

Infrastructure Task Force

Utilities Department

July 10, 2023



AGENDA

1. Introduction to Utilities Department
2. Water District Overview
3. Joint Facilities Overview
4. Water Finance
5. Wastewater Collection System Overview
6. Wastewater Finance
7. Q & A

INTRODUCTION

UTILITIES DEPARTMENT

- **Formed July 1, 2022**
- **San Dieguito Water District and Wastewater Collection System**
- **To deliver high-quality utility services (water, wastewater, and recycled water) professionally, efficiently and in an environmentally responsible manner, to ensure the health and safety of our community.**

DEPARTMENT DIVISIONS

- **Engineering/ Water and Wastewater**
- **Water Operations**
- **Administrative & Customer Services/Water**
 - **Water Resources**
- **Wastewater Collection Division/Wastewater**
- **Financial Administration /Wastewater**

SAN DIEGUITO WATER DISTRICT

WATER INFRASTRUCTURE BRIEF

- **Badger Water Filtration Plant**
- **San Dieguito Reservoir**
- **168 miles of pipeline**
- **7.5 mg Encinitas Ranch Reservoir**
- **2.5 mg Balour Reservoir**
- **15 pressure reducing stations**
- **1 pump station**



WATER AGE & REPLACEMENT COSTS

Installation Year	Miles of Pipeline	% of Total Pipeline
1950 to 1959	15.2	9.1%
1960 to 1969	43.2	25.7%
1970 to 1979	28.4	16.9%
1980 to 1989	35.8	21.3%
1990 to 1999	29.9	17.8%
2000 to 2009	8.4	5.0%
2010 to 2019	4.7	2.8%
Unknown	2.7	1.6%
TOTAL	168	100%

Pipeline Diameter	Construction Cost per Mile	Soft Costs	Total
12-inch	\$2.6 M	\$650 K	\$3.25 M
24-inch	\$4.8 M	\$1.2 M	\$6.0 M
36-inch	\$7.3 M	\$1.8 M	\$9.1 M

