

Trabuco Canyon Water District



Operating & Capital Budget



Fiscal Year 2022 / 2023



TRABUCO TANKS ADJACENT TO TRABUCO HIGHLANDS COMMUNITY

Table of Contents

Board of Directors and District Management.....	1
Mission Statement.....	2
General Manager’s Message	4
Historical Information and Budget Charts	6
Organizational Chart.....	6
Potable Water Sales History.....	7
Recycled Water Sales History	8
Budgeted Revenues.....	9
Budgeted Expenses	10
Capital Program Spending.....	11
Reserves Summary	12
Budget Detail	14
Capital Improvement Plan (CIP).....	19





Board of Directors

2022-2023

Donald Chadd, President

Stephen Dopudja, Vice-President

Glenn Acosta, Director

Edward Mandich, Director

Michael Safranski, Director

District Management

Fernando Paludi, General Manager

Michael Perea, Assistant General Manager

Cindy Byerrum, District Treasurer

Trabuco Canyon Water District is a public agency serving portions of the cities of Rancho Santa Margarita, Mission Viejo, Lake Forest, and unincorporated Orange County.

MISSION STATEMENT

The Trabuco Canyon Water District's purpose as a public service agency is to provide:

- ❖ Service to our customers which instills trust regarding the quality and quantity of the water supply
- ❖ Reliable service for collection, treatment, and reuse of wastewater
- ❖ A work environment where safety and health of employees and customers is our paramount concern
- ❖ Information to our customers to foster and maintain a well-informed community
- ❖ Cost effective and efficient services in a courteous manner

In addition, the District is committed to:

- ❖ Ensure compliance with environmental, safety, and regulatory requirements
- ❖ Maintain or improve existing infrastructure





CHLORINE CONTACT BASIN AT WASTEWATER TREATMENT PLANT

GENERAL MANAGER'S MESSAGE

The Trabuco Canyon Water District (TCWD or District) is pleased to present the budget document for the Fiscal Year (FY) that begins on July 1, 2022 and ends on June 30, 2023 (FY 2023). District staff uses the annual budget process as an opportunity to provide the Board of Directors as well as the agency's customers and stakeholders with an overview of the District's financial condition. The budget outlines anticipated revenues and both operational and capital expenditures and reflects the District's priorities and needs for the upcoming year.

Since FY 2022, the District has been impacted by unanticipated price inflation and global supply chain disruptions that have delayed equipment procurement and driven up the cost of labor, materials, and equipment for District operating and capital projects. Industry-wide, construction costs increased on average almost 18% from 2020 to 2021, the largest year to year increase in over 50 years. As a result, TCWD has been forced to scale back rehabilitation of aging infrastructure and defer certain projects to future budget cycles.

The Governor declared a statewide drought emergency during 2021 and has called for all Californians to voluntarily reduce water consumption by 15%. TCWD has responded by declaring a Water Shortage Stage 2, which calls for measures targeting up to 20% conservation. Despite this downward pressure on revenue from water sales, the District is committed to maintaining reliable service to all our customers within the constraints of our drought response mandates.

During FY 2023, the District expects to complete several important capital projects intended to modernize operations, refurbish and replace capital assets, and improve customer service:

- Final phase of the District's Supervisory Control and Data Acquisition (SCADA) System upgrade - a three-year, \$3 million project to improve communication, security, and data management throughout the water, wastewater, and recycled water distribution systems.
- Implementation of a new Computerized Maintenance Management System (CMMS) software and database that will facilitate proactive maintenance operations of District facilities and assets.
- Completion of a Facilities Master Plan to address the District's water, wastewater, and recycled water system needs over a 25-year planning horizon. The Plan also includes a condition assessment of all District operating assets, some of which have been in continuous operation since the 1960s, and a ten-year Capital Improvement Program with recommended projects to ensure the District continues to provide safe, reliable, and efficient services to its customers.
- Implementation of a \$1.7 million Automated Meter Reading (AMR)/Advanced Metering Infrastructure (AMI) program to convert all residential water meters to "smart meters" that will benefit both TCWD and our customers by automating the collection of near-real time consumption data – resulting in early leak detection and greater water use awareness.

To ensure that TCWD can continue to provide safe and reliable services in light of historic inflation and capital investment obligations, the District is developing a new financial plan. The financial plan will serve as a basis for setting water, sewer, and recycled water rates that recover the cost of providing those services and maintain adequate financial reserves.

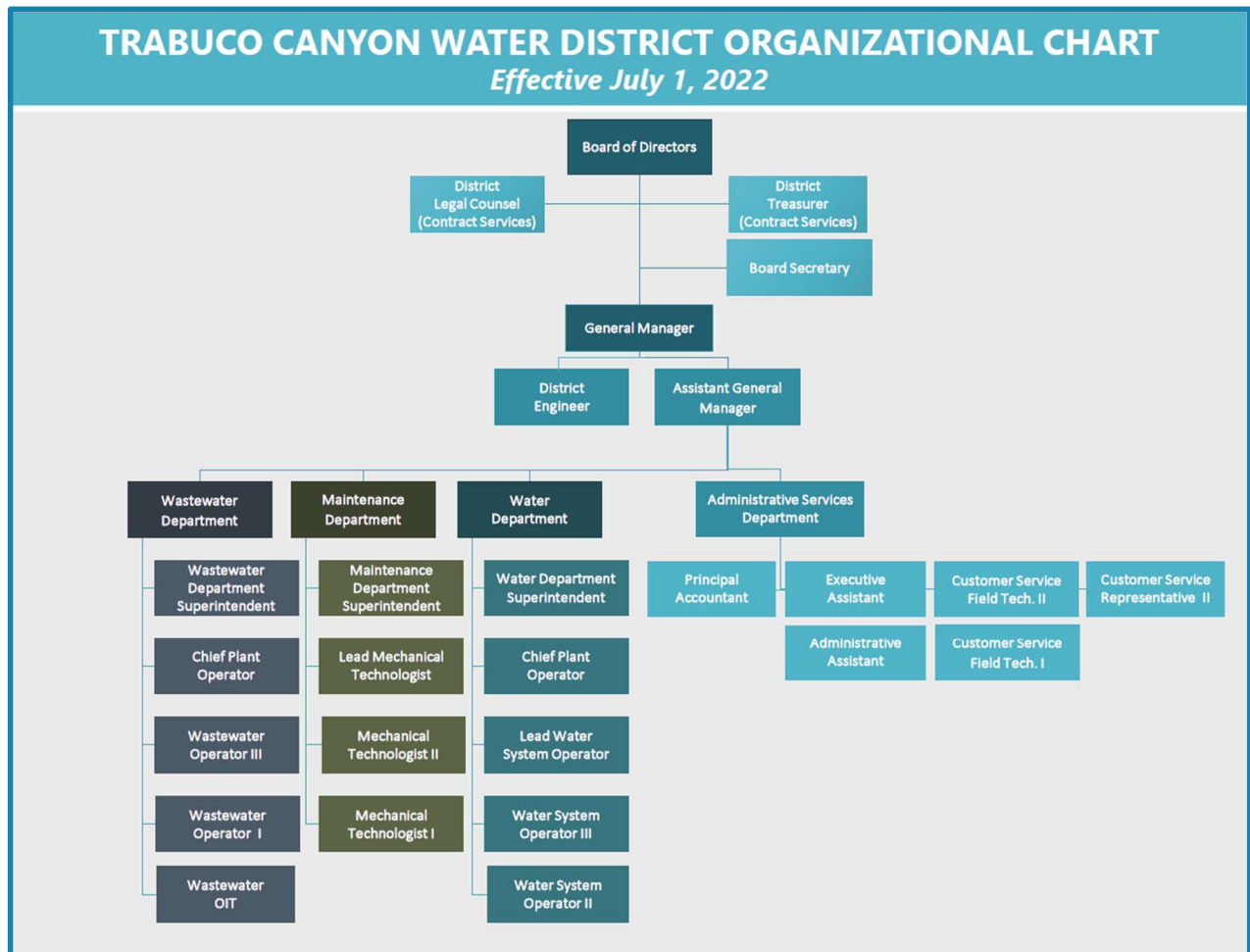
The FY 2023 Budget is the result of thoughtful deliberation by the District's Board of Directors and Staff. I would like to thank the Board for their leadership and continued interest in, and support of, prudent fiscal management of the District. I would also like to extend my appreciation to all employees for their support of the District's mission, and for their dedication to providing the highest level of professionalism, teamwork, and service to our valued customers.

A handwritten signature in black ink, appearing to read "F. Paludi", with a stylized flourish at the end.

Fernando Paludi, P.E.

General Manager

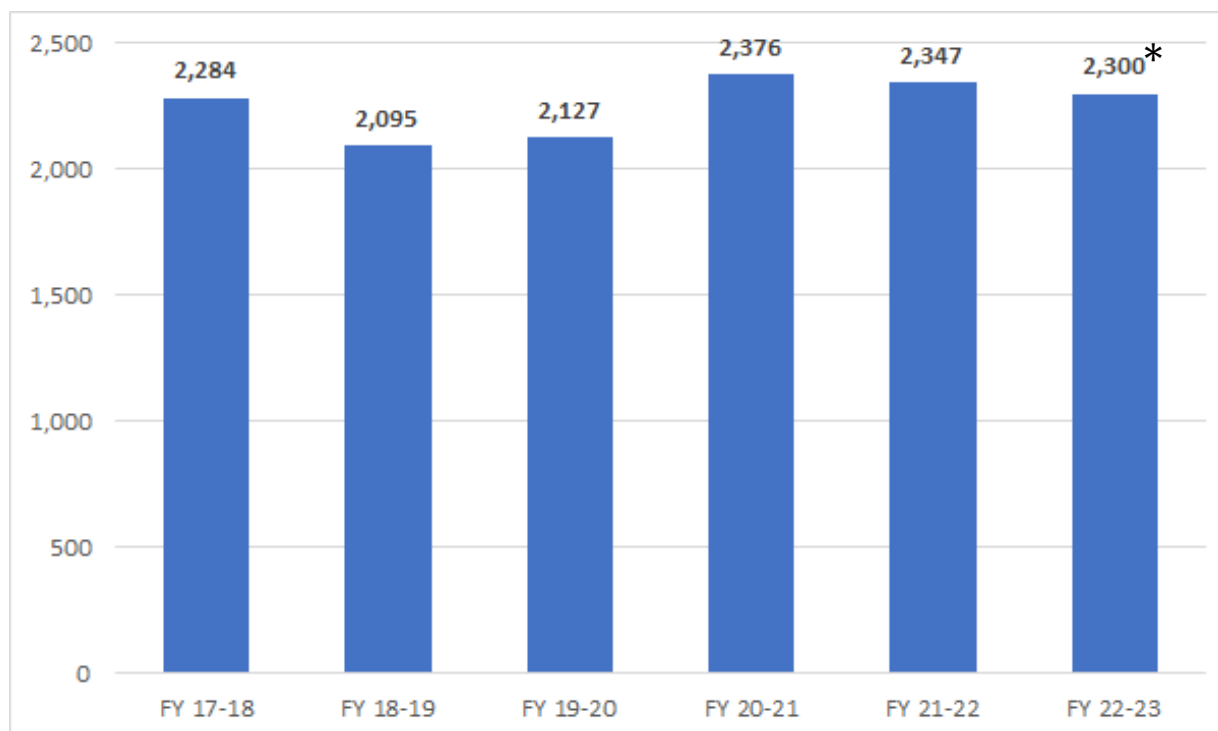
Organizational Chart



Potable Water Sales History

TCWD's annual water-related revenues are predominantly variable and correlated to the volume of water sold to homes, business, and other users. Sales of potable or drinking water for indoor and outdoor use, including landscape irrigation, comprise nearly two-thirds of all revenue from customer charges. After dropping significantly in FY 2019, water sales have increased during the recent cycle of hot, dry climate. As in FY 2022, sales are projected to decrease 1% in FY 2023 in continuing response to drought awareness and corresponding conservation efforts.

