Report

Engineering Services Group

Capital Investment Plan Quarterly Report for period ending March 31, 2022

Summary

The attached report provides a summary of actions and accomplishments on the Capital Investment Plan (CIP) during fiscal years 2020/21 and 2021/22. It also provides updates on the status of capital projects and capital expenditures to date, and information regarding service connections and relocations authorized by the General Manager during the reporting period of January to March 2022, the third quarter of fiscal year 2021/22, and the seventh quarter of the fiscal years 2020/21 and 2021/22 biennium.

Purpose

Administrative Code Requirement Section 2720(a)(1): General Manager's Quarterly Reports

Section 2720 of Metropolitan's Administrative Code requires the General Manager to report quarterly to the Engineering and Operations Committee on the Capital Investment Plan.

Sections 4700-4708 of Metropolitan's Administrative Code requires the General Manager to report on service connections approved by the General Manager with the estimated cost and approximate location of each.

Section 8122(c) of Metropolitan's Administrative Code requires the General Manager to report on the execution of any relocation agreement under the General Manager's authority involving an amount in excess of \$100,000.

Highlights of progress and major milestones on selected projects are presented in the attached report grouped by CIP program.

Attachments

Capital Investment Plan Quarterly Report for period ending March 2022

Date of Report: 6/14/2022



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

CAPITAL INVESTMENT PLAN Quarterly Report

January – March 2022



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CAPITAL INVESTMENT PLAN FOR FISCAL YEARS 2020/21 & 2021/22

Metropolitan's total Capital Investment Plan (CIP) planned expenditures for Fiscal Years (FYs) 2020/21 and 2021/22 are \$500 million appropriated by the Board in April 2020, and are shown in Figure 1 below in relation to their associated programs. In the same board meeting, the Board also delegated authority to the General Manager, subject to both CEQA requirements and the General Manager's authority as addressed in Metropolitan's Administrative Code, to initiate or proceed with work on all planned capital projects identified in the CIP for FYs 2020/21 and 2021/22.

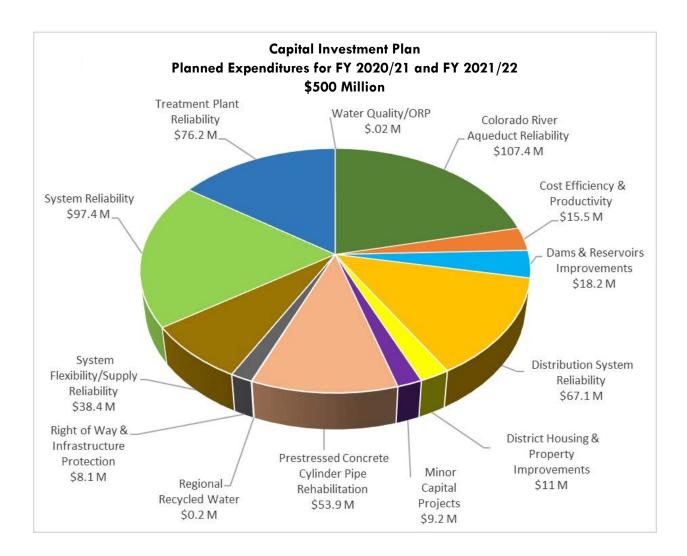


Figure 1: CIP for FY 2020/21 and FY 2021/22 by Program

[Cover photos: (left to right; top to bottom): Second Lower Feeder - 54-inch diameter conical plug valve undergoing performance testing at Ebara's manufacturing plant in Japan; Casa Loma Siphon Barrel No. 1 Seismic Upgrade — Kubota pipe vendor conducted installation training of earthquake resistant ductile iron pipe; Cholla Wash Conduit Protection & Lining — contractor applied coating system to the interior surface of the conduit]

THIRD QUARTER SUMMARY

Biennial expenditures through March 2022 totaled \$376.9 million (details shown in Table 15), and expenditures for the 3rd Quarter of Fiscal Year 2021/22, January through March 2022, totaled \$36.8 million for all capital programs.

During the 3rd Quarter, board actions heard in open session included nine project-specific actions summarized in Table 1 below. These actions awarded three contracts totaling approximately \$7.4 million and authorized ten new professional/technical services agreements totaling a not-to-exceed amount of approximately \$15.3 million. Information on the awarded contracts can be found in Table 10 of this report. The table below excludes information on board items heard in closed session.

Table 1: 3rd Quarter Board Actions

Month	Board Letter Item No.	Project	Action taken
January	7-2	Skinner Facility Area Paving	Awarded \$1,936,977 construction contract
February	7-2	Iron Mountain and Gene Pumping Plant Utility Replacement; CRA Desert Region Security Improvements; and Iron Mountain Pumping Plant Station Power and Lighting Switchrack Rehabilitation	Authorized three agreements not-to-exceed \$2,650,000, \$650,000
February	7-3	La Verne Water Quality Laboratory Upgrades	Authorized two agreements not- to-exceed \$4,400,000 and \$550,000
February	7-4	West Area Water Supply Reliability Improvements: West Area Supply and Delivery Alternatives, Drought Response Westside Pump Station	Authorized two unplanned projects; authorized an agreement not-to-exceed \$300,000
February	7-5	PCCP Rehabilitation Valve and Equipment Storage Building	Awarded \$4,759,000 construction contract
March	7-2	Cabazon Radial Gate Facility Upgrades and San Diego Canal Radial Gate Replacement	Authorized two agreements not- to-exceed \$890,000 and \$904,000
March	7-3	Western San Bernardino County Operating Region Erosion Control Improvements – Stage 1	Awarded \$677,989 construction contract
March	7-4	CRA Conduit Erosion Control Improvements	Authorized an agreement not- to-exceed \$2,800,000
March	7-8	Diamond Valley Lake East Marina Utility Improvements	Authorized an agreement not- to-exceed \$1,500,000

The previously referenced April 2020 board action appropriated \$500 million to perform work on planned capital projects through the current biennium. In order to be considered a planned project, the project must be identified and described in the Capital Investment Plan Appendix for the two-year budget cycle. Consistent with this action, all requests to allocate funds and proceed with planned capital projects are reviewed and approved by the Chief Engineer acting under the General Manager's authority. Unplanned projects, those which are not already identified in the CIP Appendix, require a separate board authorization. Upon board approval of an unplanned project, requested funds are then transferred from the \$500 million (Appropriation No. 15517) to the pertinent capital appropriation under which the project is budgeted. During the 3rd Quarter, the Board amended the CIP to include new capital projects to improve water supply reliability in the west service area. These projects will enhance water delivery capabilities to member agencies that can only receive State Project Water.

During the 3rd Quarter, the total amount of Appropriation No. 15517 funds authorized by the General Manager for the current biennium (FYs 2020/21 and 2021/22) through management actions including the funds for the projects shown in Table 1 is approximately \$13.2 million¹. Reallocations of \$23.0 million returned to the CIP Appropriation (Appropriation No. 15517) from projects with reductions in anticipated expenditures resulting in net decrease of \$9.8 million. Details of these management actions which occurred during the 3rd Quarter can be found in the **Project Actions** section of this report.

Figure 2 shows the allocation of the funds from Appropriation 15517 for this quarter and total for the current biennium through the quarter², which is approximately \$485.0 million, leaving approximately \$15.0 million available to be allocated during the remainder of the current biennium.

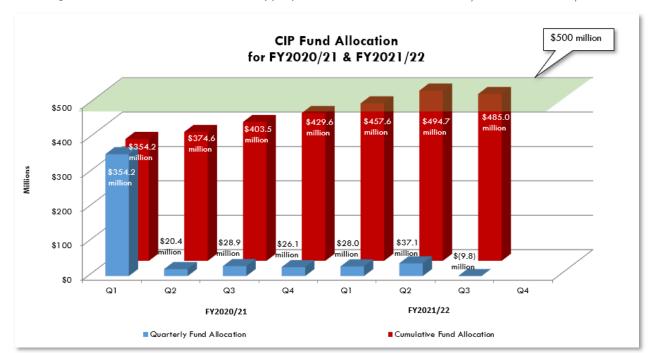


Figure 2*: CIP Fund Allocation from Appropriation No. 15517 - FY 2020/21 and FY 2021/22

^{*}Numbers may not sum due to rounding

Total amount authorized excludes \$3.4 million in funding for Diamond Valley Lake East Marina Utility Improvements and \$100,000 in funding for Diamond Valley Lake to Lake Skinner Trail, which are funded with undistributed funds in DVL Recreation Appropriation 15334.

The CIP Quarterly Report for the 2nd Quarter of FY 2021/22 reported the CIP allocation for Q2 of FY 2021/22 to be \$493.6 million, which is being amended to \$494.7 million in this quarter's report. This change is necessary to reflect the correction of the amount authorized for the current biennium for Jensen Ozone PSUs Replacement – Stage 1 from \$170,000 to \$1,250,000.

Information on construction and procurement contracts activities for the 3rd Quarter of FY 2021/22 is summarized in Table 2 below and presented in further detail in the **Construction and Procurement Contracts** section of this report. Progress payments for these contracts in the 3rd Quarter totaled approximately \$14.81 million and primarily reflect construction progress on Colorado River Aqueduct Cholla Wash Conduit Lining, MWD HQ Building Improvements, MWD HQ Building Fire Alarm & Smoke Control Improvements, Colorado River Aqueduct Replacement of Casa Loma Siphon Barrel No. 1, Joseph Jensen Water Treatment Plant Electrical Upgrade - Stage 2, Gene Wash Reservoir Discharge Valve Replacement, and CRA Mile 12 Flow Monitoring Station Upgrades.

Contract Actions durin	g Q3 for FY 2021/2022, January 2022 through March 2022
Contracts Awarded by Board	3 construction contracts totaling \$7.37 million (Table 10)
Total Payments Authorized	\$14.81 million
Construction Contracts Completed	Notice of Completion was filed for 1 construction contract (Table 9)
	21 construction contracts, totaling \$214.67 million (Table 11)
Active Contracts at end of Q3 ³	15 procurement contracts, totaling \$67.00 million (Table 12)
	\$281.66 million total value*

Table 2: 3rd Quarter Contract Action

IMPACTS OF COVID-19

In response to the Governor's and General Manager's emergency declarations resulting from the COVID-19 pandemic, all active construction contracts were suspended in late March 2020. Since then all contracts, except on-site work for CRA Pumping Plant Sump Rehabilitation, resumed construction activities. Staff and the contractor have negotiated a resolution to the aforementioned CRA Pumping Plant Sump Rehabilitation contract. Metropolitan will take possession of key equipment and will receive a credit for the deleted equipment installation work and equipment not provided. Currently, it is anticipated that the existing contract will be completed by summer of 2022 and the CRA Pumping Plant Sump Rehabilitation project will be re-advertised in the second half of Fiscal Year 2022/23 to install the equipment and materials procured under the existing contract as Metropolitan-furnished equipment. Supply chain issues, especially delivery delays for electrical, control, and computer equipment in addition to construction components such as roofing materials, specialty doors, power door assist hardware, heat pumps, and valves, have been reported on a number of construction contracts and IT projects.

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^{*} Numbers may not sum due to rounding.

Active contracts at the end of the 3rd Quarter are those that are ongoing at the end of March 2022. In other words, contracts completed during the reporting quarter are excluded.

PLANNED EXPENDITURE AND BUDGET

Table 3 and * Numbers may not sum due to rounding.

Figure 3 below show planned and actual expenditures for the biennium through the end of the 3^{rd} Quarter of FY 2021/22, and the forecast of expenditures through the end of the current biennium, against planned expenditures for the same time interval. Actual expenditures through the 3^{rd} Quarter of FY 2021/22 were approximately 86% of planned expenditures.

Table 3: Current Biennium: Planned & Actual Ex	penditures for FYs 2020/21 & 2021	/22
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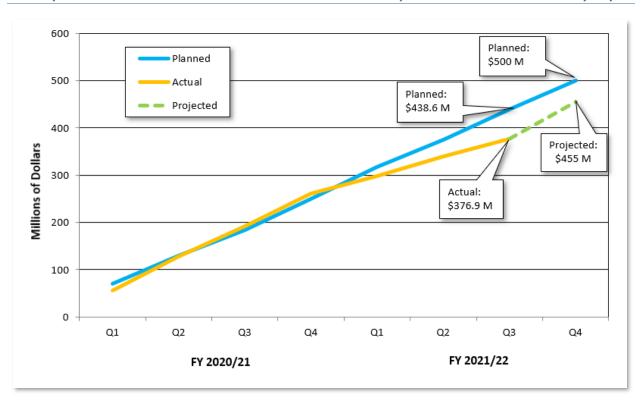
Quarter	Planned Expenditures (millions)	Actual Expenditures (millions)
FY 2020/21 Q1	\$70.4	\$55.6
Q2	\$58.5	\$72.2
Q3	\$55.0	\$63.6
Q4	\$66.1	\$70.3
FY 2021/22 Q1	\$67.0	\$36.2
Q24	\$58.3	\$42.3
Q3	\$63.3	\$36.8
Totals*	\$438.6	\$376.9

^{*} Numbers may not sum due to rounding.

