

San Francisco's Wastewater Treatment

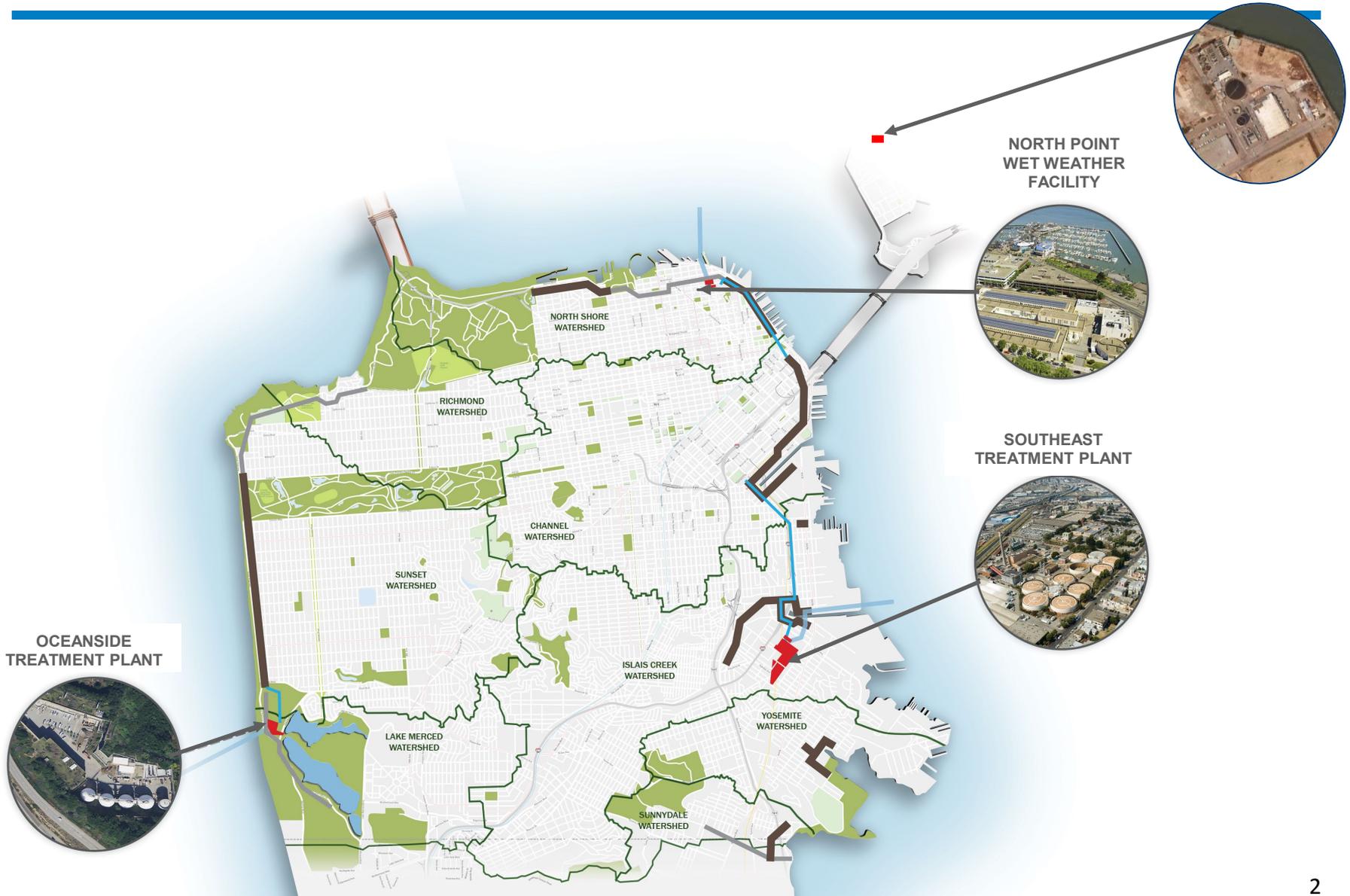
October 17, 2022

Amy Chastain