JOINT FACILITIES

JOINT FACILITIES INFRASTRUCTURE BRIEF

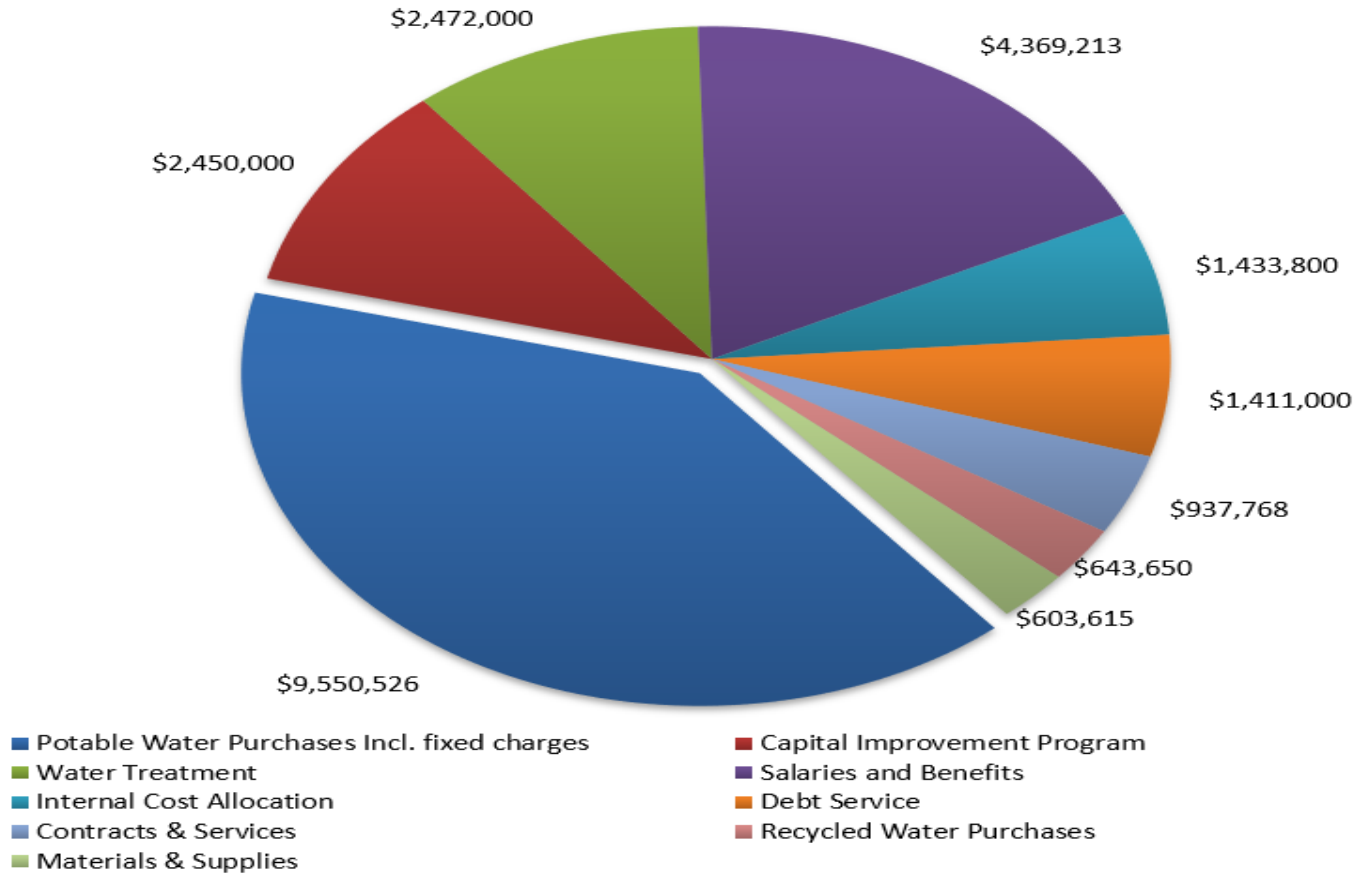
- **Joint Facilities**
 - R.E. Badger Filtration Plant
 - San Dieguito Dam, Reservoir, and Pump Station
 - Hydro-Electric Facility
 - Cielo Pump Station and Lake Hodges Flume
 - 16-miles of Pipeline 15-inch to 54-inch
- **Joint Facilities Capital Improvement Program (CIP)**
 - 2021 Master Plan, with each project reviewed annually, to consider:
 - Improved Cost Information
 - Various Phases of Planning, Project Definition, and Design
 - Tracking of Industry Trends
 - Balancing Revenues Expenditures

WATER FINANCE

WATER CIP BUDGET (INCLUDING JOINT FACILITIES)

- **Water CIP is guided by various needs and studies:**
 - District Urban Water Management Plan
 - Water Master Plan
 - Joint Facilities Master Plan
 - Strategic Plan
 - field staff observations
- **CIPs are multi-year in nature therefore unspent appropriations are carried over year after year until project completion**
- **FY 23/24 Water CIP is \$2.4M out of the District total \$24.4 expenditure budget**
- **Approximately 74% of the \$2.4M is allocated to District projects (\$1.8M) and 26%(\$650K) to Joint Facilities projects with SFID**

WATER DISTRICT FY23/24 EXPENDITURES \$24.4M



WATER FUNDING STRATEGIES

- District is an enterprise fund, must generate its own revenue to pay for expenditures
- Current funding of CIP is by PAY-AS-YOU-GO via customer rates and charges
- District addressing expensive capital improvement projects
- District will need to consider alternative financing methods including loan financing and bond issuance financing
- Will be addressed in the Water Rate Cost of Service Study set to commence Fall 2023
- Staff will also actively identify and pursue any available grant opportunities

WATER RATE COST OF SERVICE STUDIES

- **As an enterprise fund, District relies on water rates & service charges to meet its financial obligations**
- **Water industry and its costs are very volatile therefore require frequent evaluation and updating to ensure relevancy and accuracy**
- **District strives to conduct rate studies every 2-3 years**
- **Last study was completed Sept. 2021 and adopted rates for 2022, 2023 and 2024**
- **Important drivers for Fall 2023 study include:**
 - Lake Hodges near and long-term repairs
 - Imported water purchases
 - Aging infrastructure
 - System Condition Assessment

