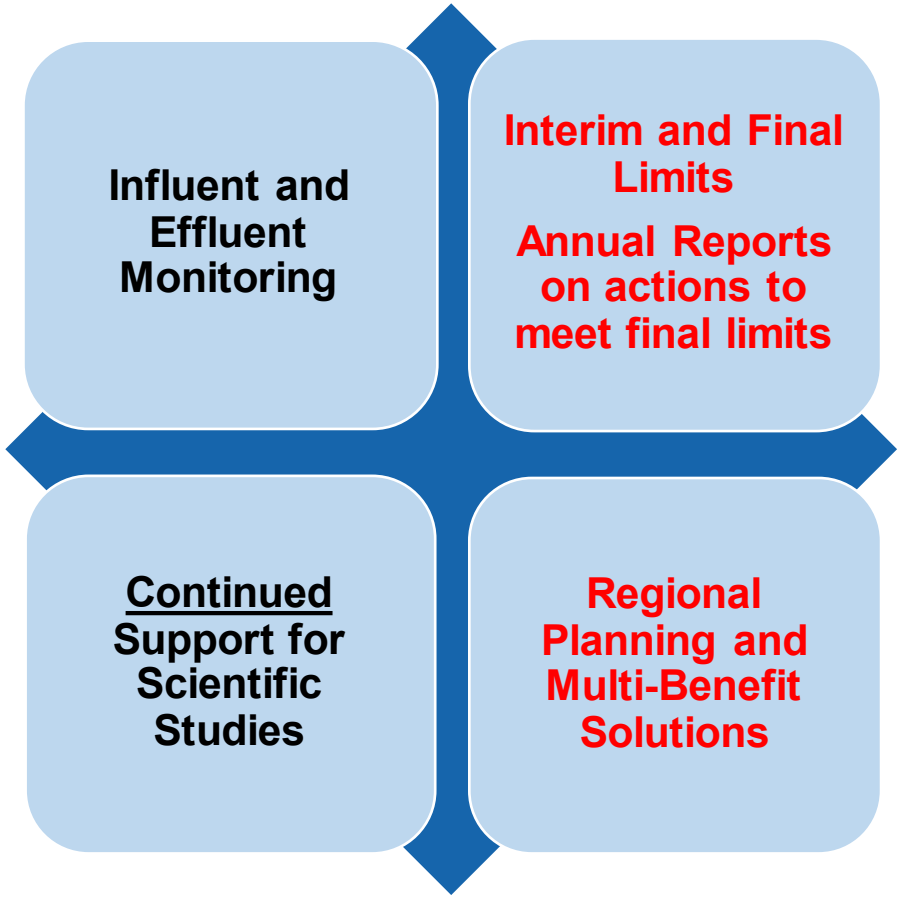
Watershed Permit 2: 2019 – 2024



Source: Bay Area Clean Water Agencies

Nutrient Watershed Permit (New)