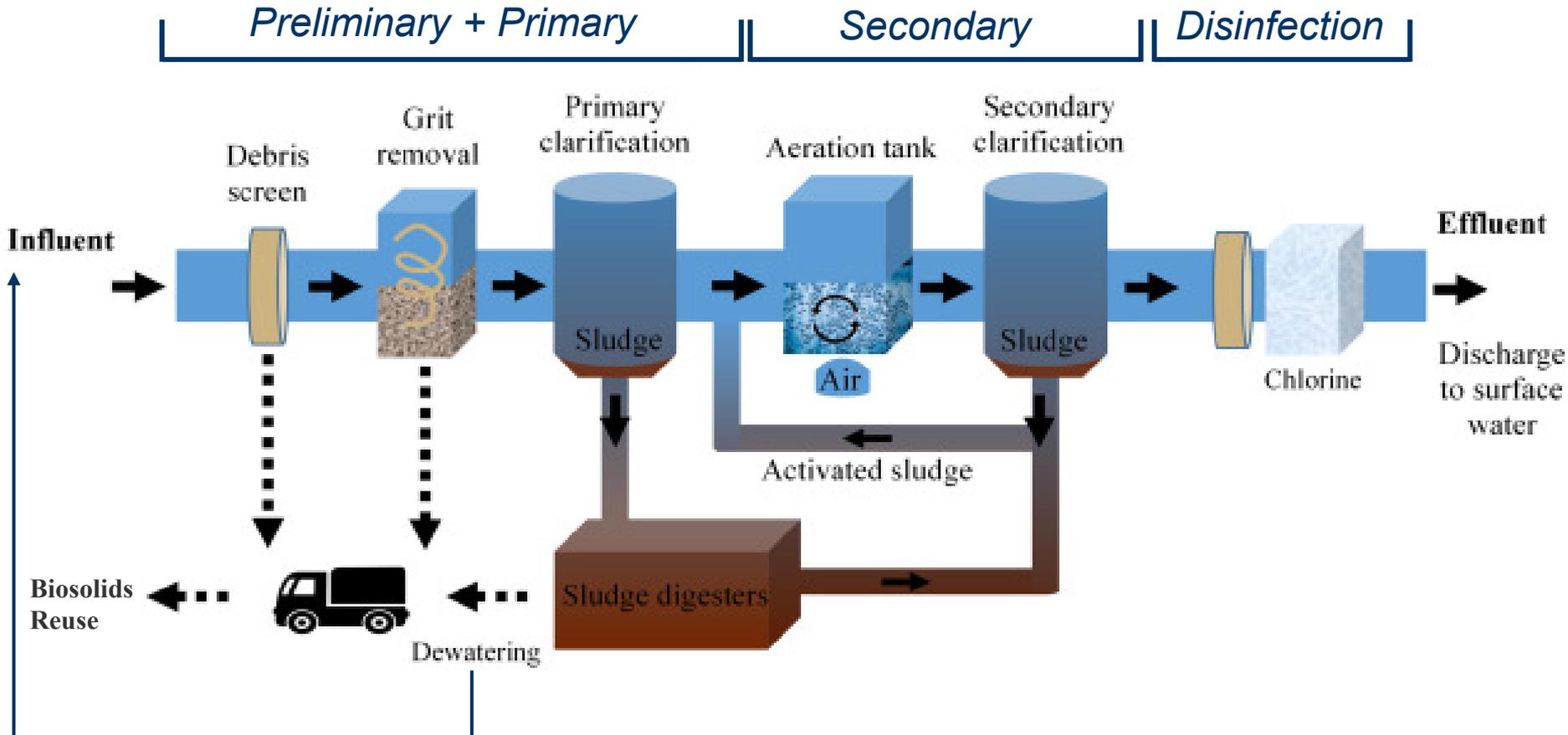
**Regulatory Manager, Wastewater Enterprise
San Francisco Public Utilities Commission**

