Dublin San Ramon Services District
Water, wastewater, recycled water

Capital Improvement Program

TEN YEAR PLAN— Fiscal Years 2020 through 2029

TWO YEAR BUDGET— Fiscal Years 2020 and 2021

Dublin San Ramon Services District

Water, wastewater, recycled water

Capital Improvement Program

10 Year Plan

For Fiscal Years 2020 through 2029

&

2 Year Budget

For Fiscal Years 2020 and 2021

Adopted by Board Resolution No. 23-19 on July 2, 2019

RESOLUTION NO. 23-19

RESOLUTION OF THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT APPROVING CAPITAL IMPROVEMENT PROGRAM (CIP) TEN-YEAR PLAN FOR FISCAL YEARS 2020 THROUGH 2029 AND ADOPTING THE CAPITAL IMPROVEMENT PROGRAM TWO-YEAR BUDGET FOR FISCAL YEARS 2020 AND 2021

WHEREAS, the District is required to adopt a capital budget by September 1; and

WHEREAS, District staff has prepared the "Capital Improvement Program Ten-Year Plan for Fiscal Years 2020 through 2029 and Two-Year Budget for Fiscal Years 2020 and 2021" (CIP Plan and Budget) that includes projects necessary to continue the mission of the District; and

WHEREAS, the CIP Two-Year Budget consists of the first two years of the CIP Ten-Year Plan; and

WHEREAS, in accordance with the requirements of California Government Code Section 61110(c) which govern community services districts, on June 17, 2019, the District Secretary published the notice of public hearing for the biennial Capital Improvement Program Two-Year Budget for Fiscal Years 2020 and 2021, which was more than fourteen (14) days prior to the public hearing for the CIP budget; and

WHEREAS, the Board of Directors held a Public Hearing on July 2, 2019, to consider the adoption of the CIP Two-Year Budget.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF DUBLIN SAN RAMON SERVICES DISTRICT, a public agency located in the Counties of Alameda and Contra Costa, California, as follows:

1. The CIP Ten-Year Plan for Fiscal Years 2020 through 2029 is hereby approved.

2. The CIP Two-Year Budget for Fiscal Years 2020 and 2021 included in the "Capital Improvement Program Ten-Year Plan for Fiscal Years 2020 through 2029 and Two-Year Budget for Fiscal Years 2020 and 2021" attached (Exhibit "A") and by reference incorporated herein, is hereby adopted, and all expenditures made consistent therewith are hereby ratified and approved.

3. Project and Program budgets provided in the CIP Two-Year Budget for Fiscal Years 2020 and 2021 project sheets are hereby established as the project budgets and program budgets, respectively.

4. Unused program budget funds expire at each fiscal year-end.

5. Staff is authorized to proceed in either year with any and all projects and programs that are funded in the CIP Two-Year Budget for Fiscal Years 2020 and 2021, subject to compliance with the California Environmental Quality Act ("CEQA"), and to the conditions that total annual expenditures from the corresponding funds shall not exceed the CIP Plan and Budget fiscal year budget, and that total project expenditures for each project shall not exceed the total project budget.

6. The General Manager, or the General Manager's designated representative, is authorized to file Notices of Exemption for each CEQA exempt project, when appropriate.

ADOPTED by the Board of Directors of the Dublin San Ramon Services District, a public agency in the State of California, Counties of Alameda and Contra Costa, at its regular meeting held on the 2nd day of July, 2019, and passed by the following vote:

AYES: 5 - Directors Richard M. Halket, Georgean M. Vonheeder-Leopold, Ann Marie Johnson, Edward R. Duarte, Madelyne A. Misheloff

NOES: 0

ABSENT: 0

Madelyne A. Misheloff
Madelyne A. Misheloff, President

ATTEST: Nicole Genzale
Nicole Genzale, District Secretary

Board of Directors
Madelyne Misheloff, President
Edward Duarte, Vice President
Richard Halket, Director
Ann Marie Johnson, Director
Georgean Vonheeder-Leopold, Director

General Manager
Dan McIntyre

Engineering Services Manager/District Engineer
Judy Zavadil, PE

Administrative Services Manager
Carol Atwood, CPA

Operations Manager
Jeff Carson

Capital Program Manager
Steve Delight, PE

Document Coordination
Corinne Ferreyra - *Administrative Analyst II*

Technical Assistance
Mayette Bailey - *Financial Analyst*
Aaron Johnson - *GIS Analyst II*
Ken Peterson - *GIS Specialist II*

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Capital Improvement Program Overview

The Capital Improvement Program (CIP) is a capital investment plan to maintain and enhance the Dublin San Ramon Services District's ("District" or "DSRSD") infrastructure. The CIP serves as a guide for identifying current and future projects in support of the District's mission *to protect public health and the environment by providing reliable and sustainable water, recycled water, and wastewater services in a safe, efficient, and fiscally responsible manner*. The CIP is also the planning instrument used to coordinate the financing and timing of improvements, with the ultimate goal of maximizing the return to customers.

The CIP consists of the Ten-Year Capital Improvement Plan and the Two-Year Capital Improvement Budget. The Capital Improvement Plan serves to identify, prioritize, and schedule capital projects for the ten-year period, and establish a plan for generating the financial resources needed to complete these capital projects. The first two years of expenditures in the Capital Improvement Plan comprise the District's Two-Year Capital Improvement Budget for Fiscal Years 2020 and 2021. By adopting the Capital Improvement Budget, the Board:

- Authorizes total budgets for the individual capital projects.
- Authorizes the initiation of project expenditures in either fiscal year 2020 or 2021.
- Establishes the maximum expenditures from each fund for fiscal years 2020 and 2021.

Capital Improvement Program Process

The development of the CIP is a coordinated process, occurring every two-years, and beginning with District staff identifying projects and preparing related descriptions, schedules, and cost estimates. Projects may be identified as a result of a master plan, study, regulatory requirement, or staff recommendation. Project requests are submitted for evaluation by the District Engineer. Several factors are considered in determining the need for each CIP project, including consistency with the District's Strategic Plan and established District Policies, the need to meet a regulatory mandate or requirement, impact to the District's capital fund reserves, and balancing project scheduling with available staffing. The recommended CIP is compiled and presented to the General Manager for review and input. The recommended CIP is next reviewed by the Board of Directors ("Board") at a work session, where the public has an opportunity to provide comments, before final adoption by the Board at a public hearing in late May or early June.

Capital Planning Policies

Development and implementation of the CIP is directed by the District policies listed below and available on the District's website. http://www.dsrsd.com/about-us/district-policies

1. **Project Cost Allocation:** Basis for determining how the cost of projects should be allocated between funds.

2. **Infrastructure Responsibilities and Funding**: Defines responsibility for major and non-major infrastructure planning design and construction. Establishes use of connection fees as primary source of funding for major infrastructure.

3. **Financial Reserves**: Provides guidance for the prudent accumulation and management of designated reserves.

4. **Budget Accountability**: Operations and Capital Improvement Program Budget Controls

Capital Improvement Program Structure

The CIP is designed to provide a transparent and in-depth look at the District's capital investment plan. This is accomplished by structuring the CIP as follows:

Chapter 1: Long-Term Capital Planning. This chapter provides an overview of the study/planning documents which serve as the basis for the CIP (e.g. Asset Management, Strategic Plan, Master Plans, etc.).

Chapter 2: Budget Process. This chapter offers specifics of revenue types across the three business enterprises (e.g. rates, fees, etc.), expenditure descriptions, and budget controls (approval authorities).

Chapter 3: Fund Overview. This chapter presents detailed descriptions of revenues and expenditures anticipated in each fund, and provides fund trend analysis.

Chapter 4: Capital Project Worksheets. This chapter includes project worksheet for each project included in the CIP. Information on the worksheet include a project description, reference, project manager, a discussion of the environmental (CEQA) review, and a project budget and schedule.

Capital Replacement and Expansion Funding

The District has three business enterprises: local wastewater collection, regional wastewater treatment and water. Each business has two capital funds: replacement and expansion. A key distinction is that replacement funds are largely funded by rate revenue from existing customers, while expansion funds are funded by fee revenue from new development. A more detailed discussion of each fund occurs later in Chapter 3. The Capital Improvement Program outlines the capital expenditures planned in the replacement and expansion funds.

Capital Improvement Program Projects, Programs, & Capital Outlay

The CIP includes Projects, Programs, and Capital Outlay, each of which are described below:

1. **Projects:** A CIP project is defined as a major infrastructure project which is; 1) non-recurring in nature; 2) has a minimum cost of $15,000; 3) results in a new asset that has a useful life of at least three years or extends the useful life of an existing asset by at least three years; and 4) requires project management, typically requiring compliance with the California Public Contract Code. A common example of a CIP project are planned water and wastewater collection pipeline replacements.

2. **Programs:** A CIP program sets aside money to fund projects that have either not been anticipated or do not yet have definitive scope and budget. For example, a major water main might need unexpected replacement, and the associated program would fund the creation of a modest-scale replacement project when the need arose. The amounts set aside are based on Asset Management replacement models. The Asset Management models includes assumptions about the useful life of each asset, which identifies when an asset would need to be repaired or replaced, and calculates an estimated cost to do so. Once a specific scope of work and budget is developed, a project can be created from the CIP program. An example of an Asset Management model based program is the Regional Wastewater Treatment Facility Replacement and Rehabilitation Program (00-P026). Other programs set aside funding for a particular District initiative which may ultimately fund more than one individual CIP project. Examples of a District specific initiative program is the Capital Improvements to Increase Water Supply Program (00-W001 and 00-W002) and the Energy Management Program (00-3120).

3. **Capital Outlay:** Capital outlay is for replacing or adding an asset that has a minimum total cost of $10,000 and a useful life of at least three years. Capital Outlay is typically the purchase or purchase and installation of one item. An example of capital outlay is the replacement of a vehicle.

Capital Improvement Program Project Categories

There are five project categories in the CIP. These categories include both replacement and expansion related projects, but allow the District to divide the projects into business enterprise specific groups.

1. **General:** Projects in the "general" category include those which are all-purpose, and typically affect District-wide assets that are not specific to one business enterprise. An example of a general project is the District Office Renovation (19-A005), and the Enterprise Resource Program Conversion project (20-A002).

2. **Joint Powers Authority:** Projects in the "joint powers authority," (JPA) category are Dublin San Ramon Services District and East Bay Municipal Utility District Recycled Water Authority (DERWA) projects, which the District may manage, but only contributes a defined portion to, per the associated agreement. An example of a project in this category is the DERWA Sand Filtration Ultraviolet (SFUV) Wiper Arms Replacement project (20-W022).

3. **Water System:** Projects in the "water system" category are those which are related to the water system business enterprise. An example of a water system project is the Potable Water Pump Station Standby Generator/Emergency Response project (16-W012).

4. **Wastewater Collection:** Projects in the "wastewater collection system" category are those which are related to the local wastewater collection system business enterprise. An example of a wastewater collection system project is the East Dublin 36" Trunk Sewer Rehabilitation project (20-S013).

5. **Regional Wastewater Treatment:** Projects in the "regional wastewater treatment" category are those which are related to the regional wastewater treatment business enterprise. An example of a regional wastewater treatment project is the Bio-Gas Treatment System Improvements project (16-P028).

Fiscal Year 2020-2029 Capital Improvement Program At-A-Glance

Table 1 presents the project and program count, and total expenditures for the Ten-Year Plan for Fiscal Years 2020 through 2029 and the Two-Year Budget for Fiscal Year 2020 and 2021.

Table 1 - Project/Program Count and Total Expenditures

	TEN-YEAR PLAN FY 2020 - FY 2029	TWO-YEAR BUDGET FY 2020 - FY 2021
NUMBER OF PROJECTS	102	59
NUMBER OF PROGRAMS	10	7
TOTAL EXPENDITURES	$236,651,000	$53,842,000

Replacement projects account for 62 percent of the total CIP Ten-Year Plan expenditures, and 58 percent of the Two-Year Budget expenditures. The share of Local Wastewater Collection, Regional Wastewater Treatment, and Water System replacement projects as a percent of the total Ten-Year Plan is 9 percent (Local), 33 percent (Regional), and 58 percent (Water). The share of replacement projects as a percent of the total Two-Year Budget is 7 percent (Local), 45 percent (Regional), and 48 percent (Water). This is summarized in Table 2 below.

Table 2 - Summary of Replacement Expenditures by Fund

	TEN-YEAR PLAN FY 2020 - FY 2029	TWO-YEAR BUDGET FY 2020 - FY 2021
LOCAL WASTEWATER COLLECTION (210)	$13,570,000	$2,107,000
REGIONAL WASTEWATER TREATMENT (310)	$48,810,000	$13,967,000
WATER SYSTEM (610)	$85,326,000	$14,932,000
TOTAL	**$147,707,00**	**$31,007,000**

Expansion projects account for 38 percent of the total CIP Ten-Year Plan expenditures, and 42 percent of the Two-Year Budget expenditures. The share of Local Wastewater Collection, Regional Wastewater Treatment, and Water System replacement projects as a percent of the total Ten-Year Plan is 5 percent (Local), 46 percent (Regional), and 49 percent (Water). The share of expansion projects as a percent of the total Two-Year Budget is 1 percent (Local), 59 percent (Regional), and 40 percent (Water). This is summarized in Table 3 below.

Table 3 - Summary of Expansion Expenditures by Fund

	TEN-YEAR PLAN FY 2020 - FY 2029	TWO-YEAR BUDGET FY 2020 - FY 2021
LOCAL WASTEWATER COLLECTION (220)	$4,373,000	$221,000
REGIONAL WASTEWATER TREATMENT (320)	$40,683,000	$13,401,000
WATER SYSTEM (620)	$43,888,000	$9,213,000
TOTAL	**$88,944,00**	**$22,835,000**

Project Highlights

Below are high priority projects, organized by category, to provide a sense of the anticipated efforts of the District staff over the next two-years, and also large scale projects in future years.

General Projects

Board Meeting Audio/Video Improvements (16-A004). The audio and video system equipment in the Boardroom is the original equipment installed when the building was constructed in 1992. This project will retrofit the Boardroom lighting and sound system and install video cameras and video streaming equipment to enable quality video streaming and indexing of Board meetings. It will also improve the ability of people attending Board meeting to hear what is being said. This project is funded from the Local, Regional, and Water replacement funds, with a total project cost of $550,000. It is expected to be completed in Fiscal Year 2020.

District Office Renovation (19-A005). In November of 2018, the District Office was flooded due to a fire service line break under the building slab. Given that the District Office is 27 years old, and the majority of the building systems and furnishings are original, the Board approved this project to take advantage of the building being empty and the furnishings removed to update the building furnishings and systems. This project will upgrade the District Office furnishings and building systems, including replacement of office furniture, modifications to the reception area and permit and customer service counter, bathroom and kitchen improvements, lighting replacements, and minor reconfiguration of some work areas. The restoration of the building will be paid for through an insurance claim and the renovation work will be paid for through the CIP project. This project is funded from the Local, Regional, and Water Replacement funds, with a total project cost of $2,840,000. It is expected to be completed in Fiscal Year 2020.

Enterprise Resource Program Conversion (EDEN Replacement) (20-A002). This project will include procurement and implementation of a new Enterprise Resource Program (ERP), which is the central accounting system the District uses to conduct business, including Utility Billing. The current system, Eden, is over fifteen years old and the vendor has indicated it may end technical support for the product in the coming years. This project is funded from the Local, Regional, and Water replacement funds, with a total project cost of $1,510,000. It is expected to be completed in Fiscal Year 2021.

Local Wastewater Collection

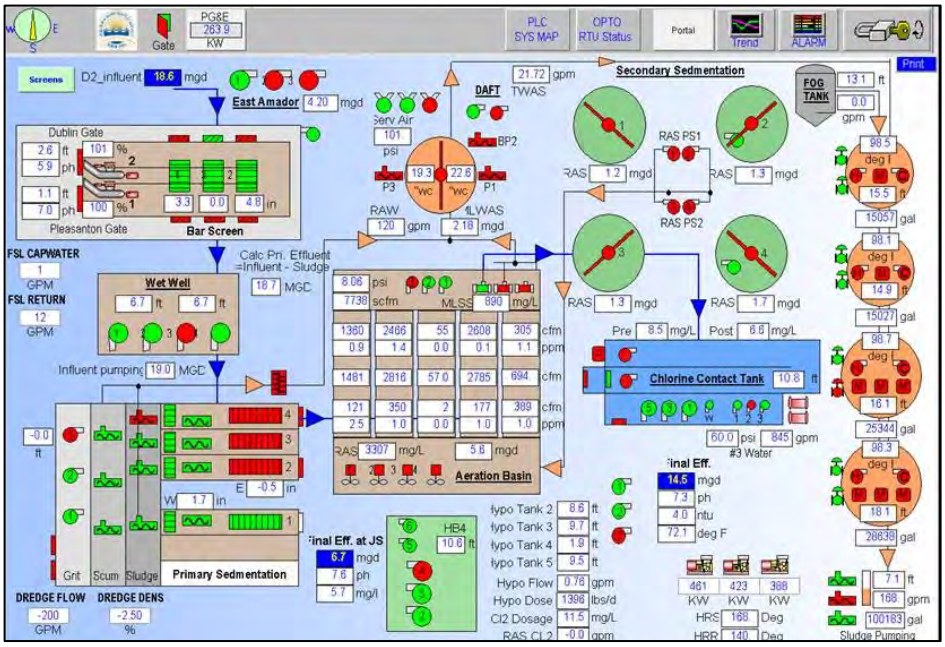
Dublin Boulevard - Amador Plaza Road to Village Parkway (20-S014). This project will upsize 730 feet of 18-inch gravity main to 21-inch gravity main in Dublin Boulevard between Amador Plaza Road and Village Parkway, eliminating system deficiencies to ensure the pipeline can meet projected flows for future downtown development. This project is funded from the Local Expansion fund with a total project cost of $820,000. It is expected to be completed in Fiscal Year 2021.

Regional Wastewater Treatment

Primary Sedimentation Expansion and Improvements (17-P004). This project will construct one new primary sedimentation tank and partially demolish and replace one of the existing primary sedimentation tanks at the Regional Wastewater Treatment Facility (RWTF). The primary treatment capacity is undersized for the facility's current average dry weather flow, and overburdens the aeration basins and secondary clarifiers. This can lead to higher energy costs and more difficulties in controlling the secondary effluent water quality. The additional primary sedimentation tank will provide the treatment capacity needed for current and buildout flows. This project is funded from the Regional Replacement and Regional Expansion funds with a total estimated cost of $19,000,000. Construction began in Fiscal Year 2019, and is expected to be completed in Fiscal Year 2021.

Biosolids Dewatering Facility (18-P013). The District operates six facultative sludge lagoons (FSL) to stabilize digested sludge from the wastewater treatment plant. The District also operated a 55-acre dedicated land disposal (DLD) site where the biosolids residuals are tilled into the soil. The Wastewater Treatment Plant and Biosolids Master Plan evaluated the current method of biosolids handling and disposal and found that there is an accumulation of biosolids in the FSLs because the water content of the biosolids is too high. The Ten-Year Plan includes a first phase of the project to construct scalable dewatering facility to handle a portion of the biosolids to reduce the accumulation in Fiscal Years 2022 and 2023 at a cost of $14,645,000. The project also includes a future phase for potential dewatering of all biosolids. This project is funded from the Regional Expansion fund with a total estimated cost of $26,545,000.

WWTP SCADA Improvements (05-3206). This project will upgrade the WWTP Supervisory Control and Data Acquisition (SCADA) communication network, replace and program the programmable logic controllers (PLCS), replace the servers, install a new database repository for historical data and acquire a web portal to view SCADA data over the District's business network. This project will involve complex construction sequencing to allow for parallel SCADA systems during implementation, as the plant processes cannot be interrupted. This project is funded from the Regional Replacement fund with a total estimated cost of $2,964,305, and is expected to be completed in Fiscal Year 2021.

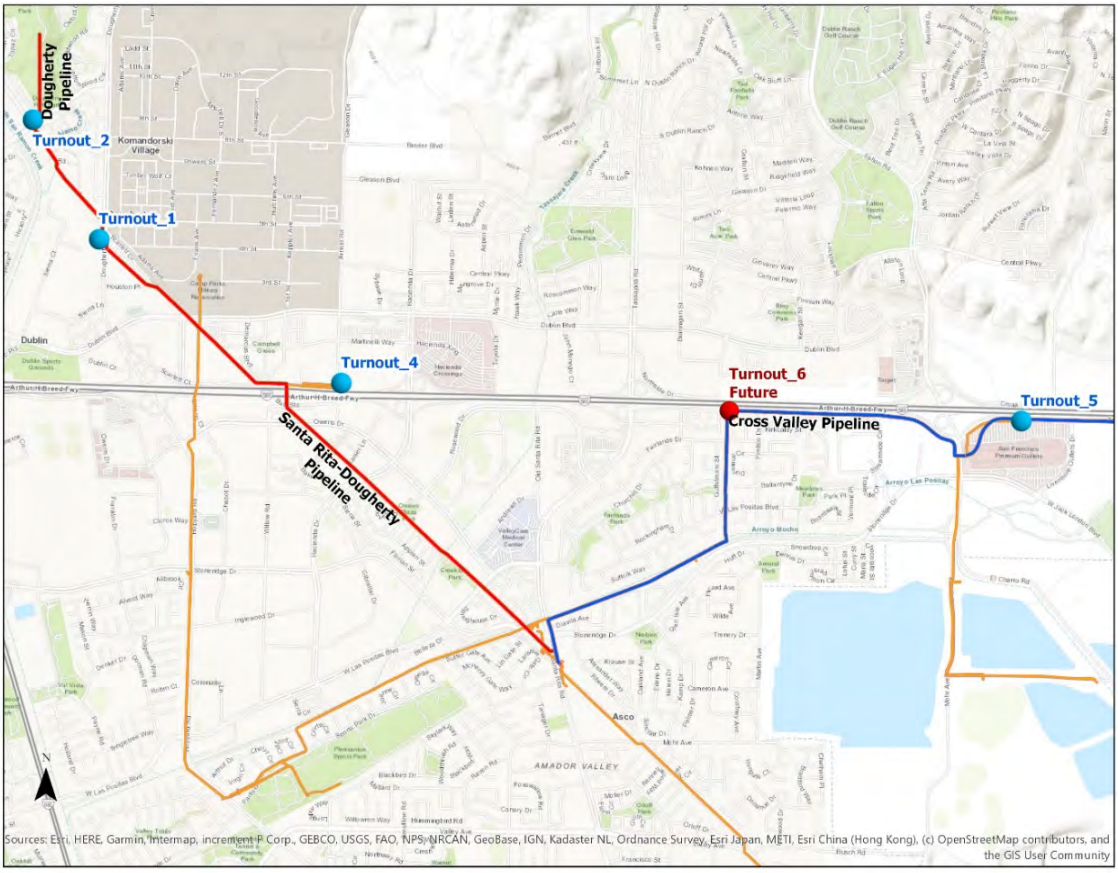


Nutrient Removal (T16-42 - FUTURE). In April 2014, the Bay Area Regional Water Quality Control Board (RWQCB) issued a San Francisco Bay Nutrients Watershed permit to municipal wastewater dischargers. The permit requires wastewater dischargers to evaluate reductions in nutrient discharges through treatment upgrades and contribute toward studies to develop a San Francisco Bay Nutrient Management Strategy. The District is working with the Bay Area Clean Water Agencies (BACWA) to address the permit requirements. If the current studies determine wastewater discharges have an adverse effect on Bay water quality, the RWQCB will impose nutrient load limits on the wastewater treatment plant effluent which will require treatment upgrades. Although future regulation or the extent of the regulation is uncertain, it is prudent that the District plan for some future treatment upgrades. This project is funded from the Regional Replacement and Regional Expansion funds with a total estimated cost of $42,780,000, and is expected to begin in Fiscal Year 2029.

Water System

Reservoir 20B (14-W008). This project will construct a new 1.3 million gallon potable water reservoir in eastern Dublin to provide potable water storage capacity for eastern Dublin and, in combination with existing Pump Station 300B, potable water to Dougherty Valley. Depending on location of the reservoir, up to 8,700 linear feet of 12-inch Zone 2 pipeline will be needed to integrate the reservoir into the water system, and property acquisition may be required. The project is funded from the Water Expansion fund with a total estimated cost of $7,753,000, and is expected to be completed by Fiscal Year 2022.

Turnout 6 (20-W015). This project will provide water supply for development in eastern Dublin by constructing a new turnout from Zone 7 Water Agency south of I-580 at Pimlico Drive, served by the Cross Valley Pipeline. Construction of the turnout adds redundancy and improves reliability of the distribution system by having a secondary source turnout to supply eastern Dublin should there be a failure of Zone 7 Water Agency's Santa Rita Pipeline. This project is funded from the Water Expansion fund with a total estimated cost of $3,800,000, and is expected to be completed by Fiscal Year 2022.



Capital Improvements to Increase Water Supply Program – Phase II (00-W002). This program will develop projects to meet the objectives of the Water Supply, Storage, Conveyance, Quality and Conservation Policy (P300-15-1) adopted by the Board on October 20, 2015. This program will focus on diversifying the sources of water supply so that no less than 60 percent of total demand (potable and recycled) is satisfied by local and regional water supplies, and that no more than 40 percent of total water supply (potable and recycled) comes from any one physical source. The program will fund the most feasible potable reuse projects outlined in the Tri-Valley Potable Reuse Feasibility Study. This program has an estimated cost of $40,000,000 and will be funded 25 percent by the Water Expansion fund and 75 percent by the Water Replacement fund based on the ratio of current water demands to projected build-out water demands.

Valve and Blow-Off Replacement (19-W004). This project will repair/replace line and blow off valves throughout the water distribution system. Many of the line valves have broken over time and are located in the older parts of the service area. Repairing or replacing the valves is essential for system operation and minimizes the area for shutdowns. Blow off valves will also be strategically replaced within the water distribution system. The blow off valves will be replaced with larger valves that will improve flushing velocity and efficiency, which will improve water quality. This project is funded from the Water Replacement fund with a total estimated cost of $3,250,000, allocated over three years (Fiscal Years 2020 – 2022).

Potable Water Pump Station Standby Generators/Emergency Response (16-W012). At this time, there is only one pump station in the water distribution system with a permanent standby generator. In the event of power outages, pumping criteria will not be met, eventually leading to a loss of fire protection. The Master Plan recommended adding permanent standby generators at various locations. This project will confirm those locations, and alternatives, and evaluate if they should be permanent or mobile generators. This project is funded from the Water Replacement fund with a total estimated cost of $3,040,000, and is expected to be completed by Fiscal Year 2021.

Chapter 1: Long-Term Capital Planning

CIP and Strategic Plan Nexus

The Capital Improvement Program (CIP) is integral to the achievement of the District's mission and implementation of the strategic plan. Development, approval and implementation of the CIP accomplishes a number of the District's Strategic Plan goals by providing specific projects and planned funding towards meeting the goals.

The CIP Plan and Budget supports the District strategic goals to 1) maintain our financial stability and sustainability and 2) develop a fully integrated Asset Management Program to guide all the District's business decisions. The District's Asset Management Program identifies projects for the CIP Plan and Budget. In addition, it provides an overall estimate of expected expenditures over the CIP Plan timeframe and beyond to guide future rate operating budget and rate studies. Further information on the Asset Management Program is provide below.

The Strategic Plan goal to enhance our ability to respond to emergencies is advanced with the Potable Water Pump Station Standby Generators/Emergency Response project (16-W012) which will increase the reliability of the water distribution system in a power outage and the WWTP SCADA Improvements project (05-3206) which will provide robust and redundant communication between the WWTP processes.

The CIP also meets several of the action items under the Strategic Plan goal to develop and implement an integrated potable and recycled water program. Two programs, Capital Improvements to Increase Water Supply, Phases I and II, support the existing recycled water program and provide the funding for a future potable reuse project.

Master Plans

The District develops Master Plans every five to ten years for each of its enterprises, Local Wastewater, Regional Wastewater and Water. The master plan planning horizons are typically 20 years. The proposed projects from these master plans are incorporated into the CIP. A summary of the master plans that have informed the CIP Plan and Budget include:

- 2016 Water Master Plan
- 2017 Wastewater Treatment and Biosolids Master Plan
- 2017 Information Technology Master Plan
- 2017 Long-term Alternative Water Supply Plan
- 2018 Joint Tri-Valley Potable Reuse Technical Feasibility Study
- 2019 Local Collection System Master Plan

The District also develops Master Plans for particular business needs, such as the Information Technology Master Plan and the Facilities Security Master Plan.

Asset Management Program/Replacement Projects

Asset Management models estimate the rehabilitation and replacement year and cost for each asset based on the age and type of the asset. The renewal and replacement needs identified by the Asset Management Program during the Ten-Year Plan are reflected in individual capital projects and programs. Using the models, staff identifies funding needed and specific capital projects to be included in the CIP Plan and Budget. Expenditures to account for projects that will be identified over the time frame of the plan are included in the rehabilitation and replacement programs.

To capture the expenditures beyond the Ten-Year Plan and assure that funding is available, the average estimated expenditures over the Ten-Year Plan plus the expenditures for the five years beyond the plan are averaged to create a fifteen year expected annual average replacement expenditure estimate. This fifteen year average is used to set the minimum capital replacement fund levels (see Financial Reserves section). Thus, the Capital Improvement Program reflects not only intermediate term capital projects, but also longer-term estimates of asset replacement needs.

Concurrently with the escalation of local sewer, water, and regional sewer replacement costs, development in the service area will be approaching build out and connection fees will diminish. This will result in a decline in buy-in revenue from the various capacity reserve fees, creating a conundrum where infrastructure begins to accelerate its depreciation at almost the same time that a major revenue source begins a significant decline.

The policy of setting capital replacement reserve levels at twice the fifteen year average of planned capital projects plus known asset management replacement needs will help to mitigate the problem of increasing costs and decreasing capacity reserve revenue. The average annual replacement cost will increase, leading to an increase in replacement reserve requirements, which will gradually signal the need for additional capital funding. Within each two year budget period, the District can assess the need for growth in utility rates to make up the difference. Thus, the District will be able to capitalize on its growing Asset Management Program to plan a sensible long-term ramp-up of rehabilitation and replacement funding through user fees.

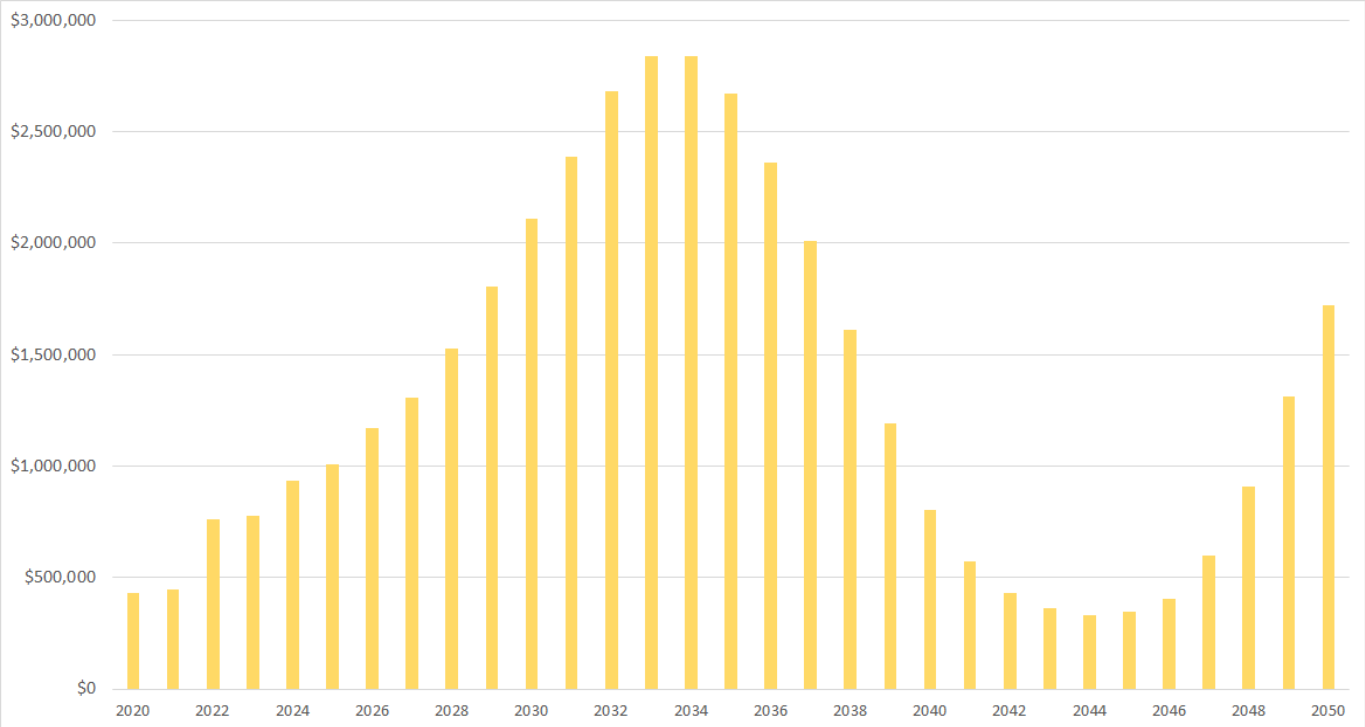
The expected annual expenditures for the local collection, regional wastewater and water replacement funds for the next 30 years are shown in Figures 1 through 3. There is significant variability in the estimated expenditures from year to year. In the figures this variability has been normalized over several years to 1) reflect the variability in asset life, i.e. some pipes or equipment will fail earlier and some will fail later than its expected life, and 2) better visualized the trend in expenditures, and 3) reflect a more realistic project implementation schedule.

Local Wastewater Collection - Replacement

Given that many of the District's local collection and water system assets were installed during a period of initial growth in the 1960s, the Asset Management Program indicates an increase in the spending for those replacement funds over the next ten years and beyond as those initial assets begin to reach the end of their useful life.

The need to replace the aging sewer pipelines is reflected in the average annual Local Wastewater Collection replacement costs shown in Figure 1. The expected life of the sewer lines is based on inspections of the collection system and established industry standards for pipe material life. The majority of the pipe material of the original system is vitrified clay pipe. The original portions of the collection system begin to age out and require replacement peaking around 2033. Peaks in replacement are largely driven by surges in development using similar pipe material over time. The local collection costs are based on rehabilitating the pipes through cast in-place lining rather than pipe replacement.