POTENTIAL WATER CIP GRANT FUNDING

Federal

- **Bureau of Reclamation: Field Services Program could possibly fund**
 - Pilot program to convert from AMR to AMI
 - Transition from AMR to AMI

- **Bureau of Reclamation: WaterSMART, Water Energy Efficiency Grant**

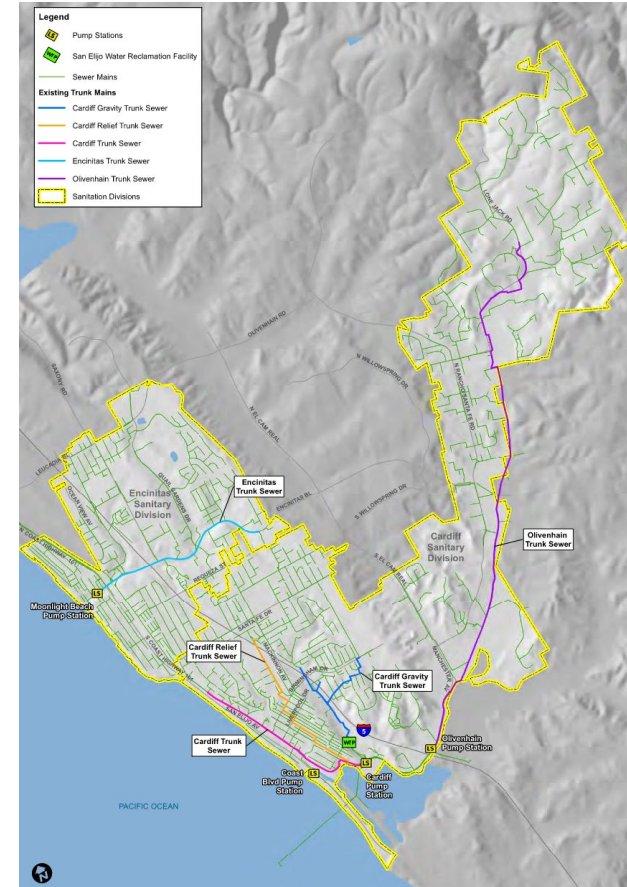
State

- **State Water Resources Control Board: Drinking Water State Revolving Fund**

CITY WASTEWATER COLLECTION SYSTEM

WASTEWATER INFRASTRUCTURE BRIEF

- 126 miles of pipeline
 - 121 miles gravity sewer
 - 5 miles force mains
- Four pump stations
- Two treatment facilities
 - Encina Water Pollution Control Facility
 - San Elijo Wastewater Reclamation Facility
- Two Sanitary Districts
 - Encinitas Sanitary Division (ESD)
 - Cardiff Sanitary Division (CSD)



SEWER SYSTEM AGE AND REPLACEMENT COSTS

Installation Year	Miles of Pipeline	% of Total Pipeline
1950 to 1959	12.1	10%
1960 to 1969	29.7	24%
1970 to 1979	22.2	18%
1980 to 1989	15.3	13%
1990 to 1999	17.6	14%
2000 to 2009	15.1	12%
2010 to 2019	4.9	4%
Unknown	4.9	4%
TOTAL	121	100%

Pipeline Diameter	Construction Cost per Mile	Soft Costs	Total
10-inch	\$1.4 M	\$350 K	\$1.75 M
15-inch	\$1.7 M	\$430 K	\$2.13 M
18-inch	\$1.8 M	\$440 K	\$2.24 M

	Construction Cost	Soft Costs	Total
Pump Station	\$0.3M - \$2.5M	\$75K - \$630K	\$375K - \$3.1M

