



## ● **Capital Investment Plan Quarterly Report for period ending June 30, 2020**

### **Summary**

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The attached report provides a summary of actions and accomplishments on the Capital Investment Plan (CIP) during fiscal years 2018/19 and 2019/20. 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 April to June 2020, the fourth quarter of fiscal year 2019/20, and the final quarter of the fiscal years 2018/19 and 2019/20 biennium.

### **Purpose**

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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.

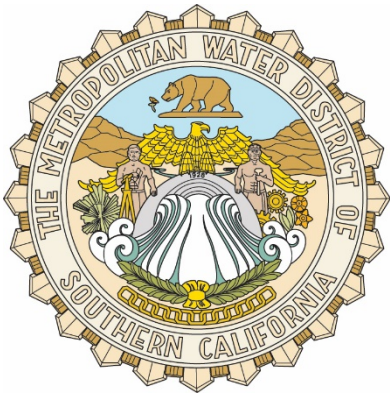
Section 8122(c) of Metropolitan's Administrative Code requires the General Manager to report on the execution of any relocation agreement under the General Manager's authority involving an amount in excess of \$100,000.

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

### **Attachments**

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Capital Investment Plan quarterly report for period ending June 2020



# CAPITAL INVESTMENT PLAN

## PLAN

Quarterly Report

April – June 2020



## THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

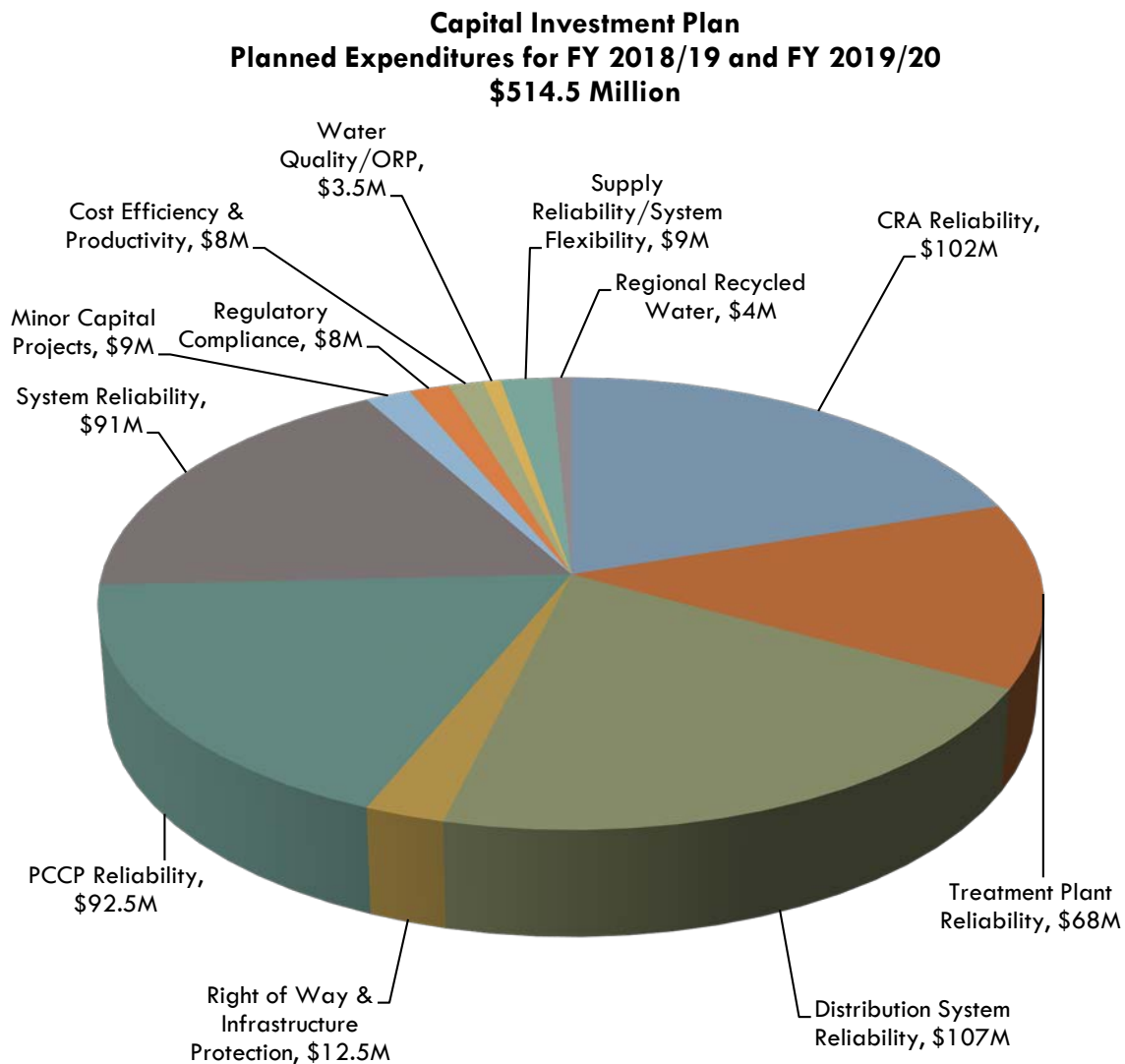
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## CAPITAL INVESTMENT PLAN FOR FISCAL YEARS 2018/19 & 2019/20

