



# Draft FY20/21 – FY24/25 Capital Improvement Program

Board of Directors Meeting  
May 13, 2020



TRANSFORMING WASTEWATER TO RESOURCES

# CIP Development Process

Update Existing Project Scopes, Budgets, and Schedules

Solicit New Project Ideas to Address New Issues

Develop Scopes, Budgets, and Schedules for Selected New Projects

Prioritize Existing and New Projects based on Key Criteria

Develop Funding Plan and Assess Rate Impacts

- Review proposed draft 5-year CIP with Finance Committee
- Hold Public Hearing and adopt 5-year CIP for implementation

- Likelihood, consequence of failure
- Remaining service life
- Operational effectiveness/reliability
- Safety
- Future regulatory drivers
- Growth needs

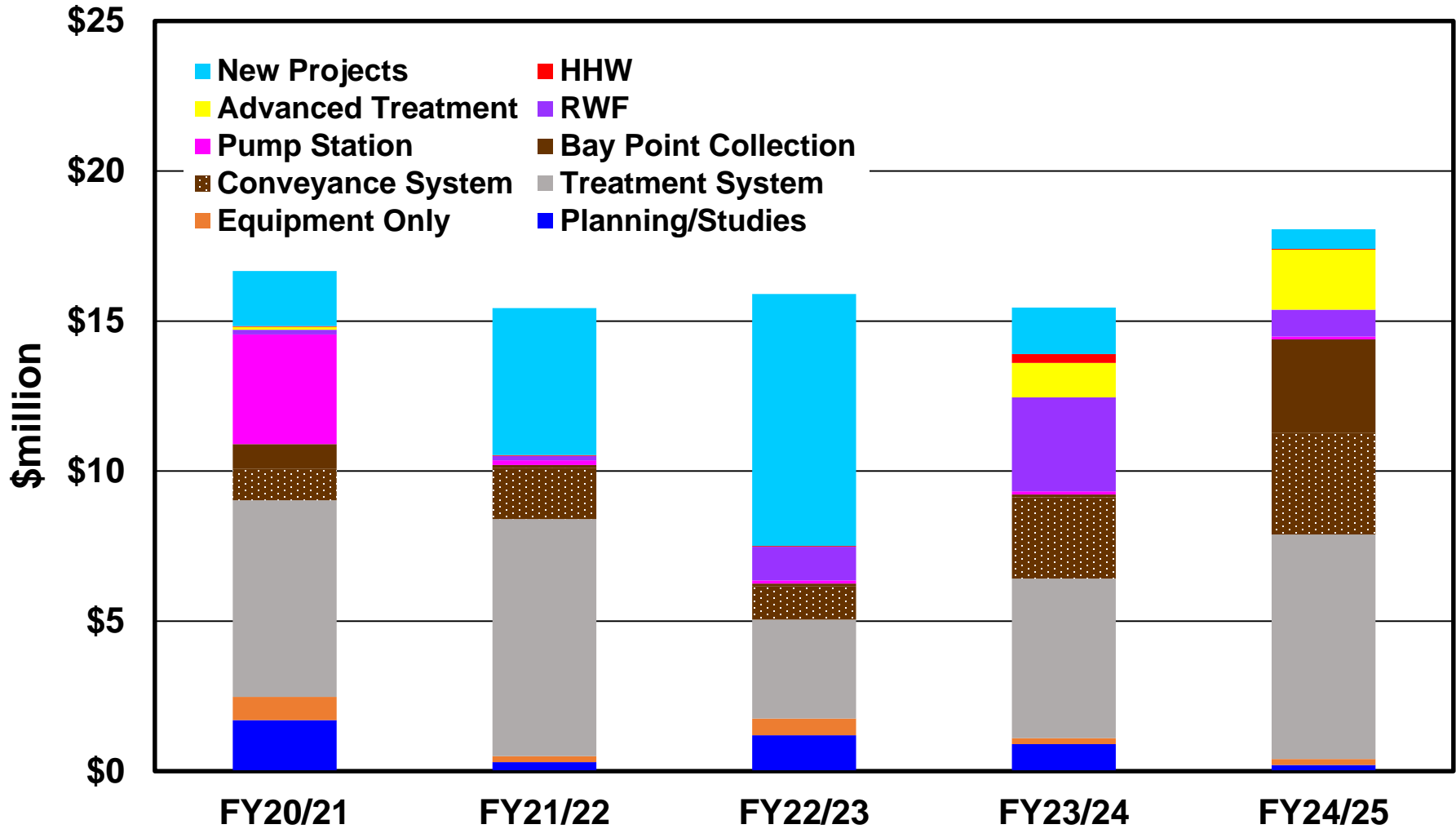
# Draft CIP Overview

- Key Considerations in Developing CIP
  - Addressing new infrastructure needs
  - Investing in existing wastewater infrastructure renewal
  - Adapting to shifting project priorities and changes
  - Driving organizational improvement
  - Planning for the future
  
- Total draft 5-year CIP = \$81.3 million
  
- FY20/21 CIP Budget Request
 

▪	<b>Required FY20/21 CIP budget appropriation =</b>		<b>\$16.7M</b>
▪	Available budget through FY19/20 =	\$37.0M	
▪	Anticipated expenditures in FY19/20 =	<u>(\$19.0M)</u>	
▪	Anticipated remaining budget at end of FY19/20 =	\$18.0M	
▪	Estimated budget not carried forward to FY20/21 =	<u>(\$6.0M)</u>	
▪	Estimated carryover budget for FY20/21 =		<b><u>\$12.0M</u></b>
▪	<b>Estimated FY20/21 CIP expenditures =</b>		<b>\$28.7M</b>