Figure 3: Current Biennium – Planned, Actual & Forecasted Expenditures

The Metropolitan Water District of Southern California

The CIP Quarterly Report for the 2nd Quarter of FY 2020/21 reported the CIP expenditures for Q2 to be \$42.4 million, which is being amended to \$42.3 million in this quarter's report. This change is necessary to exclude charges for COX Family Farms land acquisition to only account for CIP expenditures.



As shown in * Numbers may not sum due to rounding.

Figure 3, the total planned expenditures in the current biennium are \$500 million. The projected expenditures for the biennium are currently approximately \$455 million with the actual expenditures lower than the planned expenditures during the 3^{rd} Quarter of FY 2021/22 and are projected to stay under the planned expenditures through the end of the biennium.

Expenditures are less than planned in the reporting quarter due to several factors including delays in awarding and completing some construction and procurement contracts due to the difficulties in obtaining permits within the planned timeline, the cancellation of construction portion of one construction contract due to the COVID-19 pandemic leaving only materials and equipment procurement portion, and equipment/materials delivery delays due to manufacturing and supply chain issues attributed to the COVID-19 pandemic.

MAJOR CAPITAL PROGRAMS OVERVIEW

Metropolitan's CIP is structured into three levels. In descending order, they are:

- Program
- Project Group/Appropriation
- Project

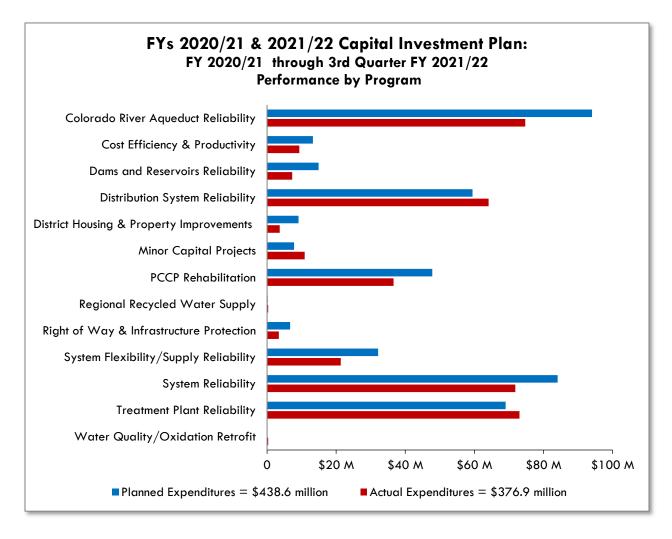
Metropolitan's CIP is comprised of 13 programs, which capture all projects within the CIP. The 13 capital programs are listed below in alphabetical order. Programs are comprised of one or more project groups/appropriations, and project group/appropriations are comprised of one or more projects. The status of each of the programs is provided later in this section of the report.

- Colorado River Aqueduct (CRA) Reliability
- Cost Efficiency & Productivity
- Dams & Reservoirs Improvements
- Distribution System Reliability
- District Housing & Property Improvements
- Minor Capital Projects
- Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation
- Regional Recycled Water Supply
- Right-of-Way and Infrastructure Protection
- System Flexibility/Supply Reliability
- System Reliability
- Treatment Plant Reliability
- Water Quality/Oxidation Retrofit

For the current biennium, there are over 37 project groups, 72 planned appropriations, and 435 planned projects (excluding Minor Capital Projects) within the CIP. The list of appropriations that make up each of the programs, along with planned expenditures and actual costs to date for those appropriations, are provided in Table 15 at the end of this report.

Figure 4 below shows actual versus planned expenditures for the 13 capital programs for 3^{rd} Quarter of FY 2021/22.

Figure 4: Biennium-to-date Expenditures (Actuals vs. Planned) through 3rd Quarter FY 2021/22



Variances between planned and actual expenditures for each program are primarily due to shifts in spending on current and planned construction work. The following information on the top ten capital projects provides examples of activities that contributed to such variances.

The list of projects in Table 4 below reflects the ten projects in the CIP with the highest level of planned expenditures in the current biennium. The planned versus actual expenditures through the end of the 3^{rd} Quarter of FY 2021/22 are also shown in this table.

Table 4: Top Ten Planned Capital Projects
Planned and Actual Expenditures

Project	Planned (FY 2020/21 through FY 2021/22) (millions)	Planned July 2020 to March 2022 (millions)	Actuals July 2020 to March 2022 (millions)
Headquarters Building Improvements	\$31.3	\$27.5	\$32.7
Casa Loma Siphon Barrel No. 1 Seismic Upgrade	\$30.0	\$26.4	\$16.7
CRA Pump Plant Sump System Rehabilitation	\$28.0	\$24.6	\$11.2
Perris Valley Pipeline - Tunnels	\$27.8	\$21.9	\$2.5
CRA Discharge Line Isolation Coupling Assemblies	\$23.0	\$22.3	\$18.3
Second Lower Feeder PCCP Rehabilitation - Reach 8	\$22.0	\$18.0	\$6.9
Jensen Electrical Upgrades - Stage 2	\$15.2	\$13.5	\$16.7
Diemer West Basin & Filter Building Rehabilitation	\$14.2	\$14.1	\$1 <i>5.7</i>
Second Lower Feeder PCCP Rehabilitation — Reach 2	\$13.0	\$13.0	\$5.7
Orange County Feeder Relining - Reach 3	\$12.5	\$11.0	\$1.1
Total*	\$217.1	\$192.5	\$127.5

^{*} Numbers may not sum due to rounding.

The cumulative expenditure variance for the top ten projects through the 3rd Quarter of FY 2021/22 reflects a mix of over- and under-spending on projects relative to their planned expenditures. Positive or negative variances do not mean that the projects are over or under budget, it simply reflects variances in timing of expenditures when compared to original budget plans. The following are the variance explanations for the top ten projects where actual expenditures exceeded planned expenditures through the current reporting quarter for the biennium.

- Headquarters Building Improvements: The actual expenditures were more than planned because of the following: (1) the approval of additional change orders to complete needed work while the building is lightly occupied due to the COVID-19 pandemic; and (2) the contractor was able to accelerate completion of some work elements as the building has been lightly occupied.
- **Jensen Electrical Upgrades Stage 2:** Project expenditures for the biennium are higher than originally planned through the 3rd Quarter because the contractor's work activities were expedited after the COVID-19 work suspension was lifted in order to meet the scheduled 2022 shutdown dates.

• **Diemer West Basin & Filter Building Rehabilitation:** Project expenditures for the biennium are higher than originally planned through the 3rd Quarter because the contractor's work activities were expedited to meet the scheduled completion date.

The following are the variance explanations for the top ten projects with actual expenditures less than planned expenditures through the current reporting quarter for the biennium).

- Casa Loma Siphon Barrel No. 1 Seismic Upgrade: The actual vs. planned variance is due to a shift in timing of the award of the pipe installation contract from earlier in the biennium to December 2021 to ensure sufficient capacity in the current CIP budget to accommodate expenditures from this project in the biennium.
- **CRA Discharge Line Isolation Coupling Assemblies:** The actual expenditures were less than planned due to the contractor completing more work than planned during the 2020 shutdown.
- CRA Pump Plant Sump System Rehabilitation: The actual vs. planned variance is due to the
 suspension of the on-site work due to the COVID-19 pandemic starting in March 2020, which
 led to cancellation of the construction portion of the contract. Resolution of outstanding
 submittal comments and supply chain issues have also caused a delay in the delivery of
 equipment and materials to the site.
- Perris Valley Pipeline Tunnels: The actual vs. planned expenditure variance is due to
 postponing the start of construction from November 2020 to late 2022 due to the need to
 conduct additional subsurface investigations to determine groundwater treatment requirements
 and potential soil contamination levels. Additionally, complex right-of-way issues needed to
 be resolved prior to the advertisement of this project for construction bids.
- Second Lower Feeder PCCP Rehabilitation Reach 2: The actual vs. planned variance is
 due to shifts in the timing of construction completion, which was completed approximately five
 months earlier than planned and under budget leaving less work for the current biennium.
 Early completion of this work can be attributed to extensive preconstruction planning and
 permitting, successful community outreach efforts, and better than expected relining production
 by the contractor.
- Second Lower Feeder PCCP Rehabilitation Reach 8: This project involved relining approximately 2,900 feet of PCCP pipeline in the City of Placentia, which is a portion of the original length of the Reach 8 project. Construction work was completed in September 2020. The planned expenditures for this biennium were based on relining 17,000 feet of PCCP but during design the scope was reduced to prioritize the most at-risk, 2,900-foot portion of the feeder. The remaining 14,100 feet of PCCP will be included in a future PCCP rehabilitation contract.
- Orange County Feeder Relining Reach 3: The actual vs. planned expenditure variance is
 due to postponing the start of construction from September 2020 to May 2022 in order to
 reduce expenditures in this biennium. The final contract, for Reach 3, was awarded for
 construction in April 2022 to ensure that there is sufficient capacity in the current CIP budget to
 accommodate expenditures from this project in the biennium.

MAJOR CAPITAL PROGRAMS – HIGHLIGHTS

The section that follows provides 3^{rd} Quarter highlights for the 12 Major Capital Programs; the Minor Capital Program is highlighted in its own section of this report. Status is provided for selected projects within each Major Capital Program. The selected projects typically achieved major milestones during the 3^{rd} Quarter of FY 2021/22, or are scheduled to achieve major milestones in the next quarter.

Program	Project
Colorado River Aqueduct (CRA) Reliability	CRA Pumping Plants Overhead Cranes Replacement
Cost Efficiency & Productivity	Enterprise Content Management Phase I and Digital Asset Optimization
Dams and Reservoirs Improvements	Diamond Valley Lake Dam Monitoring System Upgrades
Distribution System Reliability	Orange County Feeder Relining - Reach 3
District Housing & Property Improvements	Program highlights only
Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation	Second Lower Feeder PCCP Rehabilitation - Reach 3
Regional Recycled Water Supply	Program highlights only
Right-of-Way & Infrastructure Protection	Program highlights only
System Flexibility/Supply Reliability	Wadsworth Pumping Plant Bypass Pipeline
System Reliability	Maximo Upgrade
Treatment Plant Reliability	Weymouth Basins 5-8 Rehabilitation
Water Quality/Oxidation Retrofit	Program highlights only

Colorado River Aqueduct (CRA) Reliability Program

Program Information: The CRA Reliability Program is composed of projects to replace or refurbish facilities and components of the CRA system in order to reliably convey water to Southern California.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$94.04 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$74.72 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Expenditures for this program are less than planned through March 2022 due to schedule adjustments in order to optimize the construction activities of multiple contracts within the same CRA shutdown and to accommodate extended 8-pump operation, on-going supply chain disruption, and suspension of construction contracts under Metropolitan's response to COVID-19.

Accomplishments •

- Continued construction activities for the following contracts:
 - CRA Mile 12 Flow Meter Upgrades
 - i. Completed work required to be performed during the 2022 CRA Shutdown and returned the system back to service
 - ii. Completed installation of flow monitoring transducers and electrical conduit in CRA barrel structures
 - iii. Completed sitework and placement of the concrete landing at the existing equipment building
 - iv. Began and completed installation of forms and placed concrete footing for the security camera system
 - v. Began and continued excavation and installation of electrical grounding grid and duct banks
 - vi. Continued installation of above ground electrical conduits and junction boxes
 - O CRA Pumping Plants Overhead Cranes Rehabilitation
 - i. Completed crane rail alignment at the Iron Mountain Pumping Plant
 - ii. Continued submittals for review
 - iii. Began fabrication of the crane assembly for Gene Pumping Plant
 - o Gene Wash Reservoir Discharge Valve Structure Rehabilitation
 - i. Completed removal and demolition of the existing steel grating and framework within the valve house
 - ii. Completed site work for the new concrete catwalk footings and concrete ladder landing at the valve house
 - iii. Completed installation of the electrical equipment and panels inside the valve house; and completed electrical start-up and commissioned electrical panels.
 - iv. Continued to perform punch list work
 - v. Began and continued startup and commissioning activities
- Continued submittals for the water treatment equipment procurement for domestic water treatment systems at all CRA pumping plants with expected deliveries in two shipments, in mid-2022 and early 2024, to coincide with the Domestic Water Treatment System Upgrades construction schedule
- Issued Notice to Proceed of Domestic Water Treatment System Upgrades at all five CRA pumping plants. Contractor began and continued submittals for review.
- Completed all contract work activities for Cholla Wash Conduit Protection & Lining, and filed Notice of Completion

- Under Metropolitan's response to COVID-19, suspended on-site construction for the CRA Pumping Plant Sump System Rehabilitation and continued submittals and fabrication activities
 - Continued fabrication of new pumps, piping, and other materials that are to be furnished
- Continued to evaluate and establish the course of action and construction repackaging options of the remaining outstanding contract work items for CRA 6.9 kV Power Cable Replacement
- Completed final design and advertised construction bid package for CRA Storage Building Replacement at Hinds, Eagle Mountain, and Iron Mountain
- Continued final design of:
 - O CRA Conduits Structural Protection upgrades
 - o Gene Communication Reliability Upgrades
- Continued preliminary design of:
 - O Black Metal Mountain 2.4 kV Electrical Power Upgrades
 - o CRA Desert Region Security Improvements
 - O Hinds Pumping Plant Discharge Valve Platform Replacement
- Continued preliminary design and preparation of procurement package for the CRA Main Transformer Replacement
- Continued the CRA main pump rehabilitation efforts at all five pumping plants and feasibility study to install variable frequency drive pumps at Gene and Intake Pumping Plants. Completed fabrication and installation of the headgates at Hinds and Iron Mountain Pumping Plants and installation of recirculation line connections at Eagle Mountain Pumping Plant.