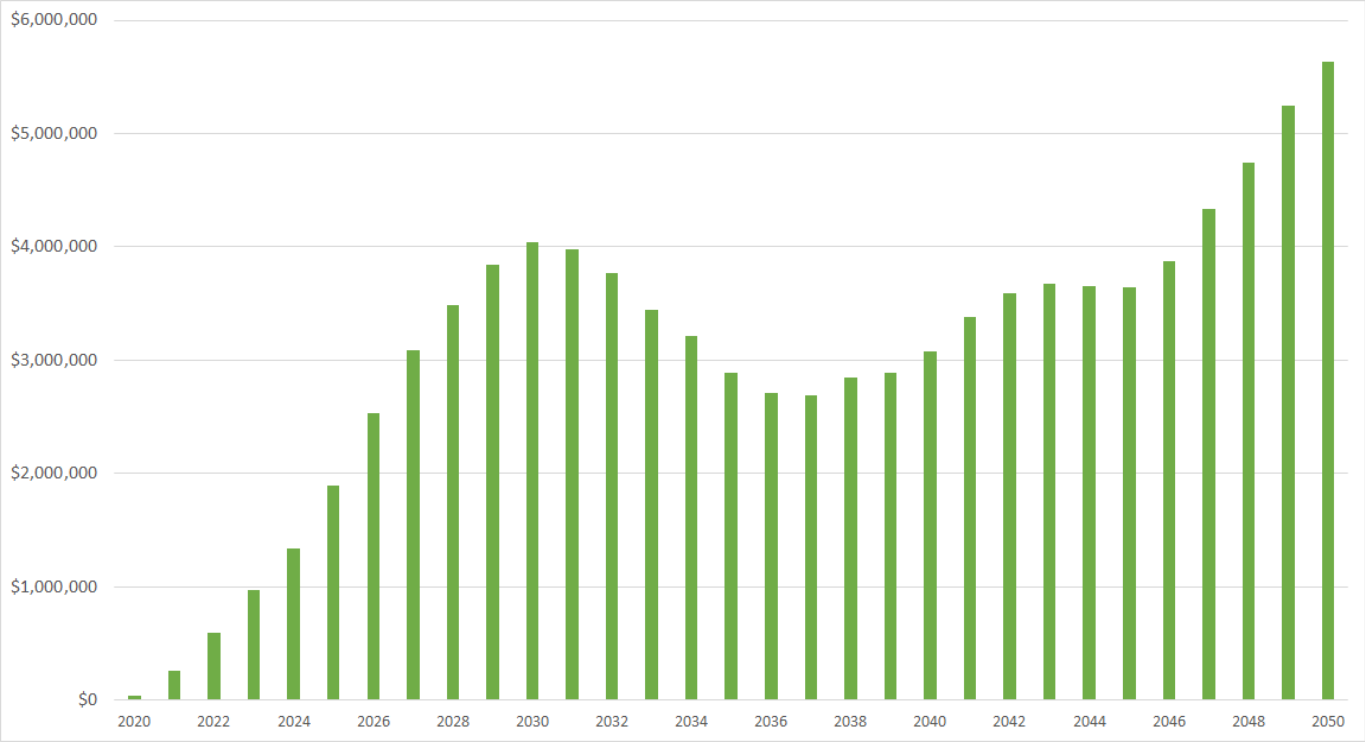
Figure 1 – Local Wastewater Collection Long-Term Replacement Costs



Regional Wastewater Treatment - Replacement

The average annual Regional Wastewater replacement costs, shown in Figure 2, increase annually until approximately 2030, which is the 30 year anniversary of the Stage 4 Wastewater Treatment Plan Expansion Project. Beyond that timeframe, the expenditures drop somewhat until 2037 but consistently increase thereafter through 2050.

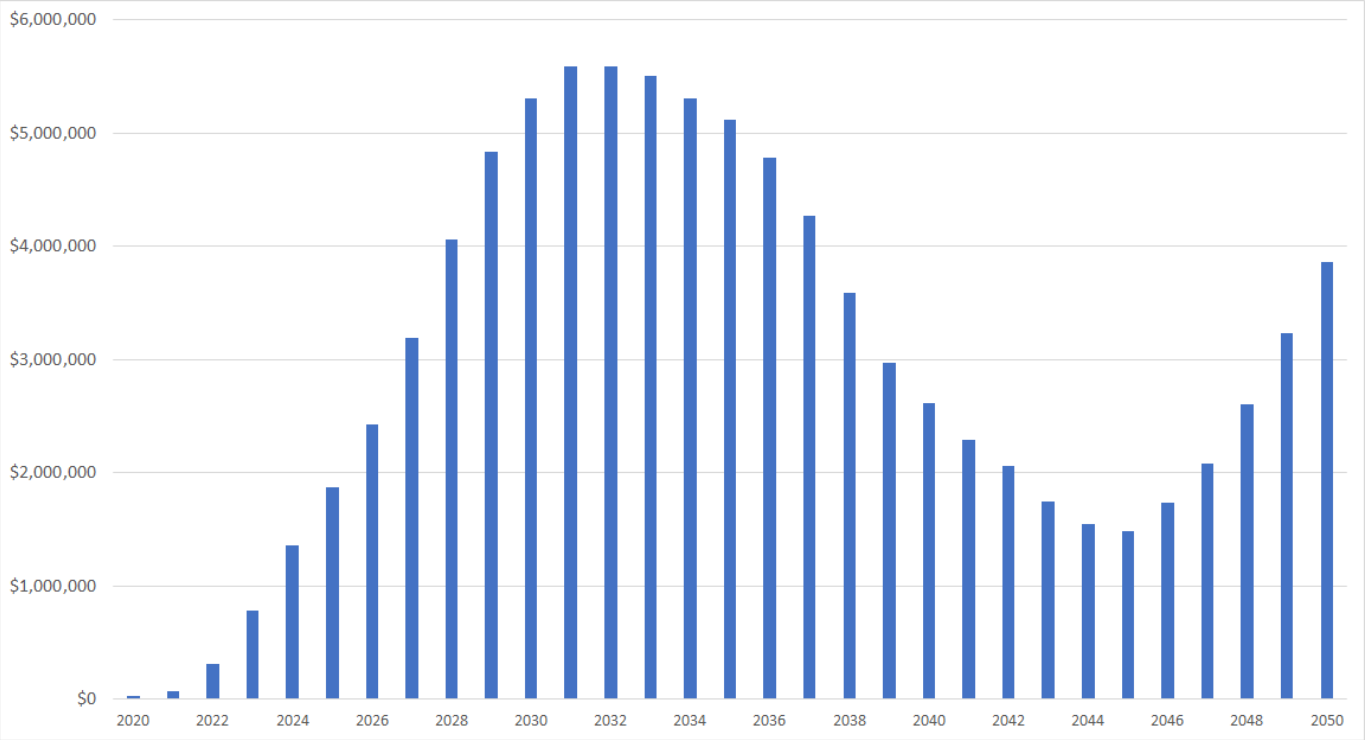
Figure 2– Regional Wastewater Long-Term Replacement Costs



Water System- Replacement

The average annual Water replacement costs, shown in Figure 3, increase annually and peak in 2031, just outside the Ten-Year Plan horizon. The oldest pipes in the District water system, cast iron pipes in Camp Parks, have now reached their useful life and will need to be replaced in the next ten years. There are five water pipeline replacement projects in the Ten-Year plan located within Camp Parks. The next oldest pipes in the water system are asbestos cement (AC) pipes which are also starting to reach the end of their useful life. There are four projects in the Ten-Year Plan that replace aging AC pipe.

Figure 3 – Water Long-Term Replacement Costs



Chapter 2: Budget Process

Capital Improvement Program Process

The development of the CIP is a coordinated process, occurring every two-years, and beginning with District staff identifying projects and preparing related descriptions, schedules, and cost estimates. Projects may be identified as a result of a master plan, study, regulatory requirement, or staff recommendation. Project requests are submitted for evaluation by the District Engineer. Several factors are considered in determining the need for each CIP project, including consistency with the District's Strategic Plan and established District Policies, the need to meet a regulatory mandate or requirement, impact to the District's capital fund reserves, and balancing project scheduling with available staffing. The recommended CIP is compiled and presented to the General Manager for review and input. The recommended CIP is next reviewed by the Board of Directors ("Board") at a work session, where the public has an opportunity to provide comments, before final adoption by the Board at a public hearing in late May or early June.

Budget Controls

Two-Year Project Budget

By Board adoption of the CIP Two-Year Budget, each project and program and their corresponding budget listed in the first two years (Fiscal Years 2020 and 2021) of the CIP Ten-Year Plan is authorized and may be fully expended with the following conditions:

- The total expenditures for each individual project shall not exceed the project total.
- The total allocated expenditures for the Two-Year Budget may be initiated in either FYE 2020 or 2021.

Additional project budget approval conditions are discussed in the following sections.

Project Approval from a Program

Approval authority for projects created from a program are consistent with the approval authority limits outlined in the District purchasing procedures:

- The general manager may approve a project of $175,000 or less created from a program.
- The general manager may approve an increase in the budget of a project created from a program provided adequate program funds are available up to the general manager's authority of $175,000.
- A project created from a program in excess of $175,000 or a budget increase that is greater than the general manager's authority requires Board approval.

Program Budgets

Upon completion of a project created from a program, any unused funds are returned to the program provided it is in the same fiscal year. Funding allocated to program budgets are not cumulative from year to year. Program budgets that do not fund specific projects by the end of the fiscal period do not carry forward. Thus, the program's total expenditures shall not exceed the total program budget for each fiscal year. The Board must approve increases in a program budget.

CIP Budget Implementation

The general manager may authorize staff to complete the implementation process or use consultant and construction contracts in standard District form, task orders and purchase orders for services, equipment, materials and supplies up to the authority of $175,000 per the District Purchasing Policy. In addition, the general manager has the authority to adjust contracts that were previously approved by the Board, up to the purchasing authority of $175,000. All work authorized by the general manager or submitted to the Board for authorization shall be procured and managed in accordance with District purchasing procedures and Purchasing Policy.

Actions Requiring Board Approval

The following is a summary of project and budget actions requiring Board approval:

- Addition of a new project not created from a program
- Addition of a new project created from a program in excess of $175,000
- Acceleration of a future project that had to unexpectedly start early in either FYE 2020 or 2021
- Increase in a project budget in excess of $175,000
- Increase in a program budget
- Increase in a project budget where the revised project budget is in excess of $175,000
- Authorization of contracts, task orders, purchases or construction contracts in excess of $175,000

Chapter 3: Fund Overview

Revenues

The revenue in the replacement and expansion funds includes:

- Replacement Allocations (indirectly from rates)
- Capacity Reserve Fees (Expansion Component)
- Capacity Reserve Fees (Replacement Component)
- Interest
- Other Revenue

The Capital Improvement Program is funded by two main sources of revenue: rates and fees. Rates are collected from current customers and are used to pay normal operating costs. A portion of the rates is also allocated to the replacement funds (Replacement Allocations) to pay for capital projects that replace or improve facilities that benefit existing customers.

Capacity Reserve Fees are collected from development projects. The fees are used to pay for debt related to facilities that were built to add capacity for future customers and to pay for new projects that serve future customers. The District will often build a facility that is sized to meet capacity needs into the distant future. A buy-in component of the fee is collected for new development to pay for the use of existing excess capacity.

The revenues in the replacement funds are derived from replacement allocations from the operating fund rates and the buy-in component of capacity reserve fees. The revenues in the expansion funds are derived from capacity reserve fees as well as other revenue derived from permitting and inspection fees. In addition, each fund has interest revenue derived from the capital in the fund.

The revenue from fees is estimated based on the number of future water and wastewater connections anticipated with planned development provided by the cities of Dublin, Pleasanton, and San Ramon. The number of connections in the first two years are based on the planned development slated for those years. The number of projected connections over the remaining eight years of the plan are averaged over those years as the actual timing of development in the latter years is difficult to predict. The impact of developer use of capacity reserve fee credits have been accounted for by reducing the number of connections by the number of outstanding credits.

Expenditures

The expenditures in the replacement and expansion funds include:

- Capital Expenditures (project/program costs)
- Other Expenses (capital outlay, services, personnel costs)
- Inter-fund Loan Payments
- Debt Service
- Allocated District Overhead

In addition to the capital expenditures, the working capital also accounts for allocated district overhead and other expenses. The "other expenses" associated with Local Sewer Expansion fund (220) and Water Expansion fund (620) include labor and materials to complete plan check and inspection of developer dedicated infrastructure. The "other expenses" associated with the replacement funds include capital outlay, professional services, materials and personnel costs. The costs of capital outlay items are directed to the appropriate, rate based, replacement fund in order to make sure that the correct funds are funding the items.

Other expenditures include loan payments and debt service. Local Wastewater Replacement Fund (210) shows an interfund loan from Local Wastewater Expansion fund (220) that will be repaid over 5 years. Water Expansion fund (620) shows a DERWA loan that will be repaid in 2027, and another water loan to be repaid in 2042. Regional Expansion fund (320) shows LAVMWA debt service which will be repaid 2031.

Financial Reserves

The District's Financial Reserves Policy designates financial reserves in order to protect the District's investment in various assets, satisfy its commitments under its numerous financial, regulatory and contractual obligations and to stabilize long-term rates for its customers.

For capital replacement funds (210, 310, 610), the minimum reserve is twice the average annual expenditures in the fund based on the next 15 years of planned expenditure which includes the Ten-Year Plan plus an estimate of asset replacement needs for the subsequent five years.

For the expansion funds (220, 320, and 620), minimum reserve is the greater of two years debt service or the next two years of project expenditures.

Financial Summary by Fund

To assure the District has sufficient funds to maintain existing assets and to construct the facilities to meet the needs of new customers, the District projects the revenues and expenditures in the capital replacement and expansion funds over the ten-year CIP plan period and verifies the fund working capital is greater than the minimum financial reserve level as defined in the Financial Reserve Policy. A summary of the revenues and expenditures, and working capital trends in replacement and expansion funds is provided in this section.

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Local Wastewater Collection Replacement (Fund 210)

The Local Wastewater Replacement fund (Fund 210) funds projects which replace and improve local sewer facilities that transfer wastewater from the point of origin to the regional wastewater treatment plant. The fund minimum reserve is twice the average annual expense of the fifteen year CIP.

Revenue & Expenditures

The fund has three sources of revenue; 1) Capacity Reserve Fee (Buy-In), 2) Interest, and 3) Replacement Allocation. In the Two-Year Budget, the ratio of the revenue sources is 96/4/0, respectively. Of note, is the elimination of the replacement allocation in the first three years of the planning period, due to insufficient rate revenue in the Local Enterprise Fund. For planning purposes, the replacement allocation is shown as returning in Fiscal Year 2023, at $675,000 annually. Capacity Reserve Fee revenue is based upon the 2018 Local Capacity Reserve Fee study, which increased the fee from $1,969 to $2,162 per dwelling unit equivalent, effective Fiscal Year 2019.

The fund has three expenditure types: 1) CIP Expenditures, 2) Interfund Loan Repayment, and 3) Other Expenses. The CIP expenditures, shown in more detail in Table 5 in the following section, include the Wastewater Collection System Replacement and Rehabilitation Program (00-S020) and various pipeline replacement projects identified by the 2019 Sewer Collection System Master Plan. The near-term project is the East Dublin 36-inch Trunk Sewer Rehabilitation (20-S013) in Fiscal Year 2020. In Fiscal Year 2018, the Local Expansion Fund loaned the fund $5 million to cover the cost of critical projects, to be repaid over five years. Other expenses include minor equipment and professional services, as well as capital outlay. A closed circuit television (CCTV) truck is requested in Fiscal Year 2020, at a cost of $500,000.

Working Capital

The loan from the Local Expansion fund replenished the working capital in the beginning two years, but will be repaid over the next five years. Coupled with the elimination of the replacement allocation, this results in a working capital below the minimum reserve target for Fiscal Years 2022 through 2026. This fund will benefit from a Fiscal Year 2022 Local Wastewater Rate Study to reevaluate the replacement allocation. The fund reached the reserve target in Fiscal Year 2027 and climbs to over $4 million by Fiscal Year 2029.

Table 4 – Local Wastewater Collection Replacement Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Replacement Allocations	CIP Expenditures	Interfund Loan Repay	Other Expenses	Working Capital
19-20	789	$ 1,655,000	$ 115,000	$ -	$ 1,598,000	$ 939,583	$ 518,000	$4,485,000
20-21	557	$ 1,204,000	$ 90,000	$ -	$ 509,000	$ 918,333	$ 14,000	$4,337,000
21-22	386	$ 859,000	$ 23,000	$ -	$ 1,951,000	$ 895,833	$ 12,000	$2,361,000
22-23	386	$ 885,000	$ 9,000	$ 675,000	$ 2,179,000	$ 875,000	$ 12,000	$ 864,000
23-24	386	$ 911,000	$ 6,000	$ 675,000	$ 1,029,000	$ 854,166	$ 12,000	$ 562,000
24-25	386	$ 939,000	$ 12,000	$ 675,000	$ 928,000	$ -	$ 12,000	$1,248,000
25-26	386	$ 967,000	$ 20,000	$ 675,000	$ 859,000	$ -	$ 12,000	$2,040,000
26-27	386	$ 996,000	$ 15,000	$ 675,000	$ 2,221,000	$ -	$ 12,000	$1,493,000
27-28	386	$ 1,026,000	$ 20,000	$ 675,000	$ 1,149,000	$ -	$ 12,000	$2,054,000
28-29	386	$ 1,057,000	$ 26,000	$ 675,000	$ 1,149,000	$ -	$ 12,000	$2,652,000

Figure 4 - Local Wastewater Replacement Fund Working Capital

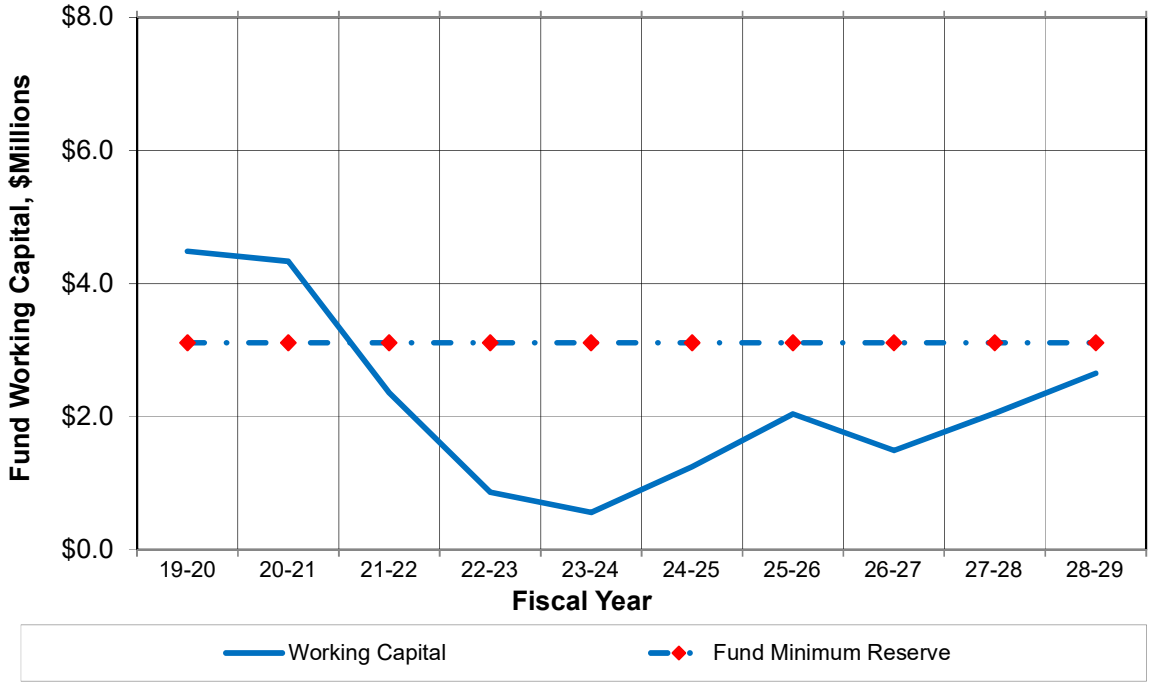
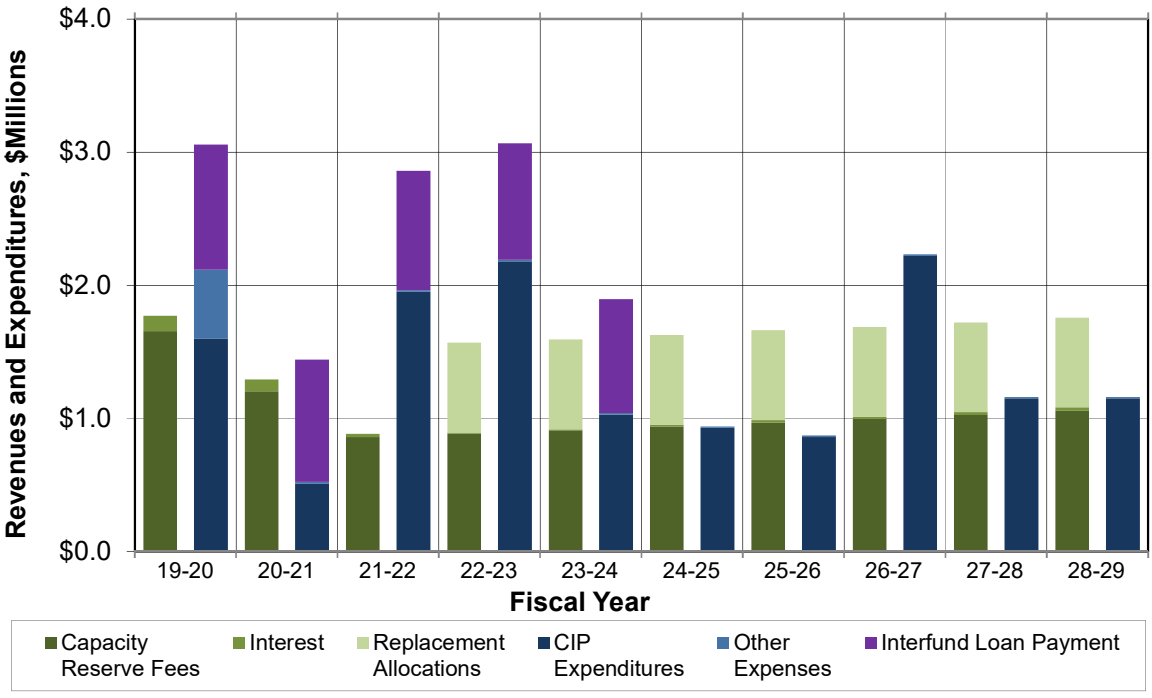


Figure 5 - Local Wastewater Replacement Fund Revenues & Expenditures



Local Wastewater Expansion (Fund 220)

The Local Wastewater Expansion fund (Fund 220) funds projects which expand or add local sewer facilities to accommodate increased wastewater flows from new development. The fund minimum reserve is the next two years' annual expense, plus two-year's average debt service.

Revenue & Expenditures

The fund has four sources of revenue; 1) Capacity Reserve Fee (Expansion), 2) Interest, 3) Interfund Loan Revenue, and 4) Other Revenue. In the Two-Year Budget, the ratio of the revenue sources is 3/3/56/38, respectively. The Capacity Reserve Fee revenue is based upon the 2018 Fee Study, which increased the fee (from $1,969 to $2,162 per dwelling unit equivalent). The fund will also receive Interfund loan revenue from the Local Replacement fund for the $5 million loan (funded in 2018). The interfund loan is to be repaid over five years (Fiscal Years 2019 through 2024), at $833,333 per year. Other revenues include plan check and inspection fees, which are estimated based on projected development.

The fund has three expenditure types: 1) CIP Expenditures, 2) Other Expenses, and 3) Allocated District Overhead. The CIP expenditures for Local Expansion, shown in more detail in Table 7 in the following section, include various pipeline projects identified by the 2019 Sewer Collection System Master Plan to upsize pipelines as a result of development. The primary project in the near-term is the Dublin Boulevard – Amador Plaza Road to Village Parkway (20-S014) in Fiscal Year 2021 and Fiscal Year 2022. Other expenses include personnel costs for construction inspection, and engineering technicians. These costs are offset by the plan check and inspection fee revenue. Allocated overhead is a function of the personnel costs included in the expenditures of this fund.

Working Capital

This fund is well established, remaining above the fund minimum target for the majority of the ten-years. The reduction in working capital after Fiscal Year 2026 is due to the Village Parkway – South of Dublin Boulevard (T20-06) project, estimated to cost $2,832,000.

Table 6 – Local Wastewater Collection Expansion Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Interfund Loan Revenue	Other Revenues	CIP Expenditures	Other Expenses	Allocated District Overhead	Working Capital
19-20	789	$ 50,000	$ 86,000	$ 939,583	$ 564,000	$ 39,000	$ 576,000	$ 177,000	$5,155,000
20-21	557	$ 37,000	$103,000	$ 918,333	$ 581,000	$ 182,000	$ 593,000	$ 189,000	$5,830,000
21-22	386	$ 26,000	$ 57,000	$ 895,833	$ 598,000	$ 820,000	$ 610,000	$ 195,000	$5,783,000
22-23	386	$ 27,000	$ 60,000	$ 875,000	$ 616,000	$ 500,000	$ 629,000	$ 201,000	$6,031,000
23-24	386	$ 28,000	$ 67,000	$ 854,166	$ 635,000	$ -	$ 648,000	$ 207,000	$6,761,000
24-25	386	$ 29,000	$ 66,000	$ -	$ 654,000	$ -	$ 667,000	$ 213,000	$6,629,000
25-26	386	$ 29,000	$ 62,000	$ -	$ 673,000	$ 275,000	$ 687,000	$ 219,000	$6,212,000
26-27	386	$ 30,000	$ 34,000	$ -	$ 694,000	$ 2,557,000	$ 708,000	$ 226,000	$3,479,000
27-28	386	$ 31,000	$ 33,000	$ -	$ 714,000	$ -	$ 729,000	$ 233,000	$3,296,000
28-29	386	$ 32,000	$ 31,000	$ -	$ 736,000	$ -	$ 751,000	$ 240,000	$3,105,000

Figure 6 - Local Wastewater Expansion Fund Working Capital

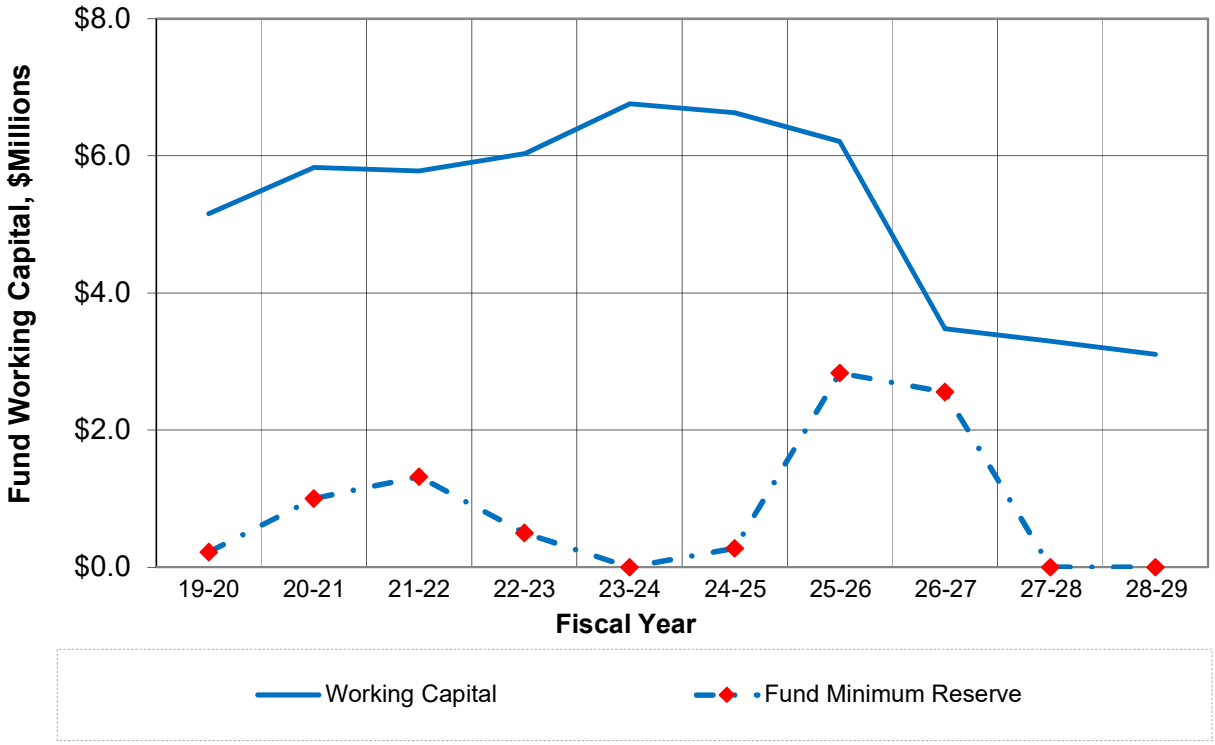
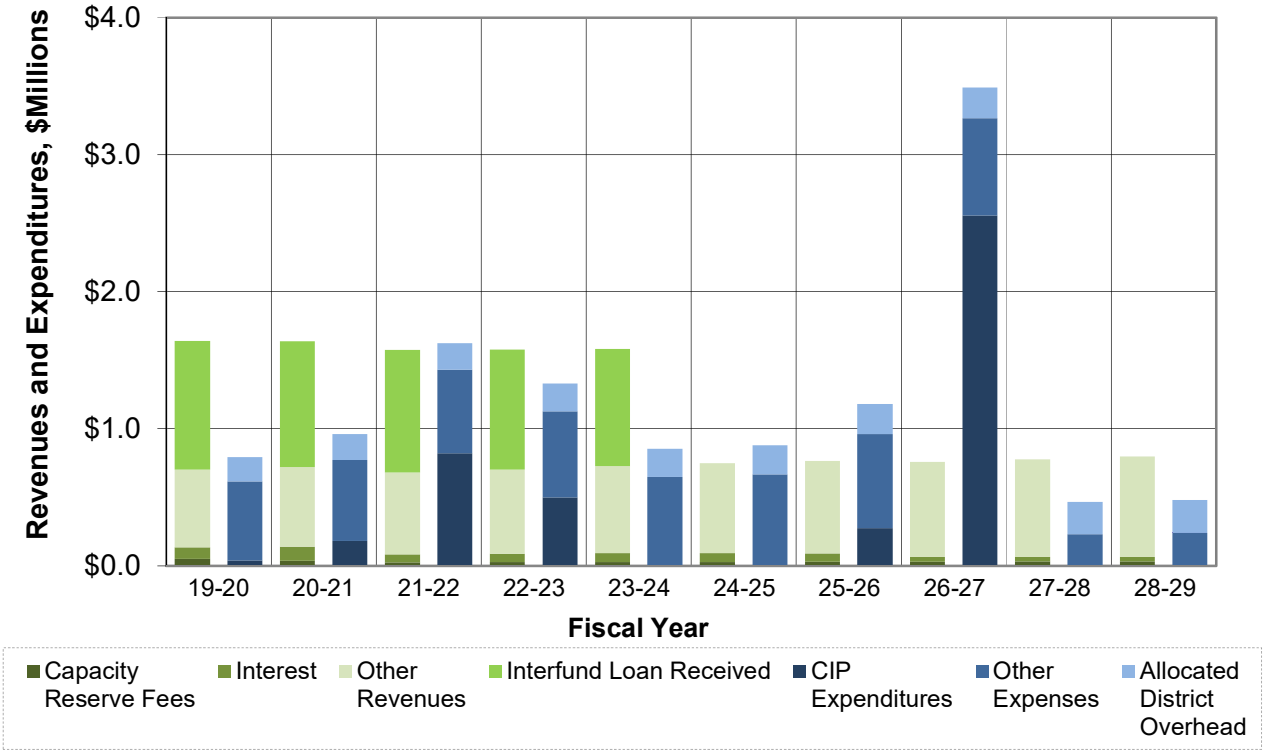


Figure 7 - Local Wastewater Expansion Fund Revenues & Expenditures



Regional Wastewater Treatment Replacement (Fund 310)

The Regional Wastewater Replacement fund (Fund 310) funds projects which replace and improve the existing Regional Wastewater Treatment Plant processes and facilities. The plant treats the wastewater collected from the DSRSD local collection system as well as the was wastewater flows from the City of Pleasanton before further treatment for recycled water or conveyance through the Livermore-Amador Valley Water Management Agency (LAVWMA) pipeline to the San Francisco Bay for disposal. The fund minimum reserve is twice the average annual expense of the fifteen year CIP.

Revenue & Expenditures

The fund has three sources of revenue; 1) Capacity Reserve Fee (Buy-In), 2) Interest, and 3) Replacement Allocation. In the Two-Year Budget, the ratio of the revenue sources is 52/44/4, respectively. The revenue from the Capacity Reserve Fee buy is based on the Regional Capacity Reserve Fee Study that was adopted in November 2018.

The fund has two expenditure types: 1) CIP Expenditures, and 2) Other Expenses. The CIP near-term expenditures are primarily the fund's contribution to the Primary Sedimentation and Expansion, Biogas Treatment System Improvements, Biogas Flare Improvements, and SCADA Improvements projects. The RWTF Replacement and Rehabilitation Program represents considerable expenditures in this fund increasing from $500,000 in 2020 to $3,500,000 in 2029. There is a spike in the expenditures in the last year of the ten year plan to account for process improvements required to meet anticipated National Pollutant Discharge Elimination System (NPDES) permit requirements to address nutrient discharges to the San Francisco Bay. All CIP expenditures are shown in more detail in Table 9 in the following section. The other expenses in the fund are mainly capital outlay which includes replacement of aging equipment at the Wastewater Treatment Plant.

Working Capital

The working capital in this fund slowly increases over time in anticipation of rehabilitation and replacement costs projected beyond the ten-year plan horizon based on the asset management replacement model.

