

CITY COUNCIL COMMITTEE

INFRASTRUCTURE & FRANCHISE

Dan Helix, Chair
Edi Birsan, Committee Member

5:30 p.m.
Monday, July 11, 2016

Wing A, Garden Conference Room
1950 Parkside Drive, Concord

AGENDA

ROLL CALL

PUBLIC COMMENT PERIOD

- 1. STUDY SESSION** – Central Contra Costa Sanitary District’s Presentation of Future Treatment Plant Upgrades.
- 2. ADJOURNMENT**

In accordance with the Americans with Disabilities Act and California Law, it is the policy of the City of Concord to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are disabled and require a copy of a public hearing notice, or an agenda and/or agenda packet in an appropriate alternative format; or if you require other accommodation, please contact the ADA Coordinator at (925) 671-3361, at least five days in advance of the meeting. Advance notification within this guideline will enable the City to make reasonable arrangements to ensure accessibility.

Distribution: City Council
Valerie Barone, City Manager
Jovan Grogan, Deputy City Manager
Susanne Brown, City Attorney
Victoria Walker, Director, Community & Economic Development
Robert Ovardia, City Engineer
Kevin Marstall, Senior Civil Engineer, Current Development Manager
Joelle Fockler, City Clerk



COMPREHENSIVE WASTEWATER MASTER PLAN UPDATE

CENTRAL CONTRA COSTA SANITARY DISTRICT

**City of Concord Update
Infrastructure and Franchise Committee**

**July 11, 2016
Wing A, Garden Conference Room**



AGENDA

- Who is Central Contra Costa Sanitary District
- Relationship between City of Concord and Central San
- Where does Concord discharge to Central San
- How does Concord pay for sewer treatment
- Why are we doing a Master Plan
- Master Plan Drivers
- Master Plan Findings
- 10-Yr CIP Update
- 20-Yr CIP Update
- Master Plan Completion Timing



WHO IS CENTRAL CONTRA COSTA SANITARY DISTRICT (CENTRALSAN)

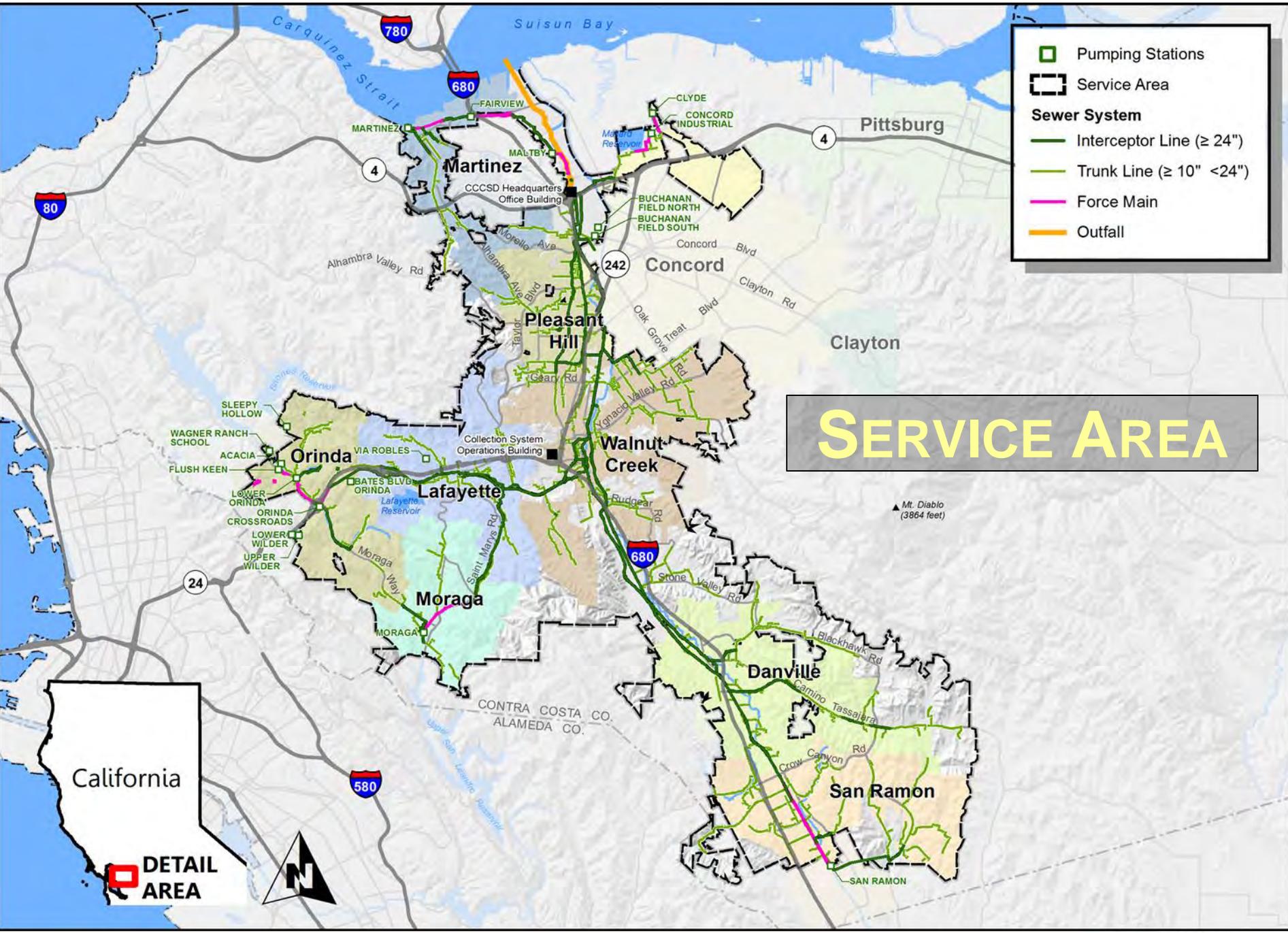


- Pumping Stations
- Service Area

Sewer System

- Interceptor Line ($\geq 24"$)
- Trunk Line ($\geq 10"$ < $24"$)
- Force Main
- Outfall

SERVICE AREA



California

DETAIL AREA





In 2015, CCCSD treated an average of more than 32 million gallons of wastewater each day.



OUR ANNUAL BUDGET

| Description | Fiscal Year | | |
|----------------------------|----------------------|----------------------|----------------------|
| | 2014/15 | 2015/16 | 2016/17* |
| O&M | \$88,000,000 | \$87,500,000 | \$87,000,000 |
| Capital Improvement | \$25,000,000 | \$30,500,000 | \$36,000,000 |
| • Treatment Plant | \$9,000,000 | \$10,000,000 | \$12,775,000 |
| • Collection | \$12,250,000 | \$16,000,000 | \$18,125,000 |
| • General Imp. | \$3,250,000 | \$4,000,000 | \$4,600,000 |
| • Recycled Water | \$500,000 | \$500,000 | \$500,000 |
| Total | \$113,000,000 | \$118,000,000 | \$123,000,000 |

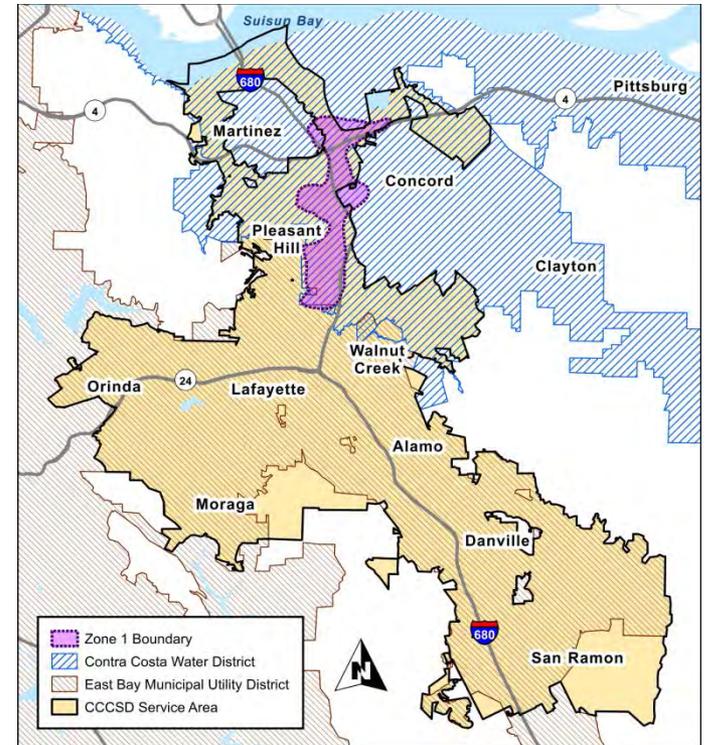


CENTRAL SAN'S RECYCLED WATER PROGRAM



RECYCLED WATER SALES (RETAIL AND WHOLESALE)

- The District also owns a recycled water distribution system called “Zone 1”.
- In 2015, the District sold 213,888,207 gallons of recycled water.
- We are currently working on a contract to sell 3-5 MGD to CCWD for use at the Shell Refinery.