Metropolitan’s total Capital Investment Plan (CIP) planned expenditures for FYs 2018/19 and 2019/20 are \$514.5 million, and are shown in Figure 1 below in relation to their associated programs. The capital budget for the same period is \$400 million. This two-year capital budget is based on the historical variance between the annual actual expenditures and the annual planned expenditures. Based on the most recent five-year historical average, actual fiscal year CIP expenditures have been approximately 80% of the annual planned expenditures.

Figure 1: CIP for FY 2018/19 and FY 2019/20 by Program



[Cover photos: (left to right): Greg Avenue PCS surge tanks loaded for transport; 75-inch-diameter steel liner for Second Lower Feeder PCCP Rehabilitation – Reach 8 being collapsed and steel tabs welded]

In October 2018, the Board appropriated \$290 million, the estimated additional funds needed to perform the planned capital work for the rest of the biennium. The Board also delegated authority to the General Manager to initiate or proceed with the work, through a series of Management Actions, on all planned capital projects identified in the CIP for FYs 2018/19 and 2019/20, and delegated to the General Manager the authority to determine whether a project is exempt from the California Environmental Quality Act (CEQA).

## **FOURTH QUARTER SUMMARY**

Biennial expenditures through June 2020 totaled \$519.9 million (details shown in Table 17), and expenditures for the 4<sup>th</sup> Quarter of Fiscal Year 2019/20, April through June 2020, totaled \$54.8 million for all capital programs.

During the 4<sup>th</sup> Quarter, board actions heard in open session included five project-specific actions, and the new biennial CIP appropriation, summarized in Table 1 below. These actions awarded two contracts totaling approximately \$1.64 million, authorized two new professional/technical services agreements totaling a not-to-exceed amount of approximately \$1.6 million, authorized an increase of \$4 million in change order authority for the Second Lower Feeder Reach 8 PCCP lining, and appropriated \$500 million for projects identified in the CIP for FYs 2020/21 and 2021/22. Information on the awarded contracts can be found in Table 11 of this report. The table below excludes information on board items heard in closed session.