Upcoming Activities

Upcoming work for the next quarter will include:

- Continue construction activities planned for the following contracts:
 - o CRA Mile 12 Flow Meter Upgrades
 - O CRA Pumping Plants Overhead Crane Replacement
 - o Domestic Water Treatment System Upgrades at all five CRA pumping plants
- Complete construction of Gene Wash Reservoir Discharge Valve Structure Rehabilitation
- Continue fabrication activities for CRA Pumping Plant Sump System Rehabilitation and begin final design of the sump system installation contract. Receive final equipment deliveries for the remaining at Intake, Gene, and Hinds Pumping Plants.
- Continue final design of:
 - CRA Conduits Structural Protection Upgrades
 - o Gene Communication Reliability Upgrades
- Continue preliminary design of:
 - O Black Metal Mountain 2.4 kV Electrical Power Upgrades
 - CRA Desert Region Security Improvements
 - Hinds Pumping Plant Discharge Valve Platform Replacement
- Continue preliminary design and preparation of procurement package for the CRA Main Transformer Replacement
- Continue the CRA main pump rehabilitation efforts at all five pumping plants, complete conceptual study to install variable frequency drive pumps at Gene and Intake Pumping Plants. Continue design of recirculation line up to the connection point at Eagle Mountain Pumping Plant and begin preparation of procurement package for the pilot exciter system installation at Gene Pumping Plant.
- Continue study of CRA 2.3 kV Switchrack Rehabilitation at four CRA pumping plants and continue preliminary design of a pilot Switchrack Rehabilitation project at Iron Mountain Pumping Plant

Estimated Construction
Completion Date:
September 2023

Total Project Estimate: \$20.4 million

Current Phase Estimate: \$17.3 million

Cost to Date for Current Phase:

\$1.1 million

CRA Reliability Program: CRA Pumping Plants Overhead Cranes Replacement

This project replaces the overhead bridge crane at all five pump plants. It also makes improvements to the electrical system, abates hazardous materials, and performs seismic retrofit of the below-grade pump bays.

Phase	Construction & Closeout
% Complete for Construction	4%
Construction Contract Awarded	September 2020
Appropriation Number	15481
Contract Number	1946

The contractor began fabrication of the overhead cranes. In the upcoming quarter, the contractor plans to mobilize at the Gene Pumping Plant.



Fabrication of hoist for new CRA Pumping Plant overhead crane

Cost Efficiency and Productivity Program

Program Information: The Cost Efficiency and Productivity Program is composed of projects to upgrade, replace, or provide new facilities, software applications, or technology, which will provide economic savings that outweigh project costs through enhanced business and operating processes.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$13.28 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$9.35 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Biennium expenditures for this program are less than planned through March 2022 due to shifts in timing of the work, with expenditures offset by schedule delays of several projects in the remaining appropriations within this program.

Accomplishments

- Continued construction of battery energy storage systems at the Jensen and Skinner plants
- Completed final design and advertised construction bid package for battery energy storage system at the Weymouth plant
- Completed design and file migrations associated with Enterprise Content Management Phase 1
- Continued WINS Water Billing System Upgrade
- Continued Real Property Group Business System Replacement

Upcoming Activities

Upcoming work for the next quarter will include:

- Continue construction of battery energy storage systems at the Jensen and Skinner plants
- Award construction contract for battery energy storage system at the Weymouth plant
- Continue WINS Water Billing System Upgrade
- Continue Real Property Group Business System Replacement
- Begin preparation of a request for proposal (RFP) associated with Enterprise Content Management Phase II
- Advertise RFP for Payroll-Timekeeping Reimplementation

Design Completion Date: March 2022

Total Project Estimate:

\$5.1 million

Current Phase Estimate:

\$5.1 million

Cost to Date for Current Phase:

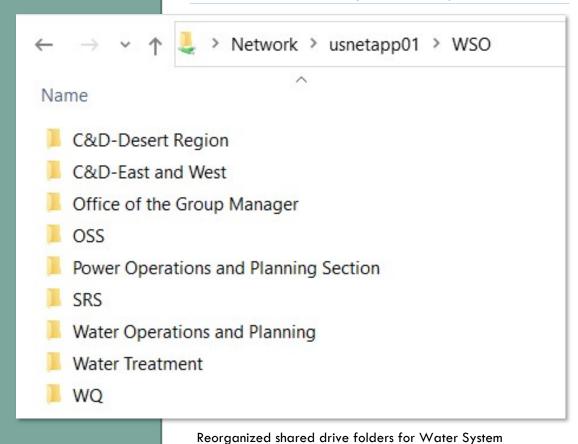
\$5.1 million

Cost Efficiency & Productivity Program: Enterprise Content Management Phase I and Digital Asset Optimization

The combined Enterprise Content Management (ECM) and Digital Asset Optimization (DAO) project helps Metropolitan move closer to a digital workspace by identifying and removing redundant, obsolete, and trivial files from our shared drive network and creates new functionally based records retention in preparation of a new system deployment on the cloud.

Phase	Design
% Complete for Current Phase	100%
Current Phase Authorized	July 2017
Appropriation Number – ECM	15500
Appropriation Number – DAO	15411

Electronic files and existing shared drive structures were consolidated and reorganized to streamline access and improve search function. All remaining work was completed.



Operations Group

Dams and Reservoirs Improvements Program

Program Information: The Dams and Reservoirs Improvements Program is composed of projects to upgrade or refurbish Metropolitan's dams, reservoirs, and appurtenant facilities in order to reliably meet water storage needs and regulatory compliance.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$14.91 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$7.29 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Biennium expenditures for this program are less than planned through March 2022 due to schedule variances associated with the Dam Monitoring System Upgrades Projects and additional time needed for consultant selection for the Lake Skinner Outlet Tower seismic analysis

Accomplishments

- Diamond Valley Lake Dam Monitoring System Upgrades
 - Initiated a scoping document in preparation of a request for proposal (RFP)
- Garvey Reservoir Rehabilitation
 - Continued preliminary design
- Lake Mathews and Lake Skinner Dam Monitoring System Upgrades
 - Developed scope of work for investigation of monitoring needs and prioritization of instrumentation replacement at both reservoirs
- Lake Skinner Outlet Tower Seismic Upgrade
 - Issued RFP for detailed structural analysis of the outlet tower

Upcoming Activities

Upcoming work for the next quarter will include:

- Diamond Valley Lake Dam and Garvey Reservoir Monitoring System Upgrades
 - Continue to develop scoping document and begin RFP process
- Garvey Reservoir Rehabilitation
 - Continue preliminary design
- Lake Skinner Outlet Tower Seismic Upgrade
 - Select a consultant team for detailed seismic analysis of the outlet tower and initiate the evaluation of alternative solutions

Estimated Study Completion

Date:

October 2022

Total Project Estimate: \$9.0 million

Current Phase Estimate: \$2.7 million

Cost to Date for Current Phase:

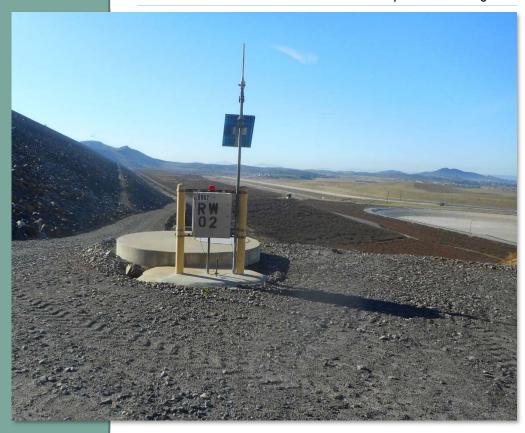
\$2.1 million

Dams and Reservoirs Improvements Program: Diamond Valley Lake Dam Monitoring System Upgrades

This project will replace the obsolete, increasingly unreliable dam monitoring systems at Diamond Valley Lake (DVL)

Phase	Study
% Complete for Current Phase	87%
Study Authorized	July 2016
Appropriation Number	15419

A scoping memorandum was prepared in preparation of a request for proposals (RFP). In the upcoming quarter, the memorandum will be finalized and the RFP process will begin.



Existing Diamond Valley Lake west dam remote monitoring station

Distribution System Reliability Program

Program Information: The Distribution System Reliability Program is comprised of projects to replace or refurbish existing facilities within Metropolitan's distribution system, including reservoirs, pressure control structures, hydroelectric power plants, and pipelines, in order to reliably meet water demands.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$59.46 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$64.11 million

	PROGRAM HIGHLIGHTS (3 rd Quarter)
Status	Biennium expenditures for this program are more than the planned expenditures through March 2022 due to differences in timing between planned and actual payments for projects such as the Lakeview Pipeline Improvements and Middle Feeder Relocation for SCE Mesa Substation.
Accomplishments	 Issued Notice to Proceed for construction of the Casa Loma Siphon Barrel No. 1 Seismic Upgrade
	 Substantially completed construction of the Lake Mathews IT Disaster Recovery Facility Upgrades
	 Awarded a construction contract for the Lake Mathews Sodium Hypochlorite Tank Farm Roof Structure Modifications
	 Etiwanda Pipeline Relining - Stage 3:
	 Pipe Procurement - Vendor began fabrication of 136-inch diameter pipe
	 Completed final design for pipe installation and relining
Upcoming Activities	Upcoming work for the next quarter will include:
	 Complete construction of Garvey Reservoir Drainage and Erosion Improvements - Areas 6 to 8, 10, and 11
	 Complete construction of the Lake Mathews IT Disaster Recovery Facility Upgrades and file NOC
	 Award construction contract for:
	 Etiwanda Pipeline Relining - Stage 3
	 OC-88 Pump Station Chiller Replacement
	 Orange County Feeder Relining - Stage 3
	 West Valley, East Valley, and Sepulveda Feeders Intertie Electrical Upgrades
	 Continue construction and begin testing of the Garvey Reservoir Sodium Hypochlorite Feed System Upgrades

Final Design Completion Date: March 2022

Total Project Estimate: \$25.5 million

Current Phase Estimate: \$2.9 million

Cost to Date for Current Phase:

\$2.8 million

Distribution System Reliability Program: Orange County Feeder Relining - Reach 3

This project will replace approximately 4 miles of the deteriorated internal coal-tar enamel liner with cement mortar lining, weld all joints, and construct new accessways on the Orange County Feeder Extension within the cities of Costa Mesa and Newport Beach.

Phase	Final Design
% Complete for Current Phase	100%
Current Phase Authorized	November 2014
Appropriation Number	15377

The construction package was advertised and opened for bids. In the upcoming quarter, the construction contract will be awarded and notice to proceed will be issued.



Orange County Feeder Relining – Reach 3 project location

District Housing & Property Improvements Program

Program Information: The District Housing & Property Improvements Program is composed of projects to refurbish or upgrade workforce housing at Metropolitan to enhance living conditions to attract and retain skilled employees

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$9.11 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$3.66 million

	PROGRAM HIGHLIGHTS (3 rd Quarter)	
Status	Biennium expenditures for this program are less than planned through March 2022 due to unanticipated additional geotechnical analysis that was necessary prior to completion of the preliminary design for all of the villages.	
Accomplishments	 Initiated preliminary design of the housing, village enhancements, and the kitchen and lodging improvements at Gene and Iron Mountain Pumping Plants 	
Upcoming Activities	Upcoming work for the next quarter will include:	
	 Perform value engineering of the housing, village enhancements, and the kitchen and lodging improvements at the Hinds and Eagle Mountain Pumping Plants 	
	 Continue preparation of preliminary design of the housing, village enhancements, and the kitchen and lodging improvements at Gene and Iron Mountain Pumping Plants 	
	 Continue preparation of the environmental documentation in support of the housing and property improvements program 	

Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation Program

Program Information: The PCCP Rehabilitation Program is composed of projects to refurbish or upgrade Metropolitan's PCCP feeders to maintain water deliveries without unplanned shutdowns.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$47.82 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$36.61 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Biennium expenditures for this program are less than the planned expenditures through March 2022 due to a delay in permitting and subsequent rescheduling of construction contract award for Second Lower Feeder Reach 3.