RESIDENTIAL FILL STATION



11.8 million gallons
dispensed
>2,000 registered users
>55,000 visits

2015

| | |
|------------------|-----------|
| Concord users: | 553 |
| Concord visits: | 12,872 |
| Concord gallons: | 2,903,171 |

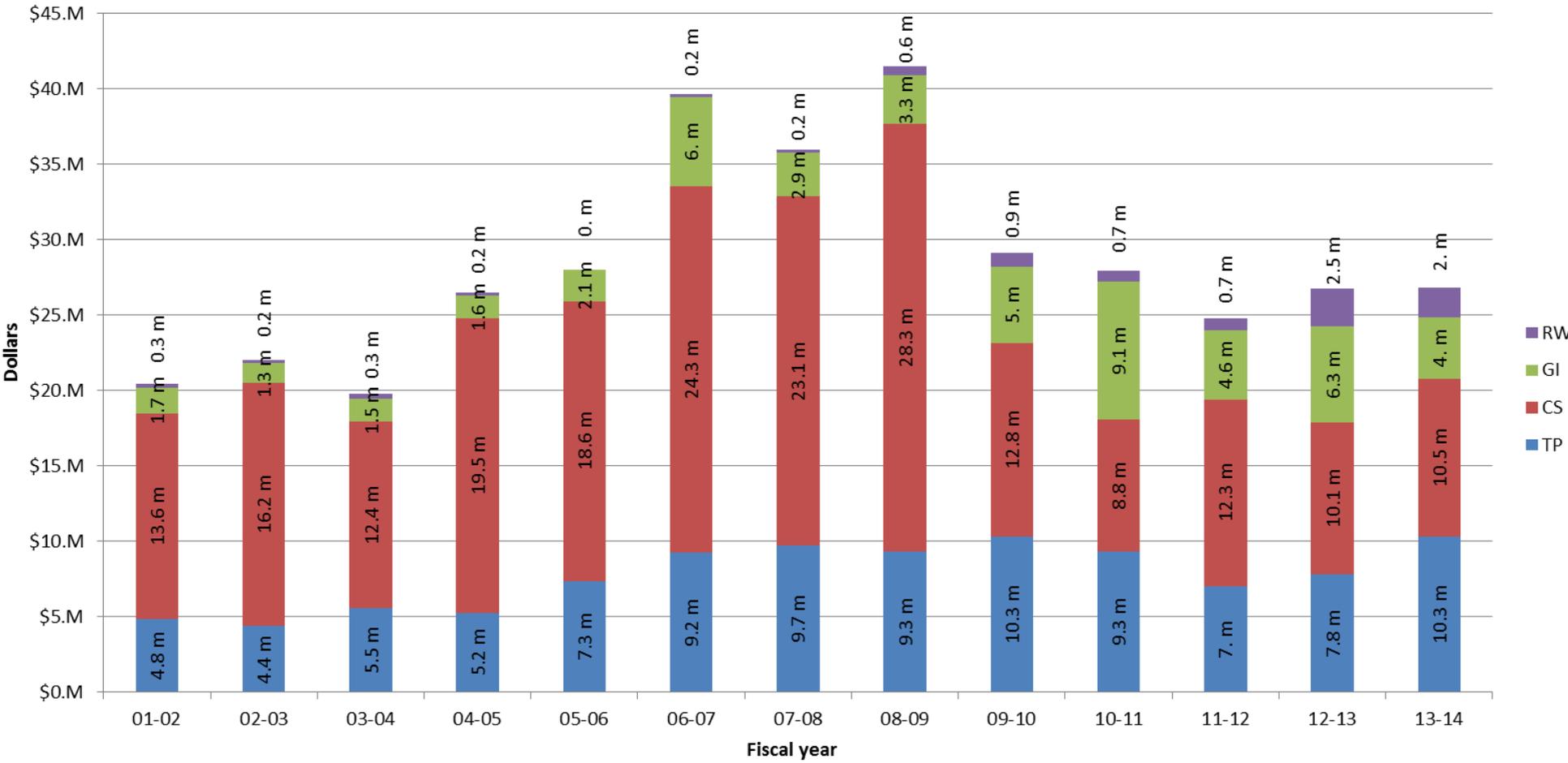
2016 (through 7/5)

| | |
|------------------|----------------|
| Concord users: | 10 (new users) |
| Concord visits: | 3,159 |
| Concord gallons: | 732,204 |