*Table 1: 4<sup>th</sup> Quarter Board Actions*

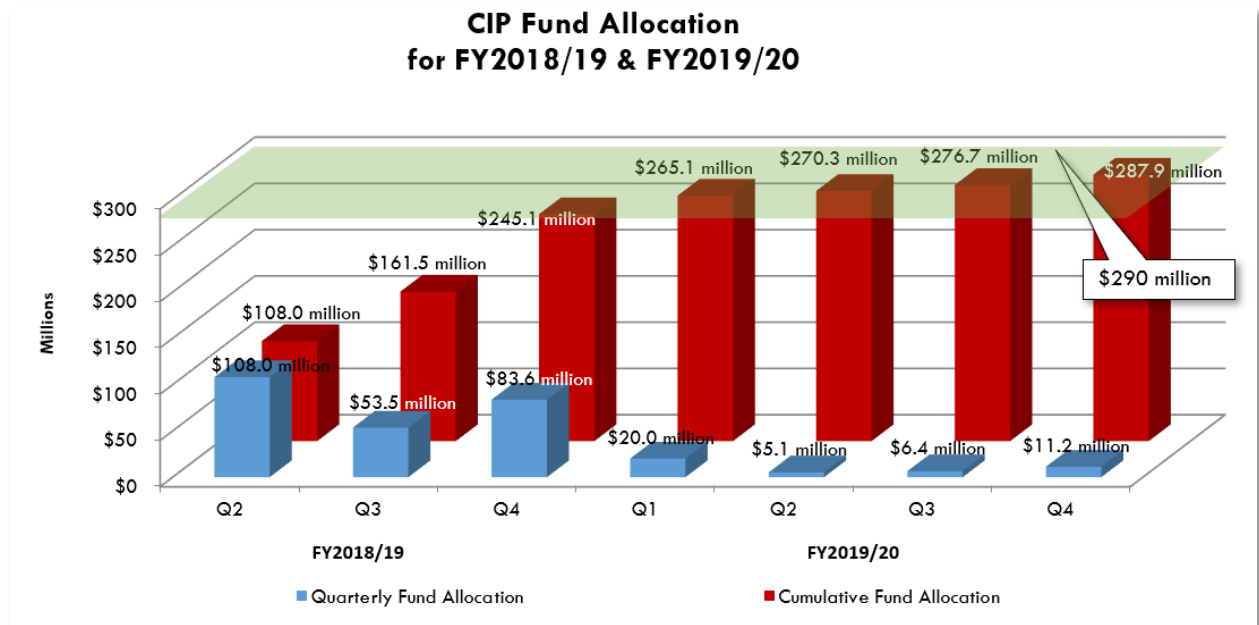
Month	Board Letter Item No.	Project	Action taken
April	7-1	CRA Domestic Water Treatment Systems Replacement	Awarded \$1,206,535 procurement contract
April	8-2	Capital Investment Plan for Fiscal Years 2020/21 and 2021/22	Appropriated \$500 million for projects identified in the CIP for FYs 2020/21 and 2021/22
May	7-2	Information Technology Service Management System	Authorized an agreement not-to-exceed \$771,219
June	7-5	Erosion-Control Improvements for Six Sites in Orange County Region	Awarded \$429,295 construction contract
June	7-6	Real Property Business Management System Replacement	Authorized an agreement not-to-exceed \$825,000
June	8-1	Urgent PCCP Relining of Second Lower Feeder – Reach 8	Authorized an increase of \$4,000,000 in change order authority

The previously referenced October 2018 board action appropriated \$290 million to perform work on planned capital projects through the current biennium. In order to be considered a planned project, the project must be included 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 require board authorization. Upon approval, such requested funds are then transferred from the \$290 million (Appropriation No. 15509) to the pertinent capital appropriation under which the project is budgeted. These transfers are based on both board actions and/or management decisions to initiate capital projects or proceed to the next phase of planned work. During the 4<sup>th</sup> Quarter, no unplanned capital projects were authorized by the Board.

During the 4<sup>th</sup> Quarter, the total amount of Appropriation No. 15509 funds authorized by the General Manager for the current biennium (FYs 2018/19 and 2019/20) through Management Actions, including the funds for the projects shown in Table 1, is \$11.2 million. Details of the three Management Actions which occurred during the 4<sup>th</sup> Quarter can be found in Table 5 in the **Project Actions** section of this report.

Figure 2 shows the allocation of the funds for each of the quarters and total through each of the quarters for the current biennium. The total allocation from Appropriation No. 15509 through the 4<sup>th</sup> Quarter is approximately \$287.9 million, leaving \$2.1 million unallocated and unused.