Table 8 – Regional Wastewater Treatment Replacement Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Replacement Allocations	CIP Expenditures	Other Expenses	Working Capital
19-20	789	$ 3,129,000	$ 578,000	$ 3,130,000	$ 6,579,000	$ 1,240,000	$ 27,895,000
20-21	557	$ 2,383,000	$ 558,000	$ 3,340,000	$ 7,388,000	$ 751,000	$ 26,037,000
21-22	387	$ 2,001,000	$ 269,000	$ 3,550,000	$ 4,279,000	$ 415,000	$ 27,162,000
22-23	387	$ 2,387,000	$ 272,000	$ 3,760,000	$ 5,633,000	$ 427,000	$ 27,522,000
23-24	387	$ 2,459,000	$ 298,000	$ 3,970,000	$ 3,733,000	$ 440,000	$ 30,075,000
24-25	387	$ 2,532,000	$ 338,000	$ 4,180,000	$ 2,499,000	$ 453,000	$ 34,173,000
25-26	387	$ 2,608,000	$ 383,000	$ 4,390,000	$ 2,374,000	$ 467,000	$ 38,714,000
26-27	387	$ 2,319,000	$ 420,000	$ 4,600,000	$ 3,174,000	$ 481,000	$ 42,399,000
27-28	387	$ 2,389,000	$ 455,000	$ 4,600,000	$ 3,374,000	$ 496,000	$ 45,973,000
28-29	387	$ 2,232,000	$ 425,000	$ 4,600,000	$ 9,778,000	$ 510,000	$ 42,942,000

Figure 8 - Regional Wastewater Replacement Fund Working Capital

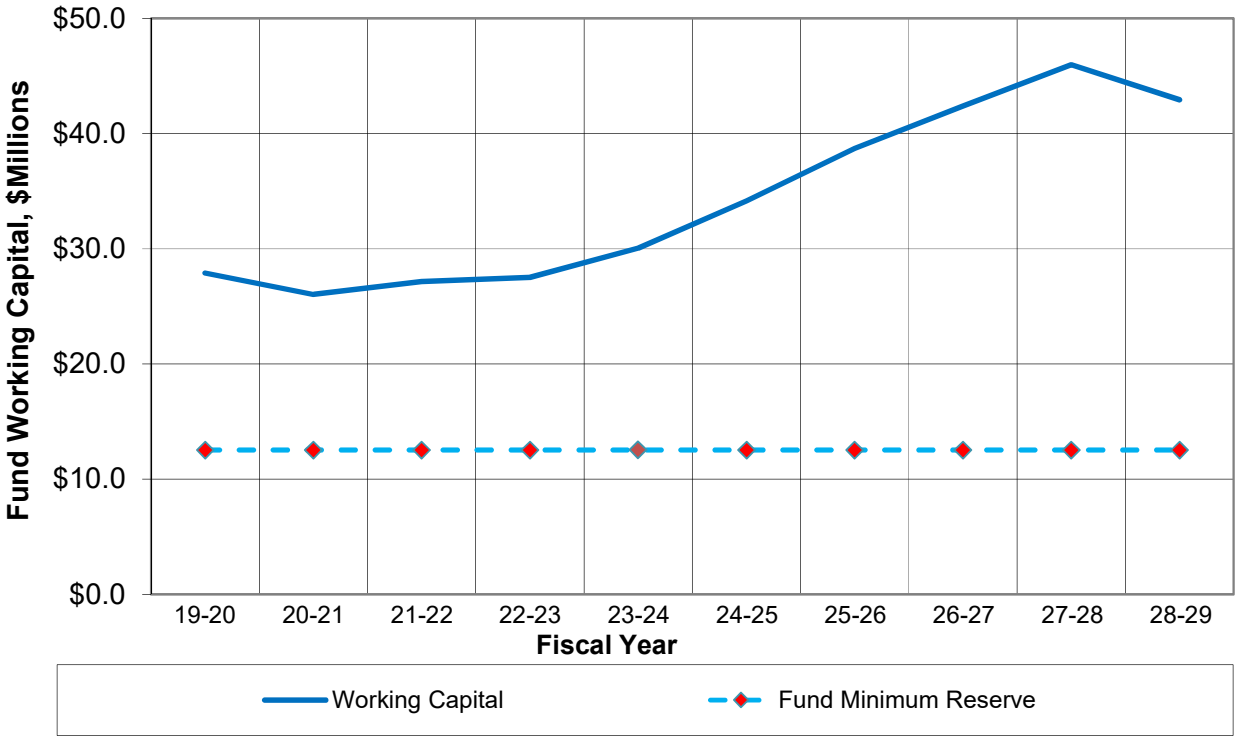
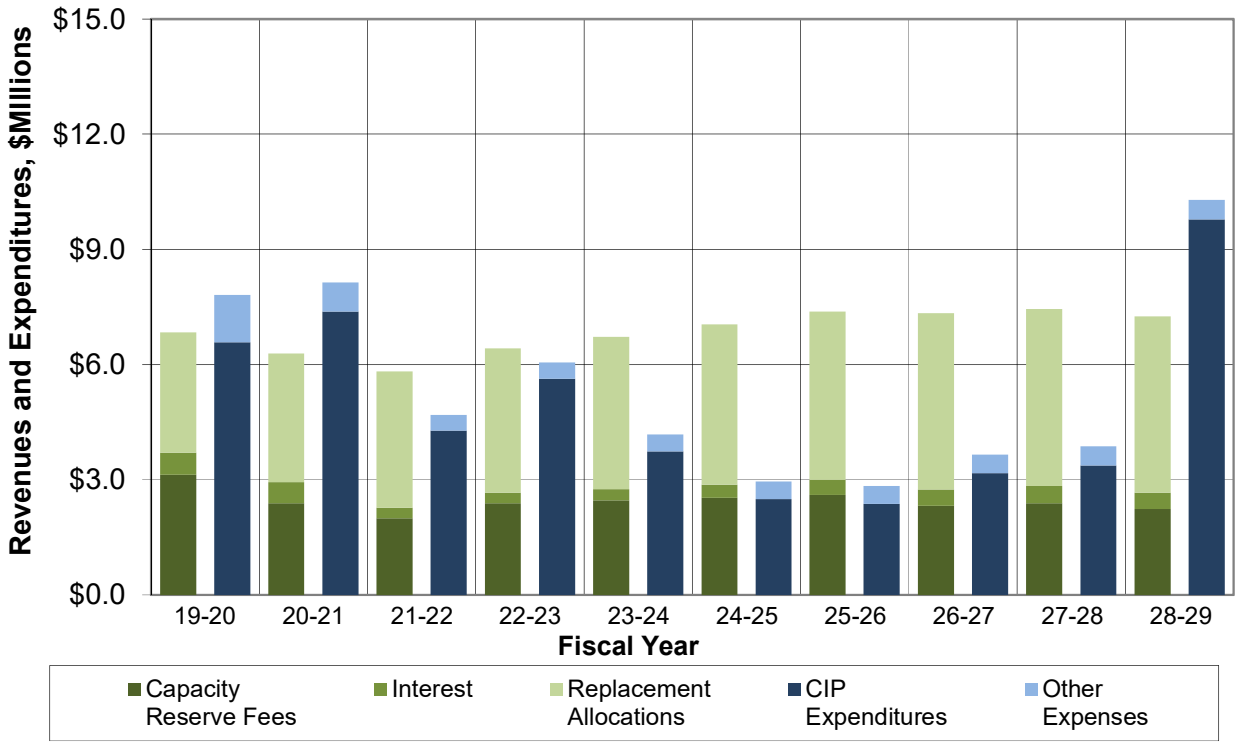


Figure 9 - Regional Wastewater Replacement Fund Revenues & Expenditures



Regional Wastewater Expansion (Fund 320)

The Regional Wastewater Replacement fund (Fund 320) funds projects which expand or add to the wastewater treatment process to accommodate future wastewater flows, ultimately conveyed through the LAVWMA pipeline to the San Francisco Bay for disposal. The fund minimum reserve is the next two years' annual expense, plus two-year's average debt service.

Revenue & Expenditures

The fund has three sources of revenue; 1) Capacity Reserve Fee (Buy-In), 2) Interest, and 3) Other Revenues. In the Two-Year Budget, the ratio of the revenue sources is 93/6/1, respectively. The revenue from the Capacity Reserve Fee buy is based on the Regional Capacity Reserve Fee Study that was adopted in November 2018.

The fund has three expenditure types: 1) CIP Expenditures, 2) Debt Service and, 3) Other Expenses. The CIP near-term expenditures include the fund's contribution to the Primary Sedimentation and Expansion (17-P004) and Biogas Treatment System Improvements (16-P028) projects. The other significant project is the first phase of the Biosolids Dewatering (18-P013) project which includes $14.3 million in expenditures from 2022 to 2024, with $12.1 million in 2024 alone. All CIP expenditures are shown in more detail in Table 11 in the following section. The LAVWMA debt service for this fund is approximately $4.3 million annually, ending in fiscal year 2032. Other expenses, which cover personnel costs for plan check and permitting, are minor in comparison.

Working Capital

The final working capital in this fund, approximately $38 million, will be needed to fund future anticipated projects, including the fund's contribution to projects to meet the NPDES permit requirements. The working capital will also need to cover the remaining LAVWMA debt payments.

Table 10 – Regional Wastewater Treatment Expansion Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Other Revenues	CIP Expenditures	Debt Service	Other Expenses	Allocated District Overhead	Working Capital
19-20	789	$8,804,000	$ 987,000	$ 43,000	$ 6,573,000	$ 4,313,000	$ 176,000	$ 34,000	$ 48,103,000
20-21	557	$6,591,000	$ 962,000	$ 43,000	$ 6,828,000	$ 4,314,000	$ 184,000	$ 36,000	$ 44,337,000
21-22	387	$5,420,000	$ 416,000	$ 43,000	$ 3,687,000	$ 4,311,000	$ 190,000	$ 37,000	$ 41,991,000
22-23	387	$6,353,000	$ 409,000	$ 43,000	$ 2,948,000	$ 4,311,000	$ 195,000	$ 39,000	$ 41,304,000
23-24	387	$6,431,000	$ 311,000	$ 43,000	$ 12,120,000	$ 4,333,000	$ 201,000	$ 40,000	$ 31,395,000
24-25	387	$6,512,000	$ 334,000	$ 43,000	$ -	$ 4,313,000	$ 207,000	$ 41,000	$ 33,723,000
25-26	387	$6,595,000	$ 358,000	$ 43,000	$ -	$ 4,313,000	$ 213,000	$ 43,000	$ 36,149,000
26-27	387	$5,767,000	$ 374,000	$ 43,000	$ -	$ 4,327,000	$ 220,000	$ 44,000	$ 37,742,000
27-28	387	$5,843,000	$ 367,000	$ 43,000	$ 2,358,000	$ 4,312,000	$ 226,000	$ 46,000	$ 37,053,000
28-29	387	$5,370,000	$ 317,000	$ 43,000	$ 6,170,000	$ 4,313,000	$ 233,000	$ 48,000	$ 32,020,000

Figure 10 - Regional Wastewater Expansion Fund Working Capital

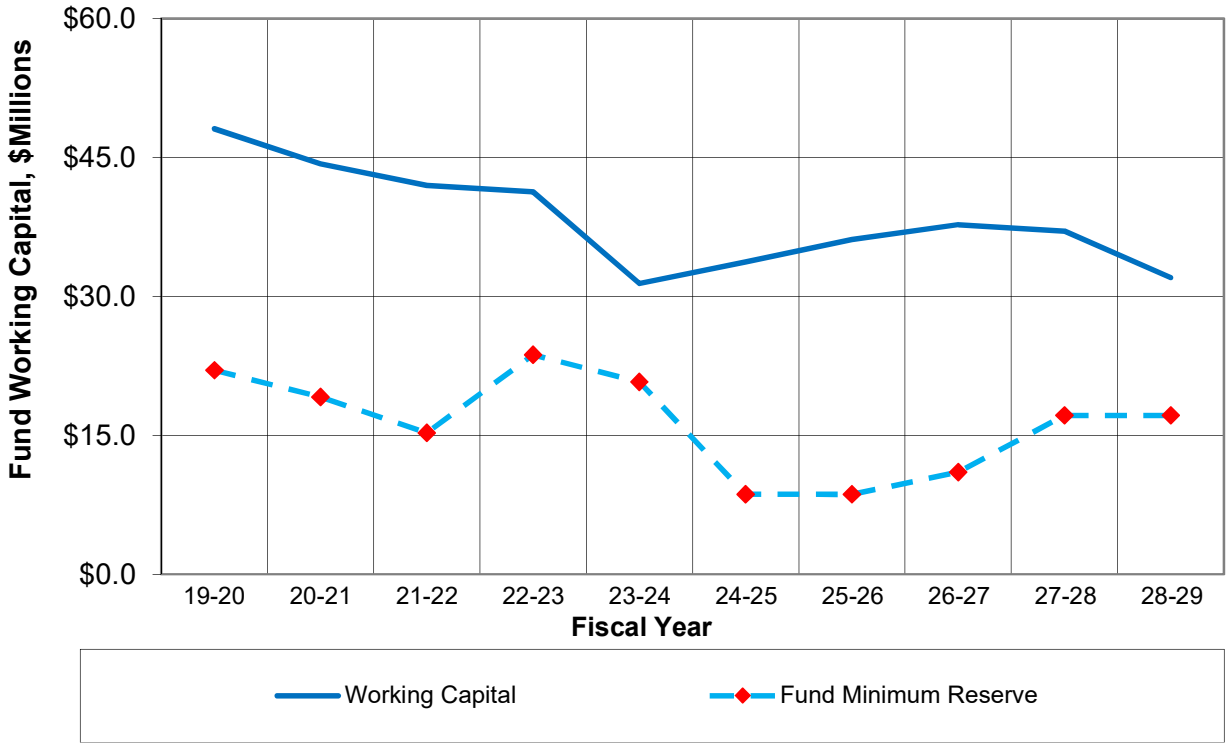
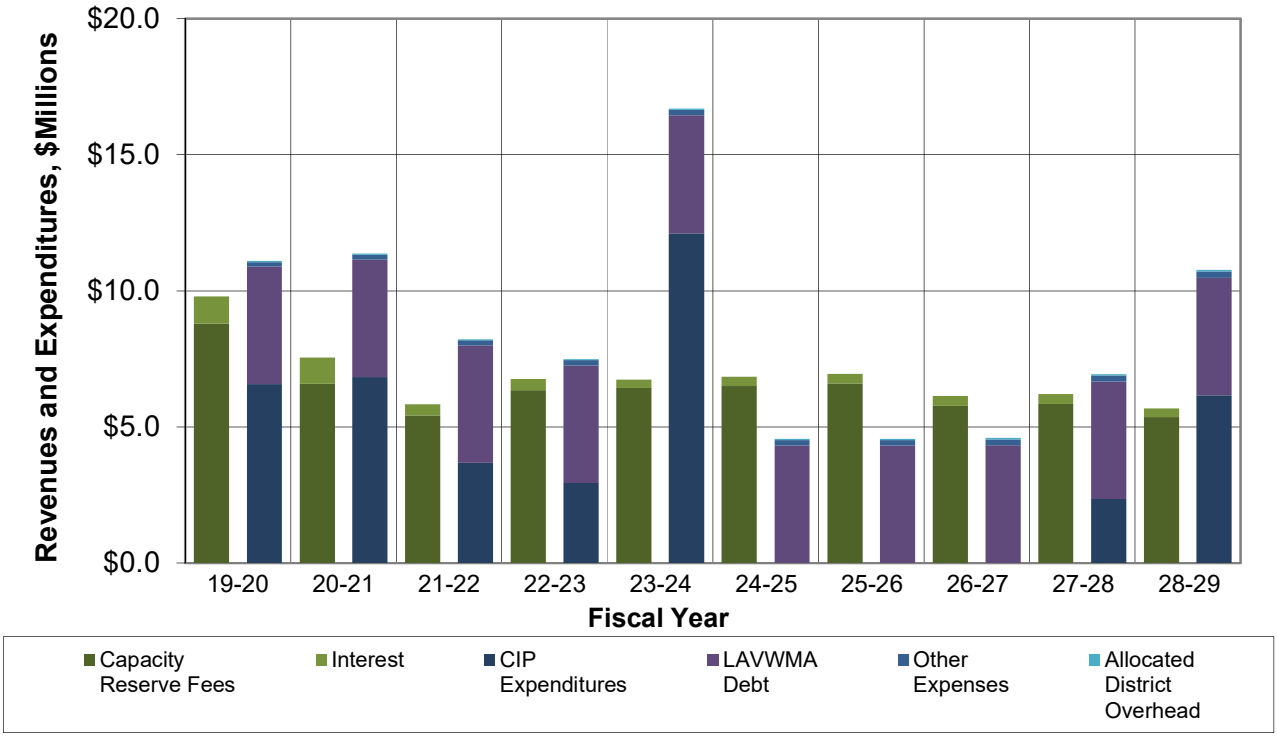


Figure 11 - Regional Wastewater Expansion Fund Revenues & Expenditures



Water Replacement (Fund 610)

The Water Replacement fund (Fund 610) funds projects which replace and improve facilities to treat recycled water, as well as the pipelines, pump stations, reservoirs, and related appurtenances to distribute potable water (from the Zone 7 turnouts to the customers and recycled water from the DERWA turnouts to the recycled water customers). The fund minimum reserve is twice the average annual expense of the fifteen year CIP.

Revenue & Expenditures

The fund has three sources of revenue; 1) Capacity Reserve Fee (Buy-In), 2) Interest, and 3) Replacement Allocation. In the Two-Year Budget, the ratio of the revenue sources is 32/4/64, respectively. The primary source of revenue to this fund is the replacement allocation from the Water Enterprise Fund, studied recently as part of the 2019 Water Rate Study. The secondary source of revenue to the Water Replacement Fund is the buy-in component of the Capacity Reserve Fee.

The fund has two expenditure types: 1) CIP Expenditures, and 2) Other Expenses. There are several priority projects in this fund, including the Valve and Blow-Off Replacement Project (19-W004), and Potable Water Pump Station Standby Generators/Emergency Response Project (16-W012). The Capital Improvements to Increase Water Supply Program – Phase 2 (00-W002), budgeted at $30 million in this fund, comprises a large share of the total CIP expenditures, as well as the Water System Replacement and Rehabilitation Program (00-W011). All CIP expenditures are shown in more detail in Table 13 in the following section. Other expenses include capital outlay and materials.

Working Capital

While this fund is projected to spend $30 million on alternative water supplies over Fiscal Year 2025 through 2027, per recent discussions with the Board of Directors, this project may also be debt funded. The working capital in this fund is well established to address future expenditures, remaining above the reserve target for the entire planning period, and in anticipation of rehabilitation and replacement costs projected beyond the ten-year plan horizon based on the asset management replacement model.

Table 12 – Water System Replacement Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Replacement Allocations	CIP Expenditures	Other Expenses	Working Capital
19-20	795	$ 3,258,000	$ 613,000	$ 5,495,000	$ 7,149,000	$ 702,000	$ 32,168,000
20-21	523	$ 2,208,000	$ 643,000	$ 5,495,000	$ 7,783,000	$ 398,000	$ 32,336,000
21-22	378	$ 1,644,000	$ 333,000	$ 5,495,000	$ 5,807,000	$ 410,000	$ 33,594,000
22-23	378	$ 1,693,000	$ 287,000	$ 5,495,000	$ 10,646,000	$ 1,400,000	$ 29,026,000
23-24	378	$ 1,744,000	$ 308,000	$ 5,095,000	$ 4,689,000	$ 422,000	$ 31,065,000
24-25	378	$ 1,796,000	$ 302,000	$ 5,095,000	$ 7,316,000	$ 435,000	$ 30,510,000
25-26	378	$ 1,850,000	$ 289,000	$ 5,095,000	$ 8,143,000	$ 448,000	$ 29,156,000
26-27	378	$ 1,905,000	$ 281,000	$ 5,095,000	$ 7,610,000	$ 462,000	$ 28,369,000
27-28	378	$ 1,962,000	$ 228,000	$ 5,095,000	$ 12,132,000	$ 475,000	$ 23,050,000
28-29	378	$ 2,021,000	$ 104,000	$ 5,095,000	$ 19,308,000	$ 490,000	$ 10,476,000

Figure 12 - Water Replacement Fund Working Capital

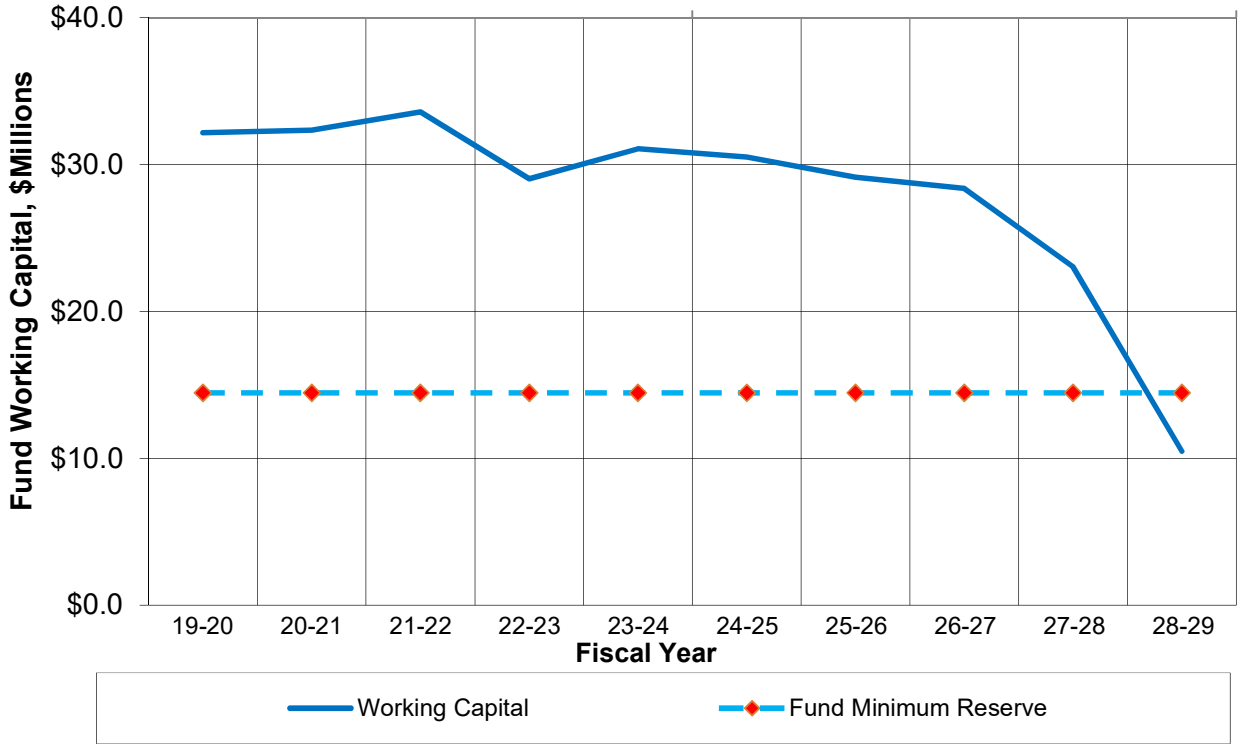
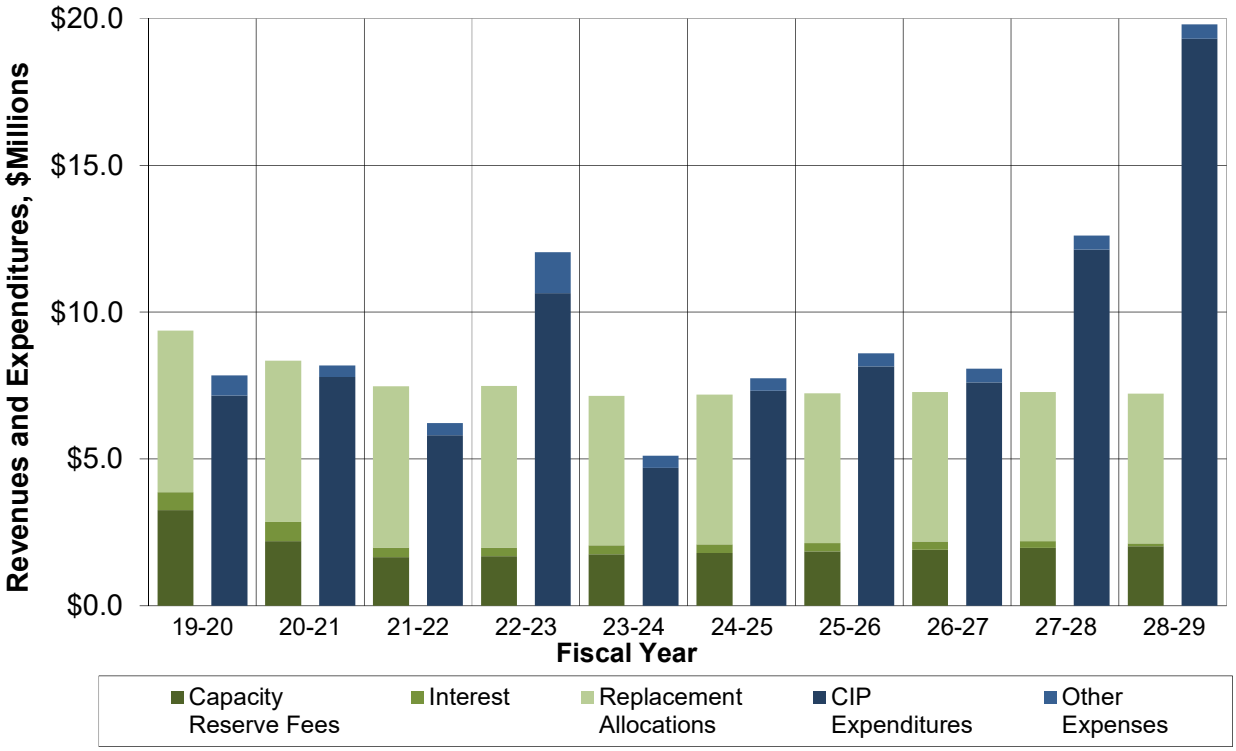


Figure 13 - Water Replacement Fund Revenues & Expenditures



Water Expansion (Fund 620)

The Water Expansion fund (Fund 620) funds projects which expand or add facilities to treat recycled water and to distribute potable and recycled water. The fund minimum reserve is the next two years' annual expense, plus two-year's average debt service.

Revenue & Expenditures

The fund has three sources of revenue; 1) Capacity Reserve Fee, 2) Interest, and 3) Other Revenues. In the Two-Year Budget, the ratio of the revenue sources is 79/2/19, respectively. The primary source of revenue to this fund is from Capacity Reserve Fees. Other revenues include plan check and inspection fees, which are estimated based on projected development.

The fund has four expenditure types: 1) CIP Expenditures, and 2) Debt Service, 3) Other Expenses, and 4) Allocated Overhead. The primary, near-term CIP expenditures include the construction of Reservoir 20B (14-W008), budgeted at $7 million. Other large projects include the construction of Turnout 6 (17-W003), and the fund's share of the Capital Improvements to Increase Water Supply Program – Phase 2 (00-W002). All CIP expenditures are shown in more detail in Table 15 in the following section. The fund is also responsible for the debt service for 2018 refinanced water bond repayment, through 2042 and the DERWA Loan, through 2027. Other expenses include personnel costs for construction inspection, and engineering technicians. These costs are offset by the plan check and inspection fee revenue. Allocated overhead is a function of the aforementioned personnel costs.

Working Capital

This fund has seen the most significant changes from the last review, including the increase and acceleration of the Turnout 6 project (20-W015), and the increase to the construction cost for Reservoir 10A (17-W003). This fund is reliant upon development related fees, and in the event of a downturn in the economy, these projects will be evaluated and deferred if necessary. Staff is closely monitoring the development revenue to ensure a healthy fund balance in the fund. Staff will also undertake a Water Capacity Reserve Fee in Fiscal Year 2020, assessing the increased costs mentioned above to generate appropriate revenue for these projects. For the majority of the ten-year period, the working capital remains at or just below fund minimum reserve target.

Table 14 – Water System Expansion Revenue, Expenditures, & Working Capital

Fiscal Year	DUEs	Capacity Reserve Fees	Interest	Other Revenues	CIP Expenditures	Debt Service	DERWA Debt Service	Other Expenses	Allocated District Overhead	Working Capital
19-20	795	$7,375,000	$535,000	$1,432,000	$ 3,040,000	$ 1,881,000	$ 823,000	$ 2,335,000	$ 237,000	$28,458,000
20-21	523	$4,933,000	$569,000	$1,475,000	$ 6,172,000	$ 1,881,000	$ 823,000	$ 2,394,000	$ 253,000	$24,587,000
21-22	378	$3,626,000	$123,000	$1,519,000	$ 13,866,000	$ 1,892,000	$ 846,000	$ 1,240,000	$ 262,000	$12,425,000
22-23	378	$3,689,000	$ 34,000	$1,565,000	$ 10,646,000	$ 1,889,000	$ 846,000	$ 1,277,000	$ 271,000	$ 3,459,000
23-24	378	$3,753,000	$ 45,000	$1,612,000	$ 662,000	$ 1,890,000	$ 846,000	$ 1,316,000	$ 281,000	$ 4,549,000
24-25	378	$3,820,000	$ 56,000	$1,660,000	$ 769,000	$ 1,890,000	$ 846,000	$ 1,355,000	$ 291,000	$ 5,608,000
25-26	378	$3,820,000	$ 66,000	$1,710,000	$ 769,000	$ 1,889,000	$ 846,000	$ 1,396,000	$ 301,000	$ 6,678,000
26-27	378	$3,820,000	$ 78,000	$1,761,000	$ 769,000	$ 2,332,000	$ 333,000	$ 1,438,000	$ 312,000	$ 7,828,000
27-28	378	$3,820,000	$ 72,000	$1,814,000	$ 2,519,000	$ 2,620,000	$ -	$ 1,481,000	$ 322,000	$ 7,266,000
28-29	378	$3,820,000	$ 5,000	$1,868,000	$ 4,675,000	$ 2,613,000	$ -	$ 1,525,000	$ 334,000	$ 494,000

Figure 14 - Water Expansion Fund Working Capital

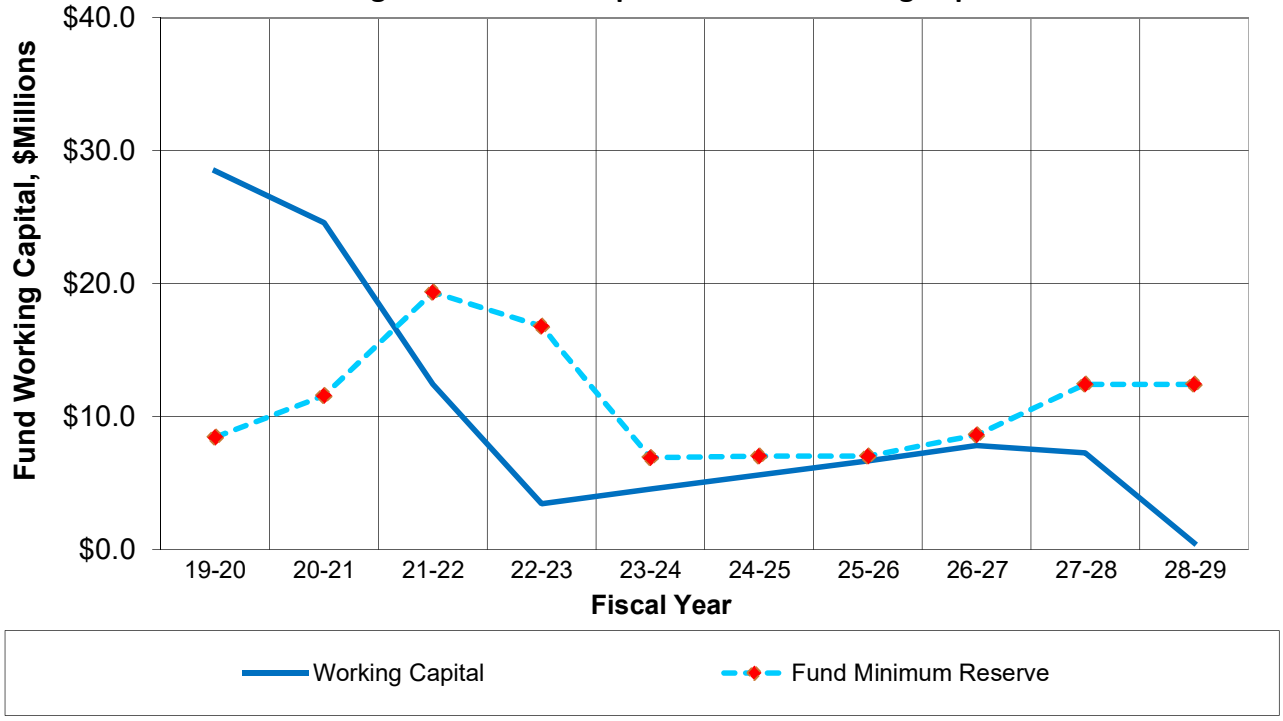
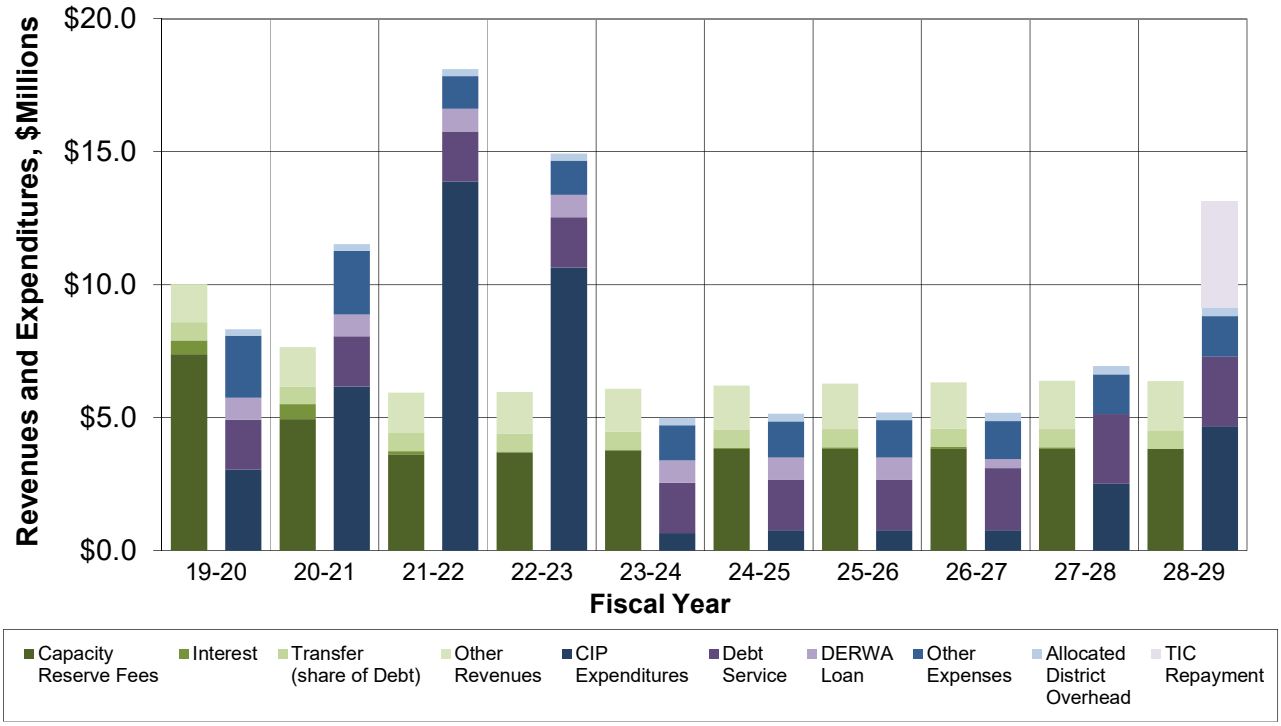


Figure 15 - Water Expansion Fund Revenues & Expenditures



Project Expenditures by Fund

The following tables present CIP Project expenditures by fund. The amounts shown are the District's costs, net of any grants or other funding. The tables illustrate the portion of estimated cash flow allocated to each fund. When a project is funded by multiple funds, it will appear multiple times, at the appropriate allocated percentage. Expenditures in the "Future" columns include the estimate of expenditures for the next five years beyond the ten-year planning period.