Potable Water Sales History (AF)

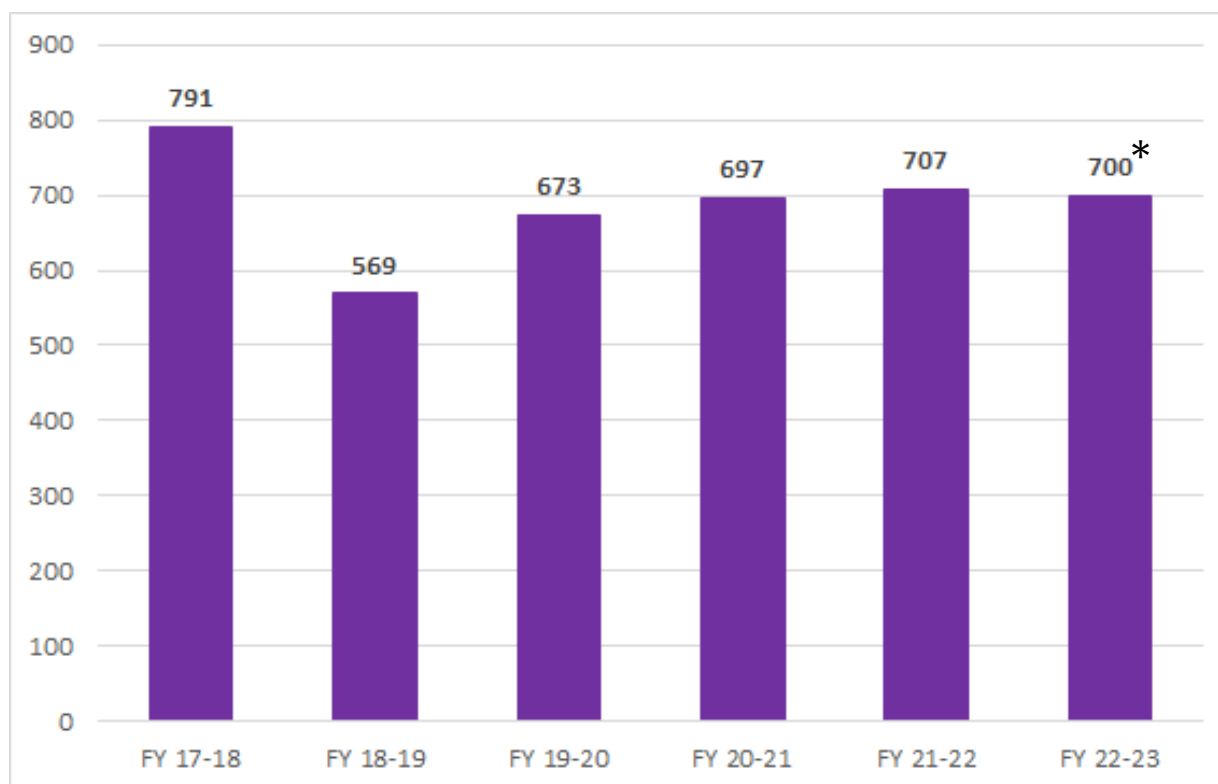


*Projected

Recycled Water Sales History

TCWD beneficially reuses 100% of the sewage or wastewater collected within its service territory, east of Plano Trabuco Road. This recycled water produced at the Robinson Ranch Wastewater Treatment Plant is augmented by natural urban runoff captured through a network of basins and Dove Canyon Lake and used for landscape irrigation by several Homeowners Associations (HOAs). Recycled water represents 100% conservation of potable or drinking water supplies, which would otherwise be used for irrigation purposes. Recycled water supplies are limited and carefully managed by District operations personnel to maximize its benefit. Similar to demand for potable water, demand for recycled water reached a low point in FY 2019 but increased in FY 2020 and has remained steady through FY 2022. Demand is projected to decrease to 700 acre-feet during the budget year in recognition of drought awareness and conservation in irrigation use.

Recycled Water Sales History (AF)

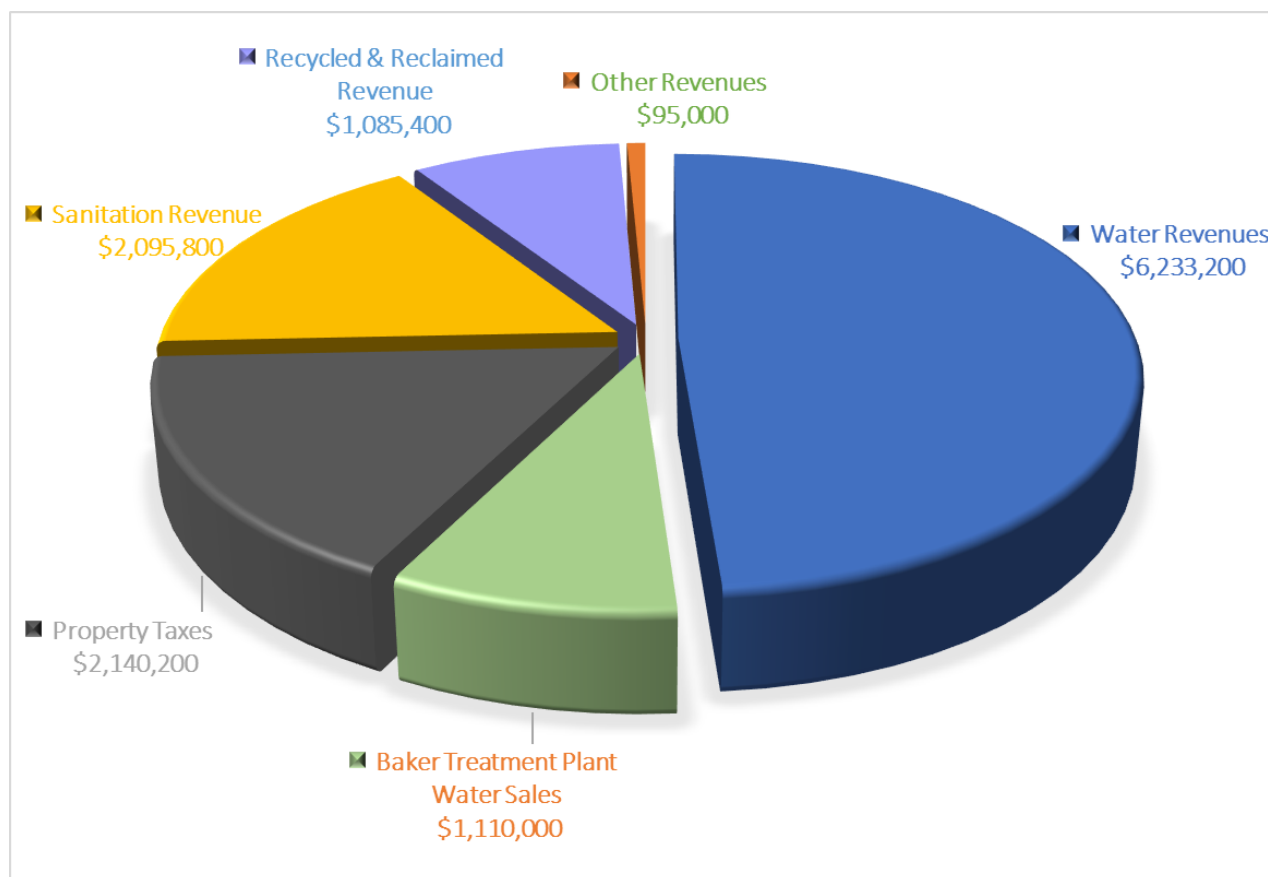


*Projected

Budgeted Revenues

The FY 2023 Budget is supported by \$12.7 million in total District revenues, including operating and non-operating revenue. District revenues are derived predominantly from rates and charges to customers for water, sanitation, and recycled water services. Other sources of revenue include the sale of water from the District's capacity in the Baker Water Treatment Plant to another water purveyor; property taxes; and other miscellaneous income sources such as leases and interest income.