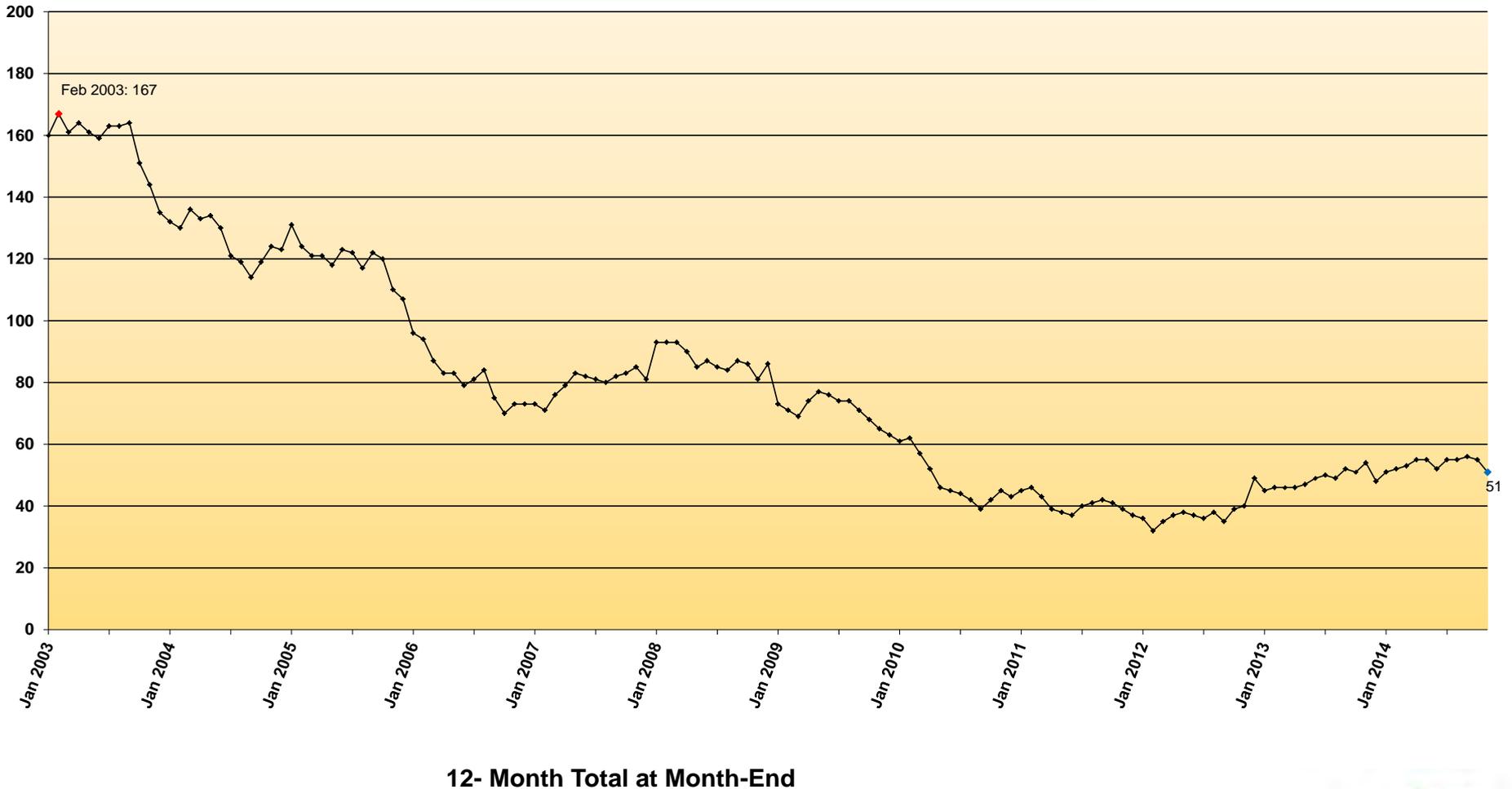
CCCSD INVESTMENTS

Infrastructure Investments Over the Past Ten Years: **\$305,486,653**



RENOVATION PROGRAM IMPACT ON NUMBER OF SSOs

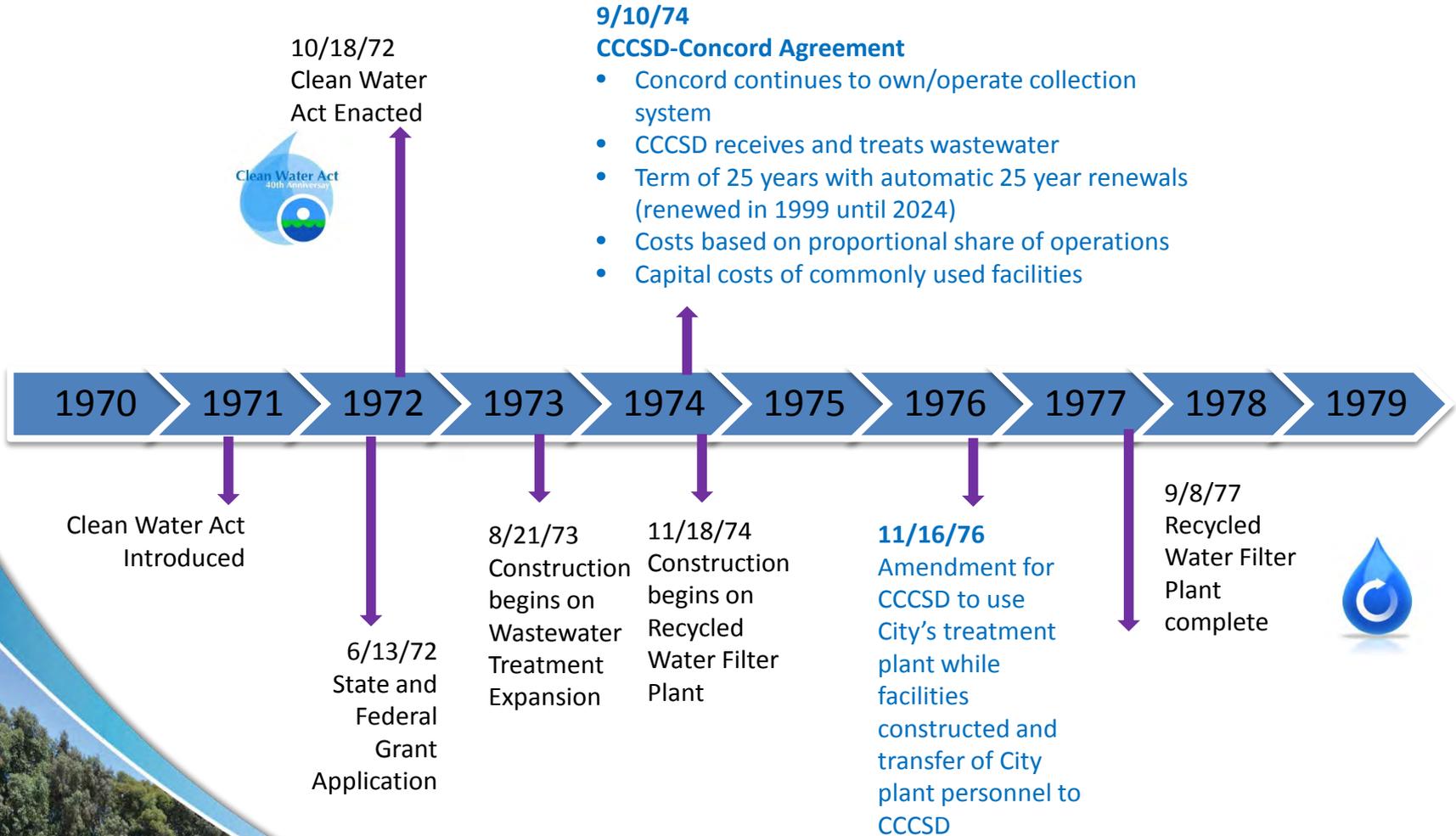
Running 12-Month Overflow Totals
2003 to present



RELATIONSHIP BETWEEN CITY OF CONCORD AND CENTRAL SAN



CONCORD - CENTRAL SAN HISTORY



SERVICE BILLING FOR FY14-15

- Concord Share of Flow is 31.18%
- Household Hazardous Waste Services billing is based on population
- Concord receives Credit for Recycled Water and Rental Income Revenues (\$99,689 combined) to offset O&M expenses

| Services | FY 14-15 Invoice |
|--------------------------|---------------------|
| Operations & Maintenance | \$12,892,945 |
| Capital Costs | \$2,897,491 |
| HHW -Concord | \$581,071 |
| HHW-Clayton | \$52,878 |
| TOTAL | \$16,424,385 |



WHERE DOES CONCORD COLLECTION SYSTEM CONNECT TO CENTRALSAN



CONCORD FLOW METERS

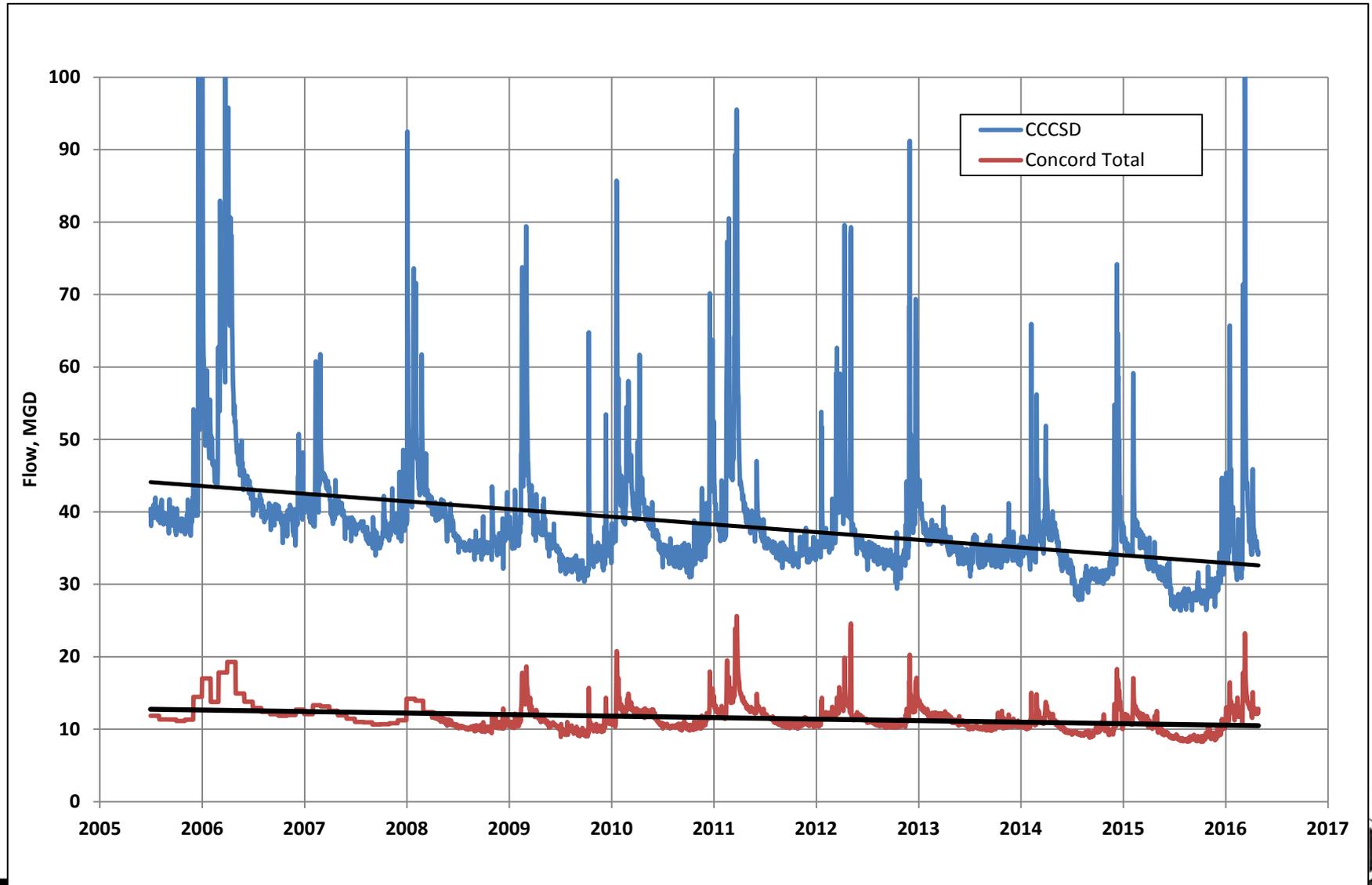


PERCENTAGE OF CONCORD FLOW CALCULATION

- **Concord Flow Percentage** = Total Concord Flow / Total CCCSD Flow
- **Total Concord Flow** = Flow from Concord Main Metering Station + Flow from Concord North Metering Station + Flow from Concord West Metering Station
- **Total CCCSD Flow** = Sum of Flow Meters (minus Flows from Internal Process Return Streams)