Figure 2: CIP Fund Allocation from Appropriation No. 15509 – FY 2018/19 and FY 2019/20



Information on construction and procurement contracts activities for the 4<sup>th</sup> Quarter of FY 2019/20 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 4<sup>th</sup> quarter totaled approximately \$25.4 million, and primarily reflect construction progress on Reach 2 of the Second Lower Feeder Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation, Metropolitan Headquarters Building Improvements, Diemer West Basins and Filter Building Rehabilitation, CRA Discharge Line Isolation Coupling Assemblies, Greg Avenue Pump Station Improvements, Jensen Modules 2 and 3 Flocculator Rehabilitation, Colorado River Aqueduct (CRA) Radial Gates Replacement, and Orange County Region Service Center.

Table 2: 4<sup>th</sup> Quarter Contract Actions

Contract Actions during Q4 for FY 2019/2020, April 2020 through June 2020	
Contracts Awarded	1 construction contract totaling \$429,295 (Table 11) 2 procurement contracts totaling 1,398,720 (Table 11)
Contract Payments Authorized	\$25.35 million
Construction Contracts Completed	Notice of Completion was filed for 5 construction contracts (Table 10)
Active Contracts at end of Q4 <sup>1</sup>	19 construction contracts, totaling \$306.72 million (Table 12) 15 procurement contracts, totaling \$60.82 million (Table 13) \$367.54 million total value

<sup>1</sup> Active contracts at the end of the 4<sup>th</sup> Quarter are those that are ongoing at the end of June 2020. In other words, contracts that had been active but were completed during the reporting quarter are excluded.

## **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 temporarily suspended in late March. This was in addition to other measures taken to reduce the spread of the virus, such as stay-at-home orders, that affected progress on capital projects to some extent. During that suspension, an assessment was made on which contracts could be restarted while maintaining safe working conditions for both Metropolitan and contractor staffs. Since then, all but two contracts have been restarted after implementation of specific COVID-19 safety protocols for both Metropolitan and contractor staffs. On the remaining two contracts, staff anticipates working with the respective contractors to 1) reschedule work on one contract to a later date, and 2) reduce the scope on the other contract.