Total Budgeted Revenues of \$12,759,600

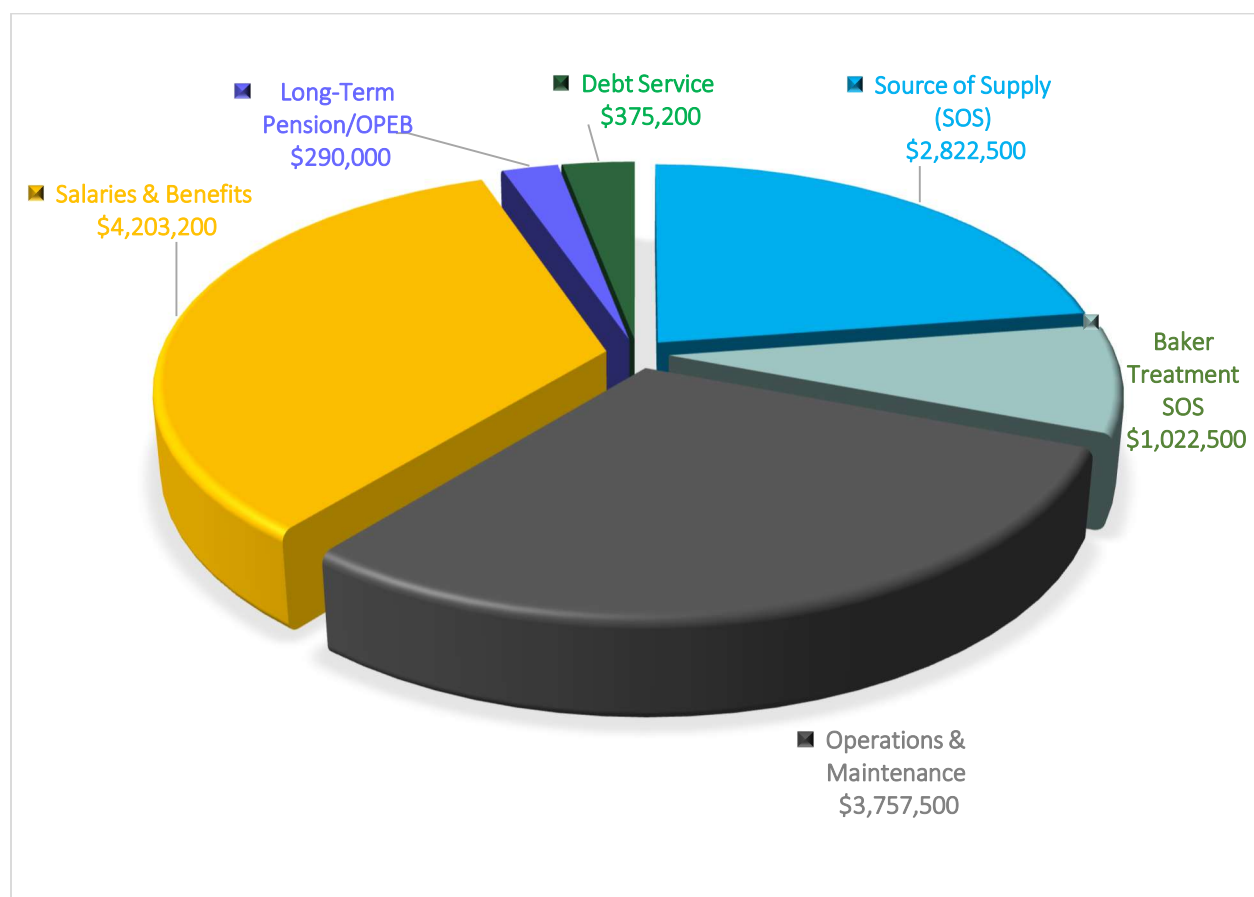


Budgeted Expenses

Expenditures are first driven by supply cost of water. Water supply costs are managed by purchasing less expensive raw Colorado River water from the Metropolitan Water District, then treating it to drinking or potable water standards at the District's Dimension Water Treatment Plant. As necessary, the District may purchase treated water directly from neighboring agency interconnections. The District also invests in long-term water security by purchasing capacity in the regional Baker Water Treatment Plant and selling Baker supply to another Orange County water agency when available.

Expenditures are also largely driven by labor, operations and maintenance. Labor includes employee salaries, benefits and long-term obligations including pensions and Other Post-Employment Benefits (OPEB), or retiree health benefits. The District maintains a cost-effective staffing model and contracts externally for specialized services to keep full-time internal positions to a minimum. Operations and maintenance expenses include the cost of system repairs and maintenance to deliver water and sanitation services to customers, pumping costs, general and administrative costs and other miscellaneous expenses.

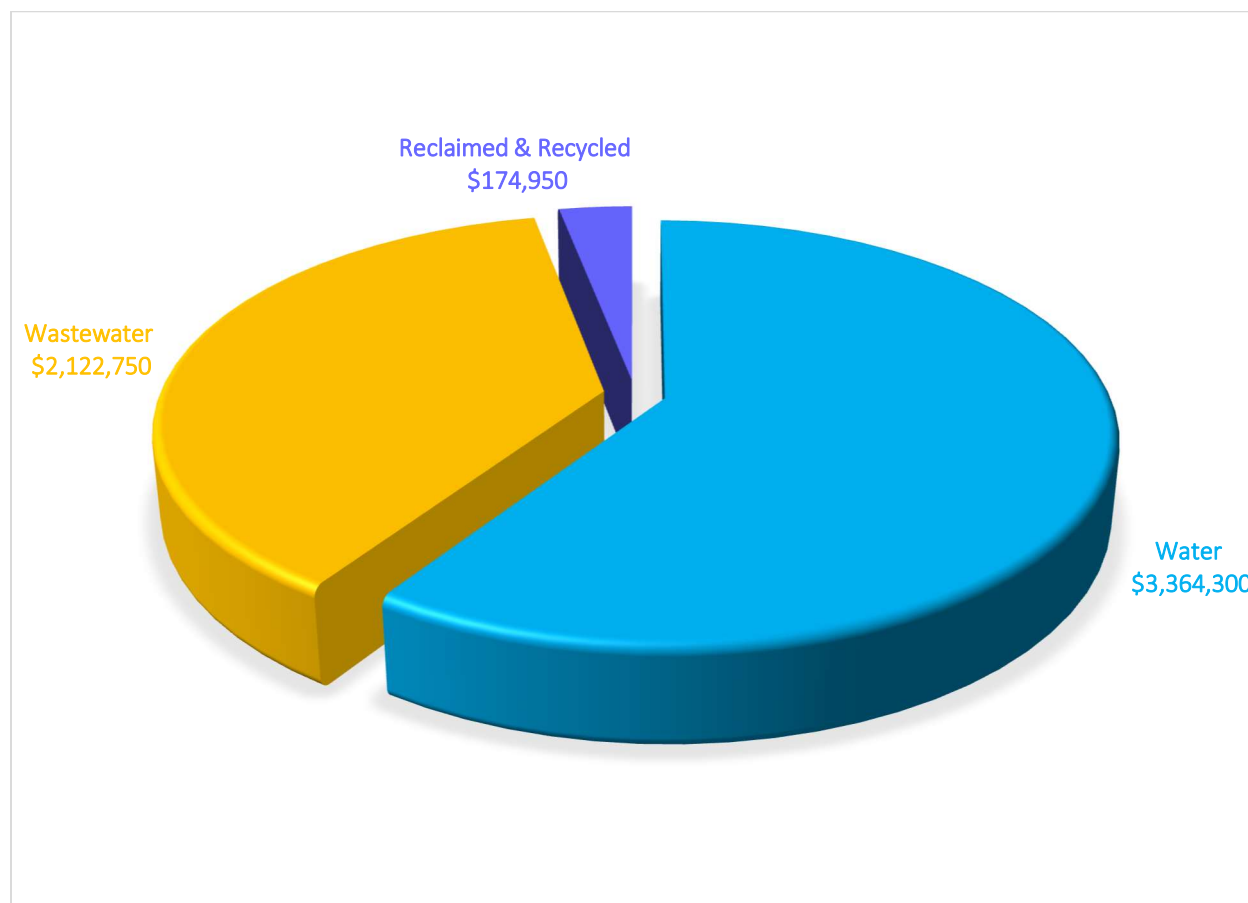
Total Budgeted Expenses of \$12,470,900



Capital Program Spending

TCWD's Capital Improvement Program (CIP) spending plan consists of new infrastructure, asset restoration and equipment purchases and maintenance including vault improvements, meter and valve replacements, pumps, plant office space and storage, and fleet vehicles. Capital spending is essential for the District not only to reinvest in its infrastructure to maintain its high level of service to its customers, but also to meet changing regulatory compliance and safety standards. For FY 2023, the District is projected to complete 21 major projects and programs within the CIP, totaling approximately \$5.7 million, a 19% increase over the \$4.8 million budgeted for FY 2022 CIP. The District issued \$10 Million in debt to fund the CIP and began making debt service payments during FY 2022. Remaining debt proceeds are projected to be \$2.5 Million at the end of FY 2023.

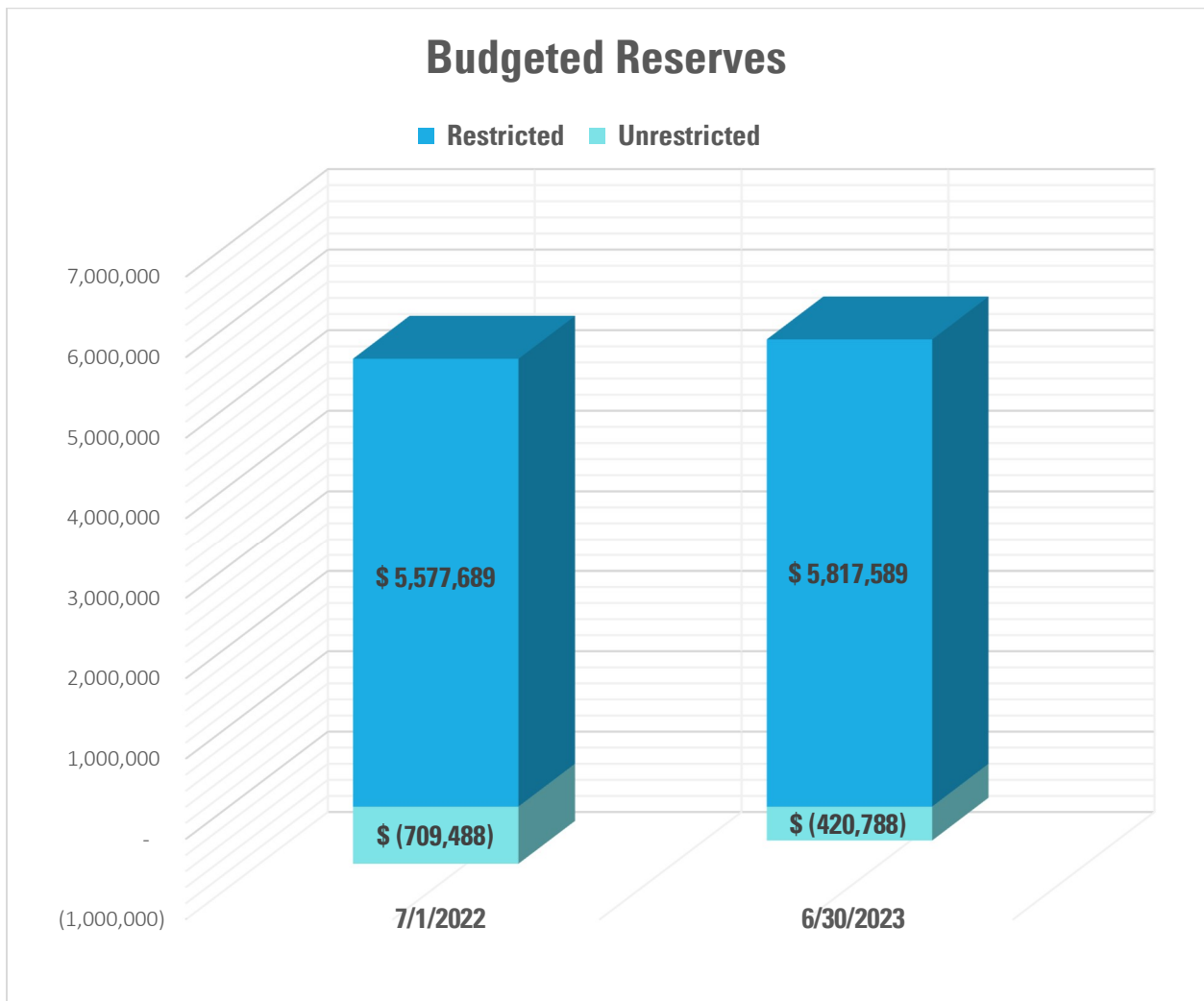
Total CIP of \$5,662,000



Reserves Summary

TCWD maintains two groups of cash reserves in accordance with the District reserve policy. Restricted Reserves are designated for specific purposes such as funding capital improvements, infrastructure, debt payments, legislative obligations, and board committed spending. Unrestricted Reserves have no legal or board restrictions and are intended to manage cashflow.