Table 5 - Local Replacement Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Local Wastewater Replacement (Fund 210)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	210 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
General														
20-A024	Field Operations Facility - Skylight Replacements	15%	12,000	0	0	0	0	0	0	0	0	0	0	12,000
16-A004	Board Meeting Audio/Video Improvements	10%	45,000	0	0	0	0	0	0	0	0	0	0	45,000
19-A005	District Office Renovation	10%	207,872	0	0	0	0	0	0	0	0	0	0	207,872
20-A002	Enterprise Resource Program System Conversion	12%	90,600	90,600	0	0	0	0	0	0	0	0	0	181,200
20-A004	District Office Roof Repair	12%	21,000	0	0	0	0	0	0	0	0	0	0	21,000
00-A003	Street Overlay Modification PROGRAM	50%	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	400,000	1,200,000
16-A005	Corporation Yard and Administrative Facilities	10%	56,070	13,489	0	0	0	0	0	0	0	0	0	69,559
T20-13	Gleason Drive Property Planning Study	10%	0	0	0	0	0	0	0	0	0	0	20,000	20,000
20-A001	Computing Infrastructure Replacement	12%	0	19,200	14,400	0	0	0	0	0	0	0	0	33,600
17-A007	Wide Area Network Communications Phase 2	10%	0	0	8,500	0	0	0	0	0	0	0	0	8,500
T18-23	Fleet Replacement PROGRAM	20%	0	0	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	300,000	780,000
T18-24	Facilities Asset Replacement PROGRAM	2%	0	0	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	43,000	111,800
T18-02	Network Infrastructure and Security	12%	0	0	0	0	30,000	30,000	0	60,000	0	0	0	120,000
T18-17	Electric Vehicle Charging Station	12%	0	0	0	0	0	0	0	12,000	0	0	0	12,000
Regional Wastewater Treatment														
18-P008	RWTF Industrial Control Network Security Essentials	11%	25,522	5,500	0	0	0	0	0	0	0	0	0	31,022
Wastewater Collection														
T20-05	Dublin Court and Dublin Boulevard Sewer Replacement	100%	0	0	0	200,000	550,000	0	0	0	0	0	0	750,000
00-S020	Wastewater Collection System Replacement and Rehabilitation PROGRAM	100%	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,000,000	1,000,000	1,000,000	9,000,000	14,100,000
18-S006	San Ramon Golf Course 24" Trunk Sewer Rehabilitation	100%	0	0	557,500	0	0	0	0	0	0	0	0	557,500
18-S007	Alcosta Blvd Sewer Replacement	100%	0	0	63,500	416,875	0	0	0	0	0	0	0	480,375

Portion of Estimated Cashflow Allocated to Local Wastewater Replacement (Fund 210)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	210 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
14-S001	Camp Parks Sewer Rehabilitation Project - Goodfellow Ave North of 8th Street	100%	0	0	389,215	0	0	0	0	0	0	0	0	389,215
T14-02	Camp Parks Sewer Rehabilitation Project - Davis and Cromwell, 8th to 10 Streets	100%	0	0	0	1,113,480	0	0	0	0	0	0	0	1,113,480
20-S013	East Dublin 36" Trunk Sewer Rehabilitation	100%	737,600	0	0	0	0	0	0	0	0	0	0	737,600
14-S002	Camp Parks Sewer Rehabilitation Project - Adams 8th to 10th Streets	100%	0	0	469,740	0	0	0	0	0	0	0	0	469,740
T16-50	Iron Horse Trail Sewer Replacement	100%	0	0	0	0	0	449,764	0	0	0	0	0	449,764
08-2101	Donahue Dr./Vomac Rd. Relief Sewer	100%	0	0	0	0	0	0	410,000	1,000,000	0	0	0	1,410,000
Water System														
15-W004	Dougherty Road Utilities	10%	22,500	0	0	0	0	0	0	0	0	0	0	22,500
			1,598,164	508,789	1,951,455	2,178,955	1,028,600	928,364	858,600	2,220,600	1,148,600	1,148,600	9,763,000	23,333,727

Table 7 - Local Expansion Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Local Wastewater Expansion (Fund 220)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	220 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
General														
16-A005	Corporation Yard and Administrative Facilities	5%	28,035	6,744	0	0	0	0	0	0	0	0	0	34,779
T20-13	Gleason Drive Property Planning Study	5%	0	0	0	0	0	0	0	0	0	0	10,000	10,000
Wastewater Collection														
T20-04	Dublin Boulevard - Clark Avenue to Sierra Court	100%	0	0	175,000	500,000	0	0	0	0	0	0	0	675,000
T20-06	Village Parkway - South of Dublin Boulevard	100%	0	0	0	0	0	0	275,000	2,557,000	0	0	0	2,832,000
20-S014	Dublin Boulevard - Amador Plaza Road to Village Parkway	100%	0	175,000	645,000	0	0	0	0	0	0	0	0	820,000
T00-76	Dublin Trunk Relief Sewer	100%	0	0	0	0	0	0	0	0	0	0	6,945,000	6,945,000
Water System														
15-W004	Dougherty Road Utilities	5%	11,250	0	0	0	0	0	0	0	0	0	0	11,250
			39,285	181,744	820,000	500,000	0	0	275,000	2,557,000	0	0	6,955,000	11,328,029

Table 9 - Regional Replacement Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Regional Wastewater Replacement (Fund 310)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	310 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
General														
16-A004	Board Meeting Audio/Video Improvements	45%	202,500	0	0	0	0	0	0	0	0	0	0	202,500
19-A005	District Office Renovation	53%	1,101,722	0	0	0	0	0	0	0	0	0	0	1,101,722
20-A002	Enterprise Resource Program System Conversion	50%	377,500	377,500	0	0	0	0	0	0	0	0	0	755,000
20-A004	District Office Roof Repair	50%	87,500	0	0	0	0	0	0	0	0	0	0	87,500
20-A001	Computing Infrastructure Replacement	50%	0	80,000	60,000	0	0	0	0	0	0	0	0	140,000
17-A007	Wide Area Network Communications Phase 2	46%	0	0	39,100	0	0	0	0	0	0	0	0	39,100
T18-23	Fleet Replacement PROGRAM	30%	0	0	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	450,000	1,170,000
T18-24	Facilities Asset Replacement PROGRAM	66%	0	0	283,800	283,800	283,800	283,800	283,800	283,800	283,800	283,800	1,419,000	3,689,400
T18-02	Network Infrastructure and Security	50%	0	0	0	0	125,000	125,000	0	250,000	0	0	0	500,000
T18-17	Electric Vehicle Charging Station	50%	0	0	0	0	0	0	0	50,000	0	0	0	50,000
Regional Wastewater Treatment														
19-P001	Facultative Sludge Lagoon (FSL) Anchors	100%	220,000	0	0	0	0	0	0	0	0	0	0	220,000
20-P010	Cogeneration Engine #4	100%	0	0	470,000	0	0	0	0	0	0	0	0	470,000
T20-09	WWTP Administration Building (Building A) Remodel/Renovation	100%	0	0	100,000	0	0	0	0	0	0	0	0	100,000
T20-10	Mezzanine in Electrical Shop	100%	0	0	50,000	0	0	0	0	0	0	0	0	50,000
T20-14	WWTP/Biosolids Master Plan	15%	0	0	0	127,500	0	0	0	0	0	0	0	127,500
T20-15	Flocculation Baffles in Secondary Clarifiers	100%	0	0	80,000	0	0	0	0	0	0	0	0	80,000
20-P009	Holding Basin 1, 2, 3 & 4 Re-Sealing	100%	422,500	0	0	0	0	0	0	0	0	0	0	422,500
20-P011	Building "S" Piping Replacement	100%	150,000	0	0	0	0	0	0	0	0	0	0	150,000
20-P012	RWTF Security Improvements	100%	216,000	242,000	0	0	0	0	0	0	0	0	0	458,000
05-3103	FSL Piping Improvements	100%	85,703	0	0	0	0	0	0	0	0	0	0	85,703
13-S004	Pump Stations VFD Replacements	100%	200,000	545,000	0	0	0	0	0	0	0	0	0	745,000
16-P024	RWTF Fire Alarm System Upgrades	100%	150,000	0	0	0	0	0	0	0	0	0	0	150,000
16-P028	Bio-Gas Treatment System Improvements	33%	133,094	919,050	66,000	0	0	0	0	0	0	0	0	1,118,144
16-P0300	EPS1 and EPS2 Pump Modifications	100%	70,290	70,291	0	0	0	0	0	0	0	0	0	140,581

Portion of Estimated Cashflow Allocated to Regional Wastewater Replacement (Fund 310)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	310 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
16-P031	RWTF Administration Building Improvements	100%	75,000	0	0	0	0	0	0	0	0	0	0	75,000
17-P004	Primary Sedimentation Expansion and Improvements	15%	1,112,188	862,500	540,000	0	0	0	0	0	0	0	0	2,514,688
18-P008	RWTF Industrial Control Network Security Essentials	52%	120,648	26,000	0	0	0	0	0	0	0	0	0	146,648
18-P012	Inner Sewer Wetwell and Pumping Assessment	100%	48,222	0	0	0	0	0	0	0	0	0	0	48,222
18-P011	Chlorinated Secondary Effluent Process Water System Condition Assessment	100%	0	0	75,000	0	0	0	0	0	0	0	0	75,000
18-P010	Biogas Flare Improvements	100%	150,000	1,200,000	0	0	0	0	0	0	0	0	0	1,350,000
00-3120	Energy Management PROGRAM	75%	56,250	56,250	187,500	187,500	262,500	0	0	0	0	0	0	750,000
00-P026	RWTF Replacement and Rehabilitation PROGRAM	100%	500,000	500,000	500,000	1,000,000	1,500,000	2,000,000	2,000,000	2,500,000	3,000,000	3,500,000	15,000,000	32,000,000
05-3206	WWTP SCADA Improvements	100%	905,500	1,355,500	0	0	0	0	0	0	0	0	0	2,261,000
14-P005	Wet Weather Flow Capacity and Chlorine Contact Tank Dewatering	85%	0	0	382,500	0	0	0	0	0	0	0	0	382,500
18-P014	WWTP Recycled and Potable Water Systems	100%	0	0	200,000	124,000	0	0	0	0	0	0	0	324,000
18-P017	Public Outreach Signage at RWTF	100%	0	0	100,000	0	0	0	0	0	0	0	0	100,000
18-P002	WWTP Electrical System Master Plan	100%	0	750,000	0	0	0	0	0	0	0	0	0	750,000
18-P016	Alum Addition	75%	0	225,000	375,000	0	0	0	0	0	0	0	0	600,000
15-P018	Foul Air Line Rehabilitation	100%	50,000	0	0	0	0	0	0	0	0	0	0	50,000
T16-01	Hypochlorite Building Rehabilitation	100%	0	0	340,000	0	0	0	0	0	0	0	0	340,000
20-P006	Recoating of Digester Interior Covers 3, 2, and 1	100%	79,000	79,000	132,000	0	0	0	0	0	0	0	0	290,000
20-P007	FSL MCC Improvements	100%	65,550	99,900	0	0	0	0	0	0	0	0	0	165,450
19-P003	RWTF Fencing and Security - Phase 2	100%	0	0	0	1,067,000	0	0	0	0	0	0	0	1,067,000
T16-11	WWTP Motor Control Center and Distribution Panel "A" Improvements	100%	0	0	203,550	471,750	471,750	0	0	0	0	0	0	1,147,050
T16-40	RWTF Pavement Repair	100%	0	0	0	325,000	0	0	0	0	0	0	0	325,000
T16-54	Odor Reduction Tower Replacement	100%	0	0	0	1,936,000	0	0	0	0	0	0	0	1,936,000
T18-15	Cogeneration Engine Replacement	100%	0	0	0	20,000	1,000,000	0	0	0	0	0	0	1,020,000
T16-42	Nutrient Removal	80%	0	0	0	0	0	0	0	0	0	5,904,000	28,320,000	34,224,000

Portion of Estimated Cashflow Allocated to Regional Wastewater Replacement (Fund 310)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	310 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
Water System														
16-A016	District Facilities Security Project - Phase 2	10%	0	0	5,000	0	0	0	0	0	0	0	0	5,000
			6,579,168	7,387,991	4,279,450	5,632,550	3,733,050	2,498,800	2,373,800	3,173,800	3,373,800	9,777,800	45,189,000	93,999,209

Table 11 - Regional Expansion Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Regional Wastewater Expansion (Fund 320)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	320 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
Regional Wastewater Treatment														
T20-14	WWTP/Biosolids Master Plan	85%	0	0	0	722,500	0	0	0	0	0	0	0	722,500
16-P028	Bio-Gas Treatment System Improvements	67%	270,222	1,865,950	134,000	0	0	0	0	0	0	0	0	2,270,172
17-P004	Primary Sedimentation Expansion and Improvements	85%	6,302,401	4,887,500	3,060,000	0	0	0	0	0	0	0	0	14,249,901
14-P005	Wet Weather Flow Capacity and Chlorine Contact Tank Dewatering	15%	0	0	67,500	0	0	0	0	0	0	0	0	67,500
18-P013	Biosolids Dewatering Facility	100%	0	0	300,000	2,225,000	12,120,000	0	0	0	0	0	11,900,000	26,545,000
18-P016	Alum Addition	25%	0	75,000	125,000	0	0	0	0	0	0	0	0	200,000
T10-62	Emergency Power for Distribution Panel-D	100%	0	0	0	0	0	0	0	0	0	0	5,560,000	5,560,000
T10-83	Cover Primary Clarifiers	100%	0	0	0	0	0	0	0	0	0	4,694,000	0	4,694,000
T12-08	Cover Settled Sewage Channel and Selector	100%	0	0	0	0	0	0	0	0	2,358,000	0	0	2,358,000
T16-42	Nutrient Removal	20%	0	0	0	0	0	0	0	0	0	1,476,000	7,080,000	8,556,000
			6,572,622	6,828,450	3,686,500	2,947,500	12,120,000	0	0	0	2,358,000	6,170,000	24,540,000	65,223,072

Table 13 - Water Replacement Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Water Replacement (Fund 610)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	610 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
General														
20-A024	Field Operations Facility - Skylight Replacements	85%	68,000	0	0	0	0	0	0	0	0	0	0	68,000
16-A004	Board Meeting Audio/Video Improvements	45%	202,500	0	0	0	0	0	0	0	0	0	0	202,500
19-A005	District Office Renovation	37%	769,126	0	0	0	0	0	0	0	0	0	0	769,126
20-A002	Enterprise Resource Program System Conversion	38%	286,900	286,900	0	0	0	0	0	0	0	0	0	573,800
20-A004	District Office Roof Repair	38%	66,500	0	0	0	0	0	0	0	0	0	0	66,500
00-A003	Street Overlay Modification PROGRAM	50%	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	400,000	1,200,000
16-A005	Corporation Yard and Administrative Facilities	55%	308,385	74,188	0	0	0	0	0	0	0	0	0	382,573
17-A006	District Pavement Rehabilitation	100%	0	324,630	250,000	200,000	40,000	200,000	0	200,000	0	0	0	1,214,630
T20-13	Gleason Drive Property Planning Study	55%	0	0	0	0	0	0	0	0	0	0	110,000	110,000
20-A001	Computing Infrastructure Replacement	38%	0	60,800	45,600	0	0	0	0	0	0	0	0	106,400
17-A007	Wide Area Network Communications Phase 2	44%	0	0	37,400	0	0	0	0	0	0	0	0	37,400
T18-23	Fleet Replacement PROGRAM	50%	0	0	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	750,000	1,950,000
T18-24	Facilities Asset Replacement PROGRAM	32%	0	0	137,600	137,600	137,600	137,600	137,600	137,600	137,600	137,600	688,000	1,788,800
T18-02	Network Infrastructure and Security	38%	0	0	0	0	95,000	95,000	0	190,000	0	0	0	380,000
T18-17	Electric Vehicle Charging Station	38%	0	0	0	0	0	0	0	38,000	0	0	0	38,000
Joint Powers Authority														
20-W022	DERWA SFUV Wiper Arms Replacement	100%	115,460	0	0	0	0	0	0	0	0	0	0	115,460
20-W021	DERWA TIPS VFD Upgrades	100%	28,980	0	0	0	0	0	0	0	0	0	0	28,980
T16-37	DERWA Microfiltration Rack and Membrane Replacement	100%	0	0	0	0	0	0	997,500	0	0	0	0	997,500
Regional Wastewater Treatment														
18-P008	RWTF Industrial Control Network Security Essentials	37%	85,846	18,500	0	0	0	0	0	0	0	0	0	104,346
00-3120	Energy Management PROGRAM	25%	18,750	18,750	62,500	62,500	87,500	0	0	0	0	0	0	250,000
Water System														

Portion of Estimated Cashflow Allocated to Water Replacement (Fund 610)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	610 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
19-W004	Valve and Blow-Off Replacement	100%	1,000,000	1,000,000	1,000,000	0	0	0	0	0	0	0	0	3,000,000
20-W019	Automated Water Quality Monitoring	100%	0	300,000	600,000	0	0	0	0	0	0	0	0	900,000
15-W004	Dougherty Road Utilities	55%	123,750	0	0	0	0	0	0	0	0	0	0	123,750
16-W009	Potable Water Supply Reliability Planning	33%	99,000	0	0	0	0	0	0	0	0	0	0	99,000
16-W012	Potable Water Pump Station Standby Generators/Emergency Response	100%	650,000	2,390,000	0	0	0	0	0	0	0	0	0	3,040,000
17-W001	Automated Water Meter Data Transmission Repeaters	20%	21,600	4,800	4,800	4,800	16,800	4,800	4,800	4,800	4,800	0	0	72,000
18-W021	Recycled Water Fire Hydrant Upgrades	100%	140,000	0	0	0	0	0	0	0	0	0	0	140,000
16-A016	District Facilities Security Project - Phase 2	90%	0	0	45,000	0	0	0	0	0	0	0	0	45,000
18-W003	Reservoir 2 Recoating	100%	0	1,193,500	0	0	0	0	0	0	0	0	0	1,193,500
00-W002	Capital Improvements to Increase Water Supply PROGRAM - Phase 2	75%	225,000	375,000	375,000	375,000	375,000	2,250,000	2,250,000	2,250,000	7,500,000	14,025,000	0	30,000,000
00-W011	Water System Replacement and Rehabilitation PROGRAM	100%	300,000	300,000	300,000	600,000	1,500,000	2,000,000	2,500,000	3,000,000	3,000,000	4,000,000	20,000,000	37,500,000
12-W016	Reservoir 1B Recoating	100%	1,625,000	0	0	0	0	0	0	0	0	0	0	1,625,000
16-W017	Water Lines Replacement - Wineberry Area	100%	0	0	0	0	2,207,083	0	0	0	0	0	0	2,207,083
18-W004	MCC Improvements - PS1A and PS3A	100%	0	79,350	188,700	0	0	0	0	0	0	0	0	268,050
20-W023	Camp Parks Water Main - 5th Street, Adams to Davis Street	100%	0	550,000	0	0	0	0	0	0	0	0	0	550,000
17-W002	Electrical Service to Reservoir 200B	100%	90,000	0	0	0	0	0	0	0	0	0	0	90,000
T16-28	Water Lines Replacement - Tamarack Drive - Village Pkwy to Firethorn Way	100%	0	0	0	1,101,780	0	0	0	0	0	0	0	1,101,780
T16-29	Water Lines Replacement - Canterbury Lane and Cardigan Street	100%	0	0	0	0	0	1,190,000	0	0	0	0	0	1,190,000
T16-30	Water Line Replacement Phase 2 - Canterbury Lane	100%	0	0	0	0	0	1,208,770	0	0	0	0	0	1,208,770
08-6103	Camp Parks Water Main - Sebille Ave to 12th St	100%	0	0	0	520,000	0	0	0	0	0	0	0	520,000
20-W025	Pump Station 1A Rehabilitation	100%	0	330,000	2,530,000	0	0	0	0	0	0	0	0	2,860,000
00-W001	Capital Improvement to Increase Water Supply PROGRAM - Phase 1	33%	77,220	165,000	0	0	0	0	0	0	0	0	825,000	1,067,220
20-W016	Camp Parks Water Main - Mitchell Drive, Powell to 8th Streets	100%	0	182,000	0	0	0	0	0	0	0	0	0	182,000

Portion of Estimated Cashflow Allocated to Water Replacement (Fund 610)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	610 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
20-W024	Camp Parks Water Mains - Cromwell Avenue and 12th Street	100%	767,000	0	0	0	0	0	0	0	0	0	0	767,000
20-W018	Reservoir 20A Recoating	100%	0	50,000	0	2,157,300	0	0	0	0	0	0	0	2,207,300
T16-31	Water Line Replacement - Ironwood Drive	100%	0	0	0	0	0	0	1,210,260	0	0	0	0	1,210,260
T16-67	Reservoir Recoating PROGRAM	100%	0	0	0	0	0	0	812,500	1,560,000	1,260,000	560,000	344,500	4,537,000
T10-86	Camp Parks Water Mains - Lorring Street and Monroe Avenue	100%	0	0	0	0	0	0	0	0	0	355,100	0	355,100
			7,149,017	7,783,418	5,806,600	5,388,980	4,688,983	7,316,170	8,142,660	7,610,400	12,132,400	19,307,700	23,117,500	108,443,829

Table 15 - Water Expansion Project Expenditures by Fund

CIP 10-Year Plan for Fiscal Years Ending 2020 through 2029

Portion of Estimated Cashflow Allocated to Water Expansion (Fund 620)

**Amounts shown are District costs net of grants and other fundings*

CIP No.	Project Name	620 Split	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Future	Total
General														
16-A005	Corporation Yard and Administrative Facilities	30%	168,210	40,466	0	0	0	0	0	0	0	0	0	208,676
T20-13	Gleason Drive Property Planning Study	30%	0	0	0	0	0	0	0	0	0	0	60,000	60,000
Joint Powers Authority														
16-R014	DERWA Recycled Water Plant - Phase 2	100%	189,200	0	0	0	0	0	0	0	0	0	0	189,200
16-R018	DERWA Supplemental Supply	100%	886,240	0	0	516,780	0	0	0	0	0	0	0	1,403,020
Water System														
12-W013	Water Main - Fallon Rd, Tassajara Rd to Tassajara Creek	100%	0	315,500	0	0	0	0	0	0	0	0	0	315,500
15-W004	Dougherty Road Utilities	30%	67,500	0	0	0	0	0	0	0	0	0	0	67,500
16-W009	Potable Water Supply Reliability Planning	67%	201,000	0	0	0	0	0	0	0	0	0	0	201,000
17-W001	Automated Water Meter Data Transmission Repeaters	80%	86,400	19,200	19,200	19,200	67,200	19,200	19,200	19,200	19,200	0	0	288,000
17-W003	Reservoir 10A	100%	150,000	0	8,605,500	9,300,000	470,000	0	0	0	0	0	0	18,525,500
00-W002	Capital Improvements to Increase Water Supply PROGRAM - Phase 2	25%	75,000	125,000	125,000	125,000	125,000	750,000	750,000	750,000	2,500,000	4,675,000	0	10,000,000
16-R013	Water Reuse Demonstration Project	100%	0	85,000	85,000	215,000	0	0	0	0	0	0	0	385,000
14-W008	Reservoir 20B	100%	560,000	4,252,000	2,231,000	0	0	0	0	0	0	0	0	7,043,000
00-W001	Capital Improvement to Increase Water Supply PROGRAM - Phase 1	67%	156,780	335,000	0	0	0	0	0	0	0	0	1,675,000	2,166,780
20-W017	Water System Master Plan Update and Operations Plan Update	100%	0	500,000	0	0	0	0	0	0	0	0	0	500,000
08-6202	Pump Station 20A Improvements	100%	0	0	0	470,000	0	0	0	0	0	0	0	470,000
20-W015	Turnout 6	100%	500,000	500,000	2,800,000	0	0	0	0	0	0	0	0	3,800,000
			3,040,330	6,172,166	13,865,700	10,645,980	662,200	769,200	769,200	769,200	2,519,200	4,675,000	1,735,000	45,623,176

Chapter 4: Project Worksheets

This Chapter provides a more detailed look at individual projects. Each project has a worksheet that presents the following fields:

1. Project Category:
    a. General
    b. Joint Powers Authority
    c. Water System
    d. Wastewater Collection
    e. Regional Wastewater Treatment

2. Primary Project Fund
3. CIP Number and Project Title
4. Funding Allocation and Allocation Basis
5. Project Manager
6. Status
7. Project Summary
8. CEQA & Reference Documents
9. Ten-Year Cash Flow and Estimated Project Cost

The project worksheets are grouped by project categories, and arranged in the order of project timing. Each category contains an index sheet to provide list of projects contained within that category.

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: GENERAL

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-A025 Capital Outlay - Fiscal Years 2020 and 2021

Funding Allocation: 58% **310** 22% **610** 20% **210**

Project Summary: Capital Outlay is the mechanism for replacing or adding an asset that has a minimum total cost of $10,000 and a useful life of at least three years. The Capital Outlay for Fiscal Years 2020 and 2021 are shown in the table below.

Fund Allocation Basis: Capital Outlay items are funded to the appropriate replacement fund based on the nature and primary use of the item.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	1,762,600	491,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,253,600**
Current Adopted Budget	$0
Increase/(Decrease)	$2,253,600

Capital Outlay	FY 2020	FY 2021	Fund	Fund Split
CCTV Truck Replacement	$ 500,000		Local Replacement	100%
District Office Server Room HVAC	$ 3,600		Local Replacement	12%
Local Subtotal:	**$ 503,600**			
Spare RAS Pump For Secondary Clarifiers	$ 16,000		Regional Replacement	100%
Vibration and Acoustic Monitoring Equipment	$ 100,000		Regional Replacement	100%
Mechanical Bird Control	$ 50,000		Regional Replacement	100%
Influent Gate Control		$ 120,000	Regional Replacement	100%
Environmental Compliant Blasting/Removal System		$ 50,000	Regional Replacement	100%
Instrumentation, Controls, & Electrical	$ 90,100		Regional Replacement	100%
Air Handler for Influent Pump Room	$ 32,000		Regional Replacement	100%
Building "R" Retaining Wall		$ 60,000	Regional Replacement	100%
Building "A" Sewer Line Replacement/Bursting	$ 60,000		Regional Replacement	100%
D7 Tractor for Bio-Solids Harvesting	$ 250,000		Regional Replacement	100%
Service Cart Replacements	$ 77,000	$ 11,000	Regional Replacement	100%
Small Dump Truck	$ 37,500		Regional Replacement	50%
Laboratory Equipment Replacement	$ 167,500	$ 167,500	Regional Replacement	67%
District Office Server Room HVAC	$ 17,100		Regional Replacement	57%
Regional Subtotal:	**$ 897,200**	**$ 408,500**		
Arrowboard Sign Trailer	$ 17,500		Water Replacement	100%
Ford Escape	$ 30,000		Water Replacement	100%
Leak Repair Vehicle	$ 150,000		Water Replacement	100%
Reach Truck	$ 35,000		Water Replacement	100%
Small Dump Truck	$ 37,500		Water Replacement	50%
Laboratory Equipment Replacement	$ 82,500	$ 82,500	Water Replacement	33%
District Office Server Room HVAC	$ 9,300		Water Replacement	31%
Water Subtotal:	**$ 361,800**	**$ 82,500**		
GRAND TOTAL:	**$ 1,762,600**	**$ 491,000**		

CATEGORY: GENERAL **Water Replacement (Fund 610)**

CIP No. 20-A024 Field Operations Facility - Skylight Replacements

Funding Allocation: 85% **610** 15% **210**

Project Manager: Shawn Quinlan **Status:** New Project

Project Summary:

This project will replace all skylights at the Field Operations Facility (FOF). The building was constructed in 1997. The District acquired the property in March 2016, and completed renovations in the spring and summer of 2016. The renovations did not include replacement of the original skylights, many of which are now leaking.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: N/A

Fund Allocation Basis: Based on Field Operations staff allocation between water and local wastewater collection.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	80,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$80,000**
Current Adopted Budget	$0
Increase/(Decrease)	$80,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 16-A004 Board Meeting Audio/Video Improvements

Funding Allocation: 45% **310** 45% **610** 10% **210**

Project Manager: Jason Ching **Status:** Continuing Project

Project Summary:

This project will retrofit the Boardroom lighting and audio system and install video cameras and video streaming equipment to facilitate quality video streaming and indexing of Board meetings. There will be an additional ongoing annual operating cost for third party support for videoing, streaming, and indexing of the video.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference:

Fund Allocation Basis: Project will mainly benefit customers so the allocation is based on revenues by fund.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
100,000	450,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$550,000**
Current Adopted Budget	$245,000
Increase/(Decrease)	$305,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 19-A005 District Office Renovation

Funding Allocation: 53% **310** 37% **610** 10% **210**

Project Manager: Jason Ching **Status:** Continuing Project

Project Summary:

This project will upgrade the District Office furnishings and building systems. The project will 1) replace all the individual office furniture and conference room furniture to match the new furnishings, 2) replace the casework in the reception area, at the permit and customer service counter, in the GM Conference Room, in the mailroom, and in the kitchen/break areas, 3) replace the tile in the main entrance, reception area, hallways, and bathrooms, 4) replace bathroom counters and fixtures, 5) replace the existing fluorescent lights with LED lights, 6) replace the heating system hot water control valves and controllers, and 7) move interior walls to improve the use of the space.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference: n/a

Fund Allocation Basis: Fund split is based on the same allocation as employee costs, as the building is used by employees to conduct District business.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
761,280	2,078,720	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,840,000**
Current Adopted Budget	$2,840,000
Increase/(Decrease)	$0

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-A002 Enterprise Resource Program System Conversion

Funding Allocation: 50% **310** 38% **610** 12% **210**

Project Manager: Carol Atwood **Status:** New Project

Project Summary:

This project will include procurement and implementation of a new Enterprise Resource Program (ERP). The current ERP is over fifteen years old and the vendor has indicated they it may end support for the product in the coming years. This ERP is used to managed all financial data for the District, including accounting, budget preparation, payroll, purchasing, and utility billing. The project includes system configuration, data migration, data exchange testing, conversion validation, forms and reports planning, end-user training, parallel testing and final transition with technical support. The cost also includes post-conversion legacy system data access.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: Information Technology Services Master Plan (2017)

Fund Allocation Basis: Based on employee allocation

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	755,000	755,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,510,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,510,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-A004 District Office Roof Repair

Funding Allocation: 50% **310** 38% **610** 12% **210**

Project Manager: Shawn Quinlan **Status:** New Project

Project Summary:

This District Office was constructed in 1992, and over time, the roof has developed several leaks in the southern portion (Dublin Boulevard) of the building. This project will reseal the entire metal roof and replace two parapet roof sections, alleviating the leaks.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: To be determined.

Fund Allocation Basis: Based on employee allocation.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	175,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$175,000**
Current Adopted Budget	$0
Increase/(Decrease)	$175,000

CATEGORY: GENERAL **Water Replacement (Fund 610)**

CIP No. 16-A005 Corporation Yard and Administrative Facilities

Funding Allocation: 55% **610** 30% **620** 10% **210** 5% **220**

Project Manager: Robyn Mutobe **Status:** Continuing Project

Project Summary:

The lease with the US Army for the Field Operations Division (FOD) temporary facilities at Camp Parks terminated in October 2016. In March 2016, the District acquired a commercial building and warehouse at 7035 Commerce Circle in Pleasanton for approximately $4.9 million. The property is located adjacent to the LAVWMA pump station. Infrastructure including building security, HVAC improvements and control systems, new materials bins, business and SCADA networks, and fencing and parking improvements were completed in spring/summer 2016 and FOD moved to the facility in August 2016. Renovations including a new lobby, new locker rooms, a new mudroom, and kitchen/breakroom improvements along with all new flooring and 1st floor furniture was completed in April 2017. A backup generator, new automatic transfer switchgear, and new uninterruptable power supply (UPS) for the SCADA system and select building loads will be installed in

CEQA: Building renovation covered by City of Pleasanton EIR; materials bin work - CEQA NOE filed by DSRSD

Reference: Field Operations Division Corporation Yard Study, January 2009.

Fund Allocation Basis: Fund split is based upon the estimated Field Operations cost split between potable water, recycled water and sewer activities.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
7,172,960	560,700	134,888	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$7,868,548**
Current Adopted Budget	$7,584,697
Increase/(Decrease)	$283,851

CATEGORY: GENERAL **Water Replacement (Fund 610)**

CIP No. 17-A006 District Pavement Rehabilitation

Funding Allocation: 100% **610**

Project Manager: Jackie Yee **Status:** Continuing Project

Project Summary:

This project has evaluated the existing paved access roads at District facilities excluding the Regional Wastewater Treatment Facility. The various access roads will be scheduled for repair, maintenance, or reconstruction based on the evaluation report. The roads we ranked by condition (fair, poor, very poor). Fair condition roads had minor cracking due to roots, lack of proper edging, poor drainage, and expansive soils. Poor condition roads were similar to fair condition roads but were more severe and noted by existing visual damage. Very poor condition roads had complex subsurface and geologic conditions that need in-depth study for recommended design and construction.

CEQA:	Categorical Exemption [CEQA Guideline 15301].
Reference:	Pavement Investigation Report, Pavement Rehabilitation Project Phase 1, December 12, 2016, Construction Testing Services
Fund Allocation Basis:	Project is required to maintain exsiting water assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
20,370	0	324,630	250,000	200,000	40,000	200,000	0	200,000	0	0	0

Total Estimated Project Cost	**$1,235,000**
Current Adopted Budget	$1,235,000
Increase/(Decrease)	$0

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-A001 Computing Infrastructure Replacement

Funding Allocation: 50% **310** 38% **610** 12% **210**

Project Manager: Information Technology **Status:** New Project

Project Summary:

This project will modernize and replace the computing infrastructure for the processing of multiple database applications including our Enterprise Resource Planning (ERP), Geographic Information System (GIS), Laboratory Information Management System (LIMS) and Computerized Maintenance Management System (CMMS). Blade servers and storage area networks were originally purchased in 2011. By 2022, the equipment will be at least ten years old, three years past best practice replacement schedule of seven years.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: Best practice for network technology replacement.

Fund Allocation Basis: Based on employee allocation.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	160,000	120,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$280,000**
Current Adopted Budget	$0
Increase/(Decrease)	$280,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 17-A007 Wide Area Network Communications Phase 2

Funding Allocation: 46% **310** 44% **610** 10% **210**

Project Manager: Jackie Yee **Status:** Continuing Project

Project Summary:

This project will allow for increased access speed and bandwidth at remote sites. Increases in application demands and database systems cause delays in data transmissions and production slowdowns. This project will remove current AT&T leased data lines and install District-owned, multi-strand fiber lines or wireless networks for communications in data and phone systems for faster and bigger-piped communication links. This project will upgrade the existing communication links for the Regional Wastewater Treatment Plant (RWTP) and Field Operations Facility (FOF) in areas of data and phone communications. These upgrades will also allow for future bandwidth requirements in areas of audio and video transmission. Through FYE 2019, the project has completed 1) the fiber connection between the District Office and RWTP, 2) the wireless connection between the District Office and FOF, 3) wireless connection between FOF and RWTP, and 4) purchase and installation of wide area network security appliances to support these connections, and 5) the installation of fiber between RWTP and the new FOF on Commerce Circle and the LAVWMA site. The remaining funds will install fiber between the District Office and the new City of Dublin data center (currently under construction).

CEQA: Categorical Exemption [CEQA Guideline 15303]

Reference: 2002 Information Technology Master Plan

Fund Allocation Basis: Project is replacement-oriented and will use the standard "general capital asset" allocation

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
530,000	0	0	85,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$615,000**
Current Adopted Budget	$615,000
Increase/(Decrease)	$0

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. 00-A003 Street Overlay Modification PROGRAM

Funding Allocation: 50% **210** 50% **610**

Project Manager: Rudy Portugal **Status:** Continuing Program

Project Summary:

The District is required to adjust infrastructure access to any increases in street grades. This project will raise manholes and valve boxes annually in conjunction with overlay projects conducted by the City of Dublin and City of San Ramon using the Tri-Valley Intergovernmental Reciprocal Services Agreement.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference: Coordination meetings with City staff.