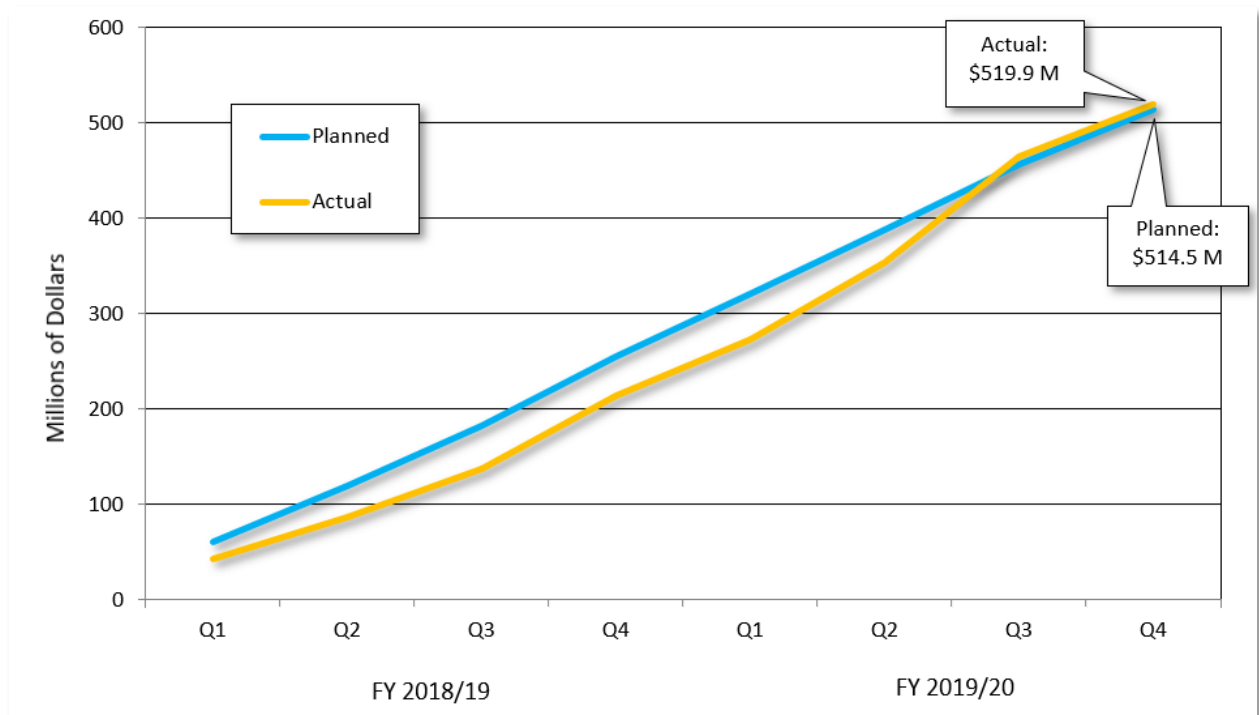
## PLANNED EXPENDITURE AND BUDGET

Table 3 and Figure 3 below show planned and actual expenditures for the biennium through the end of the 4<sup>th</sup> Quarter of FY 2019/20. Actual biennial expenditures through the 4<sup>th</sup> Quarter of FY 2019/20 were approximately 101% of planned expenditures.

Table 3: Current Biennium: Planned & Actual Expenditures for FYs 2018/19 & 2019/20

Quarter	Planned Expenditures (millions)	Actual Expenditures (millions)
FY 2018/19 Q1	\$60.8	\$42.9
Q2	\$58.1	\$42.8
Q3	\$63.8	\$51.8
Q4	\$72.0	\$75.7
FY 2019/20 Q1	\$66.3	\$59.6
Q2	\$66.5	\$81.2
Q3	\$68.8	\$111.1
Q4	\$58.2	\$54.8
<b>Totals</b>	<b>\$514.5</b>	<b>\$519.9</b>

Figure 3: Current Biennium – Planned & Actual Expenditures





As shown in Figure 3, the total planned expenditures in the current biennium are \$514.5 million and the actual expenditures at the end of the current biennium are \$519.9 million. This positive variance above the planned expenditures is due to several factors including prioritization of critical projects to ensure facility reliability and system flexibility, as well as better than anticipated progress by construction contractors. After careful review of both planned and actual project expenditures during the current biennium, several key projects were identified in which actual construction expenditures exceeded planned construction expenditures. These projects, and the explanation for positive expenditure variances are discussed below. It is important to note that each of these projects continues to be on budget. The increased expenditures in the current biennium represents an acceleration of work compared to the planned schedule. This will lead to a reduction in planned work for the following biennium on these projects.

**Second Lower Feeder PCCP Rehabilitation – Reach 2:** This project involves relining approximately 4.5 miles of PCCP pipeline in the cities of Carson and Los Angeles. This contract was awarded in May 2019 with completion planned by late 2020. The relining activities and restoration work were completed approximately 5 months earlier than planned. 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.

**Greg Avenue Pump Station Rehabilitation:** This project rehabilitates the Greg Avenue Pump Station to ensure that the operational flexibility to move CRA supplies to the western portion of Metropolitan's service area is maintained. After the current biennial budget was finalized, the project was reprioritized to ensure that the rehabilitated facilities would be operational one year earlier than originally scheduled. The new on-line date will enhance operational flexibility under reduced State Water Project allocation conditions. To meet the new on-line date, construction commenced one year earlier than originally scheduled. Construction progress is currently on track to meet an on-line date of early 2021.

**Diemer West Basins & Filter Building Rehabilitation:** This project rehabilitates and upgrades the treatment basins and filters at the Diemer plant to ensure water treatment reliability at the plant. After the current CIP budget was finalized, this project was prioritized to address the deteriorating condition of the basins, and the Board awarded the construction contract in October 2018. Project expenditures for the biennium are higher than originally planned because construction was started earlier than planned to meet the rescheduled on-line date.