Projected Ending Reserves Total \$5,396,801





TRABUCO CREEK DURING RAIN EVENT

BUDGET DETAIL: REVENUES AND EXPENSES

Schedule A (displayed on page 18) shows the detailed budget for the District and will be used in FY 2023 to report monthly operating results to the Board.

REVENUE

Operating Revenue

- Line 2 – Water Commodity Sales include commodity use water charges for residential, apartments, commercial, irrigation, construction, & agricultural. FY 22 is projected to end under budget due to lower than anticipated residential water sales. FY 23 is budgeted for an 8% rate increase effective January 1, 2023, offset by a 1% reduction in residential consumption, as well as less construction water consumption.
- Lines 3-5 – Service Charges include monthly fixed (flat) charges for residential, apartments, commercial, irrigation, construction & agricultural. Sewer Services charges includes commercial sewer charges that are based on flow and can vary. FY 23 is budgeted for an 8% rate increase for Water, a 15% rate increase for Recycled/ Reclaimed, and a 6% rate increase for Sewer. All rate increases are effective January 2023.
- Line 6– Baker Treatment Plant (BTP) Water Sales include the projected sales of water production from the Baker Water Treatment Plant to the City of San Clemente. Revenue includes MWDOC charges for water per AF, quarterly O&M reimbursements, and a Capital Recovery Fee per AF. In FY 22, the District did not sell any BTP water for the first few months of the fiscal year, causing FY 22 to end under budget. FY 23 is budgeted for an overall increase of 18% due to projected sales of more water (will sell during the entire year) and a planned rate increase effective January 1, 2023.
- Line 7 – Reclaimed Water Sales include commodity water use charges for the sale of reclaimed or treated wastewater produced at Robinson Ranch Wastewater Treatment Plant and distributed through the Non-Domestic Water (NDW) system and meters. FY 23 is budgeted for a 15% rate increase effective January 2023, offset by a 1% reduction in consumption.
- Line 8 – Recycled Water Sales include commodity water use charges for the sale of recycled water, or captured and reused urban runoff, and the dry season water recovery sales to SMWD. FY 22 will end under budget due to less water used in NDW system. FY 23 is budgeted for a planned 15% rate increase to NDW meters effective January 1, 2023, offset by a 1% reduction in consumption. Also budgeted for a 7% rate increase to the dry season water recovery sales to SMWD. The overall increase in FY 23 of 13.3% is due to FY 22 ending unusually lower than planned.

- Line 9 – Customer Charges include revenue from repair work, late charges, new account fees, reconnection fees, and returned check fees. FY 23 is budgeted for an overall 2.1% increase due to the reinstatement of late charges and fees associated with service deactivation for non-payment.
- Line 10 – Other Operating Revenue includes revenue from repair work as well as costs incurred at the ETRSLs. FY 23 is budgeted for a 39% rate increase due primarily to the additional \$22K in revenue from SMWD's portion of capital costs (ETRSLS surge tank improvements).
- Line 11 – Standby Charges include the flat charge assessed per parcel to ensure water is made available to each property. FY 23 is budgeted for a 2% increase to projected results.
- Line 12 – Uncollectable Accounts include customer arrearages and closed accounts that will be sent to collections. FY 23 is higher than FY 22 due to arrearage relief received in FY 22.

Non-Operating Revenue

- Line 15 – Property Taxes include the ad valorem property tax on each parcel in the District's service area. FY 23 is budgeted to increase by 2% based on collections and increased property values.
- Line 16 – WRES – BTP includes the Water Reliability and Emergency Storage revenue collected from rate payers pursuant to the WRES fees adopted by the District. This portion includes the BTP portion and is used to pay back unrestricted reserves which were used to fund the project.
- Line 17 – WRES – SRF includes the Water Reliability and Emergency Storage revenue collected from rate payers pursuant to the WRES fees adopted by the District. This portion includes only the amount needed to pay the annual debt service expense for the State Revolving Fund (SRF) loan.
- Line 18 – Interest Revenue is budgeted with a slight increase over projected year-end results to be conservative.
- Line 19 – Other Non-Operating Revenue includes cell tower site fees, various refunds and reimbursements, and public meeting space revenues. This category is budgeted conservatively due to the unpredictable nature of refunds and reimbursements. FY 23 is budgeted for a decrease from prior year because FY 22 included an insurance reimbursement for a vehicle loss.

EXPENSES

Operating Expenses

- Line 23 – Source of Supply includes costs associated with the purchase, conveyance, and administration of untreated and treated water. It also includes imported water purchases from IRWD for Portola Hills customers and imported water purchases from SMWD for Skyridge customers. FY 22 is ending over budget due to importing more treated water for the first few months of the year. FY23 is budgeted for a net 2% increase which includes rate increases from MWDOC offset by a slight decrease in consumption.
- Line 24 – Baker TP Water for Resale are projected fixed and variable costs from the Baker Treatment Plant. The City of San Clemente will be billed for the pass-through O&M expenses in the same month the bill is received from IRWD. FY 23 is budgeted for a 13% increase due to higher costs of water, quarterly maintenance fees and increased volume of water sold.
- Line 25 – Water Related Expenses are costs associated with delivery of water including electricity, fuel, repairs & maintenance, and chemicals. FY 23 is budgeted for a decrease compared to FY 22 which included unplanned expenses related to Dimension Water Treatment Plant.
- Line 26 – Sanitation Related Expenses are costs associated with treatment of water including electricity, fuel, lab testing & supplies, repairs & maintenance, pipeline & valve supplies, vehicle repairs, tools, and safety supplies. FY 23 is budgeted for a decrease compared to FY 22 which included unplanned expenses related to Sanitation facilities.
- Line 27 – Recycled & Reclaimed Expenses are the repairs & maintenance costs associated with recycled and reclaimed water transmission and distribution. FY 23 is budgeted for 5% inflation but ends up with a net slight increase because FY 22 included one-time expenses that are not recurring.
- Line 28 – Salaries & Benefits are costs of salaries and benefits for all employees in the District. The District is budgeting a 3.5% Cost of Living Adjustment (COLA) as well as a 2.5% Merit increase to account for rising inflation. There are also a few positions that will be filled in FY 23 that were vacant in FY 22.
- Line 29 – CalPERS UAL Minimum accounts for the required contributions to CalPERS to pay down the Unfunded Accrued Liability (UAL).
- Line 30 – General & Administrative includes telephone, office supplies, computer software & hardware, dues & memberships, communication fees, contract & professional services, bank charges, and misc. expenses. FY 23 is budgeted for a 14.7% increase for the rate study and related consulting, increases in contractual services & professional services contingencies, increased travel, and inflation.

Non-Operating Expenses

- Line 33 – Debt Service – SRF includes principal & interest payments on the State Revolving Fund loan incurred for the construction of the Trabuco Creek Wells Facility. It is expected to be paid off in 2032 from the proceeds of the WRES charges collected monthly.
- Line 34 – Debt Service – Credit Line are the interest payments on the \$10 million credit line taken out in FY 22 to cover three years of CIP projects.
- Line 35 – Debt Issuance Costs were the costs incurred to issue the temporary debt in FY 22. There are no costs planned for FY 23.
- Line 38 – Net Income / (Loss) Before Capital & Pension is the amount available to fund reserves.

CAPITAL & PENSION

- Line 39 – Use of District Reserves for Capital Projects are the portion of the FY 23 CIP budgeted expenses paid from District reserves. There is no planned use of District Reserves for FY 23.
- Line 40 – CalPERS UAL Additional Payments are Additional Discretionary Payments (ADPs) to CalPERS to pay down the Unfunded Accrued Liability (UAL). The District does not plan on making any additional payments in FY 23.
Line 41 – 115 Trust Contributions accounts for District contributions to the CalPERS OPEB & CalPERS Pension trusts. The District does not plan on contributing to these funds in FY 23.