San Francisco Municipal Wastewater Treatment Plants

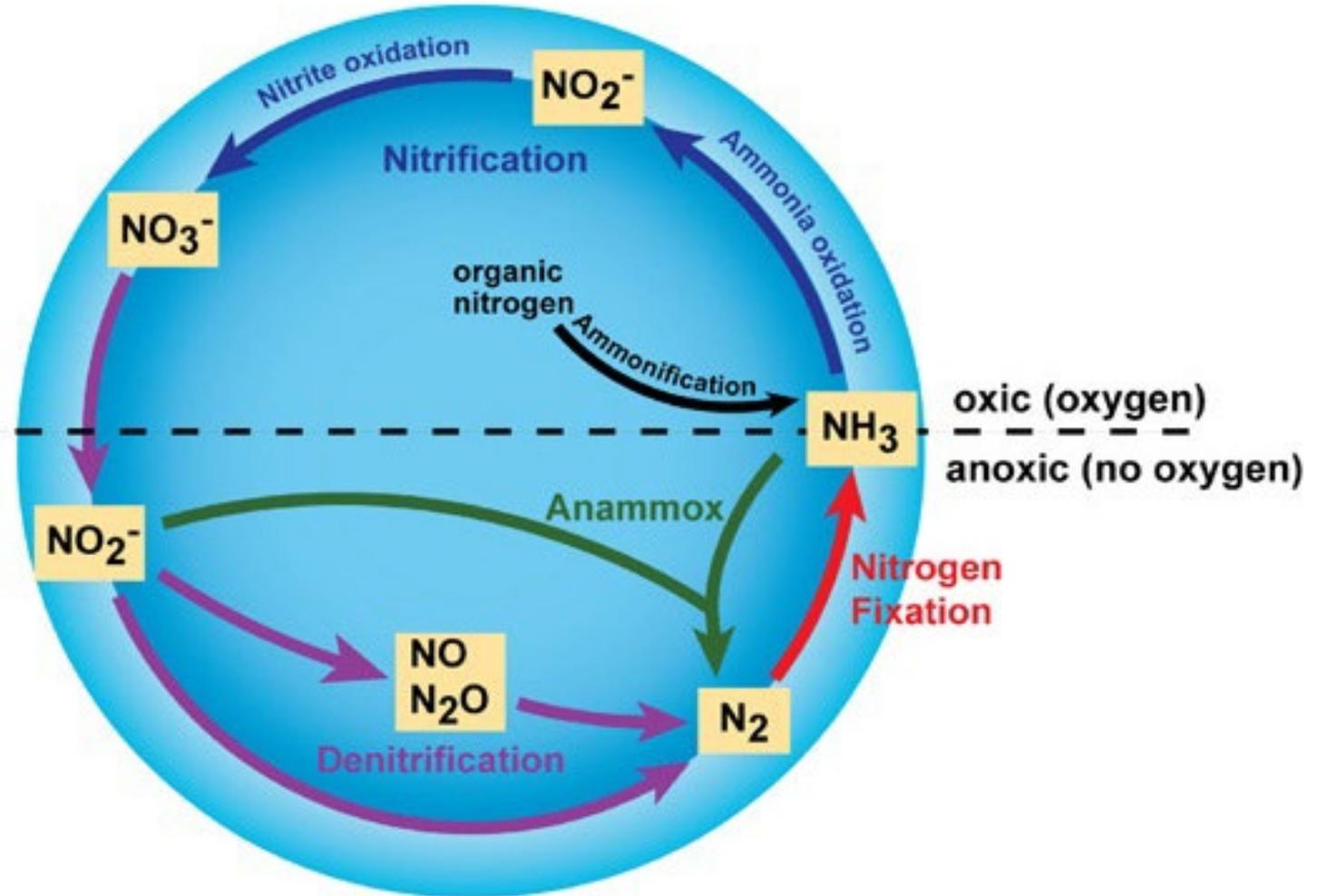
TREASURE ISLAND
TREATMENT PLANT



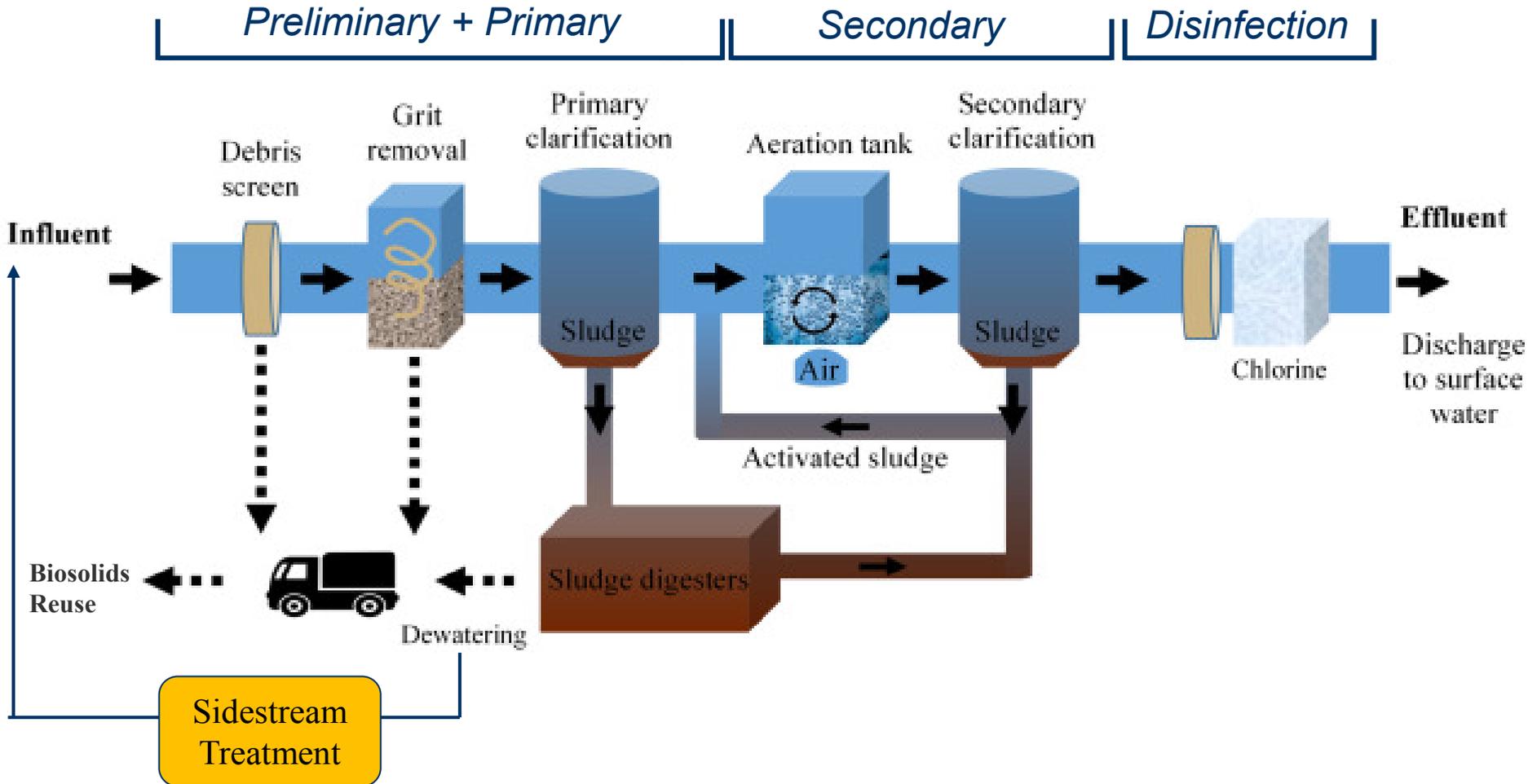