CCCSD FLOW AND TOTAL CONCORD FLOW



WHY IS CENTRAL SAN DOING A COMPREHENSIVE MASTER PLAN

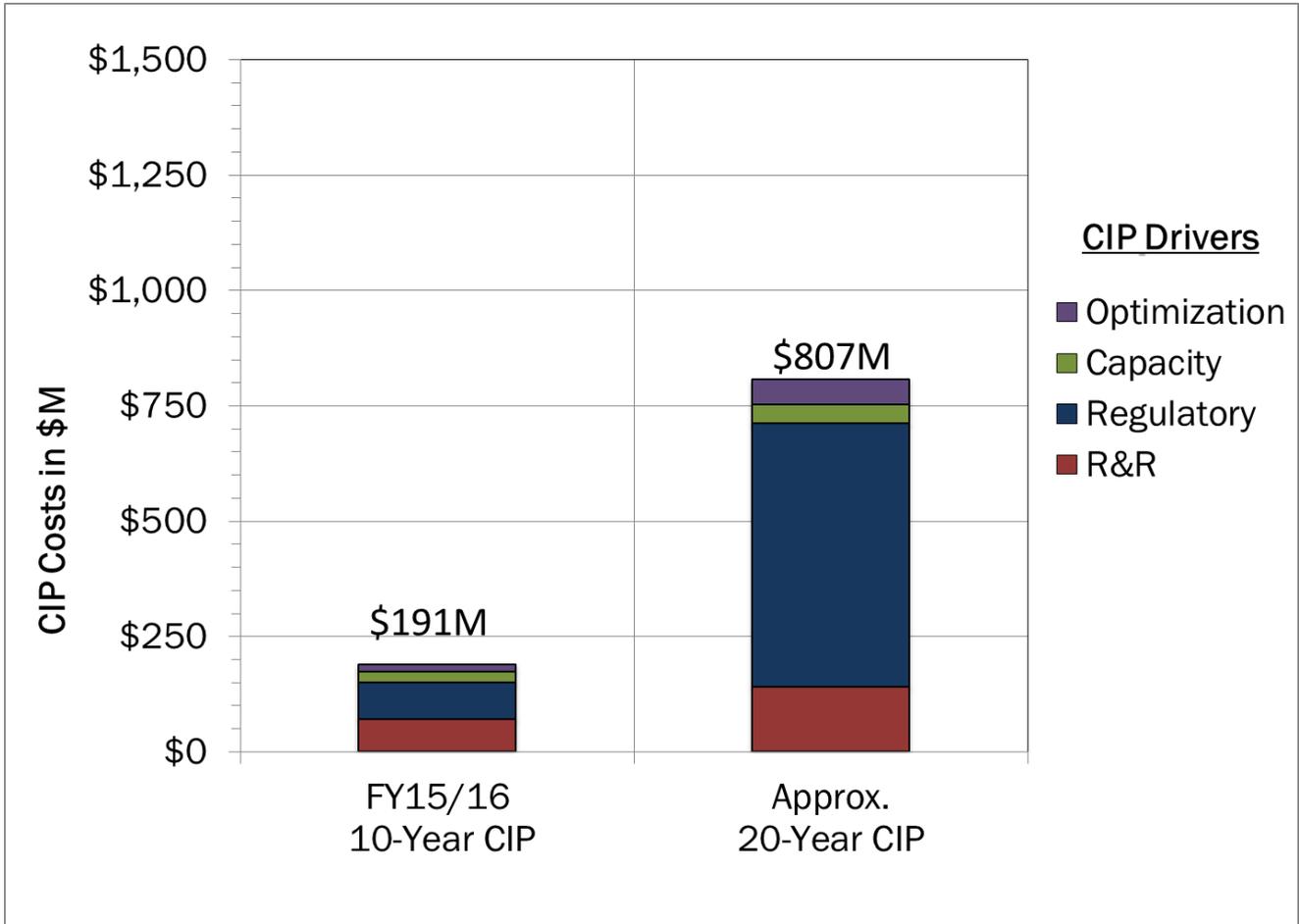


THE CWMP ADDRESSES FOUR MAJOR CAPITAL IMPROVEMENT DRIVERS

| | Drivers | Descriptions |
|---|-----------------------------|--|
| 1 | Aging Infrastructure | Maintain performance and reliability of existing assets to ensure reliable collection and treatment of wastewater |
| 2 | Capacity | Increase capacity of existing facilities to accommodate planned growth for the communities we serve |
| 3 | Regulatory | Reliably comply with regulatory requirements that are designed to protect human health and the environment & Plan for anticipated future regulatory requirements |
| 4 | Sustainability | Minimize life-cycle costs, maximize benefits, and achieve economic stability through optimization, resiliency, resource recovery, and energy projects |



THIS MASTER PLAN WILL CONFIRM CIP NEEDS FOR THE NEXT 20+ YEARS (Nov. 2014) (TREATMENT PLANT & RECYCLED WATER ONLY)