Trabuco Canyon Water District

FY 2022/23 Adopted Budget

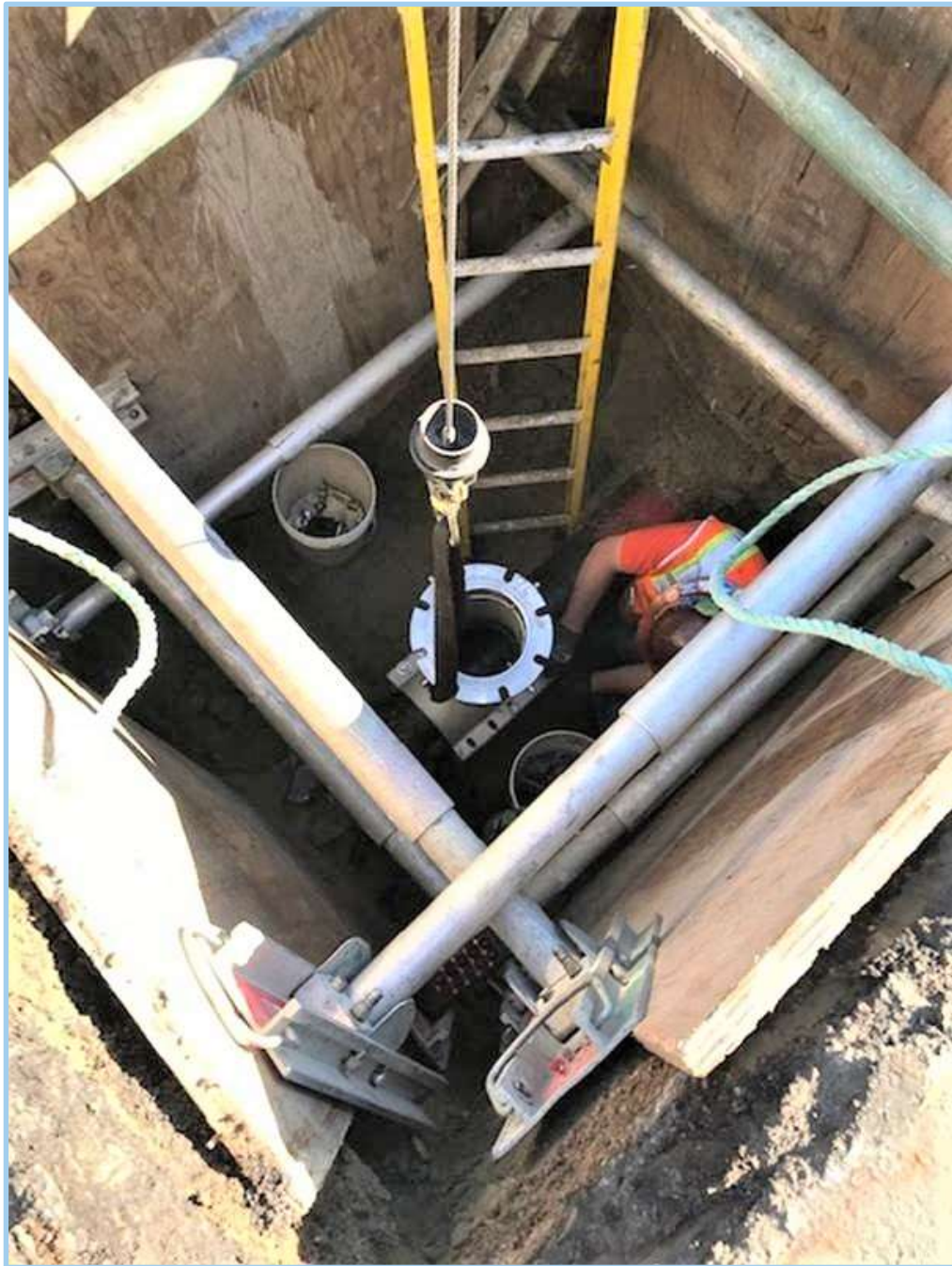
District Operations

Schedule A

	FY 2021/22 Adopted Budget	FY 2021/22 Projected Year-End	FY 2022/23 Adopted Budget	\$ Variance	% Variance
1 Operating Revenue					
2 Water Commodity Sales	\$ 4,214,400	\$ 3,961,200	\$ 4,237,600	\$ 276,400	7.0%
3 Service Charges - Water	1,126,300	1,117,600	1,207,000	89,400	8.0%
4 Service Charges - Sewer	1,782,100	1,740,500	1,844,900	104,400	6.0%
5 Service Charges - Recycled/Reclaimed	71,900	73,000	84,000	11,000	15.1%
6 Baker TP Water Sales	1,383,500	1,080,200	1,110,000	29,800	2.8%
7 Reclaimed Water Sales	682,600	676,600	771,300	94,700	14.0%
8 Recycled Water Sales	244,500	200,500	227,500	27,000	13.5%
9 Customer Charges	312,000	304,200	318,300	14,100	4.6%
10 Other Operating Revenue	66,000	66,000	91,800	25,800	39.1%
11 Standby Charges	41,800	46,200	46,200	-	0.0%
12 Uncollectable Accounts	(16,700)	(26,400)	(26,400)	-	0.0%
13 Total Operating Revenue	9,908,400	9,239,600	9,912,200	672,600	7.3%
14 Non-Operating Revenue					
15 Property Taxes	2,006,200	2,098,400	2,140,200	41,800	2.0%
16 WRES Fees (BTP)	377,900	382,000	382,000	-	0.0%
17 WRES Fees (SRF)	230,300	230,200	230,200	-	0.0%
18 Interest Revenue	35,600	18,700	18,800	100	0.5%
19 Other Non-Operating Revenue	72,400	151,900	76,200	(75,700)	-49.8%
20 Total Non-Operating Revenue	2,722,400	2,881,200	2,847,400	(33,800)	-1.2%
21 Total Revenues	12,630,800	12,120,800	12,759,600	638,800	5.3%
22 Operating Expense					
23 Source of Supply	2,305,800	2,686,300	2,822,500	136,200	5.1%
24 Baker TP Water for Resale	1,287,700	989,500	1,022,500	33,000	3.3%
25 Water Related Expenses	1,042,500	941,000	911,300	(29,700)	-3.2%
26 Sanitation Related Expenses	723,700	353,800	315,200	(38,600)	-10.9%
27 Recycled & Reclaimed Expenses	148,700	207,200	207,900	700	0.3%
28 Salaries and Benefits	4,135,800	3,833,500	4,203,200	369,700	9.6%
29 CalPERS UAL Minimum	263,900	239,600	290,000	50,400	21.0%
30 General and Administrative	1,896,800	2,025,700	2,323,100	297,400	14.7%
31 Total Operating Expense	11,804,900	11,276,600	12,095,700	819,100	7.3%
32 Non-Operating Expense					
33 Debt Service - SRF	230,300	230,200	230,200	-	0.0%
34 Debt Service - Credit Line	215,000	60,400	145,000	84,600	140.1%
35 Debt Issuance Costs	156,000	104,500	-	(104,500)	-100.0%
36 Total Non-Operating Expense	601,300	395,100	375,200	(19,900)	-5.0%
37 Total Expenses	12,406,200	11,671,700	12,470,900	799,200	6.8%
38 Net Income / (Loss) Before Capital & Pension	224,600	449,100	288,700	(160,400)	-35.7%
39 Use of District Reserves for Capital Projects	(4,270,500)	(809,702)	-	809,702	0.0%
40 CalPERS UAL Additional Payments	(226,700)	-	-	-	0.0%
41 115 Trust Contributions	(208,600)	-	-	-	0.0%
42 Increase / (Decrease) to Reserves	\$ (4,481,200)	\$ (360,602)	\$ 288,700	\$ 649,302	

FY 2022/23 CAPITAL IMPROVEMENT PLAN (CIP)

Schedule B (displayed on page 20) shows the detailed TCWD budget for the District Capital Improvement Plan. The FY 2023 CIP budget totals \$5,662,000 and is made up of 21 projects discussed in depth beginning on page 21.





**Trabuco Canyon Water District
Capital Improvement Plan
FY 2022/2023**

Schedule B

ITEM #	PROJECT	PROJECT BASIS	ADOPTED
WATER			FY 2022/23
1	Dimension WTP Vault Improvements	Safety	\$ 50,000
2	PRV Improvements-Water	Reliability	\$ 15,000
3	Domestic Water Turbidimeter Replacement	Reliability	\$ 15,000
4	Valve Replacement Program	End of Service Life	\$ 45,000
5	DWTP Office & Storage	End of Service Life	\$ 300,000
6	Live Oak Transmission Main (Harris Grade to Canyon Creek) CCTV	Reliability	\$ 100,000
7	Trabuco Creek Water Main Potholing	Bridge Re-Location/County	\$ 20,000
8	AMR/AMI System Implementation - Grant Funding	Water Use Efficiency	\$ 1,700,000
WATER SUBTOTAL			\$ 2,245,000
DISTRICT-WIDE			FY 2022/23
9	SCADA System Upgrades	Reliability; End of Service Life	\$ 1,210,000
10	Equipment Trailer	General Maintenance	\$ 39,000
11	Pump Replacement Program	End of Service Life	\$ 100,000
12	Master Plan and Condition Assessment	Reliability; Safety	\$ 250,000
DISTRICT-WIDE SUBTOTAL			\$ 1,599,000
WASTEWATER / RECLAIMED / RECYCLED			FY 2022/23
13	Manhole Recoating Program - Sewer	General Maintenance	\$ 20,000
14	PRV Vault Improvements Program - Reclaimed	General Maintenance	\$ 45,000
15	Golf Club SLS Improvements-Wet Well, Surge Tank, Pumps, Bypass, Dry Pit, Security	End of Service Life	\$ 870,000
16	WWTP Blower Motors (2)	Reliability	\$ 250,000
17	WWTP Mixers (4)	Reliability	\$ 150,000
18	Chiquita WWTP CIP	Contract Agreement	\$ 178,000
19	El Toro SLS Surge Tank Improvements	End of Service Life	\$ 250,000
20	El Toro SLS Improvements - Force Main Discharge Valve Replacement	End of Service Life	\$ 35,000
21	Dove New Lake Barge/Pump	General Maintenance	\$ 20,000
WASTEWATER / RECLAIMED / RECYCLED SUBTOTAL			\$ 1,818,000
TOTAL PROPOSED CIP			\$ 5,662,000

PROJECT TITLE: DIMENSION WATER TREATMENT PLANT VAULT IMPROVEMENTS



**CAPITAL PLAN
CLASSIFICATION:**

Project #1

PROJECT LOCATION:

Dimension Water Treatment Plant

PROJECT BASIS:

Safety

TOTAL PROJECT COST:

\$50,000

DESCRIPTION:

Water Operations operates 5 primary vaults at the Dimension Water Treatment Plant. Improvements will address faulty or broken vault lids to improve on-site operational safety and efficiency.

PROJECT TITLE: PRESSURE REDUCING VAULT IMPROVEMENTS – WATER



**CAPITAL PLAN
CLASSIFICATION:**

Project #2

PROJECT LOCATION:

District-wide

PROJECT BASIS:

Reliability

TOTAL PROJECT COST:

\$15,000

DESCRIPTION:

Pressure-regulating valves (PRV's) or pressure regulators are used to lower the water supply pressure in the District's main water lines to a specific, consistent pressure. This program includes general maintenance on all PRVs and Cla-Val valves district-wide, including changing out diaphragms, CRDs/CRLs, stainless steel tubing, and calibration. This budget is an annual programmatic budget.

PROJECT TITLE: DOMESTIC WATER TURBIDITY METER REPLACEMENT



**CAPITAL PLAN
CLASSIFICATION:**

Project #3

PROJECT LOCATION:

Dimension Water Treatment Plant

PROJECT BASIS:

Reliability

TOTAL PROJECT COST:

\$15,000

DESCRIPTION:

Turbidity meters are used to measure the turbidity, or cloudiness, of the effluent water at the Dimension Water Treatment Plant. This measurement is recognized as a basic indicator of water quality. These meters are required to be replaced every 5 years by the manufacturer.

PROJECT TITLE: VALVE REPLACEMENT PROGRAM



**CAPITAL PLAN
CLASSIFICATION:**

Project #4

PROJECT LOCATION:

District-wide (Water)

PROJECT BASIS:

End of Service Life

TOTAL PROJECT COST:

\$45,000

DESCRIPTION:

Valves throughout the District are generally between 30-50 years old. Funding is needed to repair or replace any valves that leak or break while being exercised during the Valve Maintenance Program. This budget is an annual programmatic budget.