Fund Allocation Basis: Fund split is based upon the number of valve boxes and manholes in the system. There are twice as many valve boxes as manholes, however, manholes cost twice as much to raise. Each project created will be based upon the actual work included.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	800,000

Total Estimated Project Cost	**$2,400,000**
Current Adopted Budget	$0
Increase/(Decrease)	$2,400,000

CATEGORY: GENERAL **Water Replacement (Fund 610)**

CIP No. T20-13 Gleason Drive Property Planning Study

Funding Allocation: 55% **610** 30% **620** 10% **210** 5% **220**

Project Manager: **Status:** Future Project

Project Summary:

In May 2007, the District purchased an undeveloped 12.8 acre property on Gleason Drive in Dublin, with the intention of locating a future District facilities on the site. The site is adjacent to other public and light industrial uses. This project will evaluate the use of the site for future district needs such as well facilities, a corporation yard, or office space and include site planning, grading, infrastructure improvements, and construction costs.

CEQA: Categorical Exemption [CEQA Guideline 15306].

Reference: To be determined.

Fund Allocation Basis: Based upon Field Operation cost between potable water, recycled water, and sewer activities.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	0	200,000

Total Estimated Project Cost	**$200,000**
Current Adopted Budget	$0
Increase/(Decrease)	$200,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. T18-02 Network Infrastructure and Security

Funding Allocation: 50% **310** 38% **610** 12% **210**

Project Manager: **Status:** Future Project

Project Summary:

Most "best practices" call for network technology replacement every seven years. This is often the product life-cycle for network switching, communications, and includes the regular faster cycling review for network security. This project will address replacements needed for the business network in years 2024 and 2025, and the Field Operations Facility SCADA network in 2027.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: Best practice for network technology replacement.

Fund Allocation Basis: Based on employee allocation.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	250,000	250,000	0	500,000	0	0	0

Total Estimated Project Cost	**$1,000,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,000,000

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. T18-17 Electric Vehicle Charging Station

Funding Allocation: 50% **310** 38% **610** 12% **210**

Project Manager: **Status:** Future Project

Project Summary:

This project will install electric vehicle charging stations at the Regional Wastewater Treatment Facility, Field Operations Facility, and District Office. Electric vehicles are becoming more common among customers, visitors, and employees, creating an increased demand for charging stations. Providing these facilities is also in line with the District's Green Business Policy.

CEQA:

Reference: Staff recommendation.

Fund Allocation Basis: Based on employee allocation.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	100,000	0	0	0

Total Estimated Project Cost	**$100,000**
Current Adopted Budget	$0
Increase/(Decrease)	$100,000

CATEGORY: GENERAL **Water Replacement (Fund 610)**

CIP No. T18-23 Fleet Replacement PROGRAM

Funding Allocation: 50% **610** 30% **310** 20% **210**

Project Manager: **Status:** Future Program

Project Summary:

This program will set aside annual capital outlay funding to meet the District's vehicle asset replacement requirements in future years. The District will use a comprehensive approach and follow best practice fleet operations to implement a cost effective fleet replacement program. Although not a capital project, this program is included in the CIP planning to make sure that capital outlay cashflow is incorporated to support future rate and fee studies.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: Current vehicle asset inventory.

Fund Allocation Basis: Ratio based on department/function associated with each vehicle.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000

Total Estimated Project Cost	**$3,900,000**
Current Adopted Budget	$0
Increase/(Decrease)	$3,900,000

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: JOINT POWERS AUTHORITY

CATEGORY: GENERAL **Regional Wastewater Replacement (Fund 310)**

CIP No. T18-24 Facilities Asset Replacement PROGRAM

Funding Allocation: 66% **310** 32% **610** 2% **210**

Project Manager: **Status:** Future Program

Project Summary:

This program will set aside funding to meet the District's facilities asset replacement requirements in future years. The District will use a comprehensive approach and follow best practice to implement a cost effective facilities asset replacement program. This program is included in the CIP planning to assure funding for future repair or replacement of facility related assets, such as roof, HVAC, components, and lighting. The estimated annual replacement cost is based on 1% of the District's total real property value per California Sanitation Risk Management Authority (CSRMA) report dated January 2016.

CEQA: CEQA requirement will be evaluated for individual projects at the time of inception.

Reference:

Fund Allocation Basis: Ratio based on department/function associated with each facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	2,150,000

Total Estimated Project Cost	**$5,590,000**
Current Adopted Budget	$0
Increase/(Decrease)	$5,590,000

CATEGORY: JOINT POWERS AUTHORITY **Water Replacement (Fund 610)**

CIP No. 20-W022 DERWA SFUV Wiper Arms Replacement

Funding Allocation: 100% **610**

Project Manager: DERWA Manager/Robyn **Status:** New Project

Project Summary:

This project will replace the recycled water sand filtration ultraviolet (SFUV) disinfection wiper arms. Most of these arms have been rebuilt once or twice during their fourteen year service life. The project includes 70 new wiper assemblies and 2,800 wiper holders.

CEQA: Categorical Exemption [CEQA Guideline 15302].

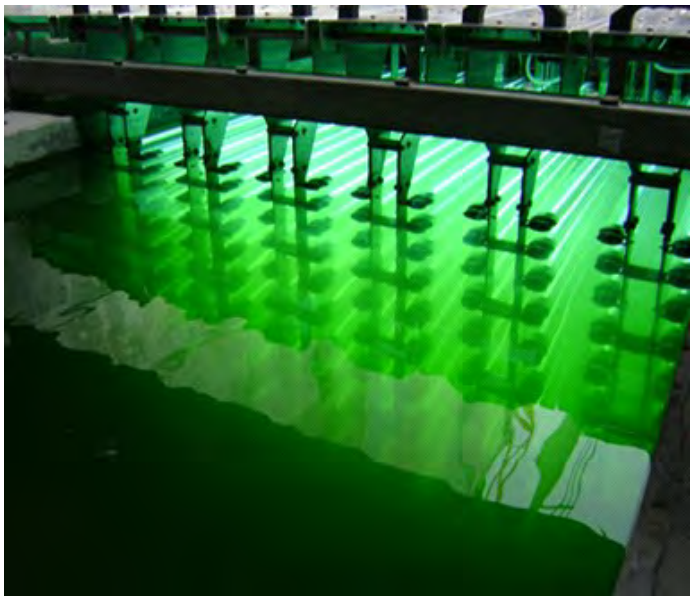
Reference: DERWA Fiscal Year 2020 Budget (March 2019)

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	251,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$251,000**	**DSRSD Net Cost: $115,460**
Current Adopted Budget	$0	Other Funding: DERWA Project; DSRSD 46%, EBMUD 27%, Pleasanton 27%
Increase/(Decrease)	$251,000	



CATEGORY: JOINT POWERS AUTHORITY **Water Expansion (Fund 620)**

CIP No. 16-R014 DERWA Recycled Water Plant - Phase 2

Funding Allocation: 100% **620**

Project Manager: Robyn Mutobe **Status:** Continuing Project

Project Summary:

This DERWA project will expand the DERWA Water Recycling Plant from its design capacity of 9.7 mgd to 16.2 mgd. The project will add a new band screen and ballasted flocculating clarifier and additional tertiary influent pumps, ultraviolet disinfection modules, and Pump Station R1 pumps. The project also includes the replacement of VDFs at Pump Station R1. DSRSD will be responsible for the design and construction of the facility expansion. Per the Agreement for the Sale of Recycled Water by DERWA to DSRSD and EBMUD and the DERWA Pleasanton Agreement, cost of the project will be funded in the same proportion as allocation of future incremental capacity rights.

CEQA: CEQA Addendum to 1996 Dublin San Ramon Valley Recycled Water Program EIR

Reference: San Ramon Valley Recycled Water Facilities, July 1996; Dublin Recycled Water Expansion Project, Title XVI Feasibility Study, Draft DERWA Reycled Water Treatment Facilites Plan, July 2015.

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
19,186,000	400,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$19,586,000**
Current Adopted Budget	$19,346,000
Increase/(Decrease)	$240,000

DSRSD Net Cost: $9,145,700

Other Funding: $10,576,300. DERWA project; cost share based on facility capacity allocation. For RWTP: DSRSD 46%, EBMUD 27%, Pleasanton 27% ;For VFD Replacement at PSR1: DSRSD 59%, EBMUD 25%, Pleasanton 16%.

CATEGORY: JOINT POWERS AUTHORITY **Water Expansion (Fund 620)**

CIP No. 16-R018 DERWA Supplemental Supply

Funding Allocation: 100% **620**

Project Manager: Steven Delight **Status:** Continuing Project

Project Summary:

This project will provide for a supplemental source of supply to the recycled water program. The recycled water demands are projected to exceed the Regional Wastewater Treatment Facility (RWTF) inflow during peak months until buildout of the Dublin and Pleasanton service areas. This project will identify and construct necessary facilities to provide supplemental water. The project includes the diversion of wastewater from the Central Contra Costa Sanitary District service area to the RWTF and the development of wells in the fringe groundwater basin to supplement the treated recycled water with groundwater.

CEQA: CEQA addendum to 1996 EIR prepared by DSRSD and approved by DERWA.

Reference: DERWA Permanent Supplemental Supplies - completed studies.

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
895,000	1,528,000	0	0	891,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$3,314,000**	**DSRSD Net Cost: $1,922,120**
Current Adopted Budget	$2,496,450	Other Funding: DERWA project; DSRSD 58%, EBMUD 42%
Increase/(Decrease)	$817,550	

CATEGORY: JOINT POWERS AUTHORITY **Water Replacement (Fund 610)**

CIP No. 20-W021 DERWA TIPS VFD Upgrades

Funding Allocation: 100% **610**

Project Manager: DERWA Manager/Robyn **Status:** New Project

Project Summary:

The existing VFDs for the three original TIPS pumps are 15+ years old and have become obsolete. The scope of this project is to upgrade the three VFDs to a current make and model. While performing the VFD upgrade, the industrial control network will also be upgraded to Ethernet to allow for ease of maintenance and faster recoveries from breakdowns. The project includes installation, PLC programming, SCADA configuration, testing, and startup.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: DERWA Fiscal Year 2020 Budget (March 2019)

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	63,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$63,000**	**DSRSD Net Cost: $ 28,980**
Current Adopted Budget	$0	Other Funding: DERWA Project; DSRSD 46%, EBMUD 27%, Pleasanton 27%
Increase/(Decrease)	$63,000	

CATEGORY: JOINT POWERS AUTHORITY **Water Replacement (Fund 610)**

CIP No. T16-37 DERWA Microfiltration Rack and Membrane Replacement

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace the microfiltration/ultraviolet (MF/UV) facility membrane racks with an open platform membrane system designed for membrane module interchangeability for more competitive membrane pricing. The membranes will also be replaced. The MF/UV system was constructed in 1998 and the membrane racks will be at the end of their useful life by 2025.

CEQA: Categorical Exemption [CEQA Guidelines 15301, 15303].

Reference: Microfiltration Membrane Replacement Evaluation, Carollo Engineers, October 2014.

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	3,500,000	0	0	0	0

Total Estimated Project Cost	**$3,500,000**	**DSRSD Net Cost: $997,500**
Current Adopted Budget	$0	Other Funding: Pleasanton/DERWA share of cost $2,502,500 based on DERWA Agreement for Sale of RW Water to EBMUD and DSRSD, July 2003.
Increase/(Decrease)	$3,500,000	

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: WATER SYSTEM

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: WATER SYSTEM

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 19-W004 Valve and Blow-Off Replacement

Funding Allocation: 100% **610**

Project Manager: Jason Ching **Status:** Continuing Project

Project Summary:

This project will repair/replace line and blow off valves throughout the water distribution system. Many of the line valves have broken over time and are located in the older parts of the service area. Repairing or replacing the valves is essential for system operation and minimizes the area for shutdowns. Blow off valves will also be strategically replaced within the water distribution system. The blow off valves will be replaced with larger valves that will improve flushing velocity and efficiency, which will improve water quality.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: Field Operations Request

Fund Allocation Basis: Project is required to replace existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
250,000	1,000,000	1,000,000	1,000,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$3,250,000**
Current Adopted Budget	$250,000
Increase/(Decrease)	$3,000,000

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W019 Automated Water Quality Monitoring

Funding Allocation: 100% **610**

Project Manager: Irene Suroso **Status:** New Project

Project Summary:

This project will install water quality monitors at all District potable and recycled water reservoirs, pump stations and turnouts. Analyzers will focus on key water quality indicators such as chlorine, fluoride and ammonia as well as other useful parameters. Data collected from analyzers will be used to track water quality effects resulting from operational strategy improvements and facilities upgrades.

CEQA:

Reference:

Fund Allocation Basis:

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	300,000	600,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$900,000**
Current Adopted Budget	$0
Increase/(Decrease)	$900,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 12-W013 Water Main - Fallon Rd, Tassajara Rd to Tassajara Creek

Funding Allocation: 100% **620**

Project Manager: Steven Delight **Status:** Continuing Project

Project Summary:

This development project installed 400 feet of 16-inch water main in Pressure Zone 2 and 1,700 feet of 20-inch water main in Pressure Zone 3 on Fallon Road. The project has been accepted by the District from the developer. However, the associated developer reimbursement will be disbursed when funds are available per Board policy or direction.

CEQA: EIR certified by City of Dublin 5/10/1993.

Reference: Pinn Bros. AWFA dated 7/27/2004 for Silveria Property - Phase IV.

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	315,500	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$315,500**
Current Adopted Budget	$315,500
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 15-W004 Dougherty Road Utilities

Funding Allocation: 55% **610** 30% **620** 10% **210** 5% **220**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

This project will install fiber optic conduit and construct a short segment of recycled water pipeline in conjunction with the City of Dublin Dougherty Road Widening Project and complete a portion of the conduit that leads to the Gleason property. The majority of the fiber optic conduit required is in place with the exception of a section in Dougherty Road. With this project, the District will install two 4-inch fiber optic conduits starting at Sierra Lane and Dougherty Road and proceed north to an existing pull box at Scarlett Drive and Dougherty Road. The District will also extend an 8-inch recycled water line from the existing 30-inch DERWA main in Dougherty Road and one 4-inch fiber optic conduit into Camp Parks at Eigth Street.

CEQA: Categorical Exemption [CEQA Guideline 15303]

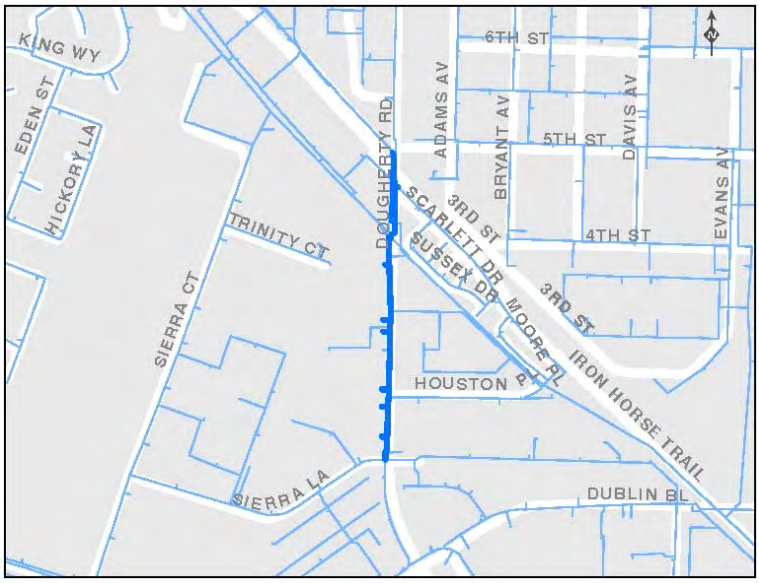
Reference: City of Dublin Dougherty Road Widening Project

Fund Allocation Basis: Based on number of facilities associated with each fund.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
135,000	225,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$360,000**
Current Adopted Budget	$135,000
Increase/(Decrease)	$225,000



CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 16-W009 Potable Water Supply Reliability Planning

Funding Allocation: 67% **620** 33% **610**

Project Manager: Judy Zavadil **Status:** Continuing Project

Project Summary:

This program will fund water supply projects that would permanently reduce the District's reliance on the State Water Project and/or bridge the gap from the present to the time in the future when the State Water Project Delta Conveyance Facilities first go into operation. The primary goal is to maintain or improve upon the District's current water supply reliability level through a diversification of its supply portfolio. The project is also funding the District's portion of the Tri-Valley Potable Reuse Feasibility Study which is an interagency effort among the signatories of the Tri-Valley Intergovernmental Reciprocal Services Master Agreement. It will also fund recommended technical studies in support of a potable reuse project.

CEQA: To be determined.

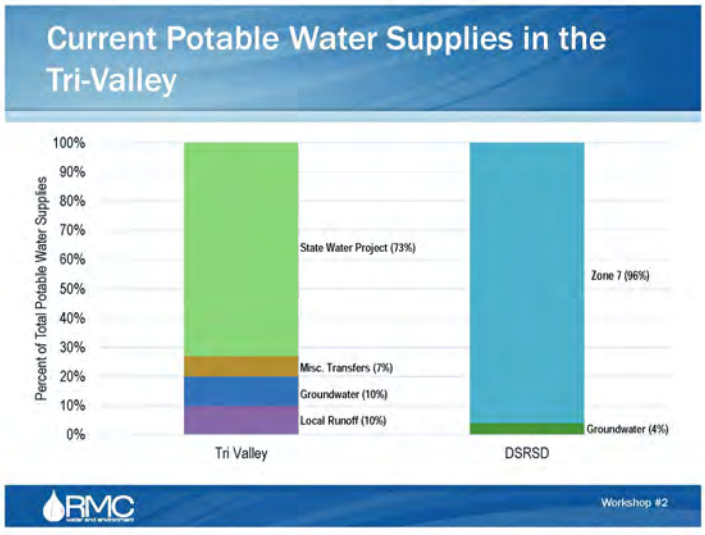
Reference: Long Term Alternative Water Supply Study, 2015.

Fund Allocation Basis: Fund split is based on future expansion customers and reliability for existing customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
500,000	300,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$800,000**
Current Adopted Budget	$500,000
Increase/(Decrease)	$300,000



CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 16-W012 Potable Water Pump Station Standby Generators/Emergency Response

Funding Allocation: 100% **610**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

The 2016 Water Master Plan evaluated the overall potable water system to meet recommended planning and design criteria. Pumping criteria is met under normal operating conditions. However in the event of power outages, pumping criteria will not be met, eventually leading to a loss of fire protection. A power outage can be caused by several factors - storms, extreme heat, seismic event, localized issues with the power grid, etc. At this time, there is only one pump station in the water distribution system with a permanent standby generator. The Master Plan recommended adding permanent standby generators at PS 2C, 3A, 20B, 200A, and 300B. This project will confirm those locations and evaluate if they should be permanent or mobile generators. It will also evaluate the potential for permanent and/or mobile generators at all pumping stations. The permanent standby generators will allow our water system operators to move water up to each of the distribution zones, increasing system reliability.

CEQA: Categorical Exemption [CEQA Guideline 15303].

Reference: 2016 Water System Master Plan

Fund Allocation Basis: Project is required to maintain existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	650,000	2,390,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$3,040,000**
Current Adopted Budget	$3,040,000
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 17-W001 Automated Water Meter Data Transmission Repeaters

Funding Allocation: 80% **620** 20% **610**

Project Manager: Dan Lopez **Status:** Continuing Project

Project Summary:

This project will install Automatic Meter Integration (AMI) repeaters and Tower Gateway Base Stations (TBS) to correct existing data transmission problems and avoid similar future problems in anticipated high density residential developments. The combination of repeaters and TBS needed will be determined by vendor's expert inspection of existing neighborhoods and review of plans as submitted. The project will result in better billing system operation, improved accuracy and reduction in staff time for manually correcting inaccurate or missing readings.

CEQA: Categorical Exemption [CEQA Guideline 15303]

Reference: Customer Service staff recommendation

Fund Allocation Basis: Ratio of cost to maintain existing equipment vs. cost of equipment to support new water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	108,000	24,000	24,000	24,000	84,000	24,000	24,000	24,000	24,000	0	0

Total Estimated Project Cost	**$360,000**
Current Adopted Budget	$360,000
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 17-W003 Reservoir 10A

Funding Allocation: 100% **620**

Project Manager: Robyn Mutobe **Status:** Continuing Project

Project Summary:

This project will replace the existing 3.0 million gallon reservoir with a new 4.1 million gallon reservoir. Existing Reservoir 10A was constructed in the 1940s as an open cut reservoir as part of the Camp Parks water system. It currently serves Zone 1 in central Dublin, however, the bottom elevation is about 15 feet above the rest of the zone's hydraulic grade line, creating operational difficulties. The recently approved 2016 Water System Master Plan identified a storage deficiency of 1.1 million gallons within Zone 1. The master plan reviewed potential sites to construct a new tank to fill the deficiency. The master plan recommended that the most economical course of action to mitigate the storage deficiency would be to demolish the existing reservoir and replace it with a larger reservoir that is at the correct elevation. This will gain additional storage, set the tank at the correct elevation, eliminate operational difficulties, and replace a 70 year old asset.

CEQA: CEQA Mitigated Negative Declaration/EIR

Reference: 2016 Water System Master Plan

Fund Allocation Basis: Project is required to provide water storage capacity for future development.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
574,450	150,000	0	8,605,500	9,300,000	470,000	0	0	0	0	0	0

Total Estimated Project Cost	**$19,099,950**
Current Adopted Budget	$7,636,000
Increase/(Decrease)	$11,463,950

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 18-W021 Recycled Water Fire Hydrant Upgrades

Funding Allocation: 100% **610**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

This project will replace 12 recycled water fire hydrants in Eastern Dublin, Western Dublin, and Dougherty Valley from dry-barrel hydrants to wet-barrel hydrants. Without frequent maintenance, the current dry-barrel hydrant valves seize up and require costly repair. The new wet-barrel hydrant will include a break-off check valve assembly so that if it is hit and broken off, the check valve shuts, preventing the loss of water, water pressure, and a recycled water spill.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: Field Operations request

Fund Allocation Basis: Project is required to replace existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
35,000	140,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$175,000**
Current Adopted Budget	$175,000
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 18-W003 Reservoir 2 Recoating

Funding Allocation: 100% **610**

Project Manager: Robyn Mutobe **Status:** New Project

Project Summary:

This project will recoat the exterior and interior of Reservoir 2, which was constructed in 1964. The reservoir was cleaned and inspected in 2016. The inspection report indicated that there are multiple coating blisters on the interior surfaces and areas of corrosion on the roof. The interior and exterior coatings are original. The project will also recoat all tank and piping appurtenances including the roof hatch and vents, interior and exterior ladders, manways, inlet, outlet, and overflow pipes. A new cathodic protection system will also be installed to replace the original system.

CEQA: Categorical Exemption [CEQA Guideline 15301].

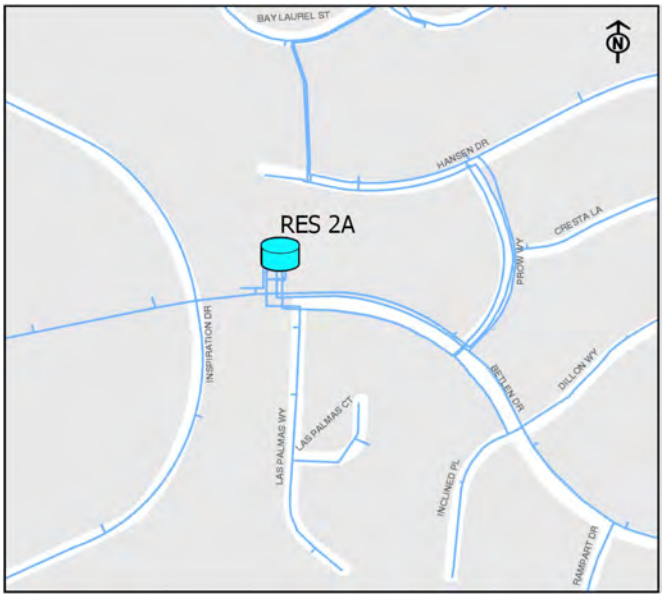
Reference: 2016 Department of Health Inspection Report

Fund Allocation Basis: Project is required to maintain existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	1,193,500	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,193,500**
Current Adopted Budget	$490,000
Increase/(Decrease)	$703,500



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 12-W016 Reservoir 1B Recoating

Funding Allocation: 100% **610**

Project Manager: Steven Delight **Status:** Continuing Project

Project Summary:

This project will recoat the exterior and interior of Reservoir 1B, which was constructed in 1961. The reservoir was cleaned and inspected in 2016. The inspection report indicated that there are multiple coating blisters on the interior surfaces and areas of corrosion on the roof. The interior and exterior coatings are original. The project will also recoat all tank and piping appurtenances including the roof hatch and vents, interior and exterior ladders, manways, inlet, outlet, and overflow pipes. A new cathodic protection system will also be installed to replace the original system for all reservoirs. Reservoir 1B is a four million gallon (MG) shared facility with 2.35 MG owned by DSRSD and 1.65 MG owned by Zone 7. Per Basic Agreement for Construction and Joint Use of 4MG Dougherty Reservoir and Appurtenant Facilities dated April 19, 1983, DSRSD pays for 50% of operations and maintenance costs.

CEQA: Categorical Exemption [CEQA Guideline 15301].

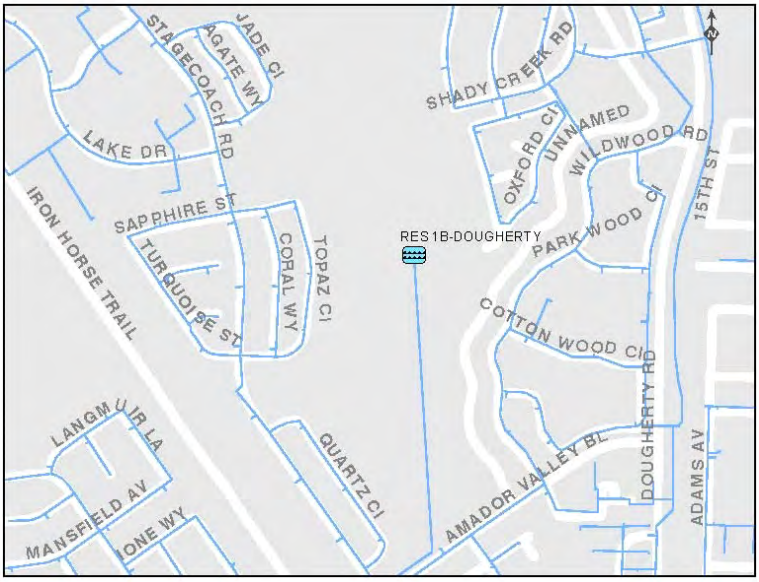
Reference: 2016 Dept. of Health Services inspection report; video testing report.

Fund Allocation Basis: Project is required to maintain existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	1,625,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,625,000**
Current Adopted Budget	$1,025,000
Increase/(Decrease)	$600,000



CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 14-W008 Reservoir 20B

Funding Allocation: 100% **620**

Project Manager: Jackie Yee **Status:** New Project

Project Summary:

Reservoir 20B will provide potable water storage capacity for eastern Dublin and, in combination with existing Pump Station 300B, will provide potable water to Dougherty Valley. The 1.3 million gallon potable water reservoir will be constructed in eastern Dublin. Depending on location of the reservoir, up to 8,700 linear feet of 12-inch Zone 2 pipeline will be needed to integrate the reservoir into the water system, and property acquisition may be required. Project implementation will be dependent on future development growth in service areas.

CEQA: CEQA Initial Study/Mitigated Negative Declaration

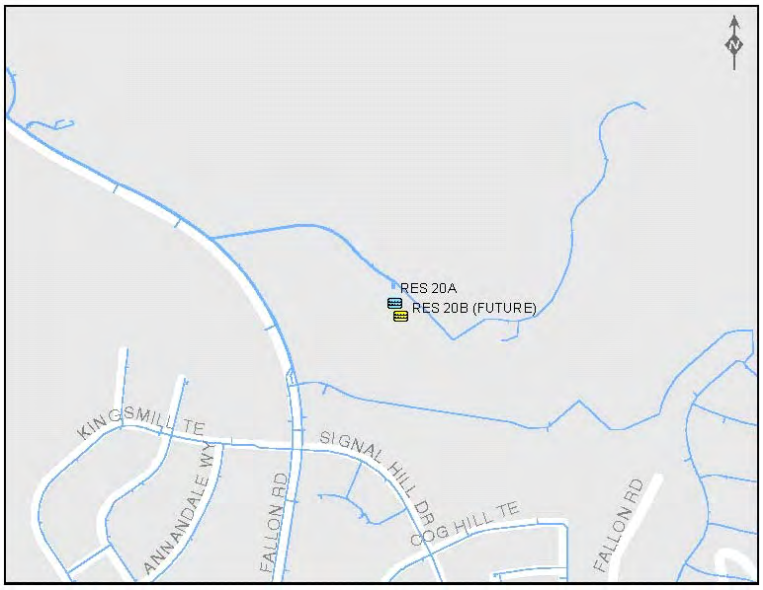
Reference: 2016 Water Master Plan Update

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
710,000	560,000	4,252,000	2,231,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$7,753,000**
Current Adopted Budget	$7,150,000
Increase/(Decrease)	$603,000



CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 16-W017 Water Lines Replacement - Wineberry Area

Funding Allocation: 100% **610**

Project Manager: Jason Ching **Status:** New Project

Project Summary:

This project will replace approximately 4400 feet of 8-inch asbestos concrete pipe (ACP) potable water lines, services, and appurtenances on Wineberry Way, Cypress Court, Locust Place - South and North, and Mulberry Place. This area has a history of leaks and water service repairs.

CEQA: Statutory Exemption [CEQA Guideline 15282]

Reference: Maintenance service history

Fund Allocation Basis: Project is required to replace existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
117	0	0	0	0	2,207,083	0	0	0	0	0	0

Total Estimated Project Cost	**$2,207,200**
Current Adopted Budget	$2,207,200
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 18-W004 MCC Improvements - PS1A and PS3A

Funding Allocation: 100% **610**

Project Manager: Maurice Atendido **Status:** New Project

Project Summary:

The motor control centers (MCCs) at Pump Station 1A and Pump Station 3A are over 30 years old and replacement parts (i.e. starters, circuit breakers, protective devices, power monitoring equipment, etc.) require modifications to existing MCC buckets because exact replacements are no longer readily available. Pump Station 1A is a critical pump station since it is the only Pressure Zone 1 pump station in western Dublin. The District will also evaluate the rehabilatation of Pump Station 1A in a separate project in FY21 (CIP No. 20-W025). The two projects will be coordinated as to not improve the MCC in Pump Station 1A if it is found that the rehabilitation will include MCC improvements.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: None.

Fund Allocation Basis: Project is required to replace existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	79,350	188,700	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$268,050**
Current Adopted Budget	$268,050
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W023 Camp Parks Water Main - 5th Street, Adams to Davis Street

Funding Allocation: 100% **610**

Project Manager: Steven Delight **Status:** New Project

Project Summary:

This project will replace approximately 1,100 feet of 8-inch potable water main, including services and valves. The existing water main is located in the front yard of homes along 5th Street. The new pipeline will be installed in accordance with District Standards and will be located within 5th Street. The developer working on the "Boulevard" project will complete the work, and the District will issue a reimbursement for a portion of the work.

CEQA: TBD

Reference: Water Replacement Asset Management Model

Fund Allocation Basis: Project is required to maintain existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	550,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$550,000**
Current Adopted Budget	$0
Increase/(Decrease)	$550,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 17-W002 Electrical Service to Reservoir 200B

Funding Allocation: 100% **610**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

This project will install PG&E service for Reservoir 200B, which is currently using a solar panel that requires frequent maintenance. The project includes property rights, new conduit, and a PG&E service pedestal.

CEQA: Categorical Exemption [CEQA Guideline 15303].

Reference: Electrical and Instrumentation staff recommendation.

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
143,700	90,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$233,700**
Current Adopted Budget	$585,800
Increase/(Decrease)	($352,100)

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 08-6103 Camp Parks Water Main - Sebille Ave to 12th St

Funding Allocation: 100% **610**

Project Manager: Jason Ching **Status:** New Project

Project Summary:

This project will provide additional capacity to meet fire flows deficiencies in central Dublin due to revised fire department regulations. This project will design and install 1420 feet of 12-inch water main in 12th Street from Sebille Avenue to the east end of 12th Street (northwest corner of U.S. Department of Justice) located in Camp Parks. This project will be coordinated with Camp Parks development.

CEQA: Statutory Exemption [CEQA Guideline 15282]

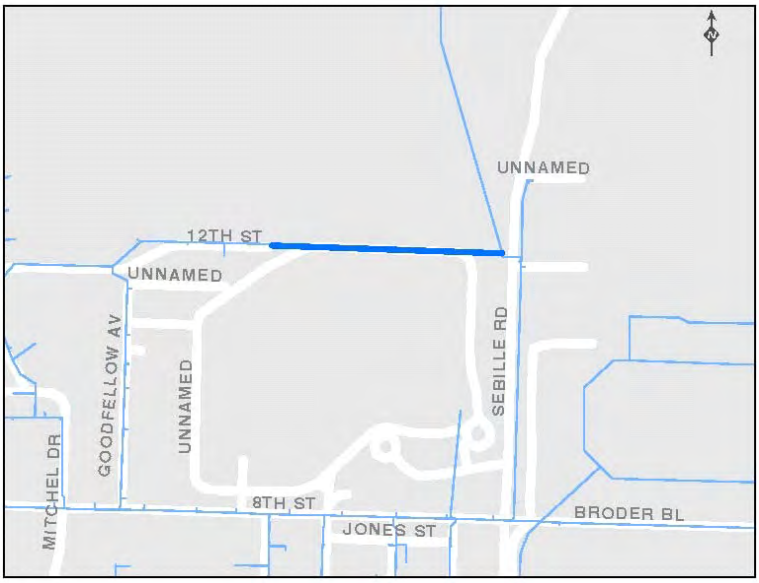
Reference: Fire Department Regulations

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	520,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$520,000**
Current Adopted Budget	$444,600
Increase/(Decrease)	$75,400



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W025 Pump Station 1A Rehabilitation

Funding Allocation: 100% **610**

Project Manager: Robyn Mutobe **Status:** New Project

Project Summary:

This project will upgrade or replace Pump Station 1A. Pump Station 1A pumps water from the Zone 7 water system to the District's Zone 1 distribution system on the west side. The suction and discharge manifolds cause high head loss, inefficiency, and pump cavitation. The project will also study upgrading or replacing the pump station at the existing location or possibly relocating it to the Turnout 1 site. Fluoride storage and injection equipment housed at the facility will also be upgraded.

CEQA: Categorical Exemption [CEQA Guideline _____].

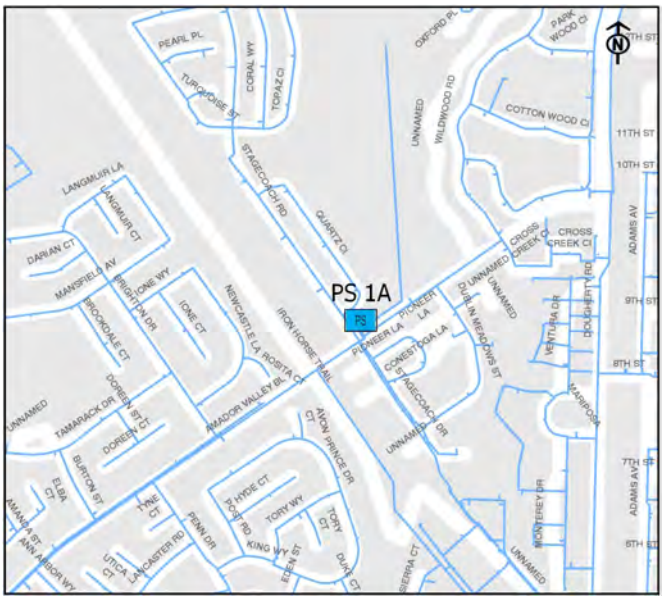
Reference: To be determined.