Accomplishments

- Second Lower Feeder Reach 3:
 - Advertised construction bid package for Reach 3A, which will reline approximately 1.2 miles of pipeline from Oak Street Pressure Control Structure south through City of Rolling Hills Estates to the Palos Verdes Reservoir
 - O Continued design and permits acquisition of Reach 3B, which will reline approximately 3.6 miles of pipeline from the intertie with Sepulveda Feeder south to Oak Street PCS, through the cities of Torrance, Los Angeles, and Lomita, and will replace three 48-inch diameter sectionalizing valves at the intertie with Sepulveda Feeder
- Allen-McColloch Pipeline:
 - Continued preliminary design for rehabilitation, including identification of proposed pipe access excavation pits for approximately 9 miles of PCCP
 - Received input from member agencies on proposed shutdown scenarios
- Sepulveda Feeder Reach 1 Continued final design to rehabilitate approximately 3 miles of Sepulveda Feeder from just north of the Inglewood Lateral south to the West Coast Feeder, through the cities of Inglewood and Hawthorne, and unincorporated Los Angeles County. Work includes preparation of final design drawings, traffic control plans, and permitting.
- Sepulveda Feeder Reach 2 Continued final design to rehabilitate approximately 3.8 miles of Sepulveda Feeder from the Dominguez Gap Channel crossing south to the intertie with Second Lower Feeder, through the cities of Torrance and Los Angeles. Work includes preparation of final design drawings, traffic control plans, and permitting.
- Second Lower Feeder Isolation Valve Procurement Completed fabrication of the fourth and fifth of the thirteen large-diameter conical plug valves and actuators. Continued fabrication of the sixth through tenth large-diameter conical plug valves.

 PCCP Rehabilitation Valve and Equipment Storage Building -Awarded a construction contract for a new valve storage building at Lake Mathews to safely store large-diameter valves and actuators to support the PCCP Rehabilitation Program

Upcoming Activities

Upcoming work for the next quarter will include:

- Second Lower Feeder Reach 3A Award a construction contract
- Second Lower Feeder Reach 3B Continue final design and seek construction permit approvals
- Sepulveda Feeder Reaches 1 and 2 Continue developing final designs and initiate permitting process for long-lead permit(s)
- Second Lower Feeder Isolation Valve Procurement Take delivery of the fourth and fifth of the thirteen large-diameter conical plug valves.
- PCCP Rehabilitation Valve and Equipment Storage Building -Continue contractor submittal reviews and begin construction mobilization
- Allen-McColloch Pipeline Continue preliminary design and begin preparing a response to member agency's input
- Calabasas Feeder Preliminary Design Solicit proposals for preliminary design services from Metropolitan's pool of prequalified conveyance and distribution system design consultants

Reach 3A Final Design Completion Date: January 2022

Estimated Reach 3B Final Design Completion Date: August 2022

Total Project Estimate: \$90.0 million

Current Phase Estimate: \$8.1 million*

Cost to Date for Current Phase:

\$7.6 million

*In March, the current phase estimate was revised from \$7.5 million to \$8.1 million due to additional design work required to repackage the project for two contracts (Reach 3A and Reach 3B)

PCCP Rehabilitation Program: Second Lower Feeder PCCP Rehabilitation — Reach 3

This project will rehabilitate approximately 4.8 miles of PCCP segments of the Second Lower Feeder with steel liner and replace three existing 42-inch diameter sectionalizing valves with three new 48-inch diameter sectionalizing valves. The project will be completed in two stages. The first stage will reline Reach 3A, which stretches approximately 1.2 miles at the southern end of the Reach 3. The second stage will reline Reach 3B, which is approximately 3.6 miles of northern portion of the Reach 3 and includes the three sectionalizing valves.

Phase	Final Design
% Complete for Final Design Phase – Reach 3A	100%
% Complete for Final Design Phase — Reach 3B	98%
Design Phase Authorized	January 2015
Appropriation Number	15497

The Reach 3A construction package was advertised for bids and Reach 3B final design continued. In the upcoming quarter, bids for Reach 3A will be opened, the construction contract will be awarded, and notice to proceed will be issued. Reach 3B final design will continue.



Example of a temporary bulkhead that will be installed on Second Lower Feeder Reach 3A

Regional Recycled Water Supply Program

Program Information: The Regional Recycled Water Supply Program includes the design and construction of the Advanced Water Treatment (AWT) Demonstration Plant, which represents the initial step in development of a potential regional recycled water system for recharge of groundwater basins within Southern California.

Planned Biennium-to-date Expenditures (July 2020 through March 2022)

\$0.21 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$0.33 million

	PROGRAM HIGHLIGHTS (3rd Quarter)	
Status	Biennium expenditures for this program are consistent with the planned expenditures through March 2022.	
Accomplishments	 Advanced Water Treatment Demonstration Facility: Coordinated with the State Water Resources Control Board on final submittal and reimbursement request as part of the grant funding agreement. Prepared Phase 1 draft testing report 	
Upcoming Activities	 Upcoming work for the next quarter will include: Continue warranty repairs on equipment and post-contract system improvements to enhance safety and operational reliability of the AWT 	
	 Advanced Water Treatment Demonstration Facility: Continue coordination with the State Water Resources Control Board to submit final reimbursement invoice as part of the grant funding agreement Finalize the Phase 1 testing report Continue post-construction contract improvements to enhance safety and operational reliability Direct Potable Reuse Demonstration Facility: Initiate study and preliminary design for modifications to the AWT Demonstration Facility to allow testing of future direct potable reuse processes 	

Right-Of-Way and Infrastructure Protection Program

Program Information: The Right of Way Infrastructure Protection Program (RWIPP) is comprised of projects to refurbish or upgrade above-ground facilities and right-of-way along Metropolitan's pipelines in order to address access limitations, erosion-related issues, and security needs.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$6.68 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$3.42 million

	PROGRAM HIGHLIGHTS (3 rd Quarter)
Status	Biennium expenditures for this program are less than the planned expenditures through March 2022 due to design resources being diverted to work on urgent drought related projects.
Accomplishments	 Awarded construction contract for Western San Bernardino County - Stage 1 Began final design for Western San Bernardino County Region - Stage 2
	 Began revisions to enhanced preliminary design report based on finalized sites for Los Angeles County Region - Stage 1.
	 Continued final design for two urgent repair sites along San Diego Pipelines 4 & 5 as part of Riverside and San Diego County Region - Stage 2
Upcoming Activities	Upcoming work for the next quarter will include:
	 Continue final design for Western San Bernardino County Region - Stage 2
	 Complete preliminary design for Los Angeles County Region - Stage 1 and begin final design

System Flexibility/Supply Reliability Program

Program Information: The System Flexibility/Supply Reliability Program is comprised of projects to increase the capacity and flexibility of Metropolitan's water supply and delivery infrastructure to meet service demands.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$32.15 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$21.33 million

PROGRAM HIGHLIGHTS (3 rd Quarter)		
Status	Biennium expenditures for this program are less than the planned expenditures though March 2022 due to differences between the planned and actual start of the Perris Valley Pipeline Tunnels and other projects.	
Accomplishments	 Initiated the West Service Area Water Supply Reliability Improvements. This effort consists of the following individual projects: 	
	 West Area Supply and Delivery Alternatives 	
	 Drought Response West Side Pump Station 	
	 Initiated final design of the Wadsworth Pumping Plant Stage 2 Badlands Tunnel Surge Tank as part of the Rialto Pipeline Water Supply Reliability Improvements 	
Upcoming Activities	Upcoming work for the next quarter will include:	
	 Continue design of the Perris Valley Pipeline Tunnels 	
	 Continue design of the Rialto Pipeline Water Supply Reliability Improvements and award a large diameter isolation valve procurement contract. This effort consists of the following 	

individual projects.

Wadsworth Pumping Plant Bypass Pipeline

- Wadsworth Pumping Plant Stage 2 Badlands Tunnel Surge Tank Facility
- o Inland Feeder/Rialto Pipeline Intertie
- Inland Feeder/San Bernardino Valley Municipal Water District (SBVMWD) Pump Station Intertie
- Advertise a contract for procurement of large diameter isolation valves for the Rialto Pipeline Water Supply Reliability Improvements
- Continue record surveys of properties associated with the Verbena Land Acquisition

Estimated Final Design Completion Date: July 2022

Total Project Estimate: \$14.5 million

Current Phase Estimate: \$1.7 million

Cost to Date for Current Phase:

\$0.9 million

System Flexibility/Supply Reliability Program: Wadsworth Pumping Plant Bypass Pipeline

This project will construct a bypass pipeline between the Wadsworth Pumphouse Conduit and the Eastside Pipeline to allow continuous pumping of water from DVL Forebay into the Eastside Pipeline while filling the forebay with water from DVL at the same time. This project is part of the Rialto Pipeline Water Supply Reliability Improvements, a series of drought response projects.

Phase	Final Design
% Complete for Current Phase	70%
Current Phase Authorized	December 2021
Appropriation Number	15488

Final design is underway. In the upcoming quarter, the final design package will be reviewed and a procurement contract will be advertised and awarded for large diameter isolation valves.



showing proposed bypass pipeline alignment

System Reliability Program

Program Information: The System Reliability Program is comprised of projects to improve or modify facilities located throughout Metropolitan's service area in order to utilize new processes and/or technologies, and improve facility safety and overall reliability. These include projects related to Metropolitan's Supervisory Control and Data Acquisition (SCADA) system and other Information Technology projects.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$84.09 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$71.84 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Biennium expenditures for this program are less than the planned expenditures through March 2022 due to shift in timing of the work and supply chain disruption.

Accomplishments

- Skinner Facility Area Paving awarded construction contract and began construction
- Datacenter Modernization Upgrade completed primary site server installation
- WiFi Upgrade:
 - O Headquarters building access point began installation
- Fuel Management System Upgrade completed pilot installation of first fuel management unit
- Desert Microwave Site Tower Upgrades completed initial site visits
- Applications-Servers Upgrade initiated project

Upcoming Activities

Upcoming work for the next quarter will include:

- Skinner Facility Area Paving continue construction
- Headquarters Fire Alarm Upgrade continue upgrade of building fire and life safety systems
- Headquarters Security Upgrade continue installation of new building security features
- MWD Cyber Security Upgrade:
 - Continue deployment of secure web gateway software to MWD-owned workstations and laptops
 - Continue deployment of privileged access management software to MWD-owned workstations, laptops, and servers
- Datacenter Backup Infrastructure Upgrade advertise a request for proposal (RFP)

Deployment Completion Date:
December 2021

Total Project Estimate: \$0.9 million

Current Phase Estimate: \$84,000

Cost to Date for Current Phase:

\$83,236

System Reliability Program: Maximo Upgrade

This project will upgrade Maximo, Metropolitan's Computerized Maintenance Management System (CMMS), software and hardware. IBM Maximo is used to plan, schedule, and report required maintenance for equipment in use throughout Metropolitan's conveyance and distribution system, water treatment plants, fleet and facilities.

Phase	Deployment
% Complete for Current Phase	100%
Current Phase Authorized	July 2017
Appropriation Number	15501

Maximo was monitored for any issues and project closure began. In the upcoming quarter, the project will be closed out.



Treatment Plant Reliability Program

Program Information: The Treatment Plant Reliability Program is comprised of projects to replace or refurbish facilities and components of Metropolitan's five water treatment plants in order to continue to reliably meet treated water demands.

Planned Biennium-to-date Expenditures
(July 2020 through March 2022)

\$69.03 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$73.05 million

PROGRAM HIGHLIGHTS (3rd Quarter)

Status

Biennial expenditures for this program are more than planned through March 2022 due to shifts in timing of the work.