**Headquarters Improvements:** This project provides seismic strengthening of Metropolitan's Headquarters' building, as well as making other necessary upgrades to this 20-year old building. The actual expenditures were more than planned due to the following: (1) the construction contract was awarded earlier than originally planned during the biennium, (2) the actual construction contract amount was more than initially planned in the CIP budget process, and (3) the contract specified early phasing of work in the parking garage, wing, rotunda, and fifth floor improvements. This early work phasing necessitated completion of the heavy concrete work in the first 18 months of the construction contract which significantly improved the seismic capacity of the building early in the project, but increased expenditures on the project in the current biennium.

**CRA Discharge Line Isolation Coupling Assemblies:** This project provides for the fabrication and installation of 44 isolation couplings with flow-through removal spool pieces, fabrication of 10 removable bulkheads at Metropolitan's CRA pumping plants. Installation of these couplings will

facilitate the efficient future rehabilitation of the CRA main pumps. The actual expenditures were more than planned due to the following: (1) the awarded construction contract amount was more than initially estimated during the CIP budgeting process, and (2) the contract specified completion of the installation work during two planned CRA shutdowns. The contractor's substantial progress during the first shutdown in 2020 exceeded the original project plans.

## **MAJOR CAPITAL PROGRAMS OVERVIEW**

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

- Program
- Appropriation
- Project

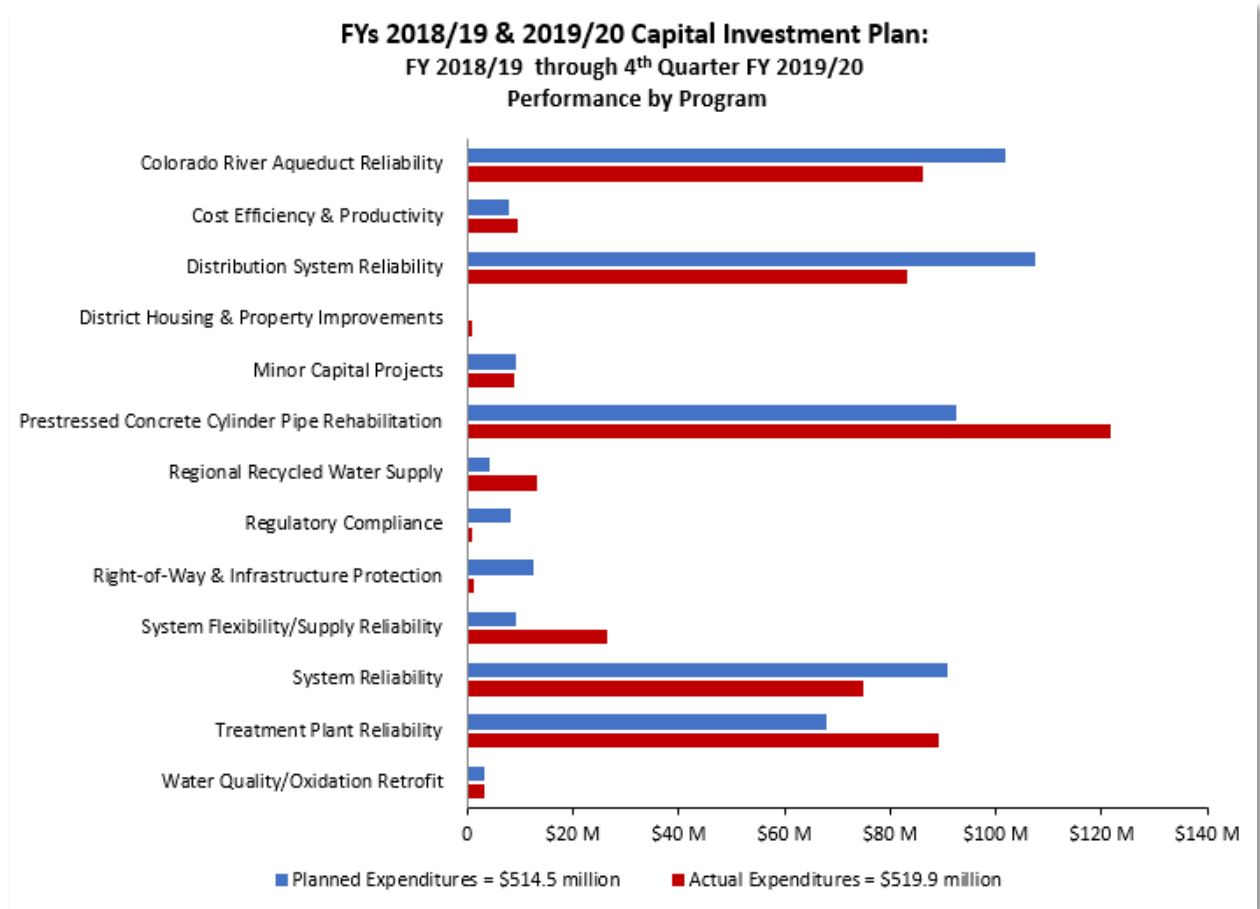
Metropolitan's CIP is comprised of 13 programs, which capture all projects within the CIP. At the time of the current biennium budget was adopted by the Board, the CIP included 12 programs. The new capital program, the District Housing & Property Improvements Program, was added during the 4<sup>th</sup> Quarter of fiscal year 2018/19. The 13 capital programs are listed below in alphabetical order. Programs are comprised of one or more appropriations, and 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
- Distribution System Reliability
- District Housing & Property Improvements
- Minor Capital Projects
- Prestressed Concrete Cylinder Pipe (PCCP) Reliability
- Regional Recycled Water Supply
- Regulatory Compliance
- 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 70 planned appropriations and 345 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 17 at the end of this report.