KEY MASTER PLAN FINDINGS

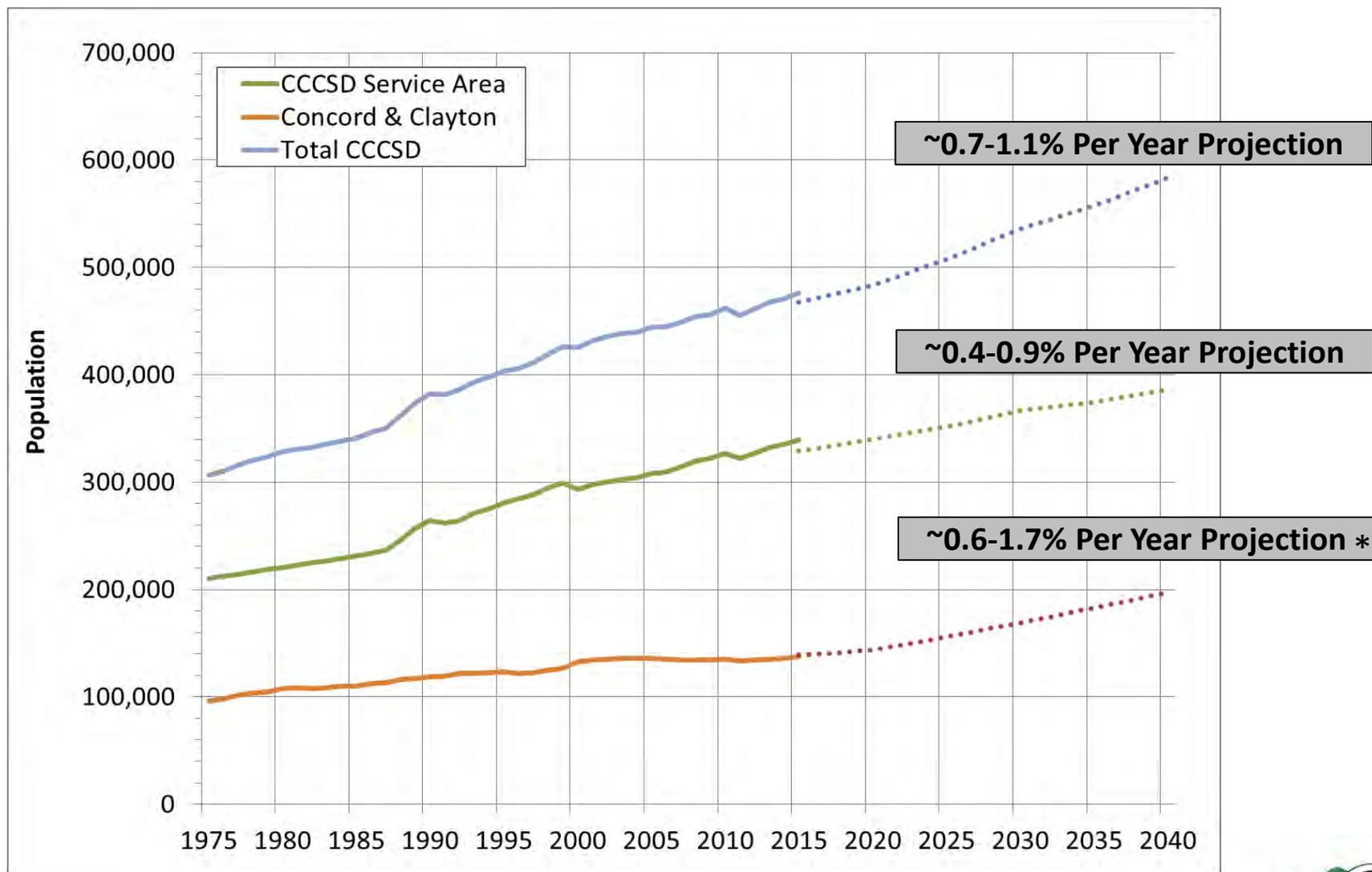
1. Aging Infrastructure
2. Site Constraints
3. Liquid Stream Capacity Limitations
4. Impact of Future Regulations Identified in Master Plan
5. Nexus Between Nutrient Removal Potential Regulations and Recycled Water Demand
 - Liquid Process Alternative Analysis
6. Need for Developing a Plan for Replacement of Multiple Hearth Furnaces (MHF)
 - Results of Solids Process Alternative Analysis
7. Energy Improvements Required on UV Disinfection and Steam Blower Systems
8. Net Zero Energy Goals Requires Import of Carbon and Alternative Renewable Energy Sources