Accomplishments

- Completed construction of Diemer Water Sampling System Improvements
- Completed final design of Weymouth Basins Nos. 5-8 & Filter Building No. 2 Rehabilitation
- Completed study of Diemer Filter Rehabilitation
- Authorized an agreement for preliminary design to upgrade Metropolitan's Water Quality Laboratory at La Verne
- Continued construction of:
 - o Jensen Electrical Upgrades Stage 2
 - Mills Module Nos. 3 and 4 Flash Mix Chemical Containment Upgrades
- Continued procurement of power supply units (PSU) and dielectrics for Jensen ozone generators

Upcoming Activities

Upcoming work for the next quarter will include:

- Continue procurement of Jensen ozone PSUs and dielectrics. Delivery of the equipment is expected in summer of 2022.
- Begin equipment procurement for Diemer Power and Distribution Panel Upgrade
- Award construction contract and begin construction of:
 - O Weymouth Basins Nos. 5-8 & Filter Building No. 2 Rehabilitation
 - Jensen Ozone PSU Replacement
- Begin preliminary design of:
 - Diemer Filter Rehabilitation
 - Jensen Reservoir Bypass Gate Replacement
- Continue construction of:
 - Jensen Electrical Upgrades Stage 2
 - Mills Electrical Upgrades Stage 2
 - Mills Module Nos. 3 and 4 Flash Mix Chemical Containment Upgrades

Final Design Completion Date: January 2022

Total Project Estimate: \$123.0 million*

Current Phase Estimate: \$4.5 million**

Cost to Date for Current Phase:

\$4.5 million

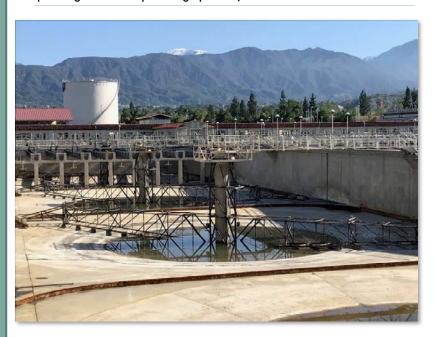
* In March, the total project estimate was revised from \$61.0 million to \$123.0 million to reflect the latest market condition including material cost increase and market competition ** In March, the current phase estimate was revised from \$3.5 million to \$4.5 million

Treatment Plant Reliability Program: Weymouth Basins 5-8 Rehabilitation

This project will rehabilitate and replace the Weymouth Water Treatment Plant's Basins 5-8 mechanical equipment and auxiliary systems, along with seismic upgrades to the basin inlet channels and needed improvements. The project will also replace basin inlet gates for Basins 1-8.

Phase	Final Design
% Complete for Current Phase	100%
Current Phase Authorized	August 2020
Appropriation Number	15440

Completed final design and advertised construction bid package. In the upcoming quarter, a contract will be awarded.



Example of major mechanical equipment to be replaced including mechanical rotating rake at Basin 6 of the Weymouth plant

Water Quality/Oxidation Retrofit Program

Program Information: The Water Quality/Oxidation Retrofit Program (ORP) is comprised of projects to add new facilities to ensure compliance with water quality regulations for treated water, located at Metropolitan's treatment plants and throughout the distribution system.

Planned Biennium-to-date Expenditures (July 2020 through March 2022)

\$0.02 million

Actual Biennium-to-date Expenditures (July 2020 through March 2022)

\$0.33 million

PROGRAM HIGHLIGHTS (3 rd Quarter)						
Status Biennial expenditures and progress are consistent with the plan for program						
Accomplishments	 Mills Enhance Bromate Control Facilities Continued final design 					
Upcoming Activities	Upcoming work for the next quarter will include: • Continue final design of Mills Enhance Bromate Control Facilities					

MINOR CAPITAL PROGRAM

The Minor Capital Projects (Minor Cap) Program is authorized biennially to enable staff to expedite small capital projects. At the commencement of each biennium, the Board had appropriated the entire two-year budget for the program. For the current biennium, the minor cap budget was included in the CIP appropriation. In order to be considered for inclusion in the Minor Cap Program, a project must have a planned budget of less than \$400,000. The \$400,000 project budget cap was first established by the June 2018 board action Item 8-3 and the same cap is applied for the new minor caps that are approved for the current biennium. Prior to that action, the budget cap for minor cap projects was \$250,000.

The duration of minor capital projects typically ranges from a few months to three years. Since many of these projects require rapid response to address unanticipated failures, safety or regulatory compliance concerns, or to take advantage of shutdown opportunities, the Minor Cap Program authorizes the General Manager to execute projects that meet defined criteria without seeking additional board approval.

For the past two bienniums, the two-year budgets for the Minor Cap Program have been \$10 million, and \$15.5 million respectively. In April 2020, the Board appropriated funds for the projects identified in the CIP appendix for the current biennium, FYs 2020/21-2021/22, including the Minor Cap Program. \$15 million has currently been allocated for the current biennium.

Minor Cap Program Historical Summary

The following table provides the overall status of the Minor Cap appropriations for the fiscal years 2016/17-2017/18 through 2020/21-2021/22.

	2016/17 – 2017/18	2018/19 – 2019/20	2020/21 – 2021/22	Totals
Amount Appropriated	\$10M	\$15.5M	\$15M	\$40.5M
Expenditures (through March 2022)	\$7.2M	\$11.0M	\$5.1M	\$23.3M
Number of Projects Approved	41	48	47	136
Number of Projects Completed (through March 2022)	40	28	1	69
Percent of Work Complete	99%	82%	35%	N/A
Number of Projects with Durations of Over 3 Years	1	2	0	0

Through March 2022, 69 of the 136 projects have been completed, and three active projects have exceeded three years in duration, as described below.

- The Gene Pool Refurbishment has experienced delays due to shortage of local contractors for this type of work due to increased construction activity in the region. Staff will continue reaching out to contractors to complete the remaining work by June 2022.
- The Garvey Reservoir Sodium Hypochlorite Tank Replacement has experienced delays due to the Texas deep freeze event, which caused power and resin supply chain disruptions in 2021.
 As a result, delivery of the new tank has been rescheduled and is now expected by June 2022. Metropolitan force construction will complete tank installation by December 2022.
- The Gene Inlet Surge Chamber Access Improvement has experienced delays due to rescheduling of the installation of recently fabricated hatch cover, which can only occur when Gene Wash Reservoir water level is lowered. Metropolitan force construction plans to complete the hatch cover installation during the 2023 CRA shutdown and complete the project by April 2023.

Planned biennium expenditures to date (July 2020 through March 2022) for the Minor Capital Projects Program were \$7.83 million, while actual biennium expenditures for the same period were \$10.89 million.

Minor Cap Projects, 3rd Quarter

Authorized Projects

Six projects were authorized under the Minor Cap Program during the 3^{rd} Quarter of fiscal year 2021/22 (January through March 2022):

- Diemer Foam Abatement Upgrade This project will design and install a foam abatement system at the Diemer plant's Basin 8 to upgrade plant's capability for removing floating floc. The project budget is \$388,000.
- Diemer Plant Warehouse Upgrades This project will upgrade and repurpose the existing
 warehouse and outdoor storage yards located at the Diemer plant, which have not been in
 use since the completion of the new Orange County Service Center, to allow for storage and
 staging of the plant's critical O&M spare parts and other inventory. The project budget is
 \$368,000.
- EM-04A Flow Meter Replacement This project will replace the electromagnetic flow meter including its accompanying transmitter and power and signal cables at EM-04A service connection. The meter is located on the Colorado River Aqueduct Perris Siphon. The project budget is \$112,000.
- Headquarters SCADA Network Communications Separation This project will procure, install, configure, and test 10 network switches at Metropolitan's headquarters data center to physically separate SCADA network from business network to eliminate the risk of disruption to the SCADA network that can be triggered by business network activities. The project budget is \$321,612.
- Lake Perris Aeration System Diffuser Replacement This project will replace the existing 17-year old aeration bar, which has exceeded its useful life, for the Lake Perris aeration system. The project budget is \$98,500.

• WB-06B Meter Replacement – This project will replace the electromagnetic flow meter including its accompanying power and signal cables at WB-06B service connection. The meter is located on the Palos Verdes Feeder. The project budget is \$298,000.

Completed Projects

Two projects were completed under the Minor Cap Program during the 3^{rd} Quarter of fiscal year 2021/22 (January through March 2022):

- Perris Bypass Pipeline Sump Pump Replacement
- San Gabriel PCS Electrical Replacements

Cancelled Projects

• None

PROJECT ACTIONS

Table 5 lists capital project actions authorized by the Board and the General Manager along with funding allocation amounts during the 3rd Quarter of FY 2020/21, through the authority delegated by the Board in April 2020. The total funding amount authorized by the General Manager during the 3rd Quarter is \$16,748,714, through thirty-two management actions. In some cases listed below, the Total Amount Authorized may differ from the Amount Authorized for Current Biennium when the work authorized is scheduled to extend beyond the current biennium. In these cases, it is anticipated that staff will request sufficient funds to be allocated from the CIP Appropriation for the next biennium to cover the planned remaining future-year costs of the project. When the Amount Authorized for Current Biennium is equal to the Total Amount Authorized, the authorized work is planned to be completed within the current biennium. Table 5 excludes any board items heard in closed session.

Amount Activity **Authorized** Total Amount **Project Authorized Authorized** for Current **Authorized Biennium** Additional Cabazon Radial Gate Facility Upgrades⁵ Preliminary & \$300,000 \$1,740,000 Final Design CRA 6.9kV Power Cable Replacement \$750,000 \$2,300,000 Final Design Units 6 to 9 Additional CRA Conduit Erosion Control Improvements⁶ **Preliminary** \$400,000 \$5,000,000 Design **Preliminary CRA Desert Region Security Improvements** \$0 \$1,430,000 Design Design, Datacenter Backup Infrastructure Upgrade Development, \$1,000,000 \$1,788,072 & Deployment Diamond Valley Lake East Marina Utility Preliminary & \$3,400,000 \$3,400,000 Improvements⁷ Final Design Diamond Valley Lake to Lake Skinner Trail⁸ Design \$100,000 \$100,000 \$90,000 \$90,000 Diemer Administration Building HVAC Upgrade Study

Table 5: Capital Projects Funded by General Manager Authorization

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⁵ Additional preliminary and final design funding was required due to change of design scope from passive weirs to refurbishment and upgrade of existing mechanical radial gates.

⁶ Additional preliminary design funding was required due to extensive erosion caused by October 2018 storms.

Diamond Valley Lake East Marina Utility Improvements was funded with undistributed funds from DVL Recreation Appropriation 15334.

Diamond Valley Lake to Lake Skinner Trail will be funded with undistributed funds from DVL Recreation Appropriation 15334.

Project Authorized	Activity Authorized	Amount Authorized for Current Biennium	Total Amount Authorized
Drought Response Westside Pump Station	Study	\$1 <i>75</i> ,000	\$350,000
East Lake Skinner Bypass and Bypass No.2 Screening Structure Upgrade ⁹	Additional Preliminary Design; Construction of Algae Discharge Pipeline	\$370,000	\$445,000
Foothill Hydroelectric Plant Seismic Upgrade ¹⁰	Additional Final Design	\$1,025,000	\$1,025,000
Iron Mountain and Gene Pumping Plant Utility Replacement	Preliminary & Final Design	\$600,000	\$4,100,000
Iron Mountain Pumping Plant Station and Lighting Switchrack Rehabilitation	Preliminary Design	\$400,000	\$1,600,000
Jensen Sulfuric Acid Tank Rehabilitation	Preliminary Design	\$299,000	\$550,000
Lake Mathews Forebay Discharge Facility Upgrades	Site Investigation, Design, Fabrication, & Procurement for Slide Gate Replacement	\$1,100,000	\$1,100,000
La Verne Water Quality Laboratory Upgrades	Preliminary Design	\$160,000	\$7,280,000
Live Oak Reservoir Asphalt Liner Replacement	Study	\$300,000	\$360,000
PCCP Rehabilitation Valve and Equipment Storage Building	Construction	\$800,000	\$7,100,000
San Diego Canal Radial Gate Replacement	Preliminary & Final Design	\$291,000	\$1,960,000
Six Minor Capital Projects	Design & Construction	\$1,586,112	\$1,586,112

Additional preliminary design funding was required after it was discovered that the existing structure for the bypass inlet trash rack will need to be upgraded to construct a new motor-operated lifting mechanism.

Additional final design funding was required to relocate electrical equipment, cables, and conduits to uncover the building columns and foundations for the seismic upgrades to take place.

Project Authorized	Activity Authorized	Amount Authorized for Current Biennium	Total Amount Authorized
Skinner Facility Area Paving	Construction	\$1,880,000	\$2,880,000
Skinner Ozone Contactors 1-2 and Influent Channel Concrete Refurbishment	Final Design	\$80,000	\$80,000
Wadsworth Pumping Plant Stage 2 - Badlands Tunnel Surge Tank Facility	Study, Design, & Rights-of- Way Acquisition	\$660,000	\$2,000,000
West Area Supply and Delivery Alternatives	Study	\$1 <i>74,</i> 500	\$350,000
Western San Bernardino County Operating Region Erosion Control Improvements – Stage 1	Construction	\$327,102	\$990,000
Western San Bernardino County Operating Region Erosion Control Improvements – Stage 2	Preliminary & Final Design	\$243,000	\$910,000
Weymouth Area Paving	Final Design	\$238,000	\$238,000
	Total	\$16,748,714	\$50,752,18411

Due to a reduction in anticipated expenditures through March 2022 on the following projects, \$23.0 million was returned to the CIP Appropriation (Appropriation No. 15517). While these reallocations changed the biennial funded amount, the total authorized funding for each project remained the same.