Figure 4 below shows actual versus planned expenditures for the 13 capital programs for the biennium to-date, for FY 2018/19 through the end of FY 2019/20.

Figure 4: Biennium-to-date Expenditures (Actuals vs. Planned) through 4<sup>th</sup> Quarter FY 2019/20



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

The list in Table 4 below reflects the ten projects in the CIP with the highest level of planned expenditures in the biennium. Table 4 lists the planned and actual expenditures for the top ten planned capital projects for the current biennium.

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

Project	Planned July 2018 to June 2020 (millions)	Actuals July 2018 to June 2020 (millions)
Second Lower Feeder PCCP Rehabilitation	\$77.6	\$108.1
Headquarters Improvements	\$24.3	\$37.8
Orange County Feeder Lining Replacement	\$19.4	\$10.8
Palos Verdes Reservoir Rehabilitation	\$15.0	\$12.1
CRA 6.9 kV Power Cable Replacement	\$14.0	\$15.3
CRA Pumping Plant Sump System Rehabilitation	\$11.0	\$2.3
Orange County Service Center	\$10.4	\$11.4
Wadsworth Pumping Plant Control & Protection Upgrades	\$9.9	\$11.0
CRA Water Distribution System & Roadway Asphalt Replacement	\$9.0	\$2.5
Weymouth Filter Valve Replacement	\$9.0	\$0.8
<b>Total</b>	<b>\$199.6</b>	<b>\$212.1</b>

The cumulative expenditure variance for the top ten projects over the biennium 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. Positive variances for the Second Lower Feeder PCCP Rehabilitation and Headquarters Improvements have been provided on Page 8. The following are the variance explanations for the top 10 projects with negative variances (under-spending projects).

- **Orange County Feeder Lining Replacement:** The actual vs. planned expenditure variance is due to splitting the final reach of the Orange County Feeder Lining Replacement work into two contracts. The current contract for Reach 2 was completed during the 4<sup>th</sup> quarter of this fiscal year. The final contract, for Reach 3, is currently in final design.
- **CRA Pumping Plant Sump System Rehabilitation:** The actual vs. planned variance is due to the construction contract being awarded later than anticipated, due to the longer than expected contractor submittal approval and equipment procurement work, and suspension of on-site work due to the COVID-19 pandemic.

- **CRA Water Distribution System & Roadway Asphalt Replacement:** The variance is due to a delay in the award of the first construction contract due to the performance of a comprehensive utility investigation to identify interfering utilities. This work will help construction progress more effectively and will reduce construction change orders.
- **Weymouth Filter Valve Replacement:** The variance is due to the rescheduled delivery of the first set of Metropolitan-furnished valves in order to streamline the inspection and approval of vendor submittals and to better coordinate with the planned installation of the valves.