STARTING OUT WITH A GOOD FOUNDATION



FLOW & LOADS EVALUATION BASED ON ABAG PROJECTIONS & GENERAL PLANS

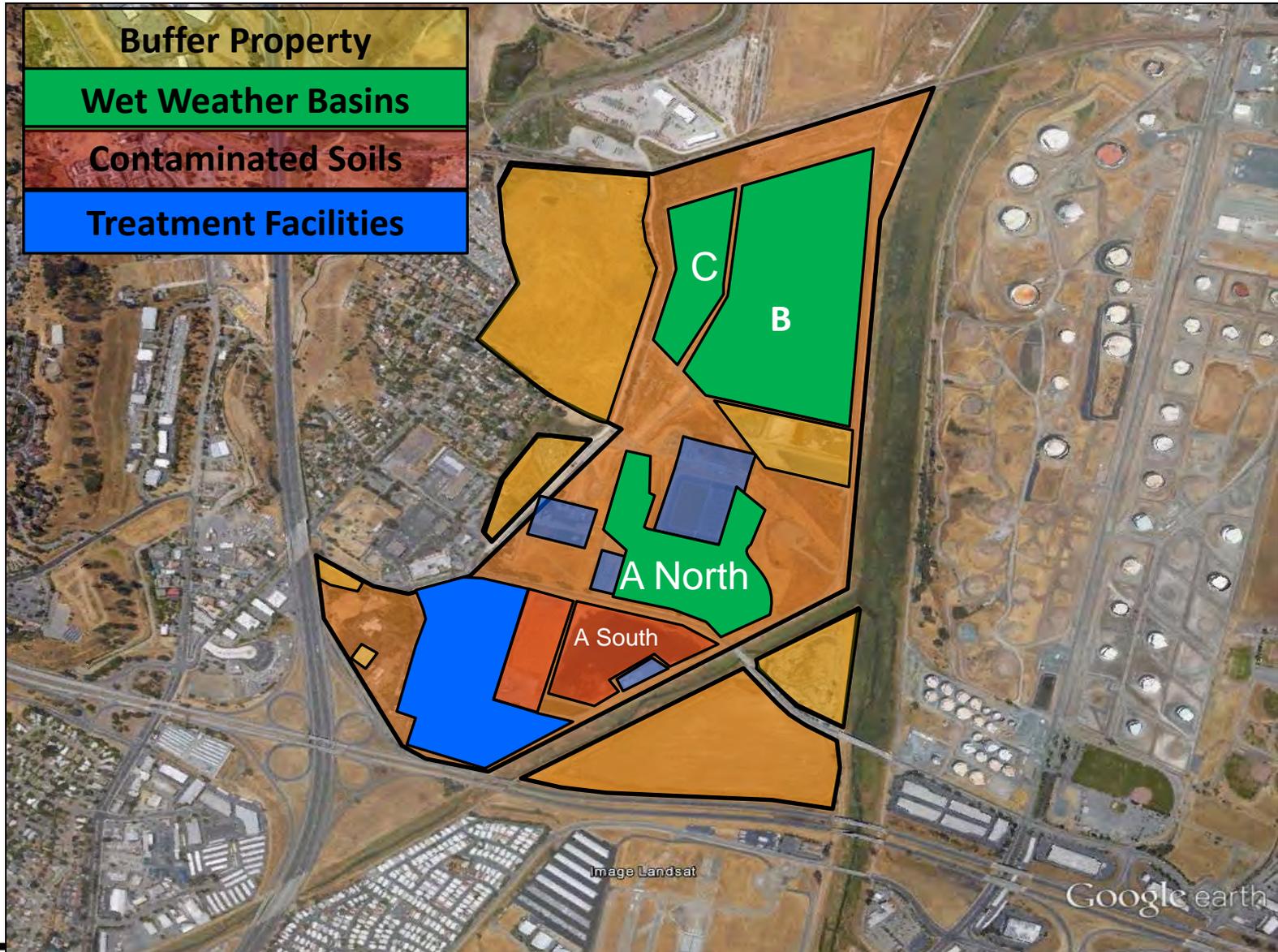


ABAG = Association of Bay Area Governments

* Includes Concord Community Reuse Development



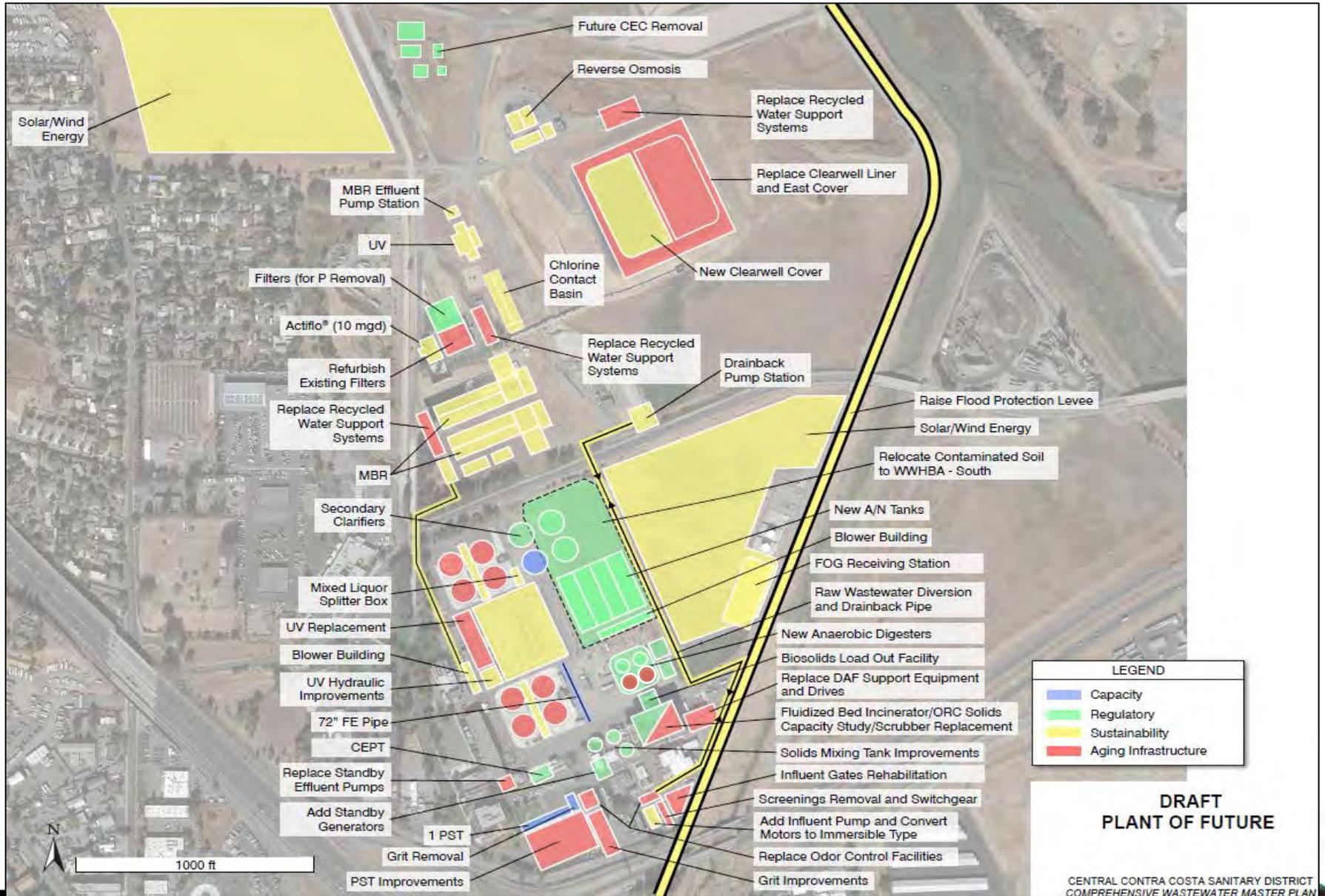