Table 6: General Manager Actions to Reallocate Capital Project Funds

Project	Amount Authorized for Reallocation to CIP Appn.	Total Amount from CIP Appn. for Current Biennium
Second Lower Feeder PCCP Rehabilitation — Remaining Budget	\$(7,000,000)	\$830,625
CRA Pumping Plants Sump Rehabilitation	\$(16,000,000)	\$18,569,500
Total:	\$(23,000,000)	

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Total amount authorized excludes adjustment of \$1,477,000 to the prior authorized amount for the Jensen Ozone PSUs Replacement – Stage 1 project which was underreported in Q2 of FY 2021/22.

CEQA DETERMINATIONS

Table 7 lists CEQA exemption determinations made by the General Manager during the 3rd Quarter. Consistent with CEQA, the Board delegated this authority to the General Manager in April 2020. Adoption of Negative Declarations and Mitigated Negative Declarations, and certification of Environmental Impact Reports will continue to require action by Metropolitan's Board. This table excludes information on board items heard in closed session.

Table 7: CEQA Exemption Determinations

Projects

Riverside & San Diego County Operating Region Erosion Control Improvements

CRA Pumping Plant Storage Buildings at Hinds, Eagle Mountain, and Iron Mountain

CONSTRUCTION AND PROCUREMENT CONTRACTS

The table below summarizes the status of all construction and procurement contracts that were active during the reporting quarter. These contracts are listed in Table 9, Table 11, and Table 12. Total contract earnings for the 3rd Quarter were approximately \$14,812,844.

Table 8: Summary of Construction and Procurement Contracts during 3rd Quarter (January through March 2022)

Summary	Construction	Procurement
Number of Contracts Active during this Quarter ¹²	22	16
Total Contract Amount of Active Contracts	\$218,039,043	\$67,380,780
Number of Contracts Completed this Quarter ¹³	1	1
Number of Contracts Awarded this Quarter	3	0
Total Contract Amount of Contracts Awarded this Quarter	\$7,373,875	\$0
Contract Earnings ^{14, 15, 16} this Quarter	\$13,710,366	\$1,102,478

The figures on the next two pages show the locations of the twenty-two active construction contracts during the 3rd Quarter.

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Number of Contracts Active during this Quarter includes those that were underway as well as those that were completed during the 3rd Quarter.

Completed construction contracts are those which Metropolitan has accepted as physically complete and has filed Notice of Completion during the 3rd Quarter. Completed procurement contracts are those which Metropolitan has received complete delivery and use of field services during the 3rd Quarter. One procurement contract to Furnish Two Sodium Hypochlorite Storage Tanks to Replace Existing Tanks at Lake Mathews (PO 188876) was completed during the 3rd Quarter.

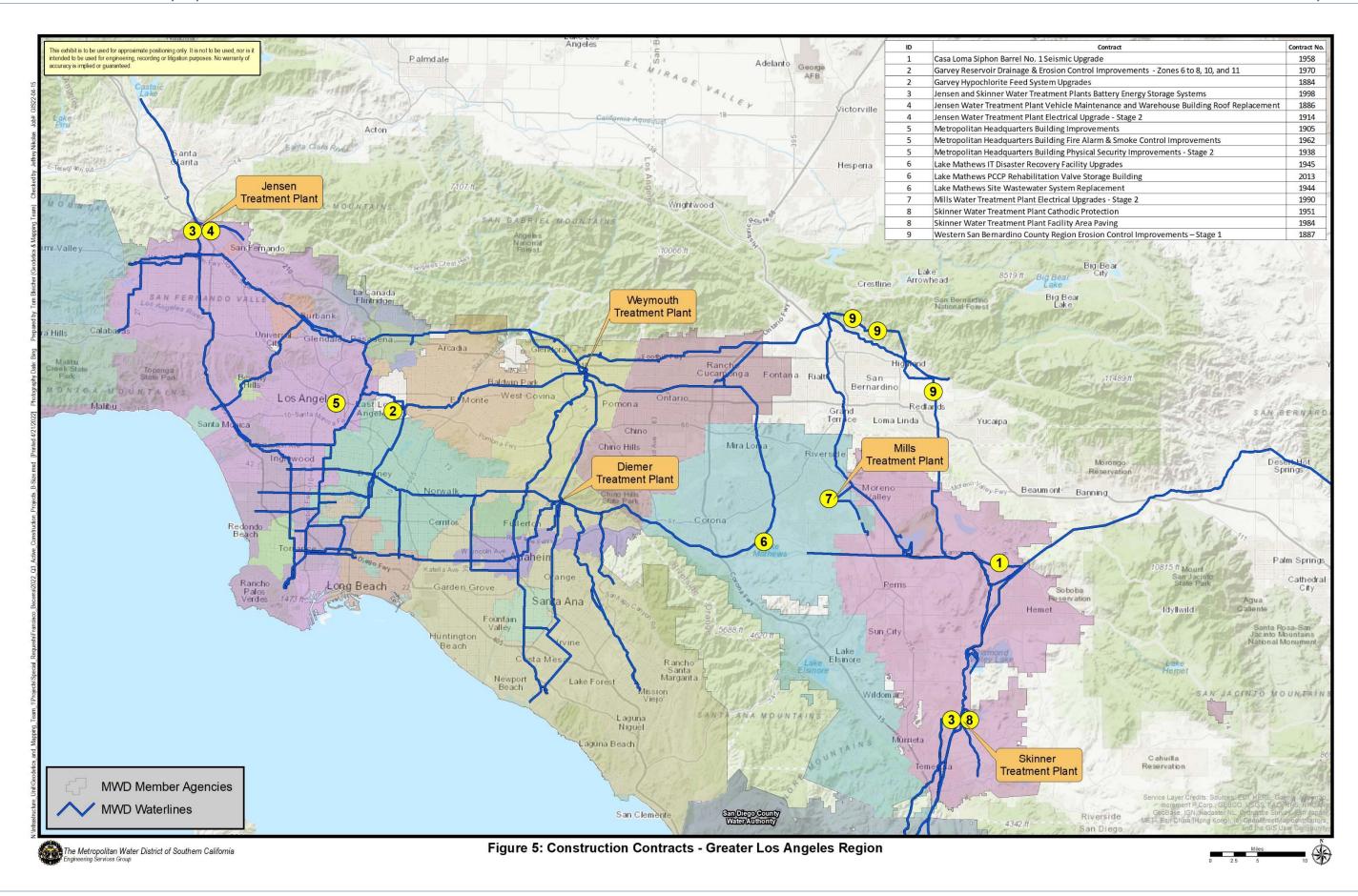
¹⁴ Contract earnings reflected in this report represent the value of the work performed by the contractor by the 25th day of the month. Contract earnings include contract retention and other similar deductions for the amounts earned by the contractor, but otherwise required to be withheld by Metropolitan by law or by contract.

¹⁵ Contract payments are typically made by Metropolitan in the month following performance of the work.

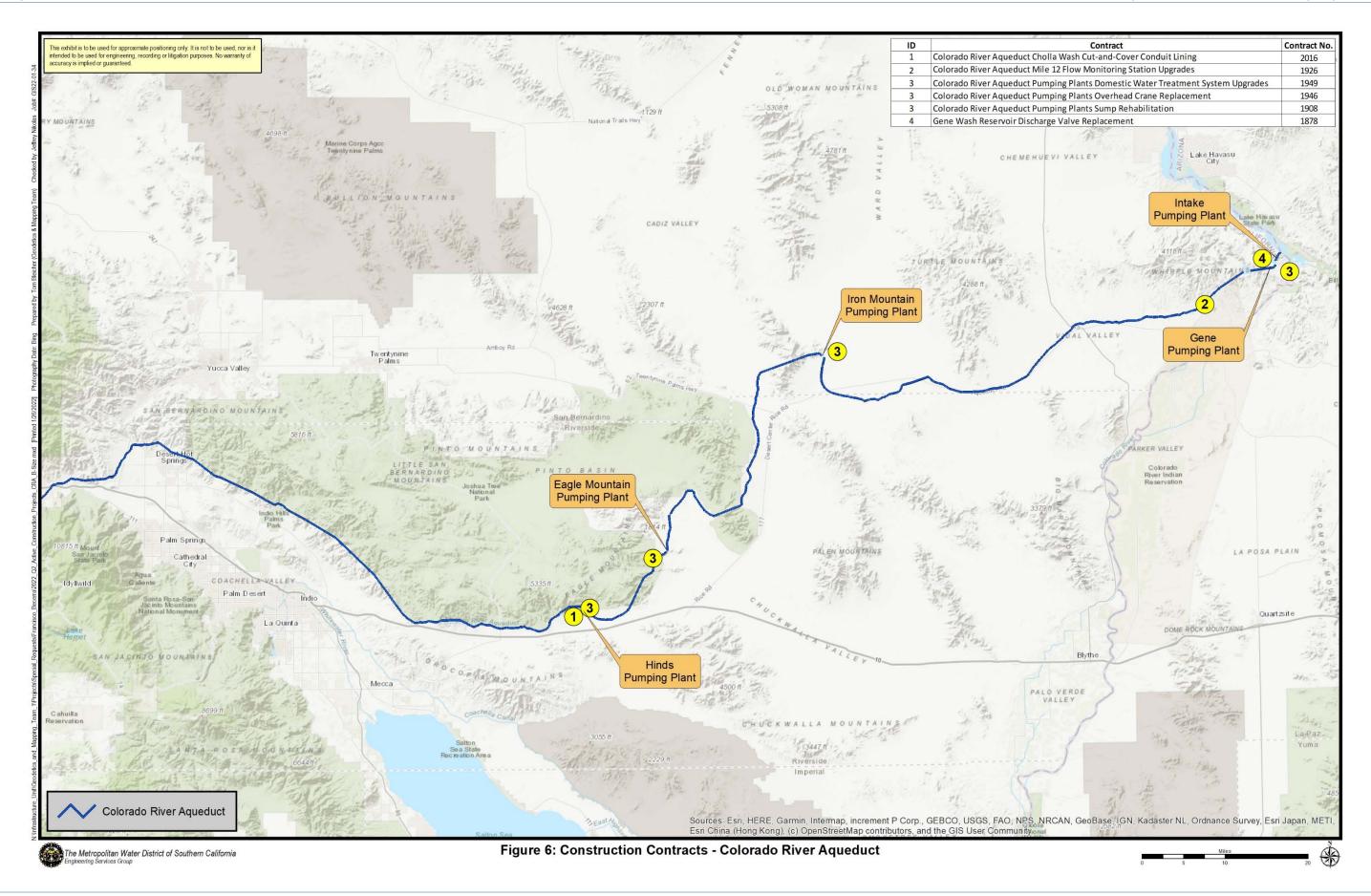
For the reasons listed above in the preceding two footnotes, contract payments in Metropolitan's financial system may be less than the earnings until the final payment has been made to the contractor.

Capital Investment Plan Quarterly Report

January-March 2022



January-March 2022



Metropolitan's Administrative Code authorizes the General Manager to execute change orders on construction contracts in an aggregate amount not to exceed five percent of the original amount of the contract or \$250,000, whichever is greater. If changes occur on a construction contract that will exceed this total, additional authorization from the Board is required. In addition, the General Manager is authorized to execute change orders on procurement contracts in an amount not to exceed \$250,000. In the 3rd Quarter, the Board did not authorize any increases to the General Manager's change order authority.

Notices of Completion during 3rd Quarter:

The following table shows the one contract for which Metropolitan accepted the contract as completed during the $3^{\rm rd}$ Quarter of FY 2021/22 and filed a Notice of Completion (NOC) with the county where the work was performed. In accordance with Section 9204 of the Civil Code of the State of California, an NOC is filed within 15 days of acceptance by Metropolitan of completion of construction by the contractor.

Contract No.	Contract	Notice of Completion	Original Bid Amount	Final Contract Costs	Change Order	Change Order %
2016	CRA Cholla Wash Conduit Lining -MM 126.55 to MM 126.74	March 2022	\$3,280,920	\$3,373,480	\$92,560	2.8%
		Totals:	\$3,280,920			

Table 9: Notices of Completion Filed This Quarter

For the 3rd Quarter, the total bid amount of the completed contract was approximately \$3.3 million. The final contract costs can differ from the original bid amount due to change orders and actual costs incurred on unit price or other various bid items. For Contract No. 2016, there was a difference between the actual quantities of unit price bid items and the estimated quantities shown on the bid sheet. The rolling average of change orders on completed contracts during the preceding 12-month period (April 2021 through March 2022) is 1.76 percent¹⁷.