Fund Allocation Basis: Project is required to replace existing water assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	330,000	2,530,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,860,000**
Current Adopted Budget	$0
Increase/(Decrease)	$2,860,000



CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W016 Camp Parks Water Main - Mitchell Drive, Powell to 8th Streets

Funding Allocation: 100% **610**

Project Manager: Jason Ching **Status:** New Project

Project Summary:

This project will install a new 500 feet of 8-inch potable water line in Mitchell Drive north of 8th Street and will include miscellaneous modifications. There have been numerous main repairs required in this area. This project will be coordinated with Camp Parks development.

CEQA: Statutory Exemption [CEQA Guideline 15282]

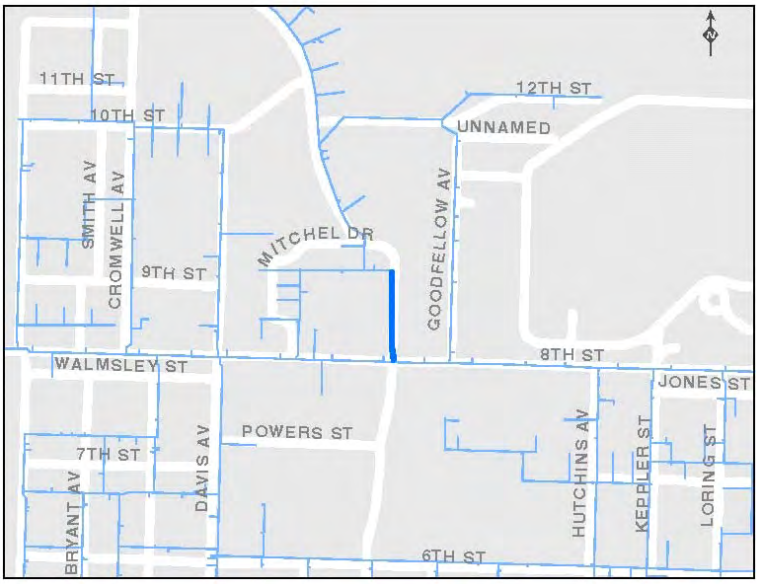
Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	182,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$182,000**
Current Adopted Budget	$0
Increase/(Decrease)	$182,000



CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 20-W017 Water System Master Plan Update and Operations Plan Update

Funding Allocation: 100% **620**

Project Manager: Irene Suroso **Status:** New Project

Project Summary:

This project will update the District's 2016 Water System Master Plan in five years. The master plan outlines the water system required to serve our customers from current conditions through future build-out conditions ensuring the water system operation is reliable as systems expand. This project also includes a capacity reserve fee study based on the master plan recommended infrastructure projects.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: 2016 Water System Master Plan

Fund Allocation Basis:

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	500,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$500,000**
Current Adopted Budget	$0
Increase/(Decrease)	$500,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W024 Camp Parks Water Mains - Cromwell Avenue and 12th Street

Funding Allocation: 100% **610**

Project Manager: Jason Ching **Status:** New Project

Project Summary:

This project will replace 2800 feet of 6-inch asbestos concrete pipe (ACP) potable water lines west of Cromwell Avenue between 10th and 12th Streets, and in 12th Street west of Cromwell Avenue to north of Davis Avenue. These lines have a history of frequent breaks and repairs, several have been shear type breaks. This project will be coordinated with Camp Parks development.

CEQA: Statutory Exemption [CEQA Guideline 15282]

Reference: Camp Parks Privatization Study, WBA, July 1998

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	767,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$767,000**
Current Adopted Budget	$0
Increase/(Decrease)	$767,000

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 20-W018 Reservoir 20A Recoating

Funding Allocation: 100% **610**

Project Manager: Jackie Yee **Status:** New Project

Project Summary:

This project will recoat the exterior and interior of Reservoir 20A. The reservoir was cleaned and inspected in 2016. The inspection report indicated that there are multiple coating blisters on the interior surfaces and areas of corrosion on the roof. The project will also recoat all tank and piping appurtenances including the roof hatch and vents, interior and exterior ladders, manways, inlet, outlet, and overflow pipes. A new cathodic protection system will also be installed to replace the original system. This project will take place after the completion of Reservoir 20B. Construction timing may also need to coordinate with the golden eagle nesting near the tank site., limiting construction to July through December. Budget to paint the roof of the reservoir, as required by the 2018 Division of Drinking Water inspection has been included in FYE 2021 and will occur in advance of the recoating project.

CEQA: Categorical Exemption [CEQA Guideline 15301].

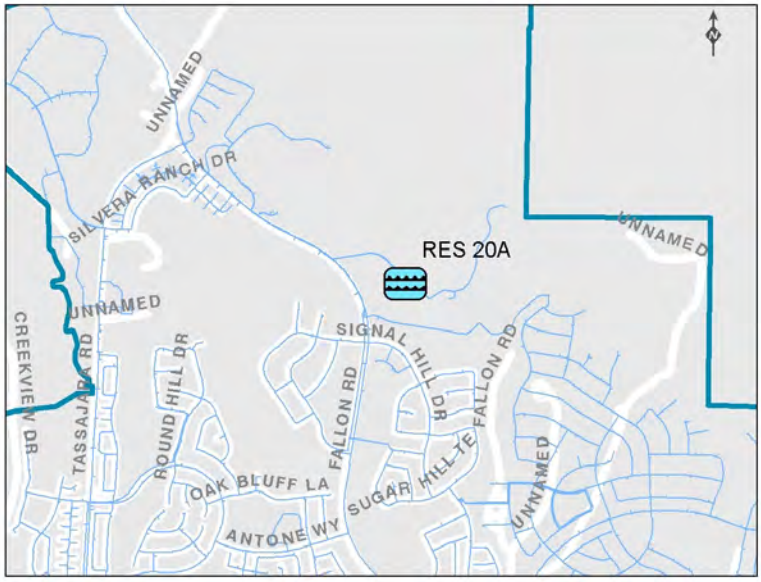
Reference: 2016 Inspection report

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	50,000	0	2,157,300	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,207,300**
Current Adopted Budget	$0
Increase/(Decrease)	$2,207,300



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 20-W015 Turnout 6

Funding Allocation: 100% **620**

Project Manager: Robyn Mutobe **Status:** New Project

Project Summary:

This project will provide water supply for development in eastern Dublin. A turnout from Zone 7 south of I-580 at Pimlico Drive with a capacity of 6000 gpm (8.6 mgd) will be installed. This project will include 2300 feet of 20-inch main from the turnout to Dublin Boulevard with 200 feet of trenchless pipeline to cross under I-580. This turnout will include chemical feed facilities. This project is required to meet future demands and will add redundancy to improve reliability of the distribution system. The new turnout is served by Zone 7 Water Agency's Cross Valley Pipeline.

CEQA: Previous EIR certified 5-10-93 by City of Dublin.

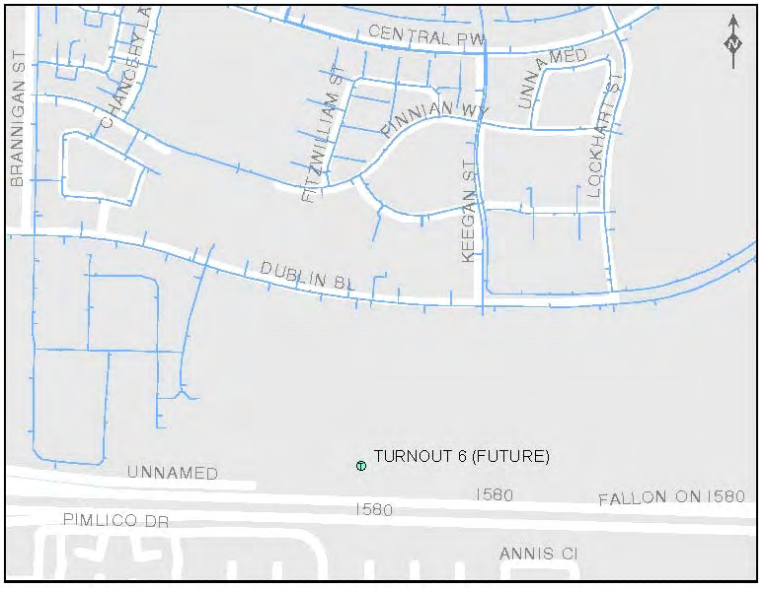
Reference: 2016 Water Master Plan Update

Fund Allocation Basis: Project is required to support future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	500,000	500,000	2,800,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$3,800,000**
Current Adopted Budget	$0
Increase/(Decrease)	$3,800,000



CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 00-W002 Capital Improvements to Increase Water Supply PROGRAM - Phase 2

Funding Allocation: 75% **610** 25% **620**

Project Manager: Judy Zavadil **Status:** Continuing Program

Project Summary:

This program will develop projects to meet the objectives of the Water Supply, Storage, Conveyance, Quality and Conservation Policy adopted by the Board on October 20, 2015. The program will focus on diversifying the sources of water supply so that no less than 60% of total demand (potable and recycled) is satisfied by local and regional water supplies, and that no more than 40% of total water supply (potable and recycled) comes from any one physical source. The program may include a range of diversification projects including a potable reuse project defined in the Joint Tri-Valley Potable Water Reuse Feasibility Study, an intertie project with EBMUD to serve "north of the Delta" transfers, or participation in a regional desalination project. Projects funded by this program may be completed in partnership with Tri-Valley or neighboring agencies based on the Potable Reliability Planning project (CIP 16-W009).

CEQA:	Environmental Impact Report
Reference:	Long Term Alternative Water Supply Study, September 2015; Water Supply and Conservation Policy, and 2016 Water Capacity Reserve Fee Study
Fund Allocation Basis:	Based on the ratio of current water demands to projected build-out demands at the time of program inception

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	300,000	500,000	500,000	500,000	500,000	3,000,000	3,000,000	3,000,000	10,000,000	18,700,000	0

Total Estimated Project Cost	**$40,000,000**
Current Adopted Budget	$40,000,000
Increase/(Decrease)	$0

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 00-W011 Water System Replacement and Rehabilitation PROGRAM

Funding Allocation: 100% **610**

Project Manager: Steven Delight **Status:** Continuing Program

Project Summary:

This program is an element of the District's Asset Management Program and will fund projects to upgrade, replace and improve water system facilities to ensure the District provides uninterrupted water supply service. This program provides for the renewal or replacement of equipment on an as-needed basis or the upgrade of equipment as it becomes obsolete. This program may also be used to investigate issues that lead to the identification of projects that require the creation of a specific CIP project.

CEQA: To be determined based on individual projects funded by program.

Reference: District internal inspections; CMMS

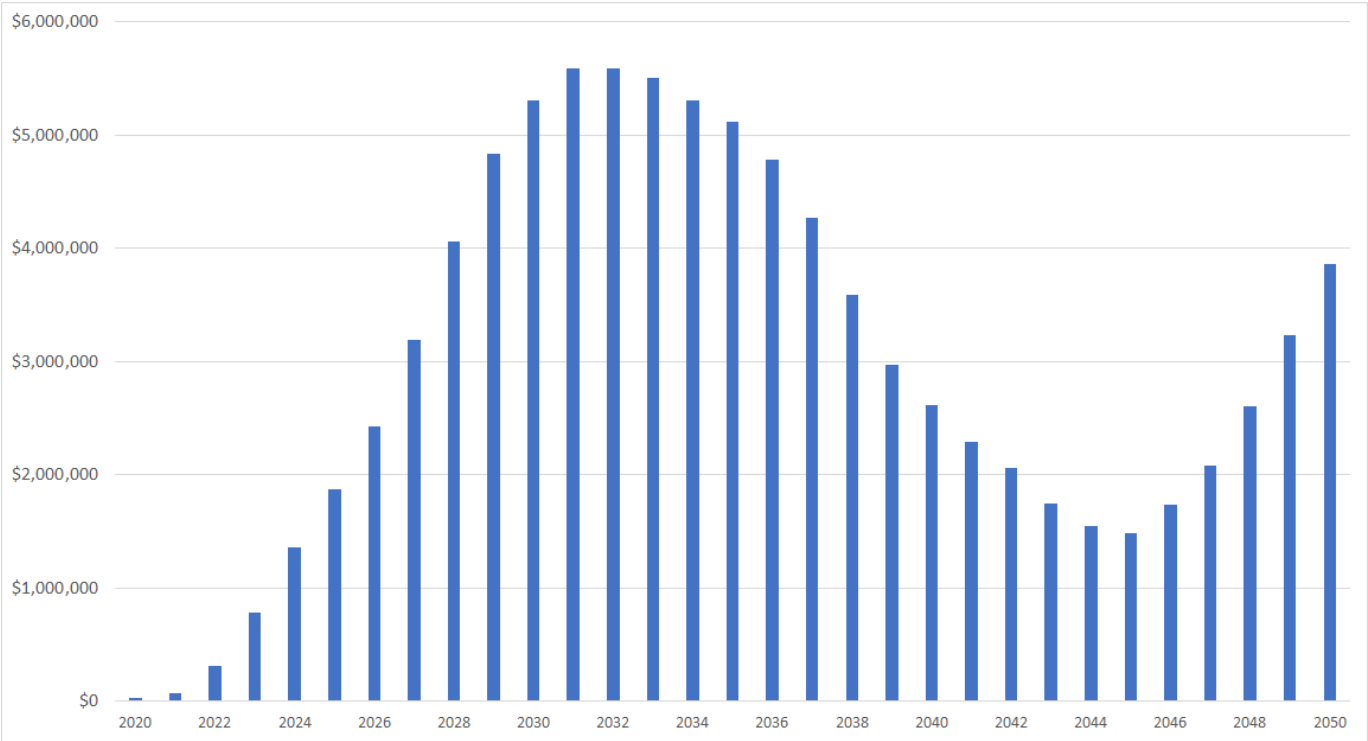
Fund Allocation Basis: Program required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	300,000	300,000	300,000	600,000	1,500,000	2,000,000	2,500,000	3,000,000	3,000,000	4,000,000	20,000,000

Total Estimated Project Cost	**$37,500,000**
Current Adopted Budget	$0
Increase/(Decrease)	$37,500,000

Estimated Annual Water System Replacement Costs



CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 00-W001 Capital Improvement to Increase Water Supply PROGRAM - Phase 1

Funding Allocation: 67% **620** 33% **610**

Project Manager: **Status:** New Program

Project Summary:

The objective of this program is to fund projects that increase potable water supply and develop recycled water and potable water supply improvements. Through FY16 this Program funded 1) the Recycled Water Expansion Phase 1: Distribution to West Dublin and Alameda County Facilities Project; 2) the Recycled Water Expansion State Grant Assistance Project; 3) the Water Supply Contingency Plan; 4) the in-progress Water Supply Reliability project in support of the Tri-Valley Potable Reuse Feasibility Study; and 5) the Water Reuse Demonstration project. The remainder of the program funds will be used to expand the current recycled water distribution system and to continuously meet the recycled water demands 100% of time, which may include acquiring additional wastewater effluent supplies and/or off-season wastewater effluent storage and to actively promote water conservation for commercial and residential customers, with a long-term goal of a permanent system-wide average annual residential potable use of no more than 70 gallons per capita per day.

CEQA: To be determined.

Reference:

Fund Allocation Basis: Based on the ratio of current water demands to projected buildout demands at the time of program inception

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	234,000	500,000	0	0	0	0	0	0	0	0	2,500,000

Total Estimated Project Cost	**$3,234,000**
Current Adopted Budget	$0
Increase/(Decrease)	$3,234,000

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. 16-A016 District Facilities Security Project - Phase 2

Funding Allocation: 90% **610** 10% **310**

Project Manager: Dan Lopez **Status:** Future Project

Project Summary:

This project will 1) review past recommendations for physical security for the potable and recycled water facilities and the sewer lift stations, 2) inventory which recommendations have been implemented, either installed over the last few years or installed as part of the SCADA project (09-6101) and, 3) develop a plan and cost estimate for remaining required improvements. The project cost will be revised in future years to include the cost of construction once the required improvements are defined.

CEQA: To be determined.

Reference: Physical Security Risk Assessment, Pinkerton Consulting, April 2004.

Fund Allocation Basis: Based on number of facilities associated with each fund.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	50,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$50,000**
Current Adopted Budget	$50,000
Increase/(Decrease)	$0

CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 16-R013 Water Reuse Demonstration Project

Funding Allocation: 100% **620**

Project Manager: Judy Zavadil **Status:** Future Project

Project Summary:

The water reuse treatment demonstration project will (1) develop treatment system design criteria for reuse of District treated water, (2) develop sufficient treated water quality data and work with the relevant regulatory agency, State Water Resources Control Board's Division of Drinking Water, to demonstrate regulatory compliance for reuse of District treated water, and (3) conduct public outreach regarding potable reuse and provide opportunities for the public to see the reuse treatment process, and understand the level of treatment provided and finished water quality. Budget is based on a six-month demonstration project included microfiltration, reverse osmosis, and advanced oxidation located at the District Wastewater Treatment Plant.

CEQA: To be determined.

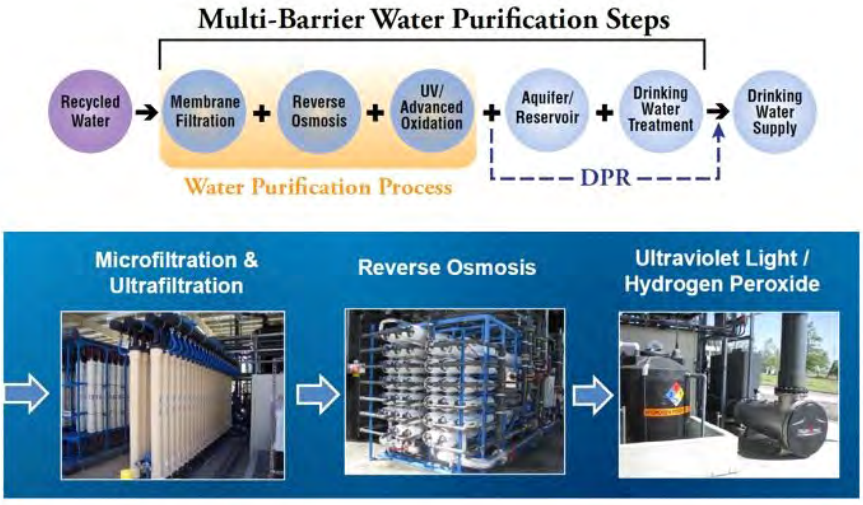
Reference:

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	85,000	85,000	215,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$385,000**
Current Adopted Budget	$300,000
Increase/(Decrease)	$85,000



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T16-28 Water Lines Replacement - Tamarack Drive - Village Pkwy to Firethorn Way

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace the existing 2300 feet of 8-inch and 10-inch asbestos cement pipe (ACP) potable water lines in Tamarack Drive from Village Parkway to Firethorn Way, along with valves, hydrants, and services. The lines were installed in 1961. Staff reviewed the pipe repair history, corrosion information and the acoustic evaluation and have concluded that they are near the end of their useful lives and therefore should be replaced.

CEQA: Statutory Exemption [CEQA Guideline 15282]

Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	1,101,780	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,101,780**
Current Adopted Budget	$0
Increase/(Decrease)	$1,101,780

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T16-29 Water Lines Replacement - Canterbury Lane and Cardigan Street

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace approximately 2,800 feet of existing 4-inch, 6-inch and 8-inch asbestos cement pipe (ACP) potable water lines in Canterbury Lane from Bedford Way to Flanders Way, Cardigan Street, Mayan Court, Flanders Way, and Cardigan Court, along with valves, hydrants, and services. The lines were installed in 1961. Staff reviewed the pipe repair history, corrosion information and the acoustic evaluation and have concluded that they are near the end of their useful lives and therefore should be replaced.

CEQA: Statutory Exemption [CEQA Guideline 15282]

Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	1,190,000	0	0	0	0	0

Total Estimated Project Cost	**$1,190,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,190,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T16-30 Water Line Replacement Phase 2 - Canterbury Lane

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace approximately 3700 feet of existing 4-inch, 6-inch and 8-inch asbestos cement pipe (ACP) potable water lines in Canterbury Lane from Flanders Way to Bedford Way, Bedford Way from Canterbury to Alene Street, Hastings Way, Sutton Lane, Jasmine Court, and Canterbury Court, along with valves, hydrants, and services. The lines were installed in 1961. Staff reviewed the pipe repair history, corrosion information and the acoustic evaluation and have concluded that they are near the end of their useful lives and therefore should be replaced.

CEQA: Statutory Exemption [CEQA Guideline 15282]

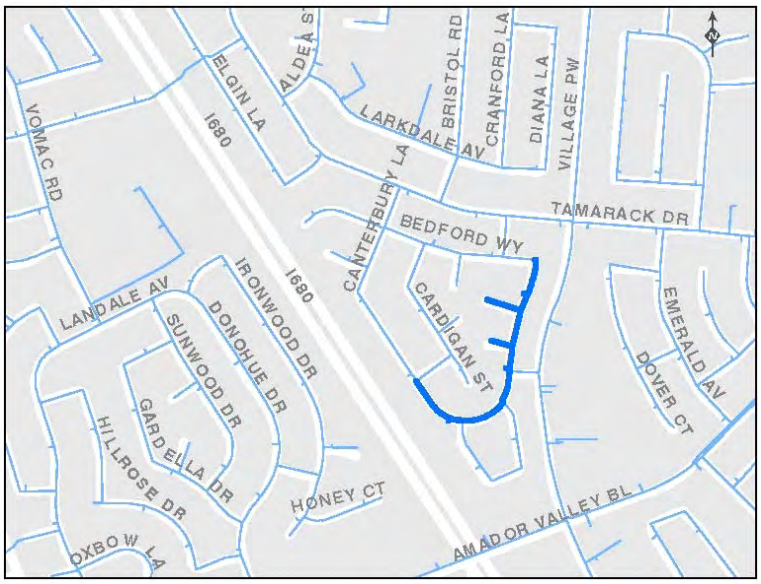
Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	1,208,770	0	0	0	0	0

Total Estimated Project Cost	**$1,208,770**
Current Adopted Budget	$0
Increase/(Decrease)	$1,208,770



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T16-31 Water Line Replacement - Ironwood Drive

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace approximatley 2800 feet of existing 4-inch, 6-inch and 8-inch asbestos cement pipe (ACP) potable water lines in Ironwood Drive, Irving Way, Honey Court, and Ironwood Court, along with valves, hydrants, and services. The lines were installed in 1960. Staff reviewed the pipe repair history, corrosion information and the acoustic evaluation and have concluded that they are near the end of their useful lives and therefore should be replaced.

CEQA: Statutory Exemption [CEQA Guideline 15282]

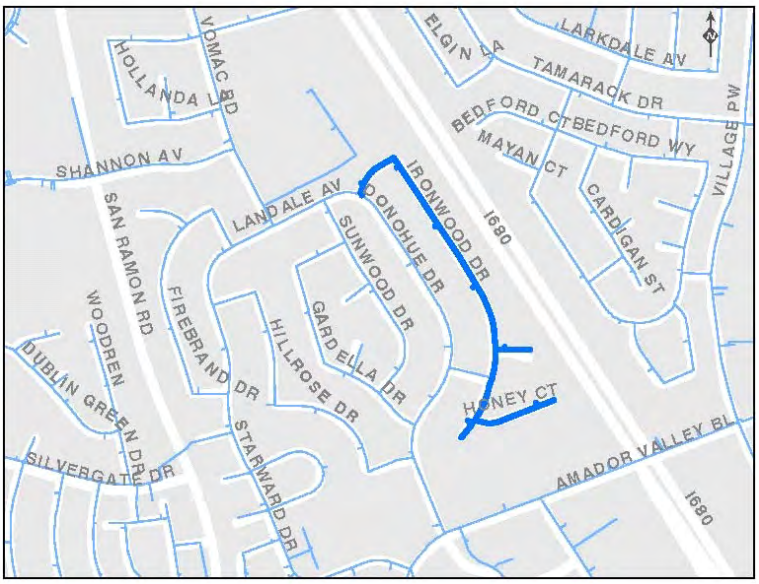
Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	1,210,260	0	0	0	0

Total Estimated Project Cost	**$1,210,260**
Current Adopted Budget	$0
Increase/(Decrease)	$1,210,260



CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T10-86 Camp Parks Water Mains - Lorring Street and Monroe Avenue

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace 1200 feet of 8-inch potable water lines in Lorring Street and Monroe Avenue, from 7th to 8th Streets, as well pipelines in Jones and 7th Streets. These lines have had several breaks and have required numerous repairs. This project will be coordinated with Camp Parks development.

CEQA: Statutory Exemption [CEQA Guideline 15282]

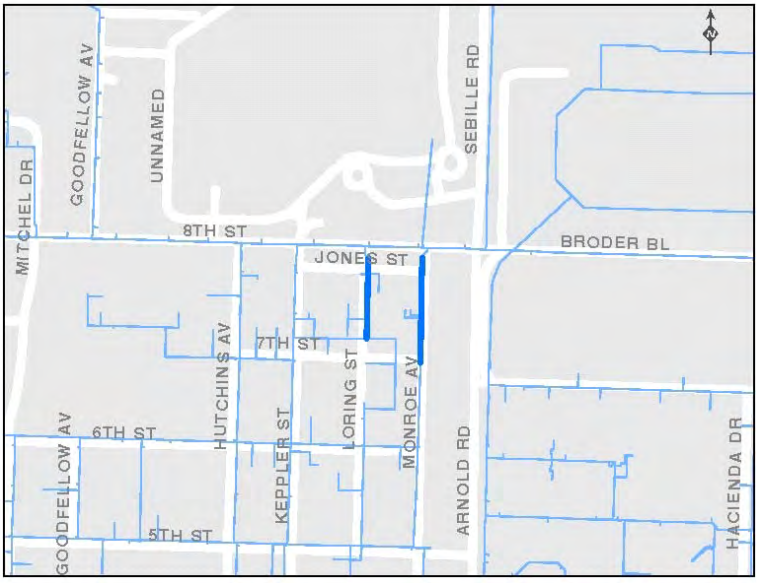
Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	355,100	0

Total Estimated Project Cost	**$355,100**
Current Adopted Budget	$0
Increase/(Decrease)	$355,100



CATEGORY: WATER SYSTEM **Water Expansion (Fund 620)**

CIP No. 08-6202 Pump Station 20A Improvements

Funding Allocation: 100% **620**

Project Manager: **Status:** Future Project

Project Summary:

This project will add an additional pump to Pump Station 20A. The pump station was constructed with provisions for the addition of a fourth pump that matches the existing pumps. Pump Station 20B was sized assuming that this additional pump would be installed. The additional pump is needed to meet buildout pumping capacity in Pressure Zone 2 in eastern Dublin as identified in the 2016 Water Master Plan Update. This project also includes modifications to the motor control center and controls required to accommodate the fourth pump.

CEQA: EIR Certified by City of Dublin 5/10/93.

Reference: 2005 Basis of Design Report for Pump Station 20B; Eastern Dublin Specific Plan; 2016 Water Master Plan Update.

Fund Allocation Basis: Project in support of future water customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	470,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$470,000**
Current Adopted Budget	$327,500
Increase/(Decrease)	$142,500

CATEGORY: WATER SYSTEM **Water Replacement (Fund 610)**

CIP No. T16-67 Reservoir Recoating PROGRAM

Funding Allocation: 100% **610**

Project Manager: **Status:** Future Program

Project Summary:

This project will recoat the interiors and paint the exteriors of potable and recycled reservoirs. The recoating and painting will provide corrosion control, extend the reservoir useful life and maintain facility aesthetics. There are five reservoirs, 30A, 300A, 1A, 3A and 3B, that will require recoating from FYE 2026 through FYE 2030.

CEQA: Categorical Exemption [CEQA Guideline 15302]

Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing water fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	812,500	1,560,000	1,260,000	560,000	344,500

Total Estimated Project Cost	**$4,537,000**
Current Adopted Budget	$0
Increase/(Decrease)	$4,537,000

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: WASTEWATER COLLECTION

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Expansion (Fund 220)**

CIP No. 20-S014 Dublin Boulevard - Amador Plaza Road to Village Parkway

Funding Allocation: 100% **220**

Project Manager: Rudy Portugal **Status:** New Project

Project Summary:

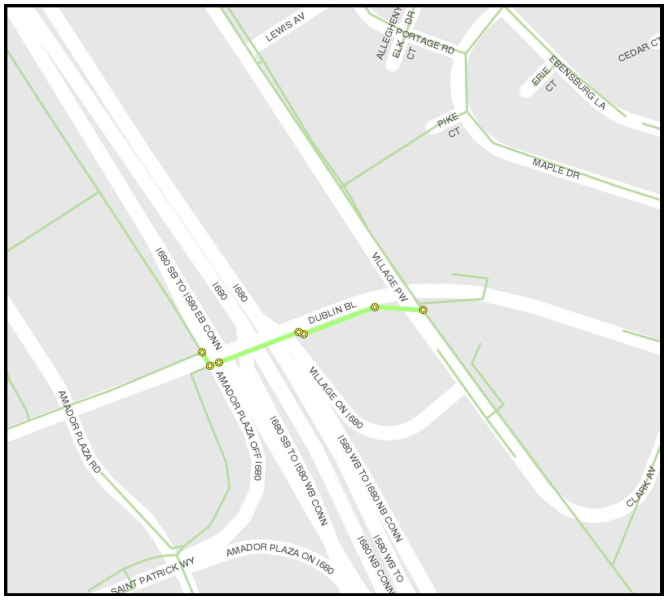
This project will upsize 731 feet of 18-inch gravity main to 21-inch gravity main in Dublin Boulevard between Amador Plaza Road and Village Parkway. The recently completed 2019 Collection System Master Plan included an evaluation of the collection system under future flow conditions. Based on the evaluation, improvements were recommended to eliminate future system deficiencies and to meet projected flows for future downtown development.

CEQA:	CEQA Initial Study/Mitigated Negative Declaration
Reference:	2019 Local Collection System Master Plan
Fund Allocation Basis:	Project is required to convey future customer wastewater flows

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	175,000	645,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$820,000**
Current Adopted Budget	$0
Increase/(Decrease)	$820,000



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 20-S013 East Dublin 36" Trunk Sewer Rehabilitation

Funding Allocation: 100% **210**

Project Manager: Jason Ching **Status:** New Project

Project Summary:

This project will rehabilitate approximately 670 feet of an existing 36-inch reinforced concrete pipe (RCP) of the East Dublin PRFTA trunk. The pipe was installed in 1960 and have deteriorated with some corrosion visible and significant spalling. The first pipe reach is in an easement that begins just west of Johnson Drive (about 500 feet north of Owens Drive) and continues west almost to Owens Drive. The second pipe section is in an easement just south of I-580 between Owens Court and the Pleasanton BART parking lot (behind Dahlin Group Building). The section between was lined in 1993 and is in fair condition at this time.

CEQA: Statutory Exemption [CEQA Guideline 15282]

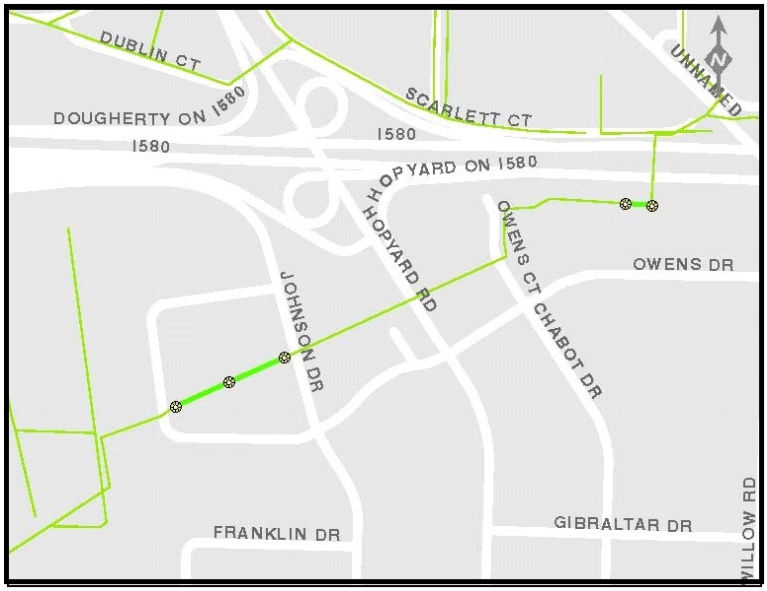
Reference: Results of National Plant Services field investigation (CCTV, sonar, laser) of large diameter sewers

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	737,600	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$737,600**
Current Adopted Budget	$0
Increase/(Decrease)	$737,600



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 00-S020 Wastewater Collection System Replacement and Rehabilitation PROGRAM

Funding Allocation: 100% **210**

Project Manager: Steven Delight **Status:** Continuing Program

Project Summary:

This project will insure that uninterrupted sewer collection service is provided and will include, but are not limited to, repairing leaking pipes, pipe joints and manholes to reduce the amount of infiltration and inflow rates, which will reduce operating costs at the wastewater treatment plant and extend the LAVWMA wet weather capacity. Sewer lines and manholes will be repaired or replaced as identified by District staff annually.

CEQA: To be determined based on each project funded by the program.

Reference: Asset Management Program.