PROJECT TITLE: DIMENSION WATER TREATMENT PLANT OFFICE & STORAGE



**CAPITAL PLAN
CLASSIFICATION:**

Project #5

PROJECT LOCATION:

Dimension Water Treatment Plant

PROJECT BASIS:

End of Service Life; Safety

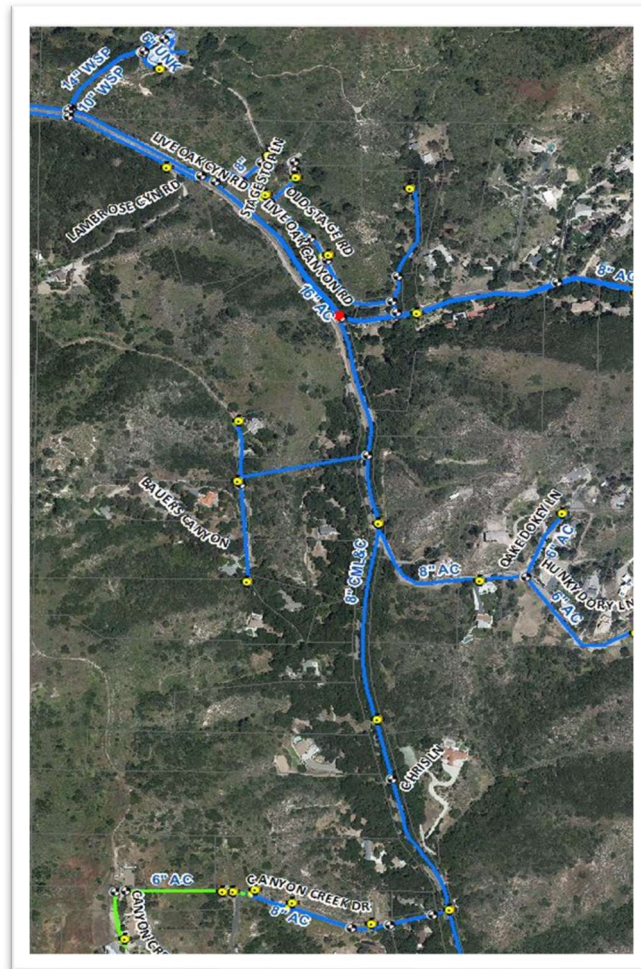
TOTAL PROJECT COST:

\$300,000

DESCRIPTION:

Dimension Water Treatment Plant is home to the District's Water Operations Department. The office trailer is showing significant structural deterioration, including the floor which is fracturing and uneven. The new office space will be sized adequately for the department's full time staff of five (5) operators and be ADA compliant.

PROJECT TITLE: LIVE OAK TRANSMISSION MAIN (HARRIS GRADE TO
CANYON CREEK (CCTV)



CAPITAL PLAN
CLASSIFICATION:

Project #6

PROJECT LOCATION:

Harris Grade to Canyon Creek Drive

PROJECT BASIS:

Reliability

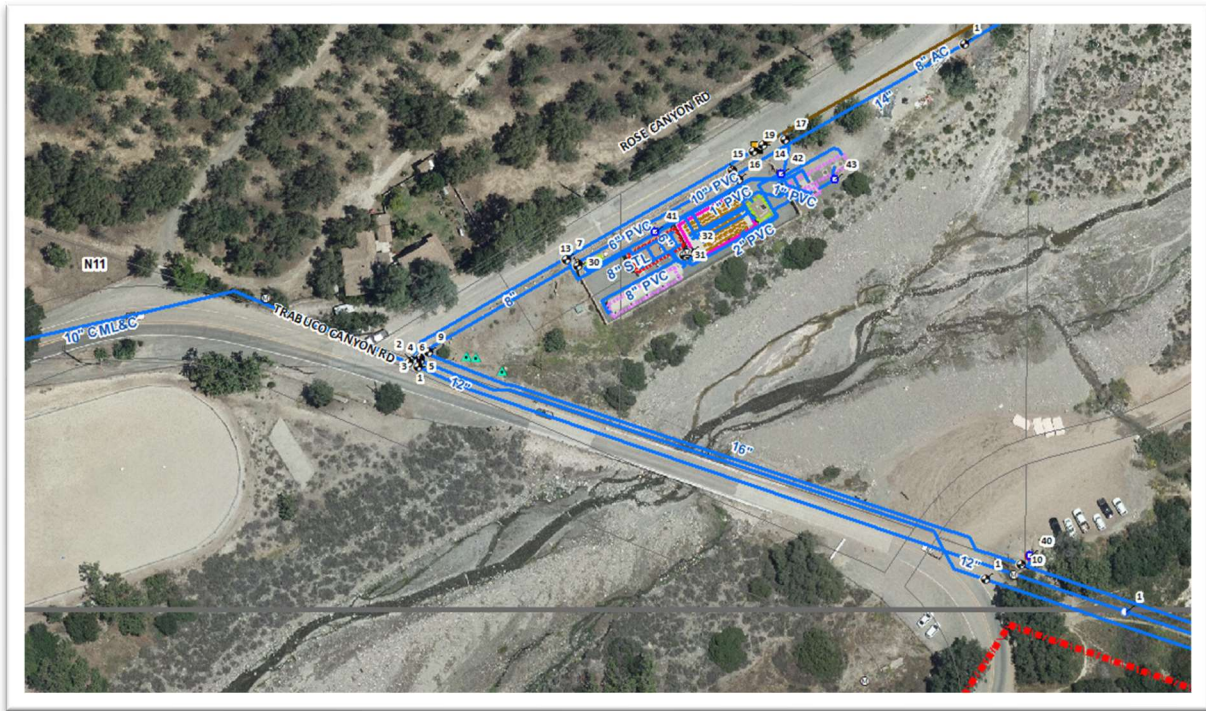
TOTAL PROJECT COST:

\$100,000

DESCRIPTION:

Water operations staff has identified a restriction in the 8" Cement-Mortar Lined & Coated (CML&C) Main in Live Oak Canyon Rd. The restriction is suspected to be a buried valve. The project scope is to inspect a section of the pipe using CCTV to identify the restriction.

PROJECT TITLE: TRABUCO CREEK WATER MAIN POTHOLING



**CAPITAL PLAN
CLASSIFICATION:**

Project #7

PROJECT LOCATION:

Trabuco Creek Road

PROJECT BASIS:

Bridge relocation/County Project

TOTAL PROJECT COST:

\$20,000

DESCRIPTION:

The County of Orange will be replacing the bridge crossing Trabuco Creek which is scheduled for construction in 2024. There are three (3) pipelines crossing the creek which need to be located to avoid conflicts.

PROJECT TITLE: AMR/AMI SYSTEM IMPLEMENTATION



**CAPITAL PLAN
CLASSIFICATION:**

Project #8

PROJECT LOCATION:

District-wide

PROJECT BASIS:

Water Use Efficiency

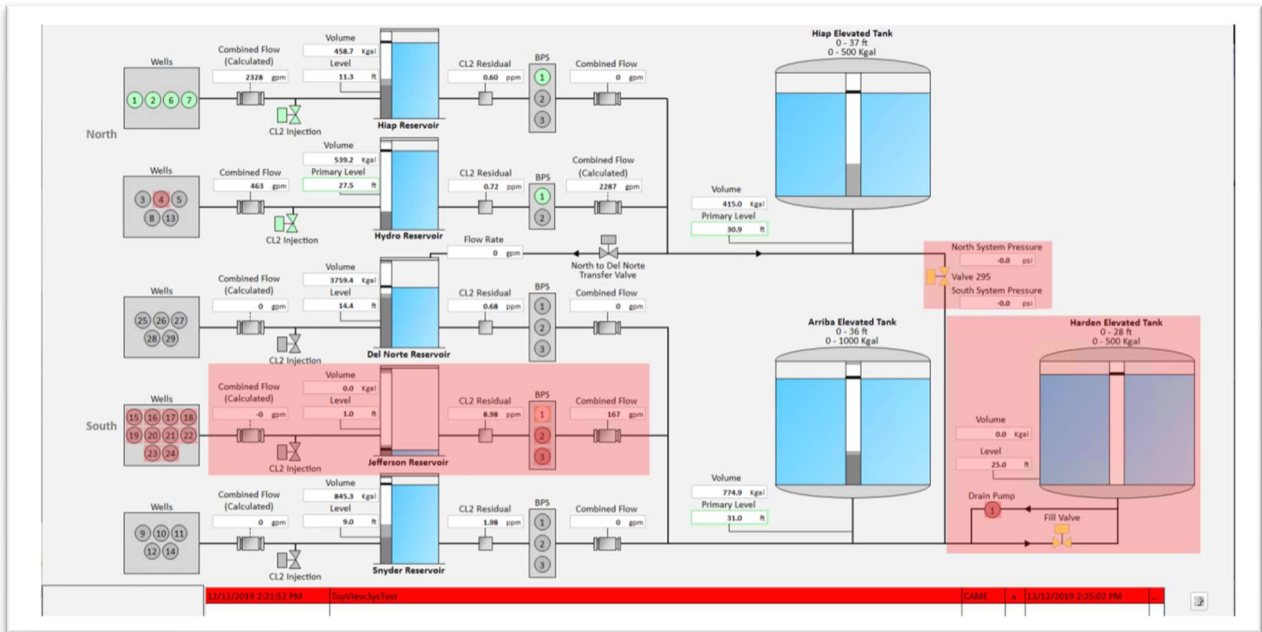
TOTAL PROJECT COST:

\$1,700,000 (including \$500,000 in grant funds)

DESCRIPTION:

In September 2020, District staff applied for the U.S. Bureau of Reclamation WaterSmart Grant Program for an Automatic Meter Reading/Automatic Metering Infrastructure (AMR/AMI) Implementation Project. The project includes the upgrade of approximately 3,424 existing touch meters (currently read via walking) with an AMI network system that will automatically collect and store hourly consumption data, aiding in water conservation, improved water management, and energy savings. The new system will enable customers to know their consumption in near real-time on their computer or mobile devices, and receive high usage and leak alerts. This allows for improved customer service and an enhanced customer experience with the District.

PROJECT TITLE: SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) UPGRADES



CAPITAL PLAN

CLASSIFICATION: Project #9

PROJECT LOCATION: District-wide

PROJECT BASIS: End of Service life; Reliability

TOTAL PROJECT COST: \$3,225,000 (\$1,210,000 in FY 2023)

DESCRIPTION: The District's Supervisory Control and Data Acquisition (SCADA) System is a critical system used for the daily operation and monitoring of facilities in the water, wastewater, and recycled water systems. The District is in the process of a multi-year phased approach to upgrade the system to improve communication, update security and replace equipment that has reached the end of its service life. This is a multi-year project.

PROJECT TITLE: MAINTENANCE EQUIPMENT TRAILER



**CAPITAL PLAN
CLASSIFICATION:**

Project #10

PROJECT LOCATION:

Waste Water Treatment Plant (WWTP)

PROJECT BASIS:

General Maintenance

TOTAL PROJECT COST:

\$39,000

DESCRIPTION:

The District's Maintenance staff does not currently have access to the equipment trailer capable of loading and carrying the District's Backhoe and Skiploader. The proposed trailer would have a gross vehicle weight rating (GVWR) of 25,000-36,000 lbs.