Original amount of contracts completed (Apr. 2021 through Mar. 2022) = \$182,705,504
Change orders for completed contracts (Apr. 2021 through Mar. 2022) = \$3,206,841
Change order percentage for (Apr. 2021 through Mar. 2022) = 1.76%

Contracts Awarded by the Board during 3rd Quarter:

During the period of January through March 2022, three construction contracts totaling \$7,373,875 were awarded by the Board.

Table 10: Construction and Procurement Contracts Awarded This Quarter

Construction Contracts					
Lake Mathews PC	CP Rehabilitation Valve Storage Building				
Contract Number	2013				
Contractor	Facility Builders & Erectors, Inc.				
Amount	\$4,759,000				
Skinner Water Treat	ment Plant Facility Area Paving				
Contract Number	1984				
Contractor	All American Asphalt				
Amount	\$1,936,977				
Western San Bernar	dino County Region Erosion Control Improvements — Stage 1				
Contract Number	1887				
Contractor	Jeremy Harris Construction, Inc.				
Amount	\$677,898				

The table on this page lists the 21 ongoing construction contracts through the end of the 3rd Quarter. Also, Metropolitan is negotiating a settlement with the contractor on Construction Contract No. 1908 to remove the remaining construction portion of the contract, which was suspended due to Metropolitan's response to COVID-19. As part of the settlement, Metropolitan is procuring materials and equipment from the contractor for a future construction contract.

Table 11: Active Construction Contracts at the End of 3rd Quarter

	Cont. No.	Contract Title	Contractor	Contract Amount ¹⁸	Earnings Through March 2022	Start Date	Est. Com- pletion Date	Est. Percent Complete
1	1878	Gene Wash Reservoir Discharge Valve Replacement	Gracon, LLC	\$5,353,254	\$5,334,054	1/21/20	4/22	99%
2	1884	Garvey Reservoir Sodium Hypochlorite Feed System Upgrades	Metro Builders & Engineers Group, Ltd.	\$2,418,149	\$1,692,362	4/9/21	7/22	70%
3	1886	Joseph Jensen Water Treatment Plant Vehicle Maintenance Building Roof Replacement	AME Builders, Inc. dba AME Roofing	\$282,390	\$47,640	11/1/21	7/22	17%
4	1887	Western San Bernardino County Region Erosion Control Improvements - Stage 1	Jeremy Harris Construction, Inc.	\$677,898	\$0	4/1/22	11/22	0%
5	1905	Metropolitan Headquarters Building Improvements	Bernards Bros. Inc.	\$50,402,874	\$50,344,474	1/14/19	7/22	99%
6	1908	CRA Pumping Plants — Sump Rehabilitation	Michels Corp dba Michels Pipeline Construction	\$27,242,360	\$10,669,770	1/24/19	7/22	39%
7	1914	Joseph Jensen Water Treatment Plant Electrical Upgrade - Stage 2	Helix Electric, Inc.	\$15,111,1 <i>57</i>	\$14,905,557	8/14/19	8/22	98%
8	1926	CRA Mile 12 Flow Monitoring Station Upgrades	R2 Engineering dba R2Build	\$2,022,000	\$783,240	6/16/21	7/22	39%
9	1938	MWD HQ Bldg. Physical Security Improvements	Bernards Bros. Inc.	\$5,843,525	\$5,583,460	9/22/20	8/2	96%
10	1944	Lake Mathews Reservoir Wastewater System Replacement	Creative Home dba CHI Construction	\$3,815,000	\$11 <i>5</i> ,000	12/13/21	3/23	3%

The Contract Amount may differ from the original bid amount due to periodic change orders approved by the General Manager or, if required, by the Board.

	Cont. No.	Contract Title	Contractor	Contract Amount ¹⁸	Earnings Through March 2022	Start Date	Est. Com- pletion Date	Est. Percent Complete
11	1945	Lake Mathews IT Disaster Recovery Facility Upgrades	MLC Constructors, Inc.	\$448,900	\$447,400	2/10/21	4/22	99%
12	1946	Colorado River Aqueduct Pumping Plants - Overhead Crane Replacement	J.F. Shea Construction, Inc.	\$13,505,020	\$570,520	10/14/20	9/23	4%
13	1949	Colorado River Aqueduct Pumping Plants Domestic Water Treatment System Replacement	J.F. Shea Construction, Inc.	\$32,824,000	\$580,000	1/20/22	2/25	2%
14	1951	Skinner WTP Cathodic Protection	National Corrosion	\$240,933	\$5 , 500	12/13/21	8/22	2%
15	1958	Colorado River Aqueduct Replacement of Casa Loma Siphon Barrel No. 1	J.F. Shea Construction, Inc.	\$11,499,000	\$1,422,425	1/20/22	6/23	12%
16	1962	MWD HQ Building Fire Alarm & Smoke Control Improvements	Bernards Bros. Inc.	\$14,085,744	\$6,505,384	9/24/20	1/23	46%
17	1970	Garvey Reservoir Drainage and Erosion Improvements - Areas 6, 7, 8, 10, and 11	Kaveh Engineering & Construction, Inc	\$1,392,861	\$1,118,391	11/20/20	7/22	80%
18	1984	Skinner Water Treatment Plant Facility Area Paving	All American Asphalt	\$1,936,977	\$140,000	2/11/22	8/22	7%
19	1990	Henry J. Mills Water Treatment Plant Electrical Upgrades, Stage 2	CSI Electrical Contractors, Inc.	\$9,200,000	\$280,000	12/13/21	12/24	3%
20	1998	Jensen and Skinner Water Treatment Plants Battery Energy Storage Systems	Ameresco, Inc.	\$11,604,521	\$284,008	10/7/21	10/22	2%
21	2013	Lake Mathews PCCP Rehabilitation Valve Storage Building	Facility Builders & Erectors, Inc.	\$4,759,000	\$0	3/10/22	8/23	0%
			ntract value for ction contracts:	\$214,665,563				

The following table lists the 15 ongoing procurement contracts through the end of the 3rd Quarter.

Table 12: Active Procurement Contracts at the End of 3rd Quarter

	Cont. No.	Contract	Contractor	Contract Amount ¹⁹	Earnings Through March 2022	Start Date	Est. Delivery Com- pletion Date	Est. Percent Complete
1	1851	Furnishing Horizontal Axially Split Centrifugal Pumps for the Greg Avenue Pump Station	Xylem Water Solutions U.S.A., Inc.	\$1,734,103	\$1,478,043	5/16/17	D ²¹	85%
2	1861	Furnishing Lubricated Plug Valves for Second Lower Feeder	Southwest Valve & Equipment, Inc.	\$2,380,909	\$2,362,968	9/11/17	D ²¹	99%
3	1867	Furnishing Butterfly Valves for the Weymouth Water Treatment Plant – Schedule 1	Crispin Valve, LLC	\$5,066,975	\$850,303	12/18/17	12/22	17%
4	1868	Furnishing Butterfly Valves for the Weymouth Water Treatment Plant – Schedule 2	DeZurick, Inc.	\$771,984	\$760 , 384	12/18/17	D ²¹	98%
5	1873	Furnishing One Hydraulic Shear System for the La Verne Maintenance Shops	Landmark Solutions, LLC	\$151,870	\$146,970	3/21/18	D ²¹	97%
6	1912	Furnishing Large-Diameter Conical Plug Valves	Ebara Corporation	\$23,750,060	\$8,591,901	12/24/18	6/23	36%
7	1922	Furnishing One Double Column Vertical Machining Center for the La Verne Maintenance Shops	Gosiger Machine Tools, LLC (Gosiger West)	\$2,193,356	\$2,142,295	9/17/18	D ²¹	98%
8	1948	Refurbishing Valve Actuators for the Diemer Water Treatment Plant	Flowserve Limitorque	\$3,532,700	\$1,780,948	2/16/19	8/22	50%
9	1955	Furnishing Membrane Filtration Systems for the CRA Domestic Water Treatment Systems	Wigen Water Technologies	\$1,206,535	\$54,900	5/28/20	7/25	5%
10	1965	Furnishing Equipment for the Jensen Ozone Power Supply Units Upgrades	Suez Treatment Solutions, Inc.	\$4,100,000	\$354,309	3/30/20	3/22	9%

The Contract Amount may differ from the original bid amount due to periodic change orders approved by the General Manager or, if required, by the Board.

²⁰ Estimated Percent Complete is based on contract payments and may not reflect actual progress of fabrication. The contract will be 100% complete upon delivery of fabricated items and field services.

²¹ All items were delivered but contract remains open pending use of manufacturer field services.

²² Contract 1867 includes tariff and work on Furnishing Butterfly Valves for the Weymouth Water Treatment Plant – Schedule 1 per extra work directed in the November 2020 Board Letter, Item 7-1.

	Cont. No.	Contract	Contractor	Contract Amount ¹⁹	Earnings Through March 2022	Start Date	Est. Delivery Com- pletion Date	Est. Percent Complete
11	1968	Furnishing Earthquake-Resistant Ductile Iron Pipe for the Casa Loma Siphon Barrel No. 1	Kubota Corporation	\$9,237,782	\$9,021,862	2/12/20	D ²¹	98%
12	1969	Furnishing Inlet Valve Gearboxes for Skinner Module No. 7	R&B Automation, Inc.	\$192,185	\$0	4/29/20	4/22	0%
13	1978	Furnishing Steel Pipe for the Casa Loma Siphon Barrel No. 1	Northwest Pipe Company	\$6,134,208	\$5,365,992	1/16/20	12/23	87%
14	2011	Furnishing Steel Pipe for Etiwanda Pipeline North Relining, Stage 3	Northwest Pipe Company	\$6,044,897	\$0	12/20/21	12/23	0%
15	PO 206 047	Furnish Equipment to Upgrade the Ozone Control System at the Mills Water Treatment Plant	Royal Industrial Solutions	\$492,440	\$0	12/6/21	8/22	0%
	Total contract value for active procurement contracts:			\$66,990,004				

PERFORMANCE METRICS

In order to measure project performance efficiency and to identify areas for continuous improvements, Metropolitan's Engineering Services Group has established two primary performance metrics for projects that will result in construction activities. These metrics serve as performance targets for Metropolitan staff for both final design and inspection activities. The inspection metric includes fabrication and construction inspection, as well as construction management services.

Separate performance targets have been established for two categories of project size; those with projected construction costs greater than \$3 million, and those with projected construction costs less than \$3 million.

Metropolitan's **performance metric targets** for the two categories of construction projects are listed below:

Project Category	Final Design, % of Construction	Inspection % of Construction
Projects with Construction Costs > \$3 Million	9% to 12%	9% to 12%
Projects with Construction Costs < \$3 Million	9% to 15%	9% to 15%

Prior to proceeding with final design or construction, budgets are established for design and inspection that best provide a quality and timely product. Efforts are made to optimize staff and consultant hours based on project complexity and location. The calculated values for the design and inspection costs, as a percentage of total construction costs, in almost all cases lie within or below the metric target ranges. In rare cases, the calculated values may exceed the metric target ranges.

Once a project phase is complete, either final design or construction, staff's performance against these metrics is then calculated and compared to the target metrics. Table 13 and Table 14 on the following page summarize the comparison between the target metrics and the actual performance metrics for each project category for the current reporting period. In cases where the actual performance exceeded the target metric, explanations for the variance are provided. Actual performance for in-house construction projects and minor capital projects are not reported in this section, since the efforts required for final design and inspection are different.

Table 13: Performance Metric Actuals, Projects > \$3 Million

Project	Metric	Actual Cost of Metric	Construction Cost	Target Range	Actual %
CRA Cholla Wash Cut-and Cover Conduit Lining	Inspection	\$202,911	\$3,373,480	9-12%	6.0%
PCCP Rehabilitation Valve and Equipment Storage Building	Final Design	\$442,000	\$4,849,000	9-12%	9.1%

Table 14: Performance Metric Actuals, Projects < \$3 Million

Project	Metric	Actual Cost of Metric	Construction Cost	Target Range	Actual %
Lake Mathews Sodium Hypochlorite Tank Replacement	Final Design	\$102,000	\$668,000	9-15%	15.3%
Skinner Facility Area Paving	Final Design	\$133,660	\$2,146,977	9-15%	6.2%
Western San Bernardino County Operating Region Erosion Control Improvements – Stage 1	Final Design	\$145,575	\$677,898	9-15%	21.5% ²³

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²³ Final Design costs for Western San Bernardino County Region Erosion Control Improvements – Stage 1 were higher than the target range due to re-design resulting from strong storm events which changed topographical site conditions, which required significant redesign.

SERVICE CONNECTIONS AND RELOCATIONS

Service Connections

No new agreements for service connections were approved by the General Manager pursuant to Sections 4700-4708 during the reporting period (January through March 2022).

Relocations

No new relocation agreements involving an amount in excess of \$100,000 were approved under the authority of Section 8122(c) during the reporting period.

PROJECTS EXPENSED TO OVERHEAD

There are no expensed projects to report during the third quarter of fiscal year 2021/22 (January through March 2022).