# Draft CIP Overview

## Planned Expenditures by Major Area

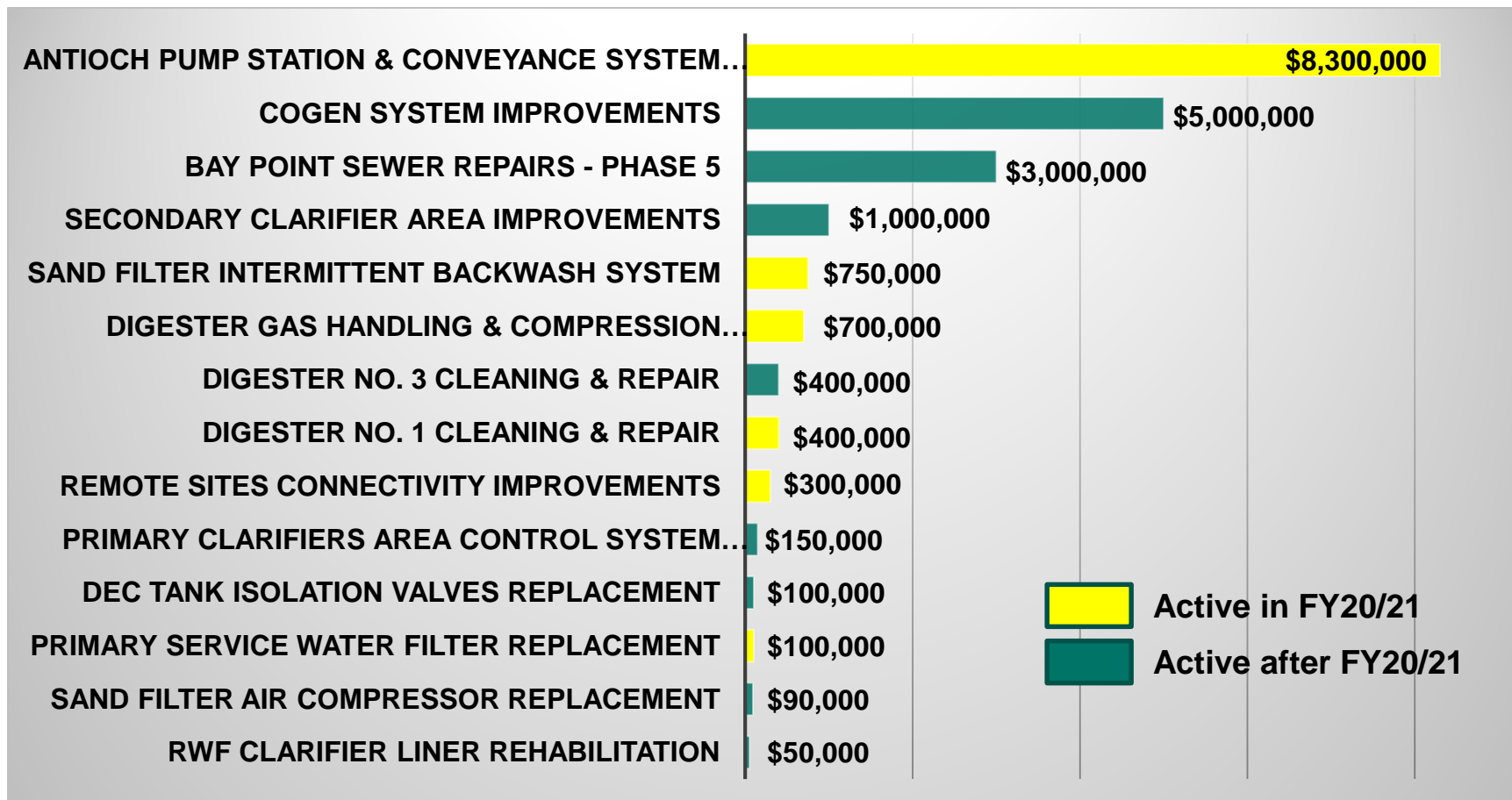


# CIP Highlights

## Addressing New Infrastructure Needs



- Identified 14 new projects within the 5-year CIP = \$20.3 million



# CIP Highlights

## *Investing in Existing WW Infrastructure Renewal*



- **70% of the CIP total is allocated to support rehabilitation and/or replacement of existing critical wastewater infrastructure (Capital Asset Replacement Fund)**

Project	5-Year CIP Cost (\$M)	FY20/21 Budget (\$M)
Antioch Pump Station and Conveyance System Improvements	8.3	0.3
Headworks Improvements	8.0	5.0
Cogeneration System Improvements	5.0	-
Treatment Plant Electrical Switchgear Replacement	3.8	0.8
Pump Station Facilities Repair	3.5	3.5

# CIP Totals by Major District Fund



Fund	5-year CIP Total (\$M)	% of 5-year CIP Total
Wastewater		
Capital Asset	3.5	4.3
<b>Capital Asset Replacement</b>	<b>56.8</b>	<b>69.9</b>
Expansion	4.5	5.5
Advanced Treatment	3.3	4.4
Recycled Water		
Capital Asset	2.5	3.0
Capital Asset Replacement	4.7	5.8
Expansion	0.2	0.2
Bay Point Collection	5.3	6.5
HHW	0.5	0.6
<b>Total</b>	<b>\$81.3M</b>	<b>100%</b>

# CIP Highlights

## *Adapting to Shifting Project Priorities and Changes*



- **East County Bioenergy Project (ECBP)**
  - District no longer pursuing project implementation
  - Initiating \$6.5 million infrastructure investment needs previously placed on hold pending integration with ECBP:
    - Digester Cleanings/Repairs \$800,000
    - Digester Gas Handling & Compressors Replacement \$700,000
    - Cogeneration System Improvements \$5,000,000
- **Nutrient Management**
  - Regional collaboration with regulators, scientific community, and other agencies through BACWA
  - Significant shift in implementation timeline and reduction in capital cost
  - Likely integration with future secondary process upgrade and expansion
  - Major capital investment in existing tower trickling filters does not support flexibility for future nutrient removal
    - Renamed “Tower Trickling Filter Improvements” to “Secondary Treatment Upgrades with Nutrient Management” in proposed CIP



# CIP Highlights

## *Driving Organizational Improvement*



- Asset Management Program (AMP)
  - Staff has completed significant efforts to build the foundation of a formalized AMP in FY19/20
  - \$1.7 million included to support continued development of an AMP to manage critical infrastructure assets
- Information Technology (IT)
  - Staff initiated an IT Assessment to identify prioritized business needs and implementation plans to enhance business processes and use of IT to support organizational effectiveness and efficiency
  - \$0.75 million included for replacement of servers, storage, and network gear in support of this initiative

# CIP Highlights

## *Planning for the Future*

- Five master planning efforts are included in draft CIP to identify near- and long-term strategies, needs, and priorities