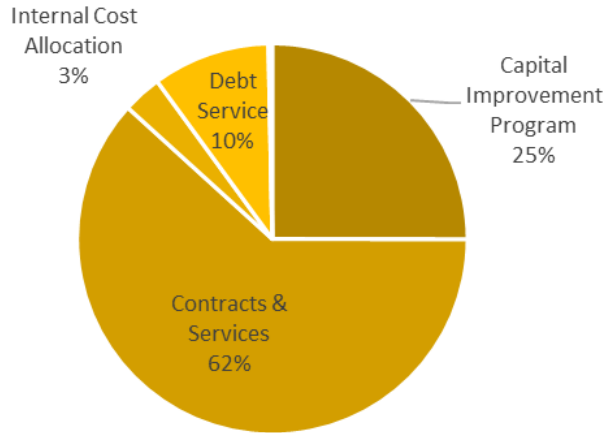
WASTEWATER FINANCE

WASTEWATER CIP BUDGET OVERVIEW

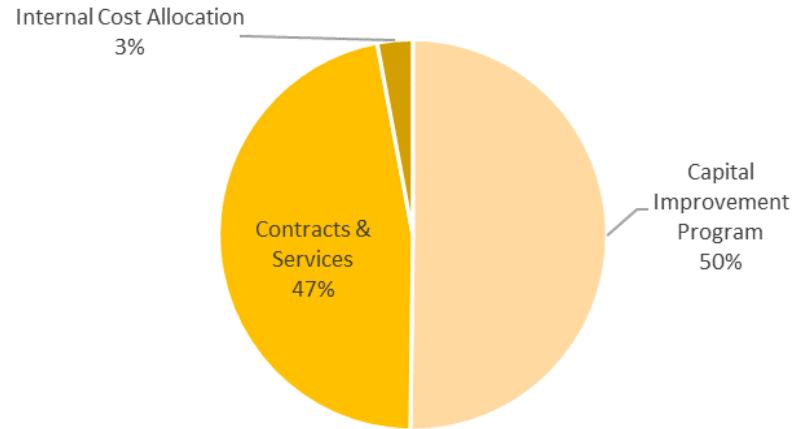
- **Wastewater CIPs are guided by various needs:**
 - SEJPA and EWA CIPs
 - City Wastewater CIP Master Plan
 - Field staff observations
- **CIPs are multi-year in nature therefore unspent appropriations are carried over year after year until project completion**
- **For FY24, CIP is approximately 35% (\$4M) of the Sewer Division's total expenditure budget.**
- **Approximately 59% of total Sewer CIP budget is allocated to City Sewer projects (\$2.4M). 41% to SEJPA and EWA CIP projects (\$1.7M).**

ESD & CSD FY23/24 EXPENDITURES \$11.5M

CSD Total Budget: \$6,879,236



ESD Total Budget: \$4,595,996

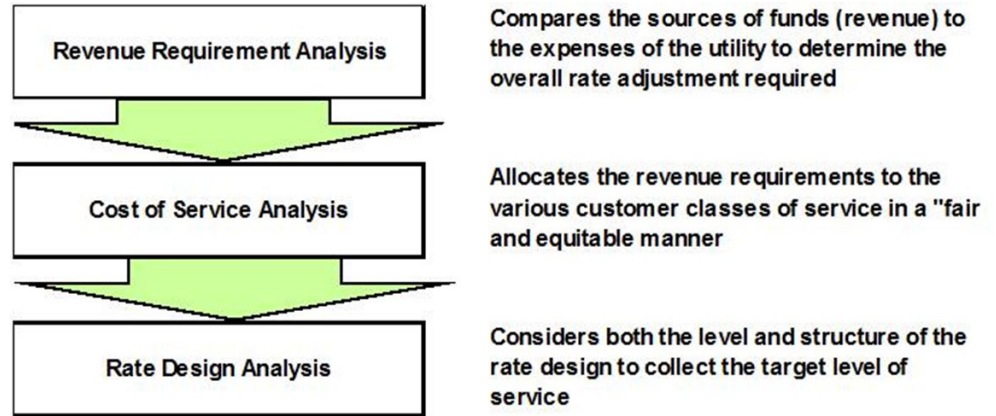


WASTEWATER FUNDING STRATEGIES

- **CSD and ESD are enterprise funds. They must generate their own revenue to pay for expenditures.**
- **Current funding of CIPs is via annual sewer charge on customer property tax bill.**
- **CSD and ESD will need to consider alternative financing methods including loan financing, grants, and bond issuance financing.**
- **To be addressed in the Sewer Rate Cost of Service Study set to commence Fall 2023.**

SEWER RATE STUDY

- As enterprise funds, CSD and ESD rely on annual sewer charges to meet their financial obligations.
- The City conducts rate studies every 5 years



QUESTIONS