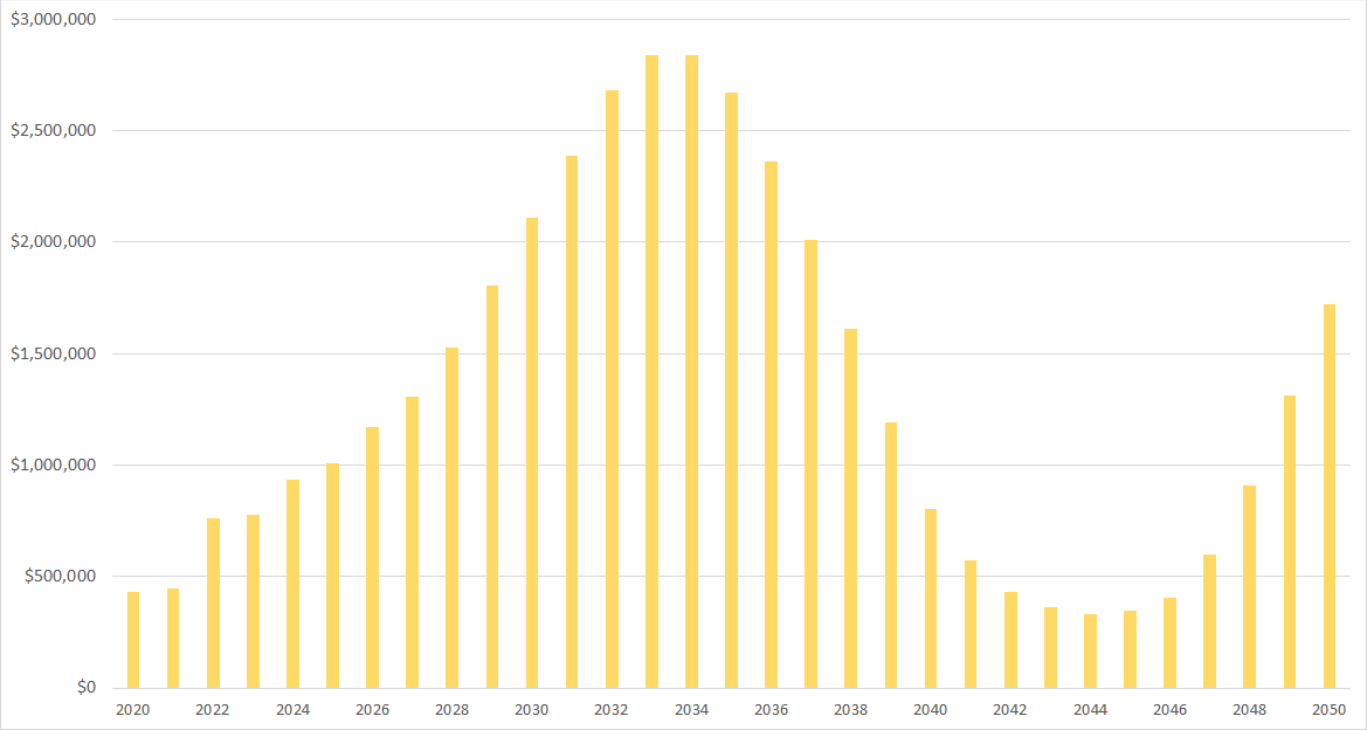
Fund Allocation Basis: Program is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,000,000	1,000,000	1,000,000	9,000,000

Total Estimated Project Cost	**$14,100,000**
Current Adopted Budget	$0
Increase/(Decrease)	$14,100,000

Estimated Annual Local Replacement Costs



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Expansion (Fund 220)**

CIP No. T20-04 Dublin Boulevard - Clark Avenue to Sierra Court

Funding Allocation: 100% **220**

Project Manager: **Status:** Future Project

Project Summary:

This project will upsize 1,048 feet of 10-inch gravity main to 12-inch gravity main in Dublin Boulevard between Clark Avenue and Sierra Court. The siphons proximate to these gravity mains are not included as part of the project. This project was recommended in the 2019 Wastewater Collection System Master Plan after extensive hydraulic evaluation.

CEQA: Categorical Exemption [CEQA Guideline 15302].

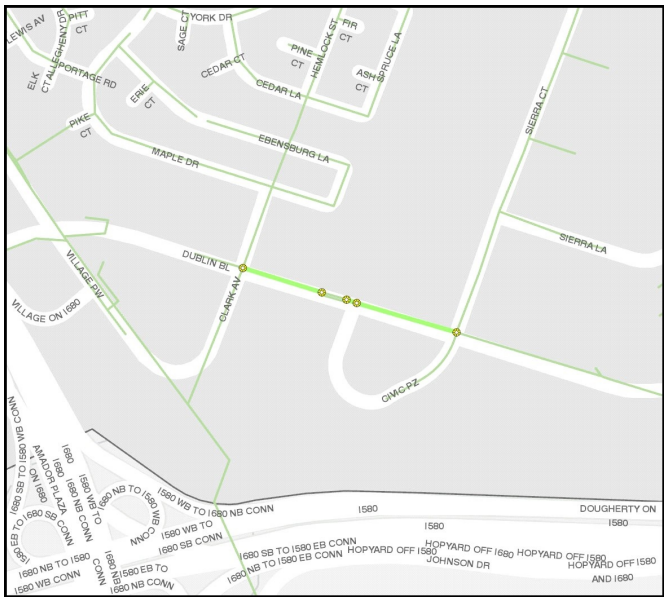
Reference: 2019 Local Wastewater Collection System Master Plan

Fund Allocation Basis: Project is required to convey future customer wastewater flows

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	175,000	500,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$675,000**
Current Adopted Budget	$0
Increase/(Decrease)	$675,000



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. T20-05 Dublin Court and Dublin Boulevard Sewer Replacement

Funding Allocation: 100% **210**

Project Manager: **Status:** Future Project

Project Summary:

This project will replace approximately 300 feet of 10-inch pipe near the intersection of Dublin Blvd and Dublin Court. The pipeline travels under a drainage canal and has been damaged over time. It has been temporarily repaired with a small liner, however remains a trouble spot for the collection system.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: 2019 Local Wastewater Collection System Master Plan

Fund Allocation Basis: Project is required to replace existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	200,000	550,000	0	0	0	0	0	0

Total Estimated Project Cost	**$750,000**
Current Adopted Budget	$0
Increase/(Decrease)	$750,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Expansion (Fund 220)**

CIP No. T20-06 Village Parkway - South of Dublin Boulevard

Funding Allocation: 100% **220**

Project Manager: **Status:** Future Project

Project Summary:

This project will upsize 1,262 feet of 36-inch and 39-inch gravity main to 42-inch gravity main in Village Parkway south of Dublin Boulevard. These gravity mains are recently lined but are still recommend for upsizing due to hydraulic deficiency. This project was reccomended as part of the 2019 Wastewater Collection System Master Plan.

CEQA: CEQA Initial Study/Mitigated Negative Declaration

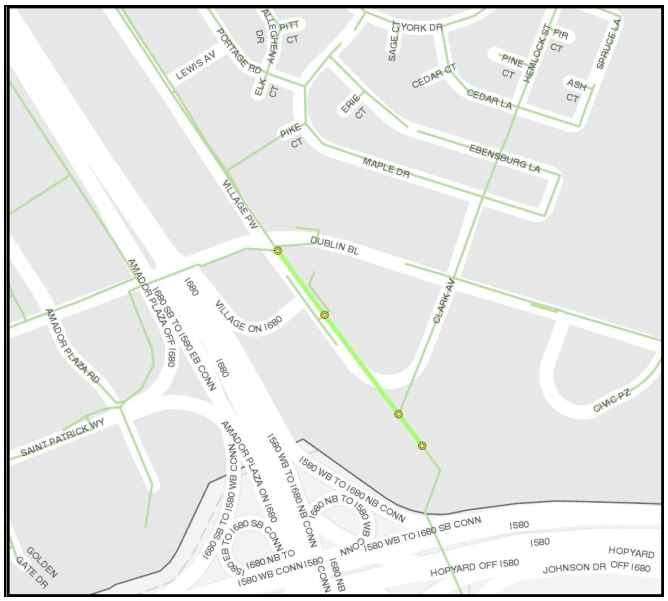
Reference: 2019 Local Collection System Master Plan

Fund Allocation Basis: Project is required to convey future customer wastewater flows

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	275,000	2,557,000	0	0	0

Total Estimated Project Cost	**$2,832,000**
Current Adopted Budget	$0
Increase/(Decrease)	$2,832,000



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 18-S006 San Ramon Golf Course 24" Trunk Sewer Rehabilitation

Funding Allocation: 100% **210**

Project Manager: Jackie Yee **Status:** Future Project

Project Summary:

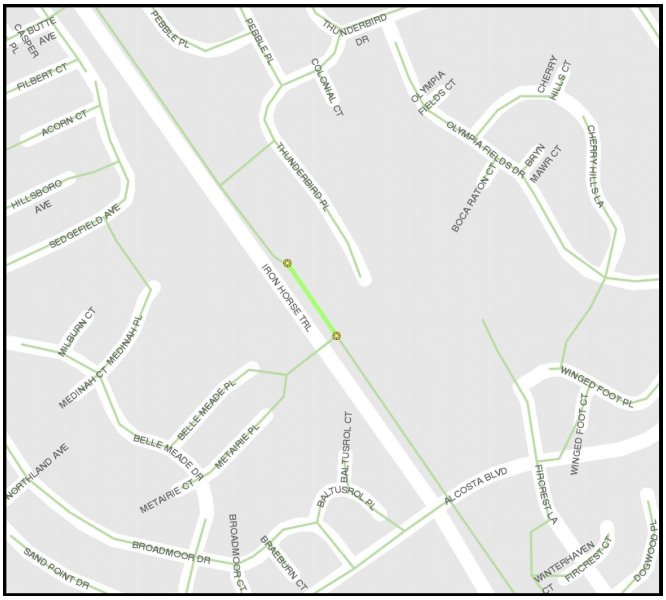
This section of existing 24-inch reinforced concrete pipe (RCP) installed in 1961 has deteriorated with corrosion visible and concrete spalling. The project will rehabilitate approximately 470 feet of the trunk sewer in the Iron Horse Trail at the San Ramon Valley Golf Course from about 1500 feet north of Alcosta Blvd, south to about 1000 feet north of Alcosta Blvd.

CEQA:	Statutory Exemption [CEQA Guideline 15282]
Reference:	Asset Management Program: results of National Plant Services field investigation (CCTV, sonar, laser) of large diameter sewers
Fund Allocation Basis:	Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	557,500	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$557,500**
Current Adopted Budget	$557,500
Increase/(Decrease)	$0



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 18-S007 Alcosta Blvd Sewer Replacement

Funding Allocation: 100% **210**

Project Manager: Robyn Mutobe **Status:** Future Project

Project Summary:

The project will replace approximately 1250 feet of 10-inch of vitrified clay pipe (VCP) sewer located in Alcosta Blvd from approximately at Village Parkway east to the Iron Horse Trail. The sags in the pipe make it impossible to TV to determine its condition and requires cleaning on frequent basis (3-month trouble spot). The project will replace the sewer as needed to prevent the potential of sanitary sewer overflow (SSO) incidents.

CEQA: Statutory Exemption [CEQA Guideline 15282]

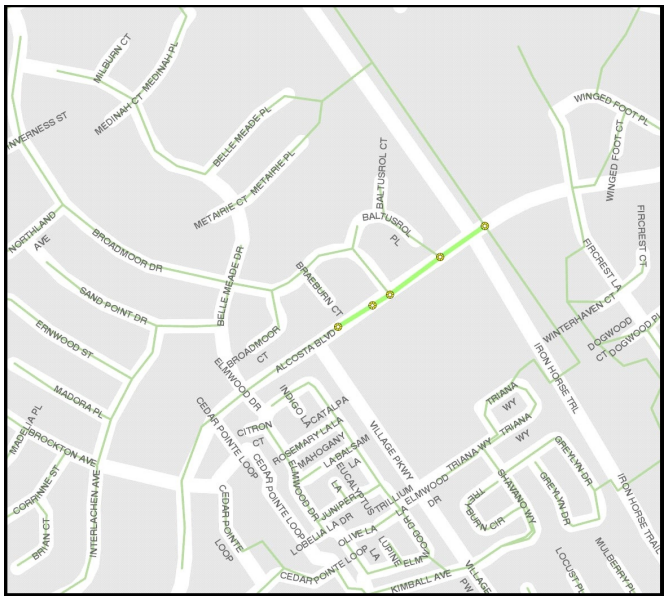
Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	63,500	416,875	0	0	0	0	0	0	0

Total Estimated Project Cost	**$480,375**
Current Adopted Budget	$480,375
Increase/(Decrease)	$0



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 14-S001 Camp Parks Sewer Rehabilitation Project - Goodfellow Ave North of 8th Street

Funding Allocation: 100% **210**

Project Manager: Steven Delight **Status:** Future Project

Project Summary:

This project will rehabilitate approximately 1500 feet of 8-inch of vitrified clay pipe (VCP) sewer on Goodfellow Avenue north of 8th Street. It will include fixing the siphon installed by the Federal Corrections Institute (FCI). This pipe has several cracks and fractures leading to high inflow and infiltration rates. Project cost will be dependent on the method of rehabilitation which may be slip line, pipeburst or replacement.

CEQA: Statutory Exemption [CEQA Guideline 15282]

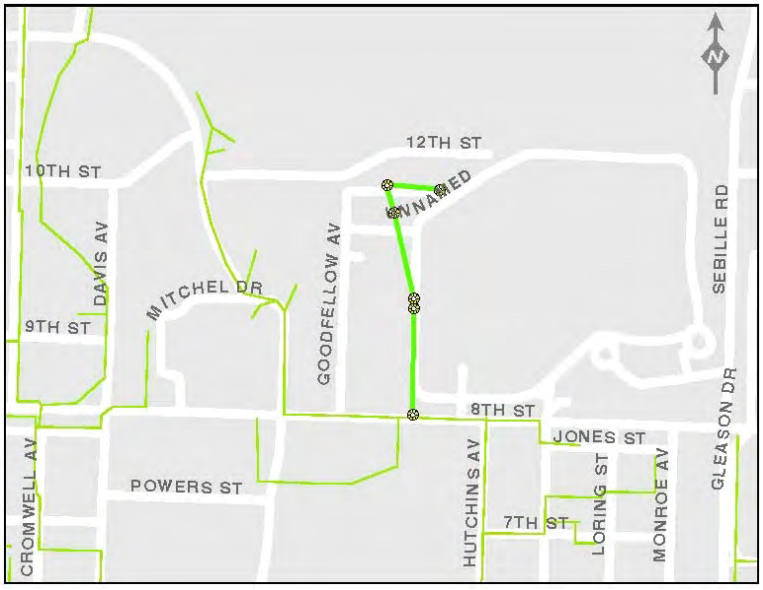
Reference: Camp Parks Privatization Study, WBA, July 1998

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
22,090	0	0	389,215	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$411,305**
Current Adopted Budget	$411,305
Increase/(Decrease)	$0



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. T14-02 Camp Parks Sewer Rehabilitation Project - Davis and Cromwell, 8th to 10 Streets

Funding Allocation: 100% **210**

Project Manager: **Status:** Future Project

Project Summary:

This project will rehabilitate approximately 2600 feet of 12-inch of vitrified clay pipe (VCP) sewer along Davis and Cromwell Avenues, between 8th and 10th Streets. The existing sewer has several cracks and fractures leading to high inflow and infiltration rates. The project may pipeburst, or slip line, or replace the pipe in its entirety.

CEQA: Statutory Exemption [CEQA Guideline 15282]

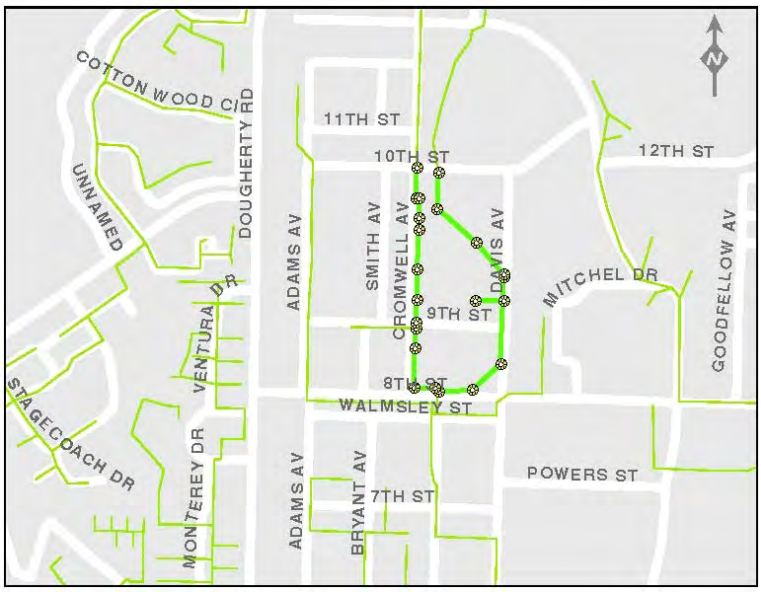
Reference: Camp Parks Privatization Study, WBA, July 1998

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	1,113,480	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,113,480**
Current Adopted Budget	$0
Increase/(Decrease)	$1,113,480



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 14-S002 Camp Parks Sewer Rehabilitation Project - Adams 8th to 10th Streets

Funding Allocation: 100% **210**

Project Manager: **Status:** Future Project

Project Summary:

This project will rehabilitate approximately 1300 feet of 12-inch of vitrified clay pipe (VCP) sewer along Adams Avenue between 8th and 10th Streets. The existing sewer has several cracks and fractures leading to high inflow and infiltration rates. Project cost will be dependent on the method of rehabilitation which may be slip line, pipeburst or replacement.

CEQA: Statutory Exemption [CEQA Guideline 15282]

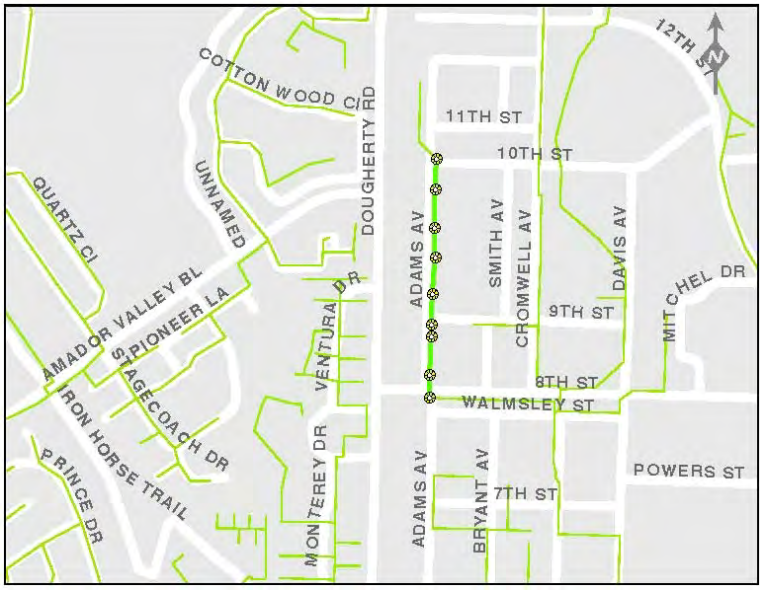
Reference: Camp Parks Privatization Study, WBA, July 1998

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
36,063	0	0	469,740	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$505,803**
Current Adopted Budget	$505,803
Increase/(Decrease)	$0



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. T16-50 Iron Horse Trail Sewer Replacement

Funding Allocation: 100% **210**

Project Manager: **Status:** Future Project

Project Summary:

The project will replace approximately 1650 feet of 8-inch and 10-inch of polyvinyl chloride pipe (PVC) and vitrified clay pipe (VCP) sewer located just north of the Alameda/Contra Costa County line that cross the Iron Horse Trail and the adjacent creek. The project will also add manholes; at this time, the manhole spacing makes TV inspection and cleaning problematic. The sags in the pipe make it impossible to TV to determine its condition and requires cleaning on frequent basis (3-month trouble spot). The project will replace the sewer and additional sewers upstream as needed to prevent the potential of sanitary sewer overflow (SSO) incidents.

CEQA: Statutory Exemption [CEQA Guideline 15282]

Reference: District internal inspections, CMMS data; Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	449,764	0	0	0	0	0

Total Estimated Project Cost	**$449,764**
Current Adopted Budget	$0
Increase/(Decrease)	$449,764

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Replacement (Fund 210)**

CIP No. 08-2101 Donahue Dr./Vomac Rd. Relief Sewer

Funding Allocation: 100% **210**

Project Manager: **Status:** Future Project

Project Summary:

This project will upsize 2,400 feet of 8 inch to 12 inch gravity main starting on Vomac Road, continuing east to Ironwood Drive. There are 3 sub-basins that lead to the Donahue/Vomac area. One or all of these sub-basins are contributing to unusually high infiltration and inflow rate. The 8-inch gravity main in Donohue Drive between Gardella Drive and Hillrose Drive will be blocked to prevent splitting flow from the gravity main in Hillrose Drive to the gravity main in Donohue Drive. This blockage would prevent an extension of the required improvement project further to the southeast, which is located in easement area.

CEQA: Categorical Exemption [CEQA Guideline 15302]

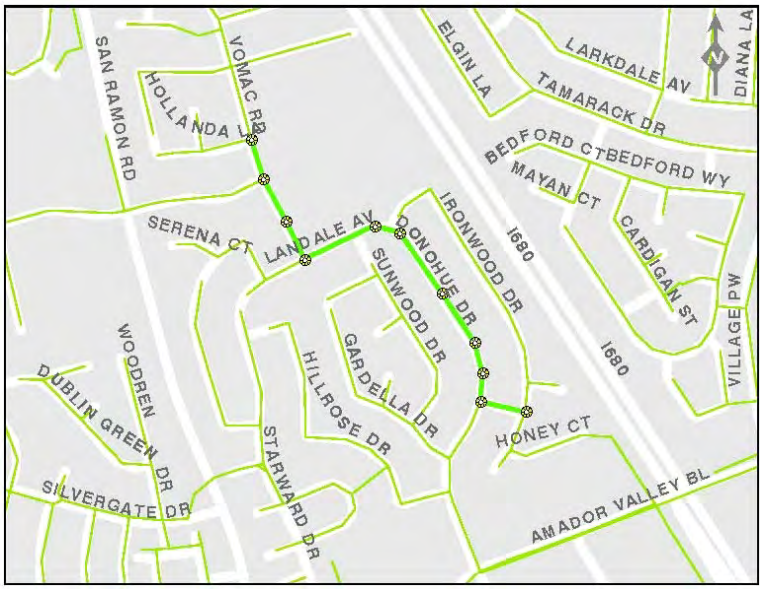
Reference: 2019 Wastewater Collection System Master Plan Update

Fund Allocation Basis: Project is required to replace or rehabilitate existing local wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
71,445	0	0	0	0	0	0	410,000	1,000,000	0	0	0

Total Estimated Project Cost	**$1,481,445**
Current Adopted Budget	$696,833
Increase/(Decrease)	$784,612



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: WASTEWATER COLLECTION **Local Wastewater Expansion (Fund 220)**

CIP No. T00-76 Dublin Trunk Relief Sewer

Funding Allocation: 100% **220**

Project Manager: **Status:** Future Project

Project Summary:

The project will construct a relief sewer for the Dublin trunk sewer downstream of the east Dublin trunk sewer connection located within the District's Dedicated Land Disposal site to an existing 48-inch sewer line within the WWTP, near the East Amador Lift Station. The project consists of approximately 2100 feet of a 42-inch parallel pipeline. The 2019 Wastewater Collection System Master Plan Update indicated that the Dublin Trunk sewer surcharges in a 20-year return frequency storm. This project is required to comply with the Regional Water Quality Control Board (RWQCB) design requirements and to reduce infiltration and inflow rate.

CEQA: Initial Study may be required.

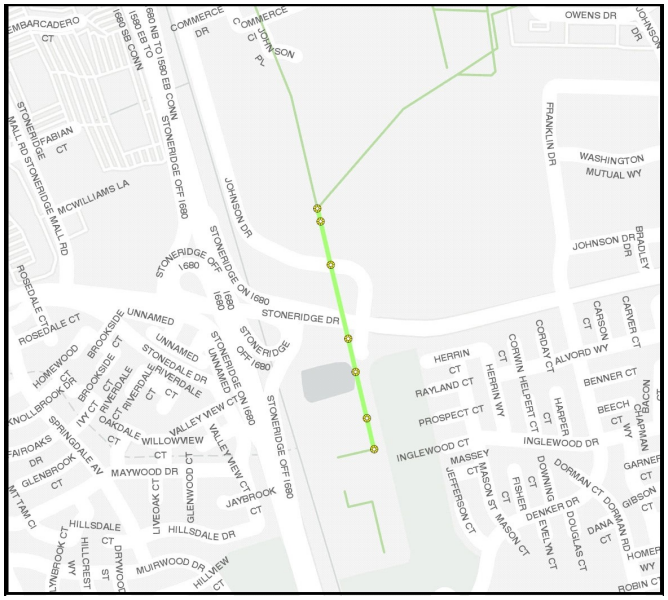
Reference: 2019 Wastewater Collection System Master Plan Update.

Fund Allocation Basis: Project is required to convey future customer wastewater flows.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	0	6,945,000

Total Estimated Project Cost	**$6,945,000**
Current Adopted Budget	$0
Increase/(Decrease)	$6,945,000



CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: REGIONAL WASTEWATER TREATMENT

CIP 10-YEAR PLAN FYEs 2020 through 2029

** Listed according to project timing from earliest to latest*

CATEGORY: REGIONAL WASTEWATER TREATMENT

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 19-P001 Facultative Sludge Lagoon (FSL) Anchors

Funding Allocation: 100% **310**

Project Manager: Robyn Mutobe **Status:** Continuing Project

Project Summary:

Operations requested a capital project to install 70 anchors total (spaced at 20 ft. between each anchor) on the the north and south ends of FSL #6 and east and west ends of FSL #7 . Currently, there is no permanently installed anchorage system for dredging at FSL #6 or #7, and previous attempts for using gravity anchors failed. The anchors would provide a counter-weight and connection point for the dredge cabling during biosolids dredging and harvesting activities.

CEQA: Categorical Exemption [CEQA Guideline 15302]

Reference: Maintenance request.

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
175,000	220,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$395,000**
Current Adopted Budget	$175,000
Increase/(Decrease)	$220,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P009 Holding Basin 1, 2, 3 & 4 Re-Sealing

Funding Allocation: 100% **310**

Project Manager: Jackie Yee **Status:** New Project

Project Summary:

The project will re-seal the concrete joints and cracks for Holding Basins No. 1, 2, 3 and 4. Typical products may include SIKA joint sealing systems. Re-sealing of the joints and/or cracks should be performed every 10 years.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: N/A

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	422,500	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$422,500**
Current Adopted Budget	$0
Increase/(Decrease)	$422,500

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P011 Building "S" Piping Replacement

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** New Project

Project Summary:

This project will replace all iron piping in Building "S" (WWTP). The iron piping was installed to serve toilet flushing and hose bibs that were initially intended to use recycled water. The pipe has become severely corroded and is leaking, causing damage to the building.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: To be determined.

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	150,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$150,000**
Current Adopted Budget	$0
Increase/(Decrease)	$150,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P012 RWTF Security Improvements

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** New Project

Project Summary:

Security at the Regional Wastewater Treatment Plant is a high priority for the District. Over the next two years, this project will address vehicular traffic control, video surveillance, physical hardware related to plant security, and provide updated programming in the District's existing Lenel Security monitoring system.

Vehicular traffic control will include security improvements to the main access gate, and provide better control of vehicle movement once in the treatment plant area. Video surveillance will include improvements and reassignment to the 25 cameras currently in use, including the installation of multi-imager cameras that will improve the amount of plant video coverage. Hardware improvements will secure the security control panels and install tamper switches to monitor and prevent unauthorized access. In addition, all mechanical doors will be evaluated and those that cannot be secured or monitored in a reliable way will be replaced. Once all improvements are in place programming changes will be made to the existing Lenel security system program, integrating the improvements listed above.

CEQA: Categorical Exemption [CEQA Guideline 15302].

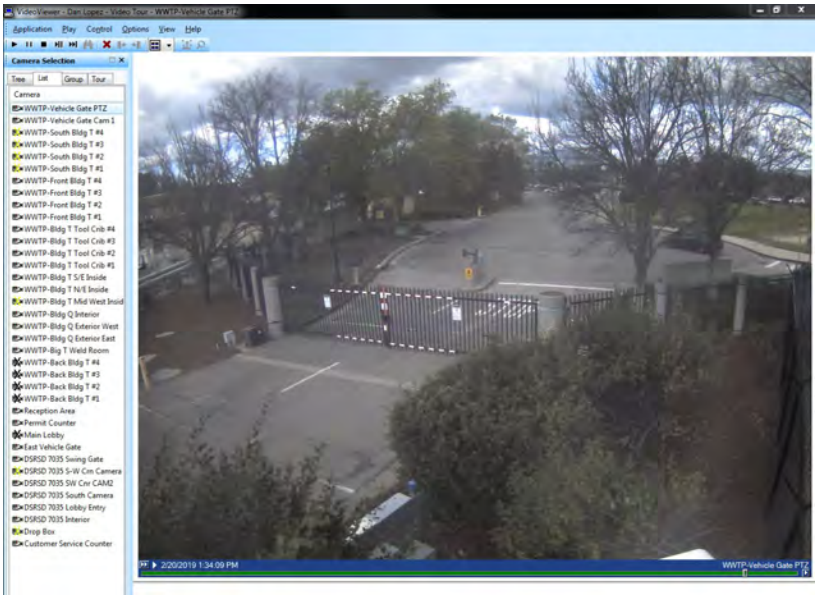
Reference: TEECOM Study (2019)

Fund Allocation Basis: All work shall be done at the WWTP on existing facilities.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	216,000	242,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$458,000**
Current Adopted Budget	$0
Increase/(Decrease)	$458,000



CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 05-3103 FSL Piping Improvements

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

The facultative sludge lagoons (FSLs) are a biological process that must have monitoring and controls in place to enable the process to be well operated. The return of the cap water from the FSLs has a large impact on the secondary treatment process at the wastewater treatment plant which can negatively impact the tertiary treatment of the effluent. This project will install various process controls in the FSL system including: improvements to the return flow overflow systems; replacement of chlorinated secondary effluent process water system (3 Water or 3W) charging valves; addition of new sludge charging valves; and sampling locations for digested sludge and return flows.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
628,666	85,703	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$714,369**
Current Adopted Budget	$714,369
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 13-S004 Pump Stations VFD Replacements

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

The project will replace 11 Robicon brand variable frequency drives (VFD) which are used to control pump speed and flow at District facilities. The existing VFDs are currently functioning; however, Robicon went out of business several years ago and no other company picked up support of their product line. Replacement parts cannot be found and there is no technical support. Some of the pumps that are using these VFDs are very important and the District cannot have them out of service. The most important pumps that have these VFDs are the influent pumps and the effluent pumps.

CEQA: Categorical Exemption [CEQA Guideline 15302]

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
785,477	200,000	545,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,530,477**
Current Adopted Budget	$1,530,477
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 16-P024 RWTF Fire Alarm System Upgrades

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** Continuing Project

Project Summary:

The Regional Wastewater Treatment Facility (RWTF) currently has four different fire alarm controls panels (FACP) on two separate systems. Two of the FACPs are obsolete and the other two are crude remotes to the primary systems at Building A and Building R. There are separate dialers with two phones lines (primary and backup) for each system. This configuration complicates the maintenance and testing of the systems. This project will integrate the entire system into a single FACP that could be easily networked and expanded as needed. Some of the existing infrastructure (i.e. smoke detectors, strobes, pull stations, etc.) will be utilized to the extent possible which should reduce cost and labor. The upgrade will also include other items such as adding fire alarm notification devices to the first and second floors of Building A, tying in flow switch (at riser) to FACP, panel programming, and fire alarm drawings that will improve staff's ability to maintain and repair the system.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference: Staff recommendation.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
54,150	150,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$204,150**
Current Adopted Budget	$204,150
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. 16-P028 Bio-Gas Treatment System Improvements

Funding Allocation: 67% **320** 33% **310**

Project Manager: Dan Lopez **Status:** Continuing Project

Project Summary:

The existing biogas scrubber cleans and pressurizes biogas prior to being sent to the cogeneration engines. Clean biogas improves engine efficiency and assists in meeting BAAQMD regulations at cogeneration. When the new digester, primaries, and fats, oils and grease (FOG) station are put into operation, additional solids will be collected for digestion. The additional solids will increase biogas production. At this time, the biogas scrubber is working at capacity. Additional gas will need to be cleaned prior to sending it to cogen. This project will evaluate the existing biogas scrubber and make recommendations to improve the existing scrubber or replace it.

CEQA: Categorical Exemption [CEQA Guideline 15303].

Reference: 2017 WWTP and Biosolids Master Plan

Fund Allocation Basis: Based on 140 scfm current gas flow vs 430 scfm new gas flow after improvements

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
642,451	403,316	2,785,000	200,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$4,030,767**
Current Adopted Budget	$4,030,767
Increase/(Decrease)	$0

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 16-P0300 EPS1 and EPS2 Pump Modifications

Funding Allocation: 100% **310**

Project Manager: Shawn Quinlan **Status:** Continuing Project

Project Summary:

This project will modify three effluent pump station #1 (EPS1) pumps and two effluent pump station # 2 (EPS2) pumps to maintain full pumping capacity in wet weather conditons. The effluent pump bushings require modifications to flush out sediment and plastics. Three of the pumps have seized up and had to be pulled out and repaired. This project will modify the bushings of the remaining pumps.

CEQA: Categorical Exemption [CEQA Guideline 15302 and 15301].

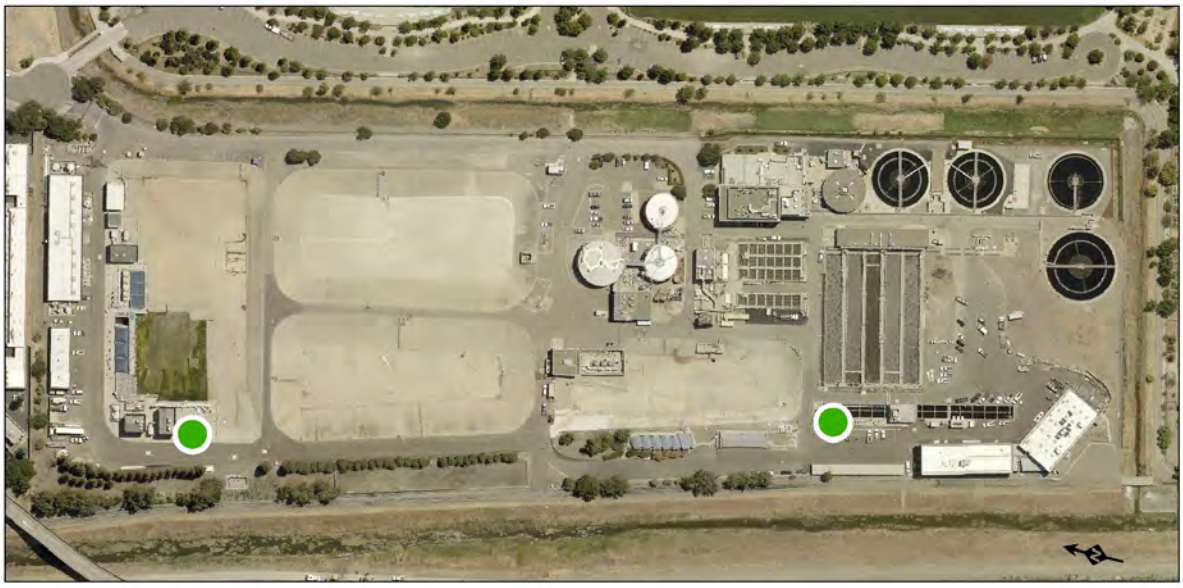
Reference: Staff recommendation.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
109,419	70,290	70,291	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$250,000**
Current Adopted Budget	$250,000
Increase/(Decrease)	$0



DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 16-P031 RWTF Administration Building Improvements

Funding Allocation: 100% **310**

Project Manager: Jackie Yee **Status:** Continuing Project

Project Summary:

This project will complete several improvements to the Regional Wastewater Treatment Facility (RWTF) Administration building. Completed work to date includes the installation of security card readers, repair of a sagging floor section, replacement of the carpet on the main floor, and replacement of vinyl tile in the lab. The project will also repair the leaking roof.

CEQA:

Reference: Staff recommendation.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
259,997	75,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$334,997**
Current Adopted Budget	$334,997
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. 17-P004 Primary Sedimentation Expansion and Improvements

Funding Allocation: 85% **320** 15% **310**

Project Manager: Jackie Yee **Status:** Continuing Project

Project Summary:

This project will construct one new primary sedimentation tank and partially demolish and replace one of the existing primary sedimentation tanks at the Regional Wastewater Treatment Facility (RWTF). The project will also add an additional grit tank, replace internal mechanisms in the three remaining primary sedimentation tanks, and replace the motor control center. The primary treatment capacity is undersized for the facility's current average dry weather flow. Insufficient primary treatment capacity overburdens the aeration basins and secondary clarifiers leading to higher energy costs and more difficulties in controlling the secondary effluent water quality. The additional primary sedimentation tank will provide the treatment capacity needed for current and buildout flows.