PROJECT TITLE: PUMP REPLACEMENT PROGRAM



**CAPITAL PLAN
CLASSIFICATION:**

Project #11

PROJECT LOCATION:

District-wide

PROJECT BASIS:

End of Service Life

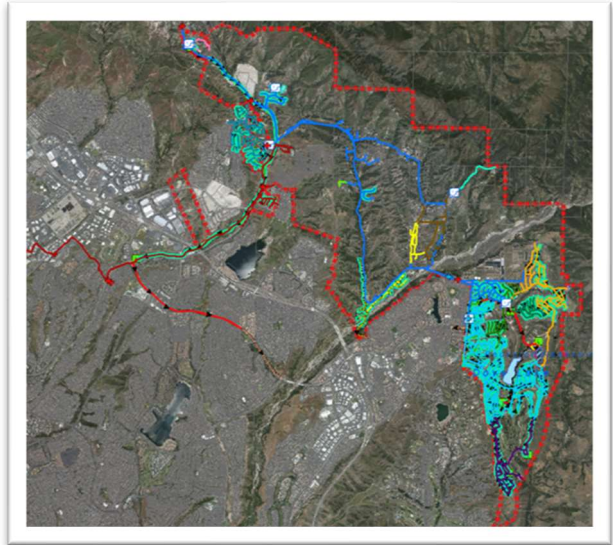
TOTAL PROJECT COST:

\$100,000

DESCRIPTION:

The District operates its drinking water, recycled water, and sewer pumping plants at some of the highest elevations in Orange County. The preventative maintenance of the pumps and related facilities is of paramount concern for the District. This budget is an annual programmatic budget.

PROJECT TITLE: MASTER PLAN AND CONDITION ASSESSMENT



**CAPITAL PLAN
CLASSIFICATION:**

Project #12

PROJECT LOCATION:

District-wide

PROJECT BASIS:

Reliability; Safety

TOTAL PROJECT COST:

\$250,000

DESCRIPTION:

The District owns and operates eight (8) domestic water pump stations, eight (8) sewer lift stations, seven (7) domestic reservoirs, two (2) non-domestic water pump stations, one non-domestic reservoir, Dove Lake, Dimension Water Treatment Plant, Robinson Ranch Wastewater Treatment Plant, three (3) dry-weather runoff recovery pump stations, and two (2) wells with a treatment facility. The Districts' most recent Master Plan was completed in 1999. Since that time, there have been new facilities, developments, and various facility upgrades. This project will update the current hydraulic models, develop a sewer model, update the GIS database, recommend future Capital Improvement Projects and provide a condition assessments of the District facilities. This is a multi-year project.

PROJECT TITLE: MANHOLE RECOATING PROGRAM – SEWER



**CAPITAL PLAN
CLASSIFICATION:**

Project #13

PROJECT LOCATION:

District-wide

PROJECT BASIS:

General Maintenance

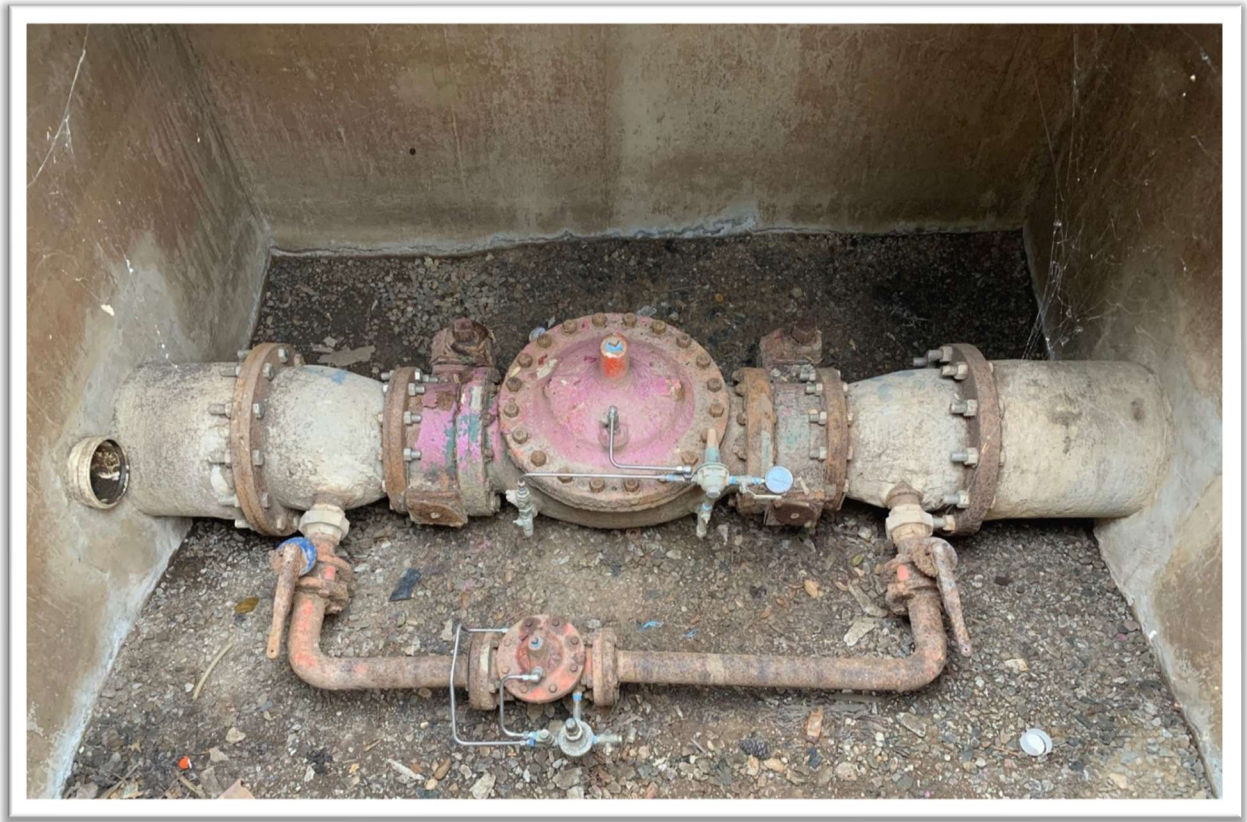
TOTAL PROJECT COST:

\$20,000

DESCRIPTION:

The District owns and operates a sanitary sewer system that is comprised of approximately forty-seven (47) miles of pipelines (gravity and force mains) and 800 sewer manholes. During weekly line cleaning, Operations has identified manholes in need of coating or recoating. This budget is an annual programmatic budget.

**PROJECT TITLE: PRESSURE REGULATING VALVE (PRV) VAULT IMPROVEMENTS
PROGRAM, NON-DOMESTIC**



**CAPITAL PLAN
CLASSIFICATION:**

Project #14

PROJECT LOCATION:

District-wide

PROJECT BASIS:

General Maintenance

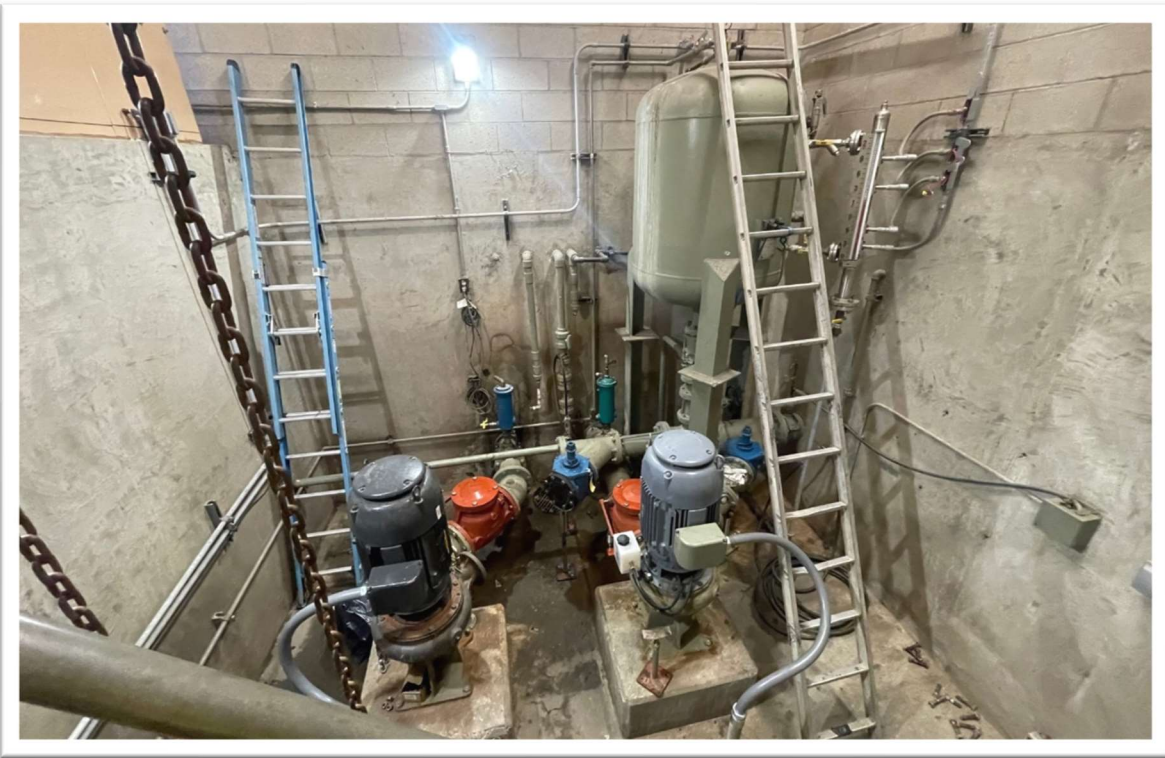
TOTAL PROJECT COST:

\$45,000

DESCRIPTION:

The District owns and operates a non-domestic water system that includes pressure regulating valves (PRVs)/vaults in its service area. The purpose of these PRVs are to reduce and regulate high system pressures to prevent the downstream system from damage. This budget is an annual programmatic budget.

**PROJECT TITLE: GOLF CLUB SEWER LIFT STATION – WETWELL, SURGE TANK,
BYPASS, DRY PIT AND SECURITY**



**CAPITAL PLAN
CLASSIFICATION:**

Project #15

PROJECT LOCATION:

Golf Club Sewer Lift Station

PROJECT BASIS:

End of Service Life

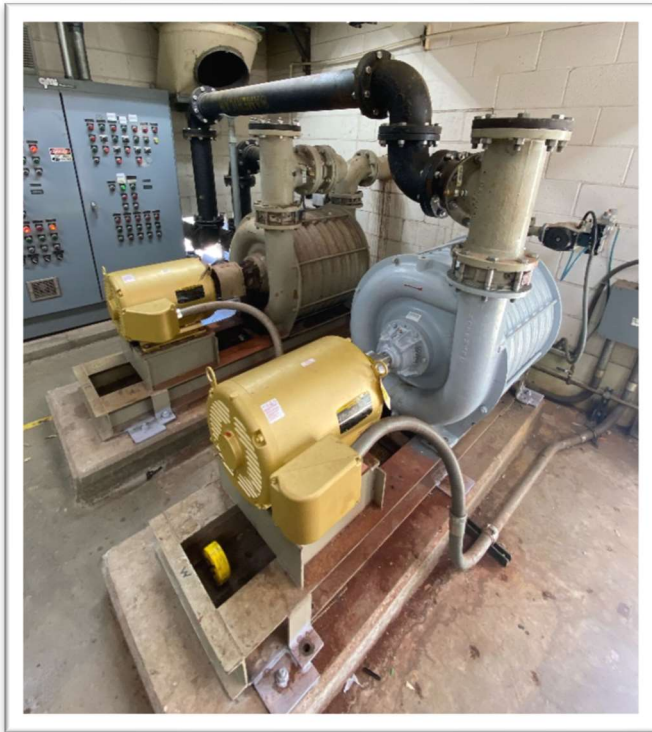
TOTAL PROJECT COST:

\$870,000

DESCRIPTION:

Golf Club Sewer Lift Station (GCSLS) in the Dove Canyon Community is in the process of some critical repairs and improvements. This project proposes to replace and relocate the surge tank, install a gate and wall in the front, purchase three (3) first stage submersible pumps (one spare) and install two (2) pumps including heavy duty discharge elbows and guide rail systems, evaluate the wet well condition and recoat/repair structure (if necessary), install a flow meter and replace piping in the wet well/dry pit.