WET WEATHER MANAGEMENT



MASTER PLAN RECOMMENDATIONS FOR CCCSD's TREATMENT PLANT OF THE FUTURE



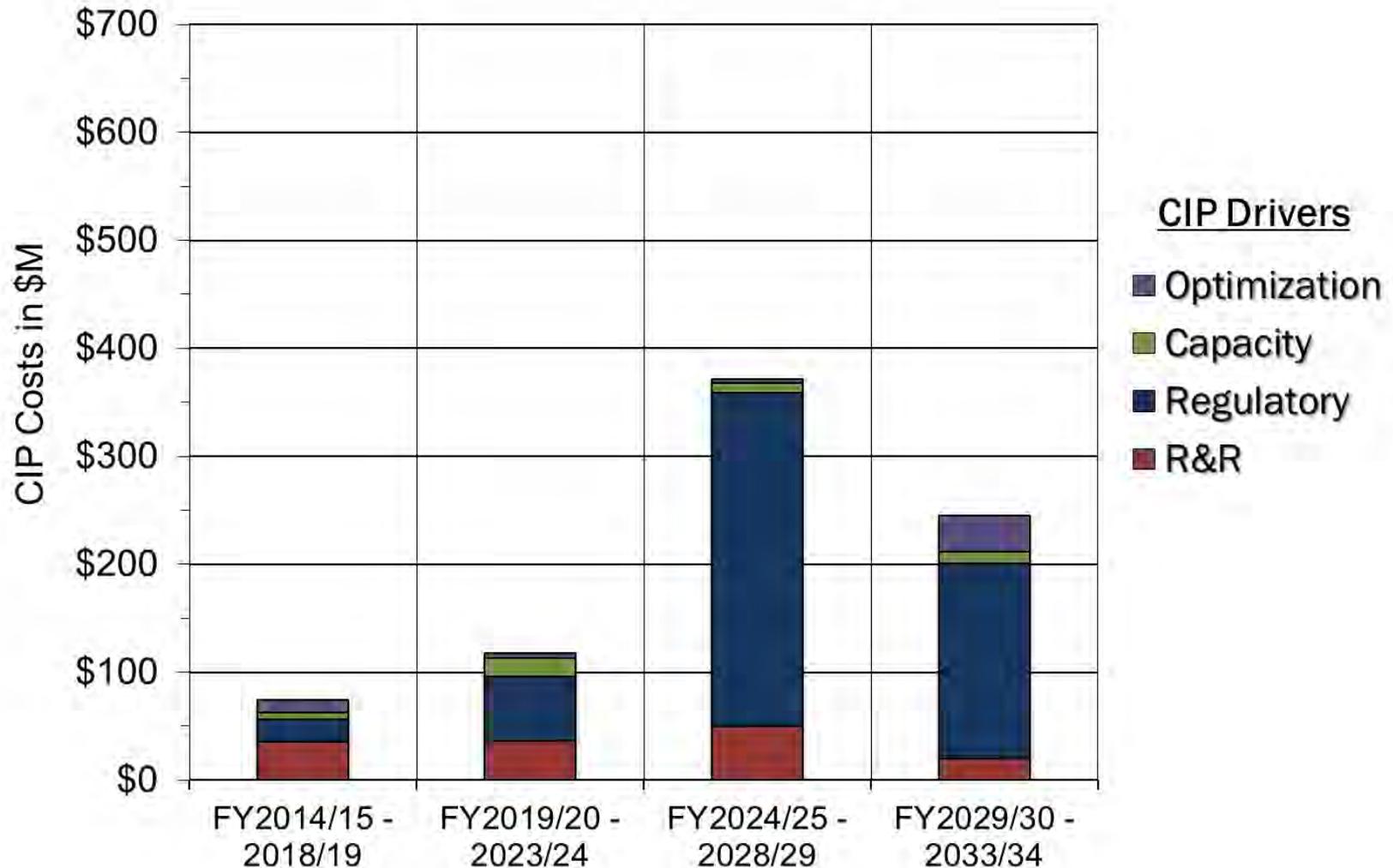
PLANT OF THE FUTURE – SITE PLAN



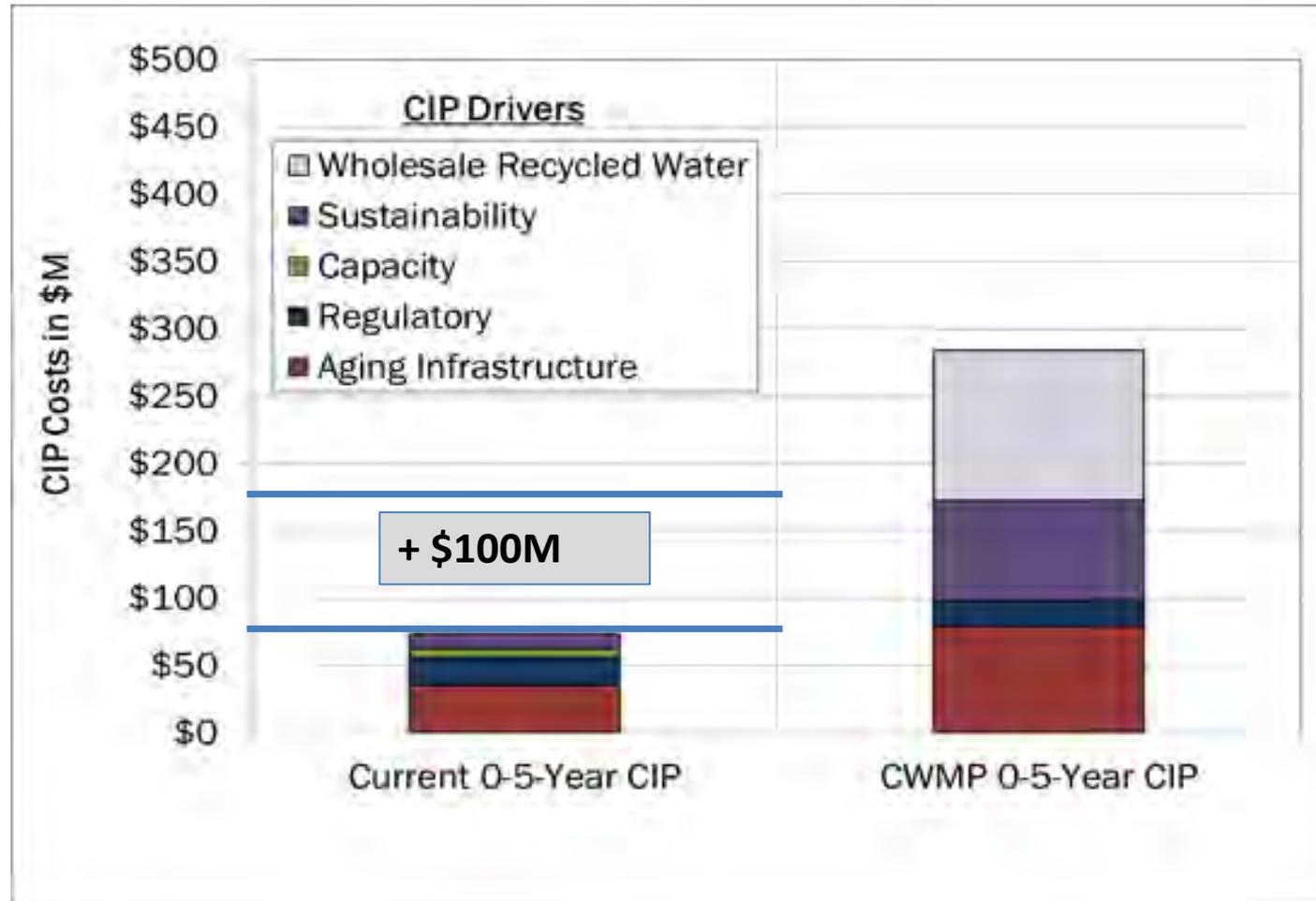
PRELIMINARY UPDATE OF 10- YEAR CIP AND 20-YEAR CIP FOR THE WASTEWATER TREATMENT PLANT