PROGRAM/APPROPRIATION STATUS

The following table provides the program and appropriation level budget versus cost-to-date and biennium planned expenditures versus actuals-to-date.

Table 15: Program and Appropriation Budget vs. Cost and Planned Expenditures vs. Actuals

		Total to Date Biennium to D		n to Date	
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Colorado River Aqueduct Reliability Program	Total	\$471,498	\$414,501	\$94,514	\$74,722
Cabazon Radial Gate Facility Improvements	15320	\$1,016	\$684	\$ 0	\$58
White Water Siphon Protection ²⁴	15341	\$1 <i>5,</i> 58 <i>5</i>	\$14,548	\$0	\$58
CRA - Conveyance Reliability	15373	\$117,828	\$115,320	\$14,627	\$7,822
CRA Pumping Plant Reliability Program	15374	\$24,467	\$23,994	\$0	\$5
CRA - Electrical/Power Systems Reliability	15384	\$56,515	\$47,344	\$6,236	\$6,505
CRA – Discharge Containment	15385	\$8,129	\$ 7, 973	\$0	\$394
CRA - Reliability for FY2006/07 through FY2011/12	15438	\$134,194	\$117,289	\$34,214	\$22,506
CRA Main Pump Reliability	15481	\$65,730	\$51,478	\$27,070	\$23,856
CRA - Reliability for FY2012/13 through FY2017/18	15483	\$40,127	\$31,517	\$12,358	\$10,389
CRA - Reliability for FY2018/19 through FY2023/24	15507	\$7,907	\$4,354	\$10	\$3,130

Approximately \$2.85 million reimbursement from Federal Emergency Management Agency (FEMA) for construction of Whitewater Erosion Protection Structure Rehabilitation was credited in Q4 of FY 2020/21. The credited work was completed prior to the current biennium and has been reversed in this table to account all capital work performed in the current biennium.

		Total t	o Date	Biennium to Da	
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Cost Efficiency & Productivity Program	Total	\$21 <i>7</i> ,235	\$179,818	\$13,345	\$9,351
DVL Recreation Facilities ²⁵	15334	\$87,104	\$63,947	\$2,283	\$25
Power Reliability and Energy Conservation	15391	\$54,795	\$52,842	\$0	\$0
Information Technology System - Business, Finance, and HR	15411	\$22,468	\$22,387	\$999	\$47
Yorba Linda Power Plant Modifications	15446	\$17,125	\$17,086	\$30	\$74
Business Operations Improvement	15484	\$15,396	\$9,818	\$7,426	\$3,132
Project Controls and Reporting System	15490	\$6,440	\$6,302	\$0	\$348
Enterprise Content Management	15500	\$3,600	\$3,562	\$93	\$1,961
DVL Recreation Rehabilitation & Refurbishment	15515	\$1,030	\$828	\$2,514	\$718
Energy Sustainability Improvements	15521	\$9,276	\$3,047	\$0	\$3,047
Dams and Reservoirs Reliability Program	Total	\$76,454	\$68,479	\$14,984	\$7,291
Reservoir Cover and Replacement	1 <i>5</i> 41 <i>7</i>	\$65,214	\$58,949	\$9,592	\$6,433
Dam Rehabilitation & Safety Improvements	15419	\$11,240	\$9,530	\$5,392	\$858
Distribution System Reliability Program	Total	\$379,704	\$350,701	\$59,760	\$64,111
Conveyance and Distribution System - Rehabilitation	15377	\$102,686	\$99,643	\$14,399	\$6,201
Conveyance and Distribution System - Rehabilitation for FY2006/07 through FY2011/12	15441	\$111,912	\$108,719	\$4,583	\$5,202
Hydroelectric Power Plant Improvements	15458	\$20,403	\$16,989	\$72	\$2,285
Conveyance and Distribution System - Rehabilitation for FY2012/13 through FY2017/18	15480	\$120,633	\$107,969	\$27,844	\$37,088
Pipeline Rehabilitation and Replacement	15482	\$1,143	\$1,031	\$ 0	\$827

²⁵ Approximately \$107K was credited in Q4 of FY 2020/21 and \$4.5 million was credited in Q2 of FY 2021/22 from the sales of surplus DVL properties per the November 2005 Board Letter, Item 7-3 and the March 2020 Board Letters, Item 8-2. These credits were reversed in this table to account for all capital work performed in the current biennium.

		Total t	o Date	Bienniun	n to Date
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Conveyance and Distribution System - Rehabilitation for FY2018/19 through FY2023/24	15503	\$22,927	\$16,351	\$12,862	\$12,507
District Housing & Property Improvements Program	Total	\$10,607	\$4,588	\$9,159	\$3,659
Employee Village Enhancement	15513	\$10,607	\$4,588	\$9,159	\$3,659
Minor Capital Projects Program	Total	\$53,500	\$29,957	\$7,874	\$10,888
Capital Program for Projects Costing Less Than \$250,000 for FY2014/15 through FY2015/16	15489	\$8,000	\$6,709	\$0	\$16
Capital Program for Projects Costing Less Than \$250,000 for FY2016/17 through FY2017/18	15498	\$10,000	\$7,172	\$1,721	\$413
Capital Program for Projects Costing Less Than \$400,000 for FY2018/19 through FY2019/20	15504	\$1 <i>5</i> ,500	\$11,008	\$1,861	\$5,392
Capital Program for Projects Costing Less Than \$400,000 for FY2020/21 through FY2021/22	15518	\$20,000	\$5,068	\$4,293	\$5,068
Prestressed Concrete Cylinder Pipe Rehabilitation Program	Total	\$304,327	\$256,864	\$48,067	\$36,614
PCCP Rehabilitation and Replacement	15471	\$24,243	\$22,561	\$2,105	\$2,104
Sepulveda Feeder PCCP Rehabilitation	15496	\$30,525	\$26,960	\$752	\$3,934
Second Lower Feeder PCCP Rehabilitation ²⁶	15497	\$234,427	\$197,082	\$42,971	\$23,452
Allen-McColloch Pipeline, Calabasas Feeder, and Rialto Pipeline PCCP Rehabilitation	15502	\$1 <i>5</i> ,132	\$10,261	\$2,238	\$7,124
Regional Recycled Water Supply Program	Total	\$22,150	\$21,257	\$210	\$329
Demonstration-Scale Recycled Water Treatment Plant ²⁷	15493	\$22,150	\$21,257	\$210	\$329

Approximately \$220K tariff refund from Northwest Pipe Company was credited in Q3 of FY 2021/22 for Contract No. 1940 - Second Lower Feeder PCCP Rehabilitation - Reach 4. The credit was reversed in this table as the tariff payment was made prior to the current biennium.

^{27 \$1} million grant from the California State Water Resources Control Board for the construction of Advanced Water Treatment Demonstration Facility was credited in Q3 of FY 2020/21. The credited work was completed prior to the current biennium and has been reversed in this table to account all capital work performed in the current biennium.

		Total t	Total to Date Bien		n to Date
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Right of Way & Infrastructure Protection Program	Total	\$30,385	\$26,396	\$6,716	\$3,418
Right of Way & Infrastructure Protection	15474	\$30,385	\$26,396	\$6,716	\$3,418
System Flexibility/Supply Reliability Program	Total	\$664,503	\$637,476	\$32,312	\$21,334
Hayfield and Lake Perris Groundwater Recovery	15402	\$1,500	\$1,109	\$ 0	\$252
Perris Valley Pipeline	15425	\$130,800	\$130,692	\$21,910	\$2,506
Water Delivery System Improvements	15488	\$70,914	\$66,137	\$10,402	\$16,648
Verbena Property Acquisition	15492	\$264,000	\$261,823	\$0	\$1,344
Delta Wetlands Properties (Delta Islands)	15494	\$197,289	\$177,715	\$0	\$584
System Reliability Program	Total	\$374,160	\$297,466	\$84,512	\$71,838
Information Technology System - Infrastructure	15376	\$51,306	\$47,688	\$481	\$1,974
Information Technology System - Security	15378	\$12,351	\$10,681	\$3,211	\$2,449
La Verne Shop Facilities Upgrade ²⁸	15395	\$46,560	\$46,691	\$9,145	\$1,201
Water Operation Control	15467	\$51,414	\$41,779	\$3,131	\$2,459
Union Station Headquarters Improvements	15473	\$107,845	\$82,633	\$27,483	\$33,652
IT Infrastructure Reliability	15487	\$49,271	\$35,213	\$21,873	\$18,520
Operations Support Facilities Improvement	15495	\$25,001	\$17,865	\$7,657	\$1,077
Metropolitan Security System Enhancements	15499	\$15,910	\$10,283	\$5,724	\$7,525
Infrastructure Reliability Information System	15501	\$5,770	\$2,714	\$3,173	\$1,208

⁻

One appropriation, La Verne Shop Facilities Upgrade (Appropriation No. 15395) has exceeded its authorized budget during the 3rd Quarter of FY 2021/22. This variance was rectified in May 2022.

Final Design of the La Verne Shops - Stage 4 Buildings Completion & Equipment Installation project was more extensive than originally anticipated due to unforeseen concrete wall damages discovered during the final design phase.

		Total t	o Date	Biennium	n to Date
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
System-Wide Paving & Roof Replacements for FY 2020/21 through FY 2021/22	15516	\$3,541	\$1,049	\$1,252	\$902
System-Wide Paving & Roof Replacements for FY2020/21 through FY2023/24	15519	\$1,501	\$865	\$0	\$865
Enterprise Data Analytics	18910	\$3,690	\$5	\$1,382	\$5
Treatment Plant Reliability Program	Total	\$945,657	\$896,276	\$69,382	\$73,047
Chlorine Containment and Handling Facilities	15346	\$162,370	\$160,536	\$0	\$89
Weymouth Water Treatment Plant Improvements	15369	\$190,910	\$186,007	\$5,855	\$4,304
Jensen Water Treatment Plant Improvements	15371	\$47,062	\$46,638	\$43	\$54
Diemer Water Treatment Plant Improvements	15380	\$213,657	\$205,794	\$17,783	\$16,643
Mills Water Treatment Plant Improvements	15381	\$5,525	\$5,277	\$0	\$0
Skinner Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15435	\$3,860	\$2,142	\$0	\$33
Diemer Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15436	\$70,939	\$64,610	\$2,620	\$2,316
Weymouth Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15440	\$24,079	\$23,339	\$4,522	\$4,578
Jensen Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15442	\$91,376	\$83,356	\$21,300	\$24,289
Mills Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15452	\$29,152	\$23,011	\$480	\$3,617
Weymouth Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15477	\$76,989	\$76,800	\$6,038	\$11,283
Diemer Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15478	\$1,425	\$1,417	\$0	\$410
Mills Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15479	\$1,094	\$746	\$0	\$293

		Total to Date Biennium to Da		ı to Date	
Capital Programs/Appropriations	Appn. No.	Appn. Amount (\$1,000's)	Costs thru March 2022 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Skinner Water Treatment Plant Improvements for FY 2012/13 Through FY 2017/18	15485	\$1,990	\$1,729	\$0	\$6
Jensen Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15486	\$8,339	\$7,480	\$0	\$720
Weymouth Water Treatment Plant Improvements for FY2020/21 through FY2023/24	15505	\$685	\$258	\$468	\$35
Jensen Water Treatment Plant Improvements for FY2020/21 through FY2023/24	15508	\$8,779	\$2,837	\$7,871	\$2,514
Diemer Water Treatment Plant Improvements for FY2020/21 through FY2023/24	15510	\$835	\$687	\$1,245	\$305
Skinner Water Treatment Plant, Improvements for FY 2020/21 Through FY 2023/24	15512	\$3,961	\$3,277	\$508	\$1,224
Mills Water Treatment Plant Improvements for FY2020/21 through FY2023/24	15520	\$2,631	\$334	\$649	\$334
Water Quality/Oxidation Retrofit Program	Total	\$631,914	\$628,233	\$19	\$329
Diemer Water Treatment Plant Oxidation Retrofit	15389	\$370,192	\$370,024	\$0	\$0
Weymouth Water Treatment Plant Oxidation Retrofit	15392	\$251,482	\$248,594	\$19	\$18
Enhanced Bromate Control	15472	\$10,240	\$9,615	\$0	\$312
Total CIP		\$4,182,094	\$3,812,012	\$440,853	\$376,932

Notes on above table:

- Numbers may not sum due to rounding.
- Numbers are based on the general ledger information downloaded on 04/11/2022.
- \$0 under **Planned Expenditures** indicate that while no expenditures are planned during the reporting period, expenditures may be planned during upcoming periods
- Negative actual expenditures indicate the result of cost transfers, write-offs, or credits greater than actual costs for this biennium through the reporting quarter
- Total appropriation amount to date and total cost through March 2022 include land acquisitions for Verbena Property and Delta Wetlands Properties.

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