Simplified Wastewater Treatment Process



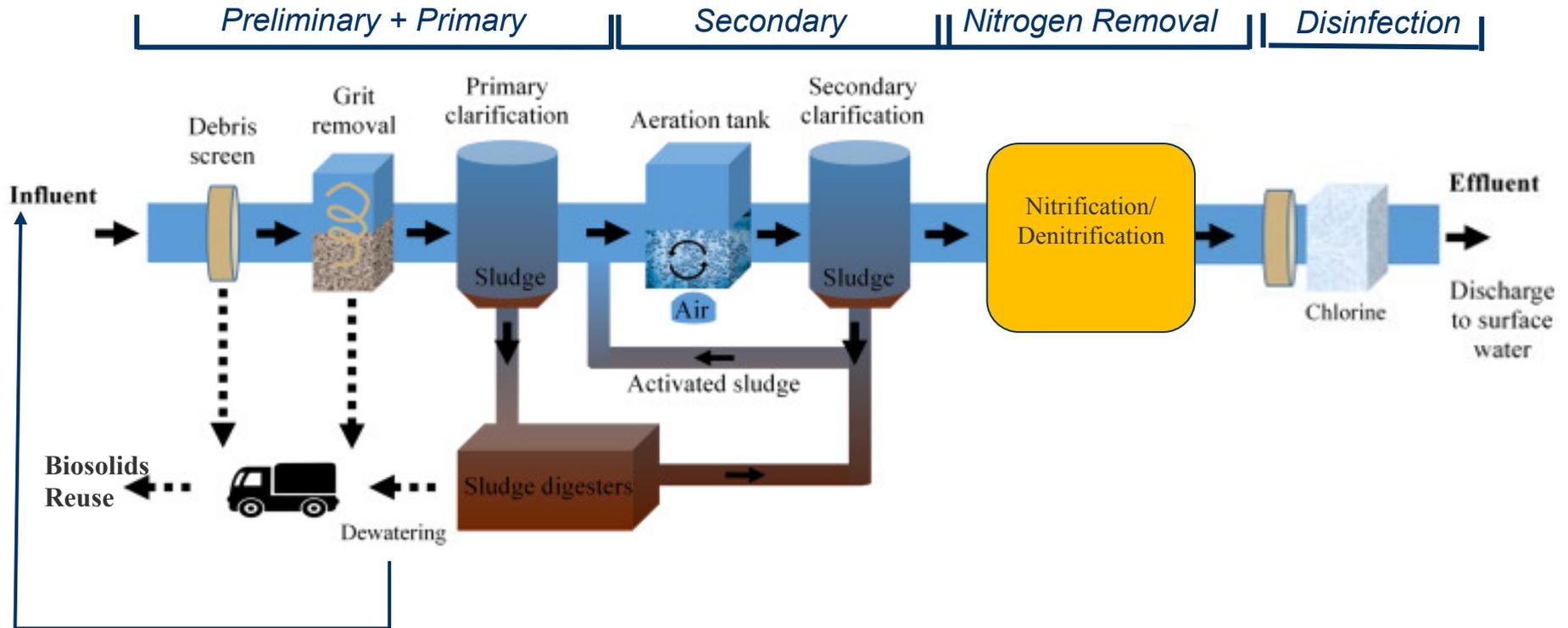
Nitrogen Removal



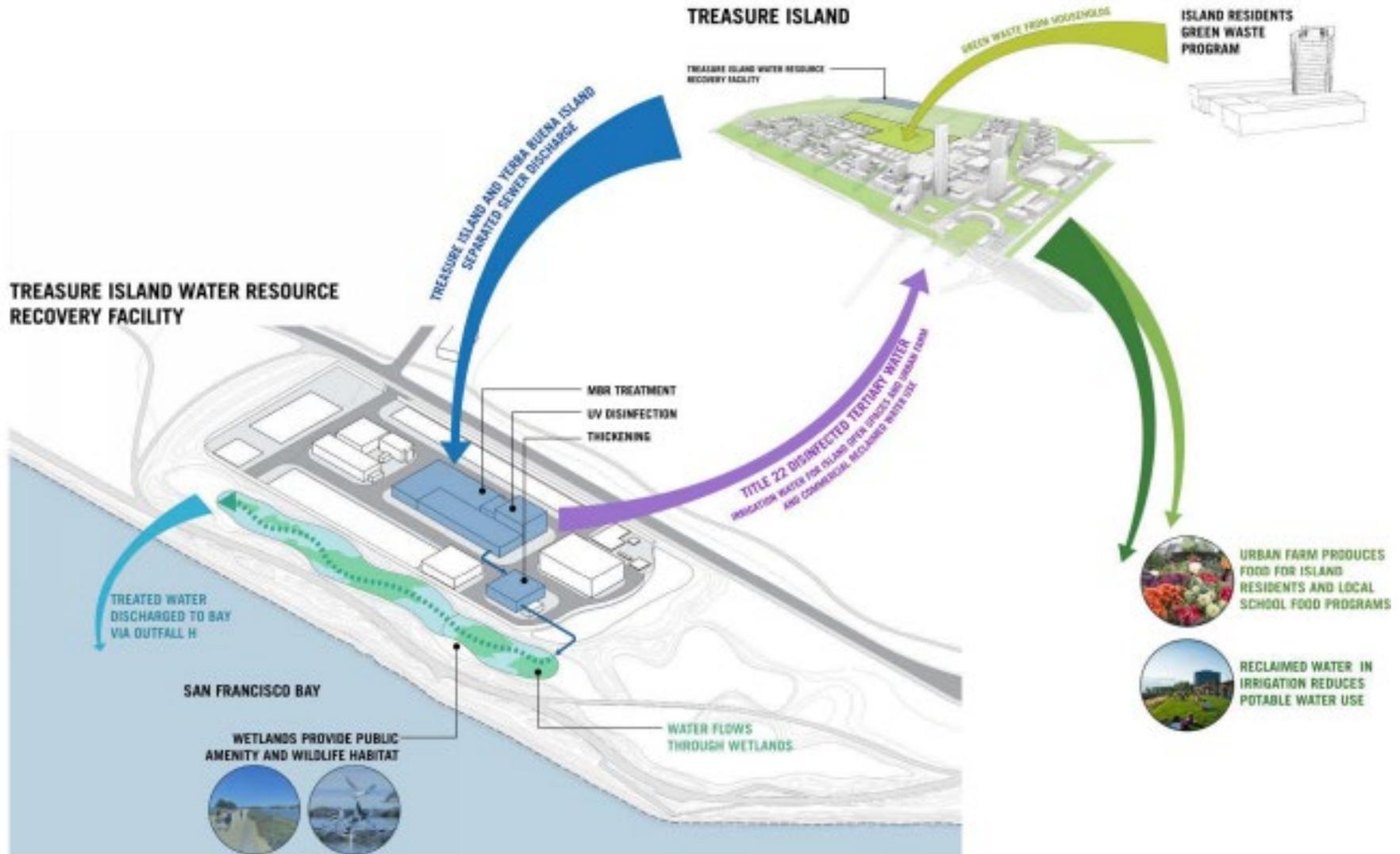