CURRENT CIP BY DRIVERS (Nov 2014) (TREATMENT PLANT & RECYCLED WATER ONLY)



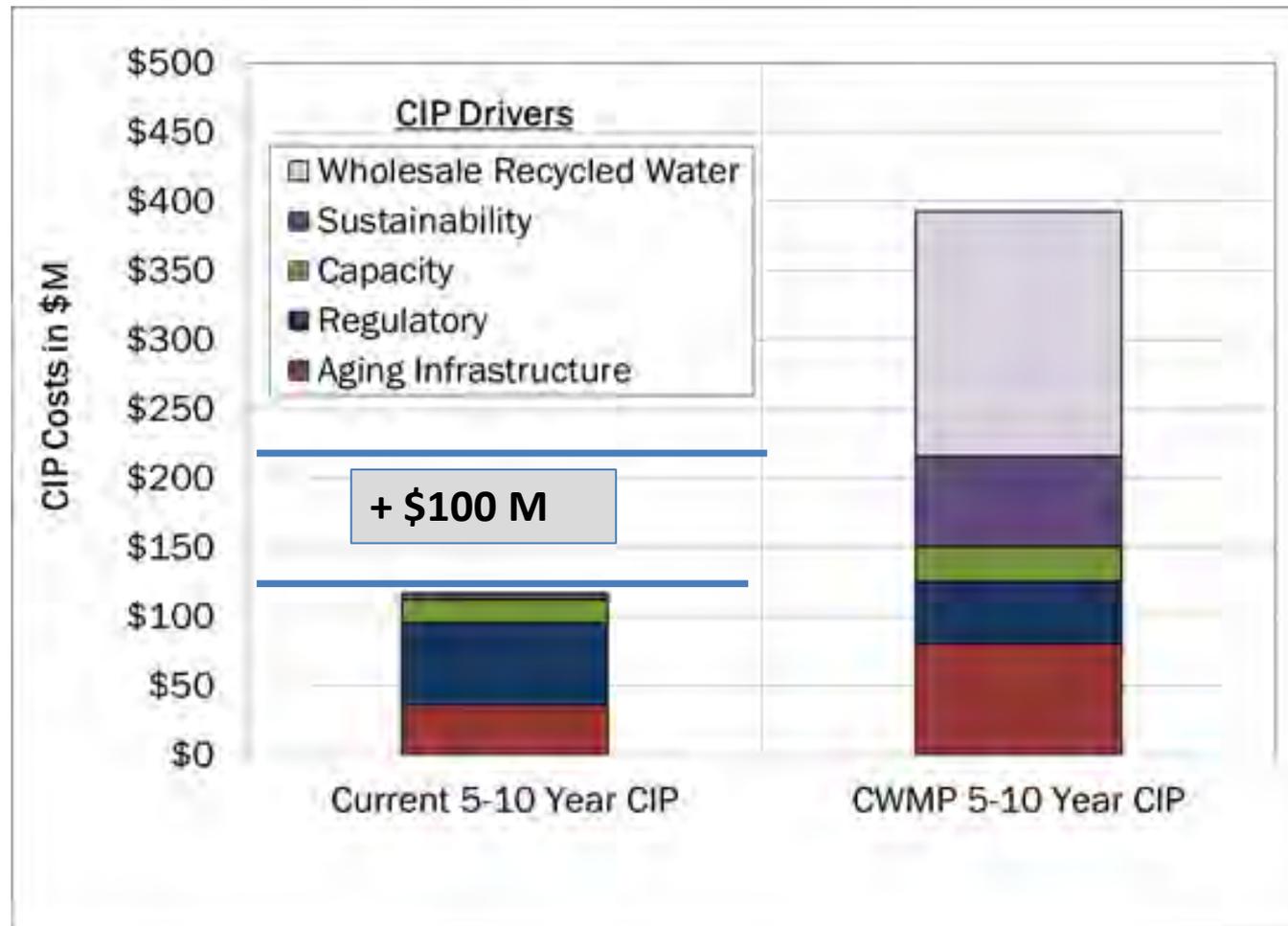
PLANT OF THE FUTURE: 0-5 YEARS



Preliminary



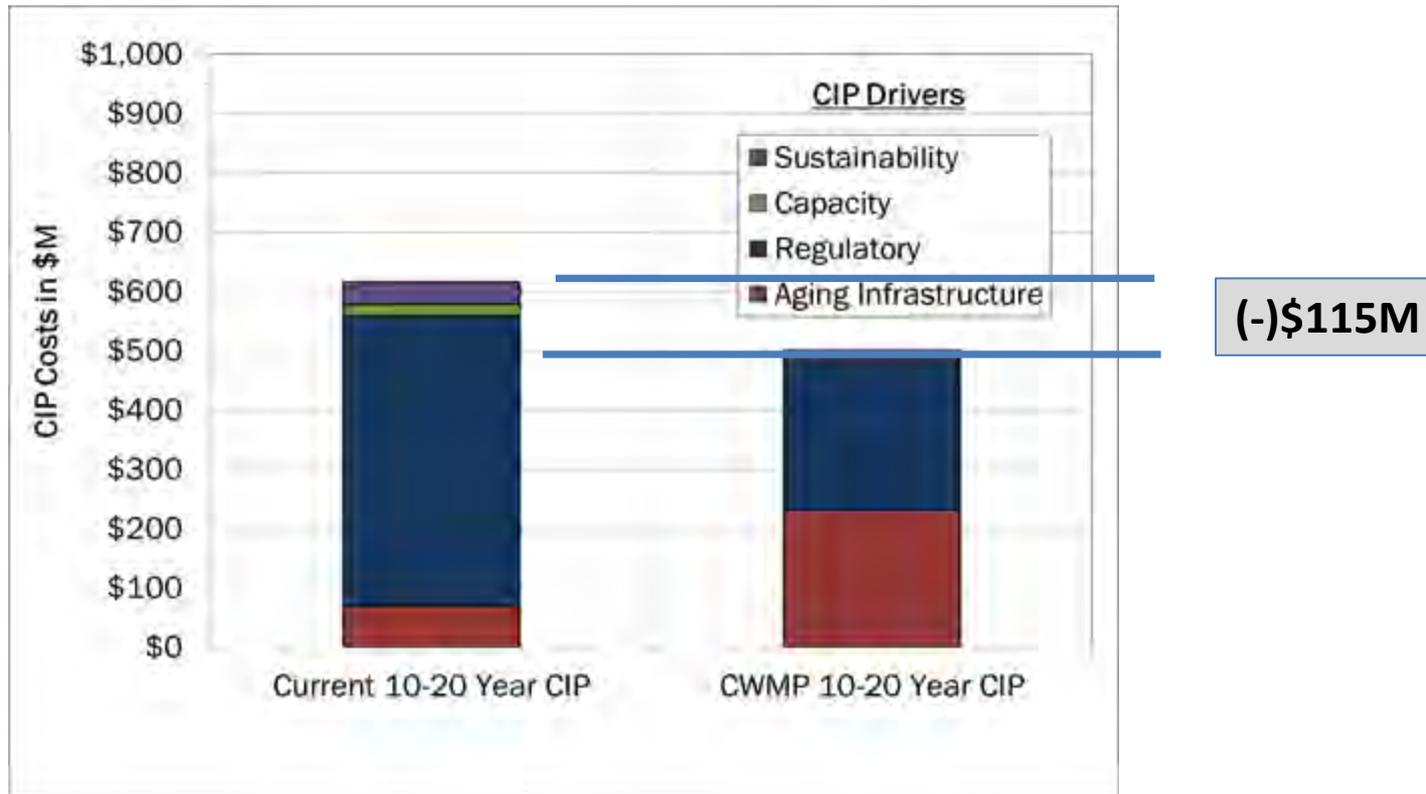
PLANT OF THE FUTURE: 5-10 YEARS



Preliminary



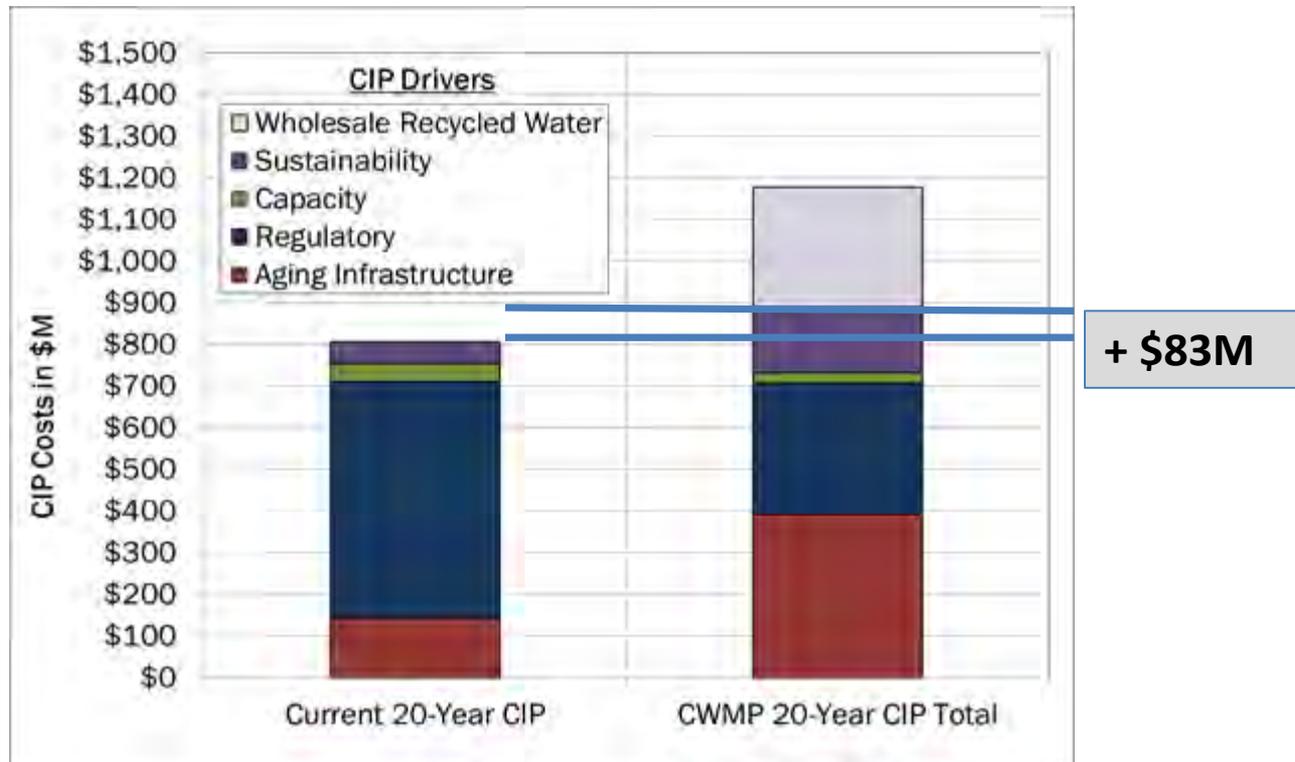
PLANT OF THE FUTURE: 10-20 YEARS



Preliminary



PLANT OF THE FUTURE: 20-YEAR CIP



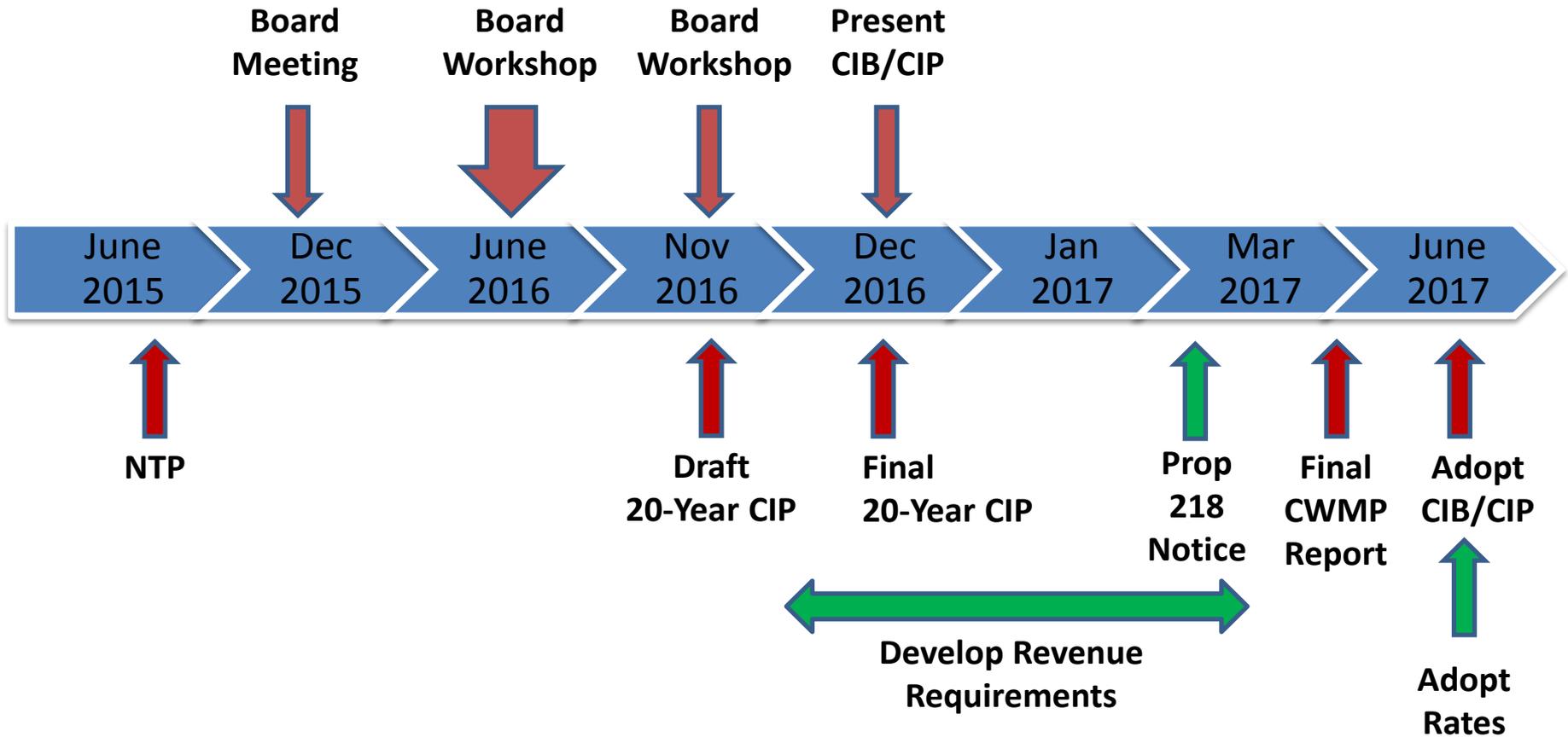
Preliminary



NEXT STEPS



THE CWMP IS ON TRACK TO FINISH IN FY2016/2017



NEXT STEPS

- Confirm/Finalize Layouts & Cost Estimates
- Prioritize Projects & Draft CIP Timeline
- Develop Rate Scenarios
- Present Draft CIP & Rates November 2016
- Draft Master Plan Report December 2016
- Final Draft Master Plan Report April 2017



QUESTIONS