PROJECT TITLE: WASTE WATER TREATMENT PLANT – BLOWERS (2)



CAPITAL PLAN

CLASSIFICATION:

Project #16

PROJECT LOCATION:

Waste Water Treatment Plant

PROJECT BASIS:

Reliability

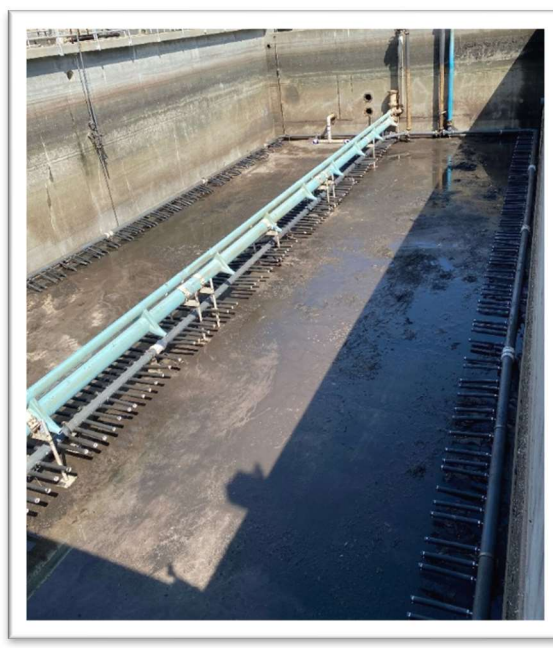
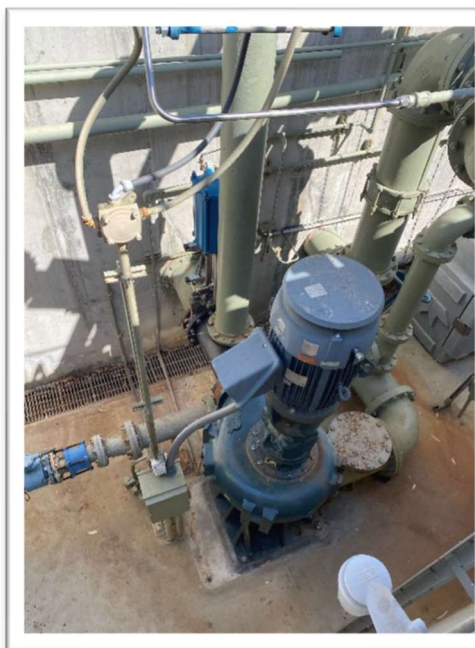
TOTAL PROJECT COST:

\$250,000

DESCRIPTION:

The District's Robinson Ranch Waste Water Treatment Plant (RRWWTP) operates a blower-aeration system consisting of four (4) blower-motor configurations. Two (2) of the blower-motor configurations (Sutorbilt positive displacement blowers; pictured right) lack the needed capacity to effectively overcome pressure changes as a result of varying elevation within the sequencing batch reactors (SBR). Replacement of the positive displacement blowers is proposed, transitioning to multistage centrifugal air blowers matching the existing operational configurations (pictured left), resulting in increased efficiency and redundancy.

PROJECT TITLE: WASTE WATER TREATMENT PLANT – MIXERS (4)



CAPITAL PLAN

CLASSIFICATION:

Project #17

PROJECT LOCATION:

Waste Water Treatment Plant

PROJECT BASIS:

Reliability

TOTAL PROJECT COST:

\$150,000

DESCRIPTION:

The District's RRWWTP operates a jet pump-mixer system configuration to airate and mix the sequencing batch reactors (SBRs). The existing jet pump configuration exceeds the necessary mixing requirements based on the size of the reactors, creating destructive rolling within the SBR resulting in damage to the diffusers. The current jet pump configuration will be repurposed for transfer between SBR basins. Four (4; two per basin) floating 7.5hp AquaDDM (Direct Drive Mixers) will replace the existing mixing system, resulting in maximized mixing efficiency within the basins.

PROJECT TITLE: SMWD CHIQUITA WASTE WATER TREATMENT PLANT CIP



**CAPITAL PLAN
CLASSIFICATION:**

Project #18

PROJECT LOCATION:

SMWD Chiquita Waste Water Treatment Plant

PROJECT BASIS:

Reliability

TOTAL PROJECT COST:

\$178,000

DESCRIPTION:

Contractual requirement for the Districts' capital costs at the Chiquita Waste Water Treatment Plant. This is an average yearly cost.

PROJECT TITLE: EL TORO SEWER LIFT STATION IMPROVEMENTS – SURGE TANK IMPROVEMENTS



CAPITAL PLAN

CLASSIFICATION:

Project #19

PROJECT LOCATION:

El Toro Sewer Lift Station

PROJECT BASIS:

End of Service Life; Reliability

TOTAL PROJECT COST:

\$250,000

DESCRIPTION:

El Toro Sewer Lift Station (ETSL) surge tank failed in 2021 and the replacement system has been designed and is in the process of procurement. Construction will occur in the 2022-2023 fiscal year.

**PROJECT TITLE: EL TORO SEWER LIFT STATION IMPROVEMENTS – FORCE MAIN
DISCHARGE VALVE REPAIR/ REPLACEMENT**



**CAPITAL PLAN
CLASSIFICATION:**

Project #20

PROJECT LOCATION:

El Toro Sewer Lift Station

PROJECT BASIS:

End of Service Life

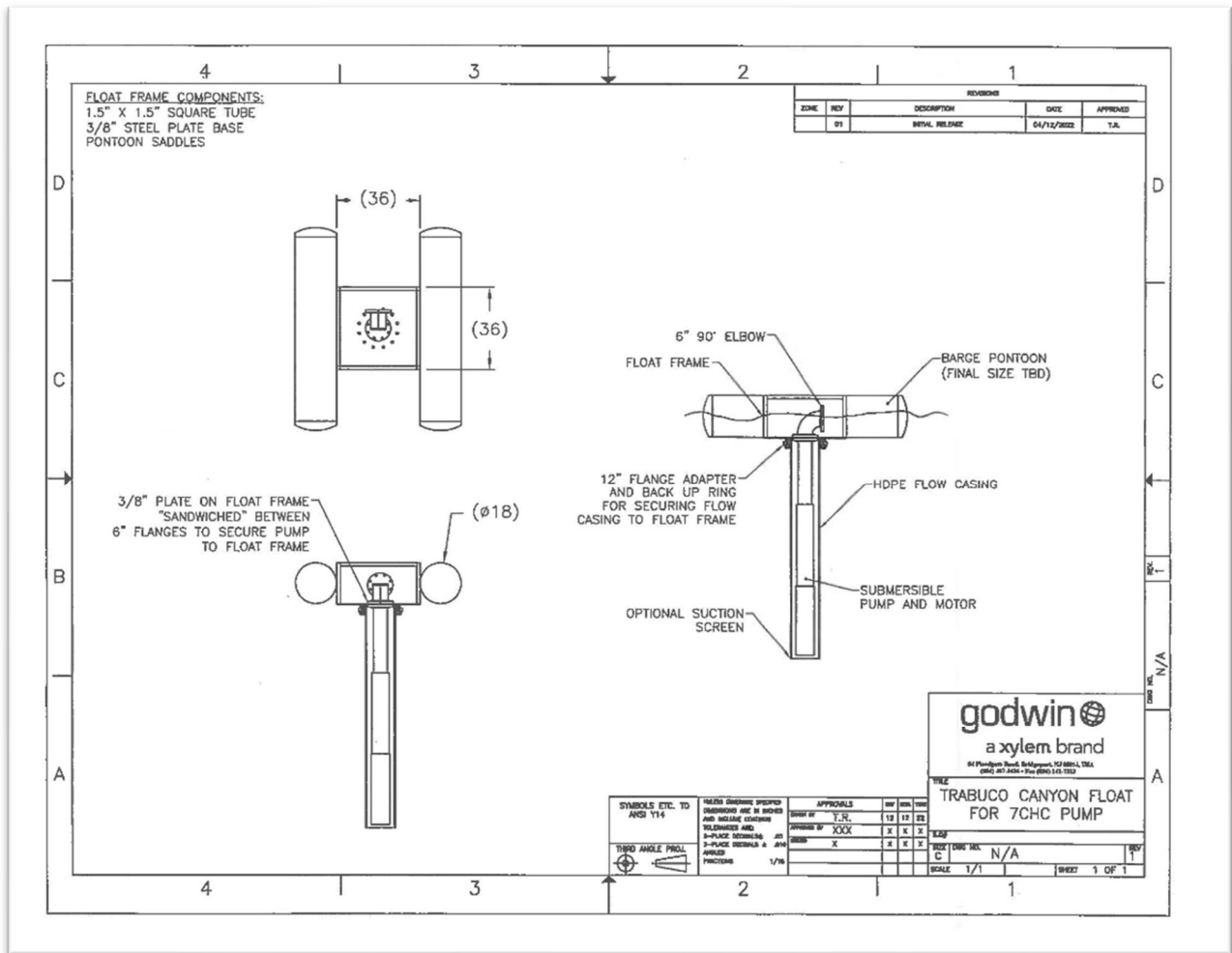
TOTAL PROJECT COST:

\$35,000

DESCRIPTION:

El Toro Sewer Lift Station (ETSLS) discharges via an 8" or 12" PVC pipeline, which are in parallel and located immediately outside the station on El Toro Road. The 12" plug valve has become unoperable and needs to be repaired or replaced. The 8" valve was replaced 5 years ago.

PROJECT TITLE: DOVE LAKE BARGE PUMP REPLACEMENT



CAPITAL PLAN

CLASSIFICATION: Project #21

PROJECT LOCATION: Dove Lake

PROJECT BASIS: General Maintenance

TOTAL PROJECT COST: \$20,000

DESCRIPTION: The District currently operates a fixed submersible pump configuration at Dove Lake. A floating submersible barge pump is proposed to replace the existing fixed submersible pump configuration and will provide operations with better accessibility to the equipment. The proposed barge pump CAD drawings are pictured above.



ADMINISTRATIVE FACILITY