Description	Cost (\$M)	Schedule
<b>Resource Recovery Facility Master Plan</b>	<b>1.0</b>	<b>FY20/21</b>
Electrical System Master Plan	0.4	FY22/23
Supervisory Control and Data Acquisition (SCADA) Master Plan	0.5	FY22/23
Biosolids Management Master Plan	0.4	FY23/24
Recycled Water Master Plan Update	0.3	FY23/24

# Additional Public Information

- Staff has prepared additional supporting documentation and posted on the District's website



**Protecting Public Health and the Environment**

**Investing in Critical Wastewater Infrastructure**

May 2020



Delta Diablo Wastewater Treatment Plant in Antioch, CA

**About Delta Diablo**

Delta Diablo is a special district that provides wastewater conveyance and treatment services for over 213,000 residents in Antioch, Pittsburg, and Bay Point.

The District treats 13 million gallons of wastewater each day with a focus on exemplary regulatory compliance, innovative and sustainable approaches, and sound stewardship of the public's resources and trust.

The District has transformed its Wastewater Treatment Plant (WWTP) into a "water resource recovery facility" by:

- ❖ Producing 6 million gallons of recycled water per day
- ❖ Generating on-site renewable energy to meet over 55% of WWTP power needs
- ❖ Reusing residual biosolids as fertilizer through land application at farm sites
- ❖ Providing household hazardous waste (HHW) collection services
- ❖ Protecting the Delta by providing street sweeping services to remove pollutants that would otherwise enter local stormwater systems

**Our Mission**

Protect public health and the environment in our communities by providing wastewater resource recovery services of exceptional quality and value.

Delta Diablo (District) has developed an **\$81.3 million** prioritized **5-year Capital Improvement Program (CIP)** to primarily address critical aging infrastructure needs. This continued investment is essential to **protecting public health and the environment** and maintaining effective and reliable wastewater collection, conveyance, and treatment services, and recycled water production. The **District's Wastewater Treatment Plant (WWTP)**, which includes a combination of physical, biological, and chemical treatment processes, is **nearly 40 years old** and requires significant rehabilitation and replacement work to address aging concrete structures, mechanical equipment, and electrical systems. Key CIP highlights include:

- **Antioch Pump Station and Conveyance System Improvements** (\$8.3 million): In response to failure of a pressurized discharge pipeline from the District's Antioch Pump Station in December 2019, a new project has been developed to restore operational reliability.
- **Investing in Wastewater Infrastructure Renewal:** Approximately 70% of the CIP supports rehabilitation and/or replacement of existing wastewater infrastructure, including Headworks Improvements (\$8.0 million), Cogeneration System Improvements (\$5.0 million), Electrical Switchgear Replacement (\$3.8 million), and Pump Station Facility Repair (\$3.5 million).
- **Ensuring Integrity of Bay Point Collection System:** Because the District owns and operates 43 miles of gravity sewers in Bay Point, the CIP includes \$4.2 million to support inspection, repair, and rehabilitation of prioritized segments over the next five years.
- **Focus on Cash Funding:** Most of the District's CIP projects are planned to be cash funded (versus debt financed) to ensure the lowest overall costs for District customers, while reserving future debt management capacity for future large-scale WWTP upgrades.

The District's primary source of revenue is **Sewer Service Charges (SSCs)**, which are charged to customers via the property tax roll each year. In order to meet revenue needs, the District has proposed an **SSC increase of 3.5%** for Fiscal Year 2020/2021 (FY20/21), which translates into a total annual revenue increase of \$1.1 million. Approximately 29% of the **total SSC revenue** (\$9.5 million) for FY20/21 directly supports CIP implementation and critical infrastructure needs with the remainder of SSC revenue (\$23.2 million) funding District operation and maintenance costs. An SSC fact sheet is available on the District's website.



**213,000**  
residents



**13 million gallons**  
of wastewater per day



**76 miles** of sewer  
pipes and force mains



**5 pumps stations**  
to convey wastewater



**Wastewater Treatment Plant**



**Recycled Water Facility**



**5-year Capital Improvement Program**  
**\$81.3 million**

visit [www.deltadiablo.org](http://www.deltadiablo.org) or call (925) 756-1900 for more information

# Next Steps

- Hold public hearing to consider final CIP adoption 6/25/20
- Print and distribute final 5-year CIP 6/29/20
- Begin implementing approved CIP 7/1/20