Sidestream Treatment



Fullstream Treatment



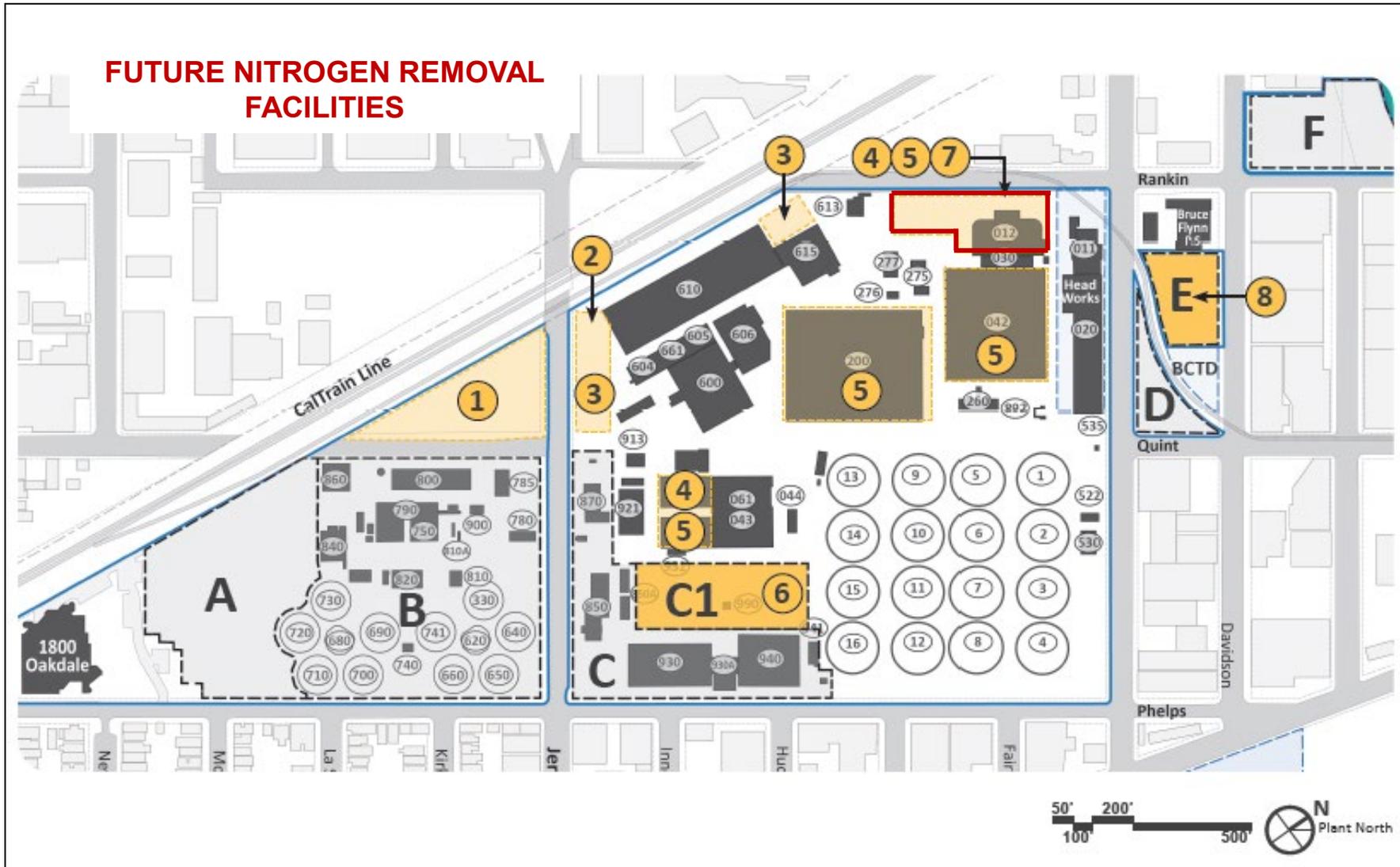
New Treasure Island Water Resource Recovery Facility



Southeast Treatment Plant



Planning for Nitrogen Removal – Site Layouts & Cost



Planning for Nutrient Removal - Technology Evaluations



Experimental Setup

- Anammox Processes
 - Suspended-Growth SBR
 - Attached Growth MBBR/IFAS
- Process Monitoring
 - pH
 - Dissolved Oxygen
 - Temperature
 - Level
 - Flow