Watershed Permit 3: 2024 – 2029



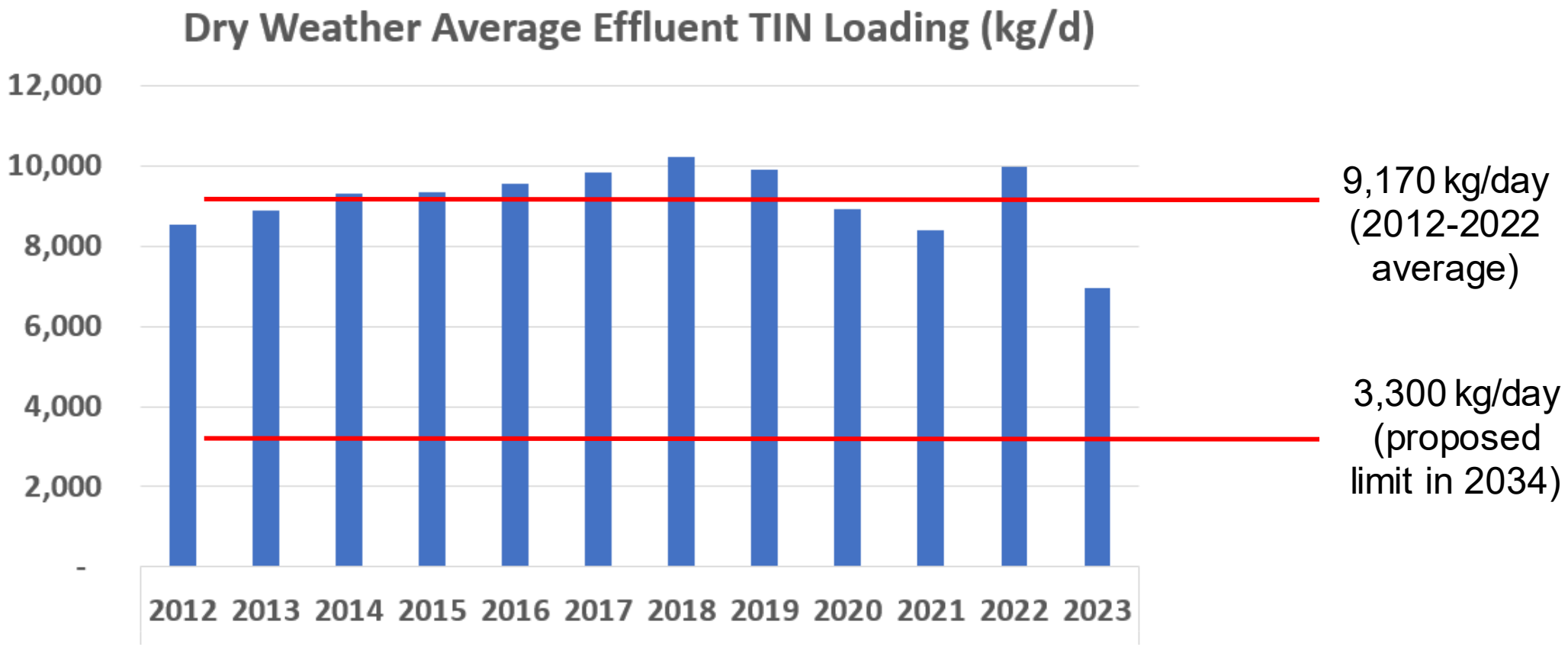
Source: Bay Area Clean Water Agencies

Nutrient Limits for EBMUD

- Interim Effluent Limit of 11,000 kg/day Total Inorganic Nitrogen (TIN)
  - From permit adoption to September 30, 2034
- Final Effluent Limit of 3,300 kg/day TIN (65% reduction from 2022)
  - Beginning October 1, 2034
- Effluent Limits averages between May 1 and September 30
- Annual reporting

Total Inorganic Nitrogen (TIN) = ammonia + nitrate + nitrite

EBMUD Nutrient Discharge 2012-2023



Note: 2023 values reflect nutrient reduction pilot efforts

RWQCB Responses to Comments

- Reasonable potential exists which mandates numeric limits (recent HAB events)
- Science progress sufficient to establish direct correlations (nutrient loads to low DO in SF Bay)
- Agreed that District qualifies as an “Early Actor”
- Acknowledged high cost of nutrient removal
- Agreed that compliance time not adequate
  - Adopted a new resolution for developing an alternative compliance pathway

HAB: harmful algal bloom, DO: dissolved oxygen, RWQCB: Regional Water Quality Control Board

Update on EBMUD Nutrient Reduction Strategy

- Biological Nutrient Reduction (BNR) pilot project began in 2020
- 65% TIN reduction achieved in the pilot study in 2023
- Expansion of the pilot to full-scale BNR in 2025 and 2026
- 3,300 kg/day TIN limit in 2034 – need full capacity of BNR system
- Alternative analyses for redundancy and growth will be identified by 2026

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Potential New Improvements for BNR

- Addition of two new reactor decks
- A new oxygenation unit
- Electrical infrastructure for new process equipment
- Addition of a new sidestream treatment

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Next Steps for Nutrient Reduction

- Rehabilitate or upgrade equipment and infrastructure (reactor decks, pumps, mixers, electrical infrastructure, etc.)
- Identify and evaluate additional sidestream nutrient reduction alternatives
- Continue involvement with the Nutrients Science Program and other regional efforts
- Addition of two new reactor decks for redundancy and future growth

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Key Takeaways

- EBMUD can meet interim and final numeric limits
- Full BNR conversion testing will be completed in 2026
- Potential need to
  - Rehabilitate/rebuild secondary treatment area
  - Add capacity: two new reactor decks, sidestream treatment, new O2 unit etc.

O2: oxygen

Questions?