CEQA: Initial Study/Mitigated Negative Declaration

Reference: 2017 WWTP and Biosolids Master Plan

Fund Allocation Basis: Based on ratio of WWTP flow at which project was estimated to be required to WWTP buildout flow.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
2,235,411	7,414,589	5,750,000	3,600,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$19,000,000**
Current Adopted Budget	$19,000,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P008 RWTF Industrial Control Network Security Essentials

Funding Allocation: 52% **310** 37% **610** 11% **210**

Project Manager: Aomar Bahloul **Status:** Continuing Project

Project Summary:

This project will improve the network infrastructure to bring the Regional Wastewater Treatment Facility (RWTF) network up to current standards as a tighter security schema will be implemented. Much of the current industrial control switching is legacy equipment handed down from the business network or is consumer grade rather than industrial. Much of the equipment is past end-of-life and no longer supported by vendor or the manufacturer. This project will improve network security and standardize network switching to Cisco 4000i (like Field SCADA) and 3850's to allow for more security . Additional security allows for more wireless connections to provide denser connectivity from mobile devices.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: Staff Recommendations.

Fund Allocation Basis: Project will benefit entire SCADA network including treatment plant and field operations facilities.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
117,984	232,016	50,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$400,000**
Current Adopted Budget	$400,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P012 Inner Sewer Wetwell and Pumping Assessment

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** Continuing Project

Project Summary:

This project will assess the current inner sewer wetwell and pumping system. This system is integral to the wastewater treatment plant process as it pumps intersewer water around the influent pumps and metering system. This pump around is neccesary for accurate metering of plant influent flows. However, this system is problematic and the pumps have a short service life due to conditions. This project will assess the equipment and wetwell to determine if the equipment is sized properly or perhaps determine that there is a better way to satisfy the goal for accurate influent metering. This project is for evaluation only, additional funding may be needed based on recommendations from the report.

CEQA:

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
26,778	48,222	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$75,000**
Current Adopted Budget	$75,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P010 Biogas Flare Improvements

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** New Project

Project Summary:

This project will replace the Regional Wastewater Treatment Facility's existing biogas flare. Typically, all biogas is used to power the cogeneration engines after the gas is scrubbed. If the gas scrubber is out of service, or if cogen is offline, biogas must be vented to prevent overpressurization of the digesters. The flare cleanly burns the biogas under a BAAQMD permit. This project will evaluate and replace the existing flare. Additional permitting may be required through the BAAQMD.

CEQA: Categorical Exemption [CEQA Guideline 15301 and 15302].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
150,000	150,000	1,200,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,500,000**
Current Adopted Budget	$625,000
Increase/(Decrease)	$875,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 05-3206 WWTP SCADA Improvements

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

This project will upgrade the WWTP Supervisory Control and Data Acquisition (SCADA) communication network, replace and program the programmable logic controllers (PLCS), replace the servers, install a new database repository for historical data and acquire a web portal to view SCADA data over the District's business network. The WWTP SCADA servers communicate with the plant PLCs through ARCNET, a legacy control system for which parts are no longer available and soon will no longer be supported. This project will convert the ARCNET system to an industry standard ethernet system. This project will also replace the PLCs with ethernet compatible water/wastewater industry standard PLCs. This project will involve complex construction sequencing to allow for parallel SCADA systems during implementation as the plant processes cannot be interrupted. It will also require thorough testing of the PLC programming and communication system to assure reliable plant operation after cut-over to the new system.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference: SCADA System Master Plan, March 2010

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
703,305	905,500	1,355,500	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,964,305**
Current Adopted Budget	$2,964,305
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P002 WWTP Electrical System Master Plan

Funding Allocation: 100% **310**

Project Manager: Maurice Atendido **Status:** New Project

Project Summary:

The last Electrical Master Plan was completed in 2004. This master plan will review the WWTP electrical system and determine the required improvements to support current electrical demands as well as the future electrical demands of WWTP processes planned in the 2017 WWTP and Biosolids Master Plan.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference: 2004 Electrical Master Plan Update

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	750,000	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$750,000**
Current Adopted Budget	$750,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P016 Alum Addition

Funding Allocation: 75% **310** 25% **320**

Project Manager: Dan Lopez **Status:** New Project

Project Summary:

This project will construct facilites to add alum to the facultative sludge lagoon return water. The addition of alum will precipitate phosphate from the return water and reduce the formation of struvite. Currenty, one of the strategies to avoid the formation of struvite at the wastewater treatment plant (WWTP) is to run the WWTP in a mode where the phosphate remains in the liquid process and exits the WWTP with the effluent, rather than remaining in the biosolids and forming struvite in the digesters. However, this mode of operation is not as effective in producing a consistently high quality effluent. The additon of alum will allow the WWTP to operate in an alternate mode that will produce a better settling sludge and higher quality effluent, thus eliminating the need for an additional clarifier.

CEQA: Categorical Exemption [CEQA Guideline 15303]

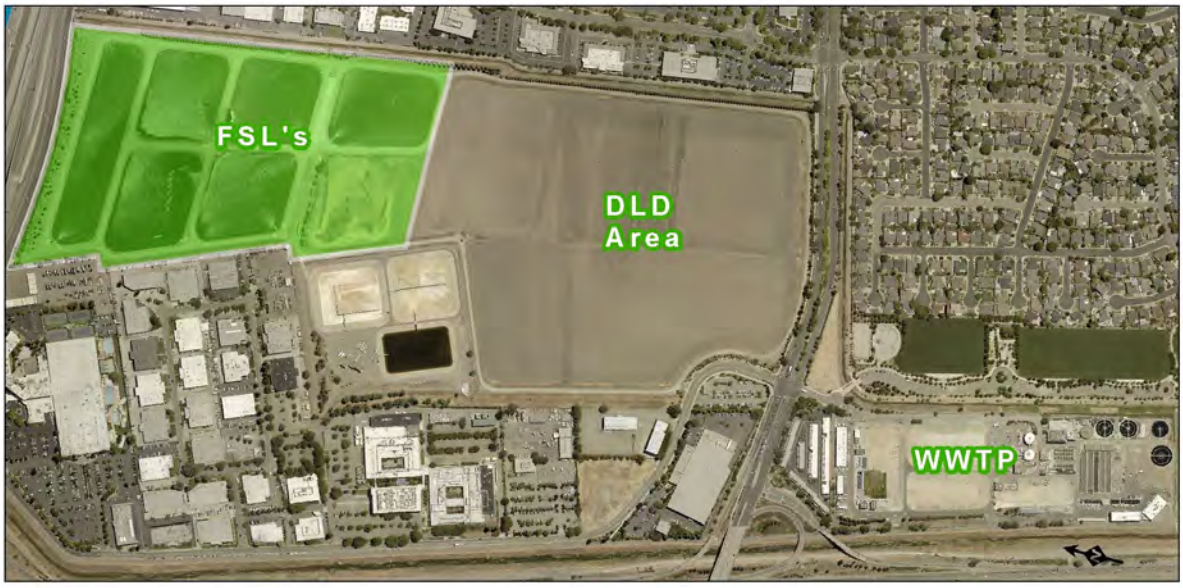
Reference: To be determined

Fund Allocation Basis: Project is required to improve current operations; based on current vs. projected buildout average dry weather flow at the time of project inception.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	300,000	500,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$800,000**
Current Adopted Budget	$800,000
Increase/(Decrease)	$0



CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 15-P018 Foul Air Line Rehabilitation

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Continuing Project

Project Summary:

This project will rehabilitate the foul air line which conveys odorous air from the bar screen building to the biofilter. The foul air is constructed of corrugated plastic line pipeline and the joints have weakened. The foul air has been leaking through the existing pavement and holding basin #2 causing cracking and base failure in the pavement. The rehabilitation will include the removal and replacement of the 42" foul air line and existing manholes, holding basin #2 concrete repair, associated asphalt and concrete repair/replacement, and biolfilter piping and bedding replacement. The sealed air line will stop pavement damage, provide more efficient treatment through the biofilter, and decrease foul air escaping into the atmosphere.

CEQA: Categorical Exemption [CEQA Guideline 153012].

Reference: Operations staff recommendation.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
2,110,000	50,000	0	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$2,160,000**
Current Adopted Budget	$2,160,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P006 Recoating of Digester Interior Covers 3, 2, and 1

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** New Project

Project Summary:

The steel digester covers were installed in 2004. This project will repair and coat the interior covers of the digesters, if needed, to extend their useful life. While the digesters are drained for cleaning, the interior covers will be inspected. After the condition of each interior cover is determined, necessary work will be performed. Digester 1 was last cleaned in 2012 and Digesters 2 and 3 in 2013.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	79,000	79,000	132,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$290,000**
Current Adopted Budget	$0
Increase/(Decrease)	$290,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P007 FSL MCC Improvements

Funding Allocation: 100% **310**

Project Manager: Dan Lopez **Status:** New Project

Project Summary:

The motor control center (MCC) at the facultative sludge lagoons (FSL) is over 30 years old and replacement parts (i.e. starters, circuit breakers, protective devices, power monitoring equipment, etc.) will require modifications to existing MCC buckets because exact replacements are no longer readily available. This is a critical MCC since it is a single point of failure for power and controls for the FSL mixers and valves.

CEQA: Categorical Exemption [CEQA Guideline 15302]

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	65,550	99,900	0	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$165,450**
Current Adopted Budget	$0
Increase/(Decrease)	$165,450

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 00-3120 Energy Management PROGRAM

Funding Allocation: 75% **310** 25% **610**

Project Manager: Steven Delight **Status:** Continuing Program

Project Summary:

Over the next 10 years, energy management is going to be a significant issue for wastewater and recycled water treatment. This project will fund participation in local and regional efforts regarding alternative energy, evaluating existing systems, studying and evaluating technologies and making minor improvements to existing systems. Examples of potential projects include: evaluating most efficient digester gas usage in the cogeneration system; partnering with other agencies in offsite solar power; assessing value of digester gas storage; experimenting with low energy lighting; and an Energy Management Master Plan.

CEQA: To be determined based on individual projects funded by program.

Reference:

Fund Allocation Basis: Based on ratio of energy used at treatment plant vs. water facilities.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	75,000	75,000	250,000	250,000	350,000	0	0	0	0	0	0

Total Estimated Project Cost	**$1,000,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,000,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 00-P026 RWTF Replacement and Rehabilitation PROGRAM

Funding Allocation: 100% **310**

Project Manager: Steven Delight **Status:** Continuing Program

Project Summary:

This program will fund projects to upgrade, replace and improve facilities and equipment within the Regional Wastewater Treatment Facility (RWTF) to meet operational and permit requirements. Some equipment is now more than 30 years old. This program provides for the renewal, replacement and/or increase in capacity of process equipment on an as-needed basis or the upgrade of equipment as it becomes obsolete. This program may also be used to investigate issues that lead to the identification of projects that require the creation of a specific CIP project. Increases in future years' estimated cashflow reflect anticipated Asset Management Program needs as plant infrastructure ages.

CEQA: To be determined based on individual projects funded by program.

Reference: Staff recommendation

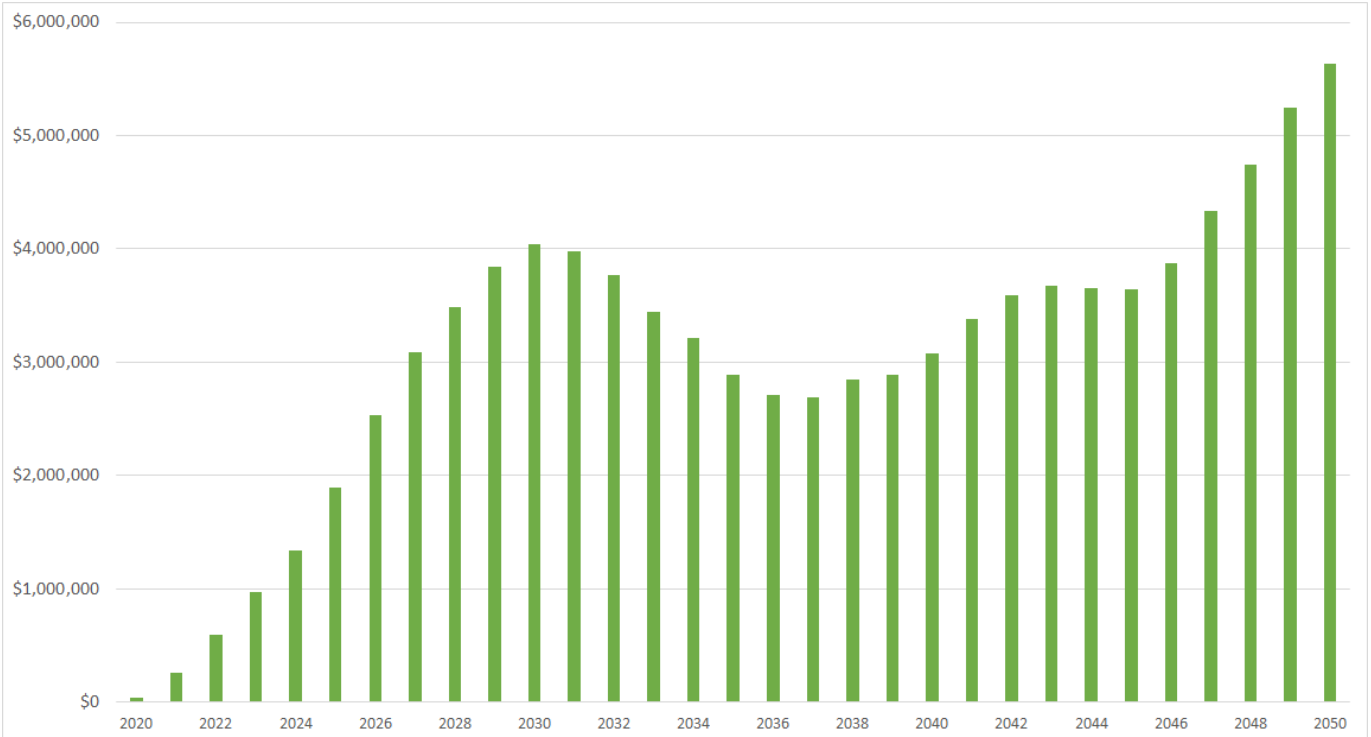
Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	500,000	500,000	500,000	1,000,000	1,500,000	2,000,000	2,000,000	2,500,000	3,000,000	3,500,000	15,000,000

Total Estimated Project Cost	**$32,000,000**
Current Adopted Budget	$0
Increase/(Decrease)	$32,000,000

Estimated Annual Regional System Replacement Costs



CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 20-P010 Cogeneration Engine #4

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Future Project

Project Summary:

This project will integrate a fourth cogeneration unit at the RWTF. The project includes consultant time to prepare appropriate CEQA documentation, work with both the Bay Area Air Quality Management District (BAAQMD) for permitting, and PG&E to modify the existing interconnect agreement. The engine, which has already been purchased, will not be located in the cogeneration building with the other three units, but rather where the fuel cell was previously located. The project will include the construction of a small enclosure, for noise control, and the purchase of engine controls and other miscellaneous parts for integration. This project will improve reliability of the cogeneration system and minimize peak demand charges.

CEQA: Possible Mitigated Negative Declaration

Reference: To be determined.

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	470,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$470,000**
Current Adopted Budget	$0
Increase/(Decrease)	$470,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T20-09 WWTP Administration Building (Building A) Remodel/Renovation

Funding Allocation: 100% **310**

Project Manager: **Status:** Future Project

Project Summary:

This project proposes to engage design professionals for preliminary planning and design of renovations for the RWTF Administration Building (A). A preliminary design study will commence in calendar year 2022. It is anticipated that construction and permitting costs will be presented following scoping and detailed design.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: Previous resealing was in 2009 and 2010.

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	100,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$100,000**
Current Adopted Budget	$0
Increase/(Decrease)	$100,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T20-10 Mezzanine in Electrical Shop

Funding Allocation: 100% **310**

Project Manager:

Status: Future Project

Project Summary:

This project would add a 540 sq. ft. mezzanine to the Electrical Shop in Building S at the RWTF. Preliminary planning and engagement of a structural engineering and possibly an architectural design consultant is needed to scope the project before more detailed design and construction can be developed.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: N/A

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	50,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$50,000**
Current Adopted Budget	$0
Increase/(Decrease)	$50,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. T20-14 WWTP/Biosolids Master Plan

Funding Allocation: 85% **320** 15% **310**

Project Manager:

Status: Future Project

Project Summary:

The last complete WWTP Master Plan was completed in 2017. The current average dry weather flow (ADWF) to the WWTP is approximately 11 MGD. This Master Plan will: review upcoming nutrient limits to the San Francisco Bay; evaluate current and projected future wastewater flows and strength; determine when additional facilities are required due to hydraulic or treatment limitations; evaluate options for biosolids dewatering and disposal; evaluate current technologies to meet treatment requirements; develop costs estimates; and support a capacity reserve fee study.

CEQA:

Reference:

Fund Allocation Basis: Fund split based on ADWF that initiates project vs. buildout flowrate

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	850,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$850,000**
Current Adopted Budget	$0
Increase/(Decrease)	$850,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T20-15 Flocculation Baffles in Secondary Clarifiers

Funding Allocation: 100% **310**

Project Manager: **Status:** Future Project

Project Summary:

This project will perform computational fluid dynamics (CFD) analysis of the District's secondary clarifiers and provide design of the neccesary modifications for secondary clarifier #2. Field testing conducted in August 2018 indicated that secondary clarifiers perform well, but the flocculation center wells (FCWs) are too large and not fully utilized at normal and low flow conditions. The under utilization leads to suboptimal performance and may represent a potential problem when the District adopts a full nutrients removal scheme in the future. Testing indicated that secondary clarifiers suffer from hydraulic short-circuiting and performance could be improved by adding simple modifications, such as flocculation baffles. Improving the secondary clarifier performance will reduce effluent suspended solids concentrations, solids loading on the ACTIFLO process, and chemical usage. CFD analysis will be utilized to determine the most cost effective modifications and conceptual design of the flocculation baffles. The current budget is for design services only.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference:

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	80,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$80,000**
Current Adopted Budget	$0
Increase/(Decrease)	$80,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P011 Chlorinated Secondary Effluent Process Water System Condition Assessment

Funding Allocation: 100% **310**

Project Manager: Aaron Johnson **Status:** Future Project

Project Summary:

This project will assess the condition of the existing chlorinated secondary effluent process water (3 Water or 3W) system at the wastewater treatment plant. The current 3W system is the backbone for plant operations. 3W is treated process water used for spray water, pump seal water, and cooling water for cogen. When 3W system goes down, the overall plant process is compromised. Although the 3W system is currently backed up with recycled water (4 Water or 4W) system, 4W relies on the same piping as 3W, meaning the backup is only for pump failure and not for a major leak. This evaluation will look at the pumps as well as the existing piping. The project will also evaluate other critical pipelines within the boundaries of the plant. Recommendations may be to replace sections of 3W or potentially to connect a backup water supply to key processes. This project is for evaluation only, additional funding will be needed based on recommendations.

CEQA: Not a project under CEQA [CEQA Guideline 15378].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	75,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$75,000**
Current Adopted Budget	$75,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 14-P005 Wet Weather Flow Capacity and Chlorine Contact Tank Dewatering

Funding Allocation: 85% **310** 15% **320**

Project Manager: Steven Delight **Status:** Future Project

Project Summary:

This project will remove a divider wall between the chlorine contact tank (CCT) influent channel and the CCT and remove the weir in the chlorine junction box to allow greater flows through these structures. The project will also add a CCT dewatering system. When the wastewater treatment plant flow is greater than 37 mgd, the secondary clarifiers flood due to hydraulic constraints downstream of the clarifiers. Removal of the walls and weirs will allow for greater flows through the wastewater treatment plant. Also, the chlorine contact tank should ideally be cleaned once every quarter. Dewatering the CCT for cleaning involves extensive pumping equipment setup and staff time, and once everything is set up, it takes time to pump out the water. This project will design necessary pumping valving and controls for a CCT dewatering system.

CEQA: Mitigated Negative Declaration approved by Board on 8/17/1999

Reference: Secondary Effluent Wet Weather Capacity Review, RMC, August 2014; 2017 WWTP and Biosolids Master Plan.

Fund Allocation Basis: Based on current vs projected buildout average dry weather flow at the time of project inception.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
57,381	0	0	450,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$507,381**
Current Adopted Budget	$507,381
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. 18-P013 Biosolids Dewatering Facility

Funding Allocation: 100% **320**

Project Manager: Jason Ching **Status:** Future Project

Project Summary:

The water content of the biosolids harvested from District's facultative sludge lagoons (FSLs) limits the amount of biosolids that can be placed on the dedicated land disposal (DLD) site. With this limitation, the FSLs are slowly accumulating biosolids. The current land application of biosolids on the DLD is by far the most cost-effective solution for biosolids management. To continue using the DLD for biosolids disposal, the biosolids need to be dewatered. This project will construct a new biosolids dewatering facilities and building at the DLD site. The dewatering of biosolids will allow the DLD to continue to be the primary method of sludge disposal. Should the District wish to diversify biosolid management or take advantage of new technologies to recover biosolids as a resource, dewatering will be required. Therefore, dewatering is a near term solution for biosolids disposal that will also move the District toward diversifying its biosolids management in the long term. This project is required for both options of continuing with DLD disposal or participation in a regional biosolids facility.

CEQA: To be determined.

Reference: 2017 Wastewater Treatment Plant and Biosolids Master Plan

Fund Allocation Basis: Project is required to meet the needs for biosolids disposal for future customers.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	300,000	2,225,000	12,120,000	0	0	0	0	0	11,900,000

Total Estimated Project Cost	**$26,545,000**
Current Adopted Budget	$16,095,000
Increase/(Decrease)	$10,450,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P014 WWTP Recycled and Potable Water Systems

Funding Allocation: 100% **310**

Project Manager: Jackie Yee **Status:** Future Project

Project Summary:

This project will expand the use of recycled water for plant processes. The current fire main supplies both the potable and fire water systems. This project will install approximately 550 feet of 3-inch above ground and 350 feet of 3-inch below ground recycled water pipe to the cogeneration building, blower building, plant air compressors, bar screens, 1250kW and 750 kW generators, and buildings S and T. The first phase of the project, installing 500 feet of 2-inch potable water lines to Building A, D, S, T, and fleet maintenance building, has been completed.

CEQA: Categorical Exemption [CEQA Guideline 15303].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
60,000	0	0	200,000	124,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$384,000**
Current Adopted Budget	$384,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 18-P017 Public Outreach Signage at RWTF

Funding Allocation: 100% **310**

Project Manager: Sue Stephenson **Status:** Future Project

Project Summary:

Facility tours are one way the District communicates the value we provide the community 24/7. Engaging with our customers in an on-going, direct, proactive way builds confidence in the District as a reliable, trustworthy service provider and increases our customers' understanding of what they get for their money. Tours also promote careers in the water/wastewater industry. This project will purchase and install signs at the Regional Wastewater Treatment Facility (RWTF) to help facilitate the tours that are given on a regualr basis.

CEQA:

Reference:

Fund Allocation Basis: Project will benefit existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	100,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$100,000**
Current Adopted Budget	$100,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T16-01 Hypochlorite Building Rehabilitation

Funding Allocation: 100% **310**

Project Manager: Jackie Yee **Status:** Future Project

Project Summary:

The four sodium hypochlorite bulk storage tanks at the wastewater treatment plant were replaced during the summer of 2014. During the tank replacement, a visual analysis of the existing pads and building were reviewed by a structural engineer. The coating at the perimeter of the existing tank pads and coating on the tank room slab have failed in areas where the old storage tanks had leaked. The coating in the pump room had failed completely due to chemical exposure. This project will address those findings and correct the problems. Concrete samples will be taken and tested for chloride ion concentration. Concrete repair will be undertaken before reinforcing steel capacity is compromised. Alternatives to arrest any ongoing corrosion will also be investigated and implemented. Concrete coating will be applied over the concrete repairs and corroded pipe; pump supports in the pump room will be replaced; and the wall to slab, wall-to-wall connection and roof beams will also be strengthened to update the building to current seismic standards. The project will also install a fifth storage tank to provide additional storage and make use of an existing pad and infrastructure already in place.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference: Hypochlorite Storage Building Condition and Seismic Assessment, Carollo Engineers, October 2014.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	340,000	0	0	0	0	0	0	0	0

Total Estimated Project Cost	**$340,000**
Current Adopted Budget	$0
Increase/(Decrease)	$340,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. 19-P003 RWTF Fencing and Security - Phase 2

Funding Allocation: 100% **310**

Project Manager: Rudy Portugal **Status:** Future Project

Project Summary:

This project will improve security along the Regional Wastewater Treatment Facility (RWTF) perimeter. This project will install 8-feet tall vinyl coated fence along the south, west and north border of the facility. It will also include screening landscaping where space permits. Fencing and landscaping along the eastern border of the facility was completed in conjunction with the construction of the fourth digester in 2019.

CEQA: Negative Declaration approved May 19, 1998.

Reference: Physical Security Risk Assessment, Pinkerton Consulting, April 2004.

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
143,000	0	0	0	1,067,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,210,000**
Current Adopted Budget	$1,210,000
Increase/(Decrease)	$0

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T16-11 WWTP Motor Control Center and Distribution Panel "A" Improvements

Funding Allocation: 100% **310**

Project Manager: **Status:** Future Project

Project Summary:

This project will upgrade WWTP Motor Control Centers (MCCs) MCC-E and Electrical Distribution Panel A (DPA) to a standard 65,000 Ampere Interrupting Capacity (AIC) rating. Based on the most recent short circuit analysis, ten MCCs and DPA either do not have adequate short circuit equipment AIC ratings to either handle possible fault scenarios or to handle future expansions. The upgrade will also require modifications to existing MCC buckets as the MCC's are 20+ years old and exact replacement parts (i.e. starters, circuit breakers, etc.) are no longer readily available.

CEQA: Categorical Exemption [CEQA Guideline 15301, 15302].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	203,550	471,750	471,750	0	0	0	0	0	0

Total Estimated Project Cost	**$1,147,050**
Current Adopted Budget	$0
Increase/(Decrease)	$1,147,050

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T16-40 RWTF Pavement Repair

Funding Allocation: 100% **310**

Project Manager: **Status:** Future Project

Project Summary:

This project will repair and seal coat pavement at the Regional Wastewater Treatment Facility (RWTF). The facility's pavement is subject to vehicles with heavy loads. This work is required periodically to maintain the integrity of the pavement.

CEQA: Categorical Exemption [CEQA Guideline 15301].

Reference:

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	325,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$325,000**
Current Adopted Budget	$0
Increase/(Decrease)	$325,000

DSRSD CIP 10-Year Plan for FYEs 2020 through 2029

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T16-54 Odor Reduction Tower Replacement

Funding Allocation: 100% **310**

Project Manager: **Status:** Future Project

Project Summary:

This project will either rehabilitate or replace the Odor Reduction Tower (ORT). The ORT treats odorous air from the WWTP influent pump room, aerated grits tanks, and the grit building. Although the ORT effectively treats hydrogen sulfide, it does not effectively treat reduced sulfur compounds. This project will help the District meet the WWTP odor control goals and support the District's "good neighbor" policy to minimize odor impacts to the surrounding community.

CEQA: Categorical Exemption [CEQA Guideline 15302]

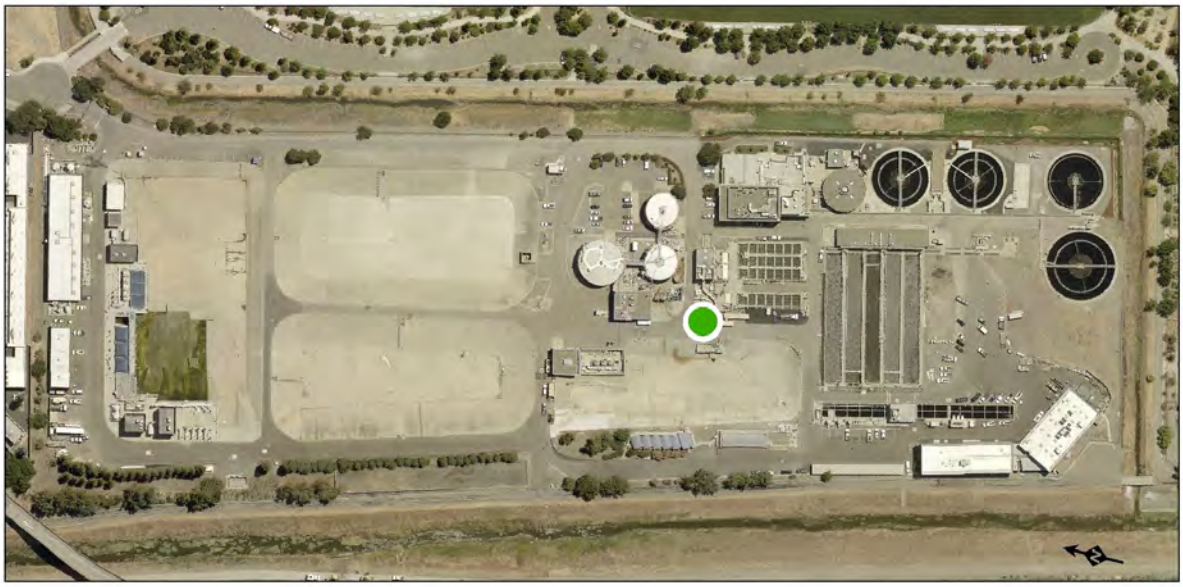
Reference: 2008 Update to Odor Control Focus Areas Analysis, CH2M Hill, July 2009

Fund Allocation Basis: All work shall be done at the WWTP for an existing facility.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	1,936,000	0	0	0	0	0	0	0

Total Estimated Project Cost	**$1,936,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,936,000



CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T18-15 Cogeneration Engine Replacement

Funding Allocation: 100% **310**

Project Manager:

Status: Future Project

Project Summary:

The Asset Management Program has identified many items on the cogeneration system that are in need of replacement. The option for a full replacement of the engines and ancillary equipment compared to the cost of replacement items for the engines need to be considered. One of the engines is in excess of 50 years old based on the block casting numbers.

CEQA: Categorical Exemption [CEQA Guideline 15302].

Reference: Asset Management Program

Fund Allocation Basis: Project is required to replace or rehabilitate existing regional wastewater fund assets.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	20,000	1,000,000	0	0	0	0	0	0

Total Estimated Project Cost	**$1,020,000**
Current Adopted Budget	$0
Increase/(Decrease)	$1,020,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. T10-62 Emergency Power for Distribution Panel-D

Funding Allocation: 100% **320**

Project Manager: **Status:** Future Project

Project Summary:

This project will install a 900 kW emergency power generator for the Distribution Panel-D (DPD) switchgear to support continued growth of the service population and the corresponding increases in influent pumping and related WWTP equipment, such as the Bar Screens, Primary Clarifiers, etc. Panel DPD is currently provided with emergency power via the existing generator, but higher flows will require an additional generator for Panel DPD. Emergency power is also a requirement of the District's NPDES Permit. This project will be revised per the updated Electrical Master Plan, which is scheduled for completion in 2021.

CEQA: To be determined

Reference: 2004 WWTP Electrical Master Plan and dependent on findings of 2019 Electrical Master Plan Update; 2017 WWTP and Biosolids Master Plan

Fund Allocation Basis: Project is required for future customer wastewater treatment capacity.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	0	5,560,000

Total Estimated Project Cost	**$5,560,000**
Current Adopted Budget	$0
Increase/(Decrease)	$5,560,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. T10-83 Cover Primary Clarifiers

Funding Allocation: 100% **320**

Project Manager: **Status:** Future Project

Project Summary:

This project will cover the primary clarifiers. The settled sewerage channel and the primary clarifiers have been identified in the Odor Control Master Plan as areas in the wastewater treatment plant that have odor issues. The project may cover the entire primary tanks or only the launderers. The foul air removed from the primary clarifiers will be treated in a new odor treatment facility that also serves the settled sewerage channel and other processes in the area.

CEQA:	Categorical Exemption [CEQA Guideline 15303]
Reference:	2008 Update to Odor Control Focus Areas Analysis, CH2M Hill, July 2009; 2017 WWTP and Biosolids Master Plan
Fund Allocation Basis:	New project is odor control associated with increasing flows into WWTP.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	4,694,000	0

Total Estimated Project Cost	**$4,694,000**
Current Adopted Budget	$0
Increase/(Decrease)	$4,694,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Expansion (Fund 320)**

CIP No. T12-08 Cover Settled Sewage Channel and Selector

Funding Allocation: 100% **320**

Project Manager: **Status:** Future Project

Project Summary:

This project will cover the settled sewage channel and the selector. The settled sewage channel and the primary clarifiers have been identified in the Odor Control Master Plan as areas in the WWTP that have odor issues. In addition, adding the covers will allow the addition of air to the settled sewage channel, which will increase the performance of the WWTP. The foul air removed from the settled sewage channel will be treated in a new odor treatment facility that also serves the primary clarifiers and other items in the area. This project will also include replacement of the ORT with a new high performance biofilter in the current biofilter location. The new biofilter will be constructed modular and will be added when the primaries are covered.

CEQA: To be determined

Reference: 2008 Update to Odor Control Focus Areas Analysis, CH2M Hill, July 2009; 2017 WWTP and Biosolids Master Plan

Fund Allocation Basis: New project is odor control associated with increasing flows into WWTP.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	2,358,000	0	0

Total Estimated Project Cost	**$2,358,000**
Current Adopted Budget	$0
Increase/(Decrease)	$2,358,000

CATEGORY: REGIONAL WASTEWATER TREATMENT **Regional Wastewater Replacement (Fund 310)**

CIP No. T16-42 Nutrient Removal

Funding Allocation: 80% **310** 20% **320**

Project Manager:

Status: Future Project

Project Summary:

In April 2014, the Bay Area Regional Water Quality Control Board (RWQCB) issued a San Francisco Bay Nutrients Watershed permit to municipal wastewater dischargers. The permit requires wastewater dischargers to evaluate reductions in nutrient discharges through treatment upgrades and contribute toward studies to develop a San Francisco Bay Nutrient Management Strategy. The District is working with the Bay Area Clean Water Agencies (BACWA) to address the permit requirements. If the current studies determine wastewater discharges have an adverse effect on Bay water quality, the RWQCB will impose nutrient load limits on the wastewater treatment plant effluent which will require treatment upgrades. Although future regulation or the extent of the regulation is uncertain, it is prudent that the District plan for some future treatment upgrades. This project assumes the addition of three aeration basins, a fifth secondary clarifier, and chlorination improvements to meet BACWA Level 2 effluent nutrient requirements.

CEQA: To be determined.

Reference: RWQCB's San Francisco Bay Nutrients Watershed Permit; 2017 WWTP and Biosolids Master Plan.

Fund Allocation Basis: Based on ratio of current ADWF to projected buildout ADWF at the time of project inception.

10-Year Cash Flow and Estimated Project Cost:

Prior	FYE 20	FYE 21	FYE 22	FYE 23	FYE 24	FYE 25	FYE 26	FYE 27	FYE 28	FYE 29	Future
0	0	0	0	0	0	0	0	0	0	7,380,000	35,400,000

Total Estimated Project Cost	**$42,780,000**
Current Adopted Budget	$0
Increase/(Decrease)	$42,780,000