## **MAJOR CAPITAL PROGRAMS – HIGHLIGHTS**

The section that follows provides 4th 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 either achieved major milestones during the 4th Quarter of FY 2019/20, or are scheduled to achieve major milestones in the next quarter.

<b>Program</b>	<b>Project</b>
<b>Colorado River Aqueduct (CRA) Reliability</b>	CRA Discharge Line Isolation Coupling Assemblies
	CRA Radial Gates Replacement
<b>Cost Efficiency &amp; Productivity</b>	Program highlights only
<b>Distribution System Reliability</b>	Lake Perris Bypass Pipeline Relining
	Lakeview Pipeline Upgrades
	Wadsworth Sleeve Valves Refurbishment
<b>District Housing &amp; Property Improvements</b>	Program highlights only
<b>Prestressed Concrete Cylinder Pipe (PCCP) Reliability</b>	Second Lower Feeder PCCP Rehabilitation – Reach 2
	Second Lower Feeder PCCP Rehabilitation – Reach 8
<b>Regional Recycled Water Supply</b>	Program highlights only
<b>Regulatory Compliance</b>	Program highlights only
<b>Right-of-Way &amp; Infrastructure Protection</b>	Erosion-Control Improvements for Six Sites in Orange County Region
<b>System Flexibility/Supply Reliability</b>	Greg Avenue Pump Station Rehabilitation
<b>System Reliability</b>	MWD Cyber Security Upgrade
	Maximo Mobile Computing Upgrade
<b>Treatment Plant Reliability</b>	Jensen Module Nos. 2 & 3 Flocculator Rehabilitation
	Diemer West Basin & Filter Building Rehabilitation
<b>Water Quality/Oxidation Retrofit</b>	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 2018 through June 2020)

\$101.72 million

### Actual Biennium-to-date Expenditures (July 2018 through June 2020)

\$86.22 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

#### Status

Expenditures for this program are less than planned through June 2020 due to schedule adjustments in order to optimize the construction activities of multiple contracts within the same CRA shutdown and the longer-than-anticipated submittal process for the CRA Sump System Rehabilitation project.

#### Accomplishments

- Completed construction of Whitewater Erosion Protection Structure Rehabilitation
- Completed design and advertised CRA Pumping Plants Overhead Cranes Rehabilitation construction package
- Awarded and issued the notice to proceed for the procurement contract to furnish water treatment equipment for domestic water treatment systems at all CRA pumping plants
- Under Metropolitan's response to COVID-19, suspended on-site construction for the CRA Pumping Plants Sump System Rehabilitation; continued submittals and fabrication activities
- Continued limited on-site construction activities for the following contracts under Metropolitan's response to COVID-19:
  - CRA Discharge Line Isolation Coupling Assemblies
  - CRA Radial Gates Replacement
  - CRA 6.9 kV Power Cable Replacement

#### Upcoming Activities

Upcoming work for the next quarter will include:

- Award a construction contract for CRA Pumping Plants Overhead Cranes Rehabilitation
- Continue the CRA main pump rehabilitation efforts at all five pumping plants
- Under Metropolitan's response to COVID-19, determine course of actions for CRA Pumping Plant Sump System Rehabilitation on-site construction
- Installed alternate cables to four CRA main pumps at each plant under the CRA 6.9 kV Power Cable Replacement contract so that eight pumps are available
- Continue construction activities planned for the following contracts:
  - CRA Discharge Line Isolation Coupling Assemblies
  - CRA Radial Gates Replacement
  - Gene Wash Reservoir Discharge Structure Rehabilitation



**Estimated Construction Completion Date:**  
June 2021

**Total Project Estimate:**  
\$44.4 million

**Current Phase Estimate:**  
\$38.8 million

**Cost to Date for Current Phase:**  
\$17,407,560

**CRA Reliability Program:  
CRA Discharge Line Isolation Coupling Assemblies**

This project will fabricate and install 44 isolation coupling assemblies with flow-through removal spool pieces; fabricate ten removable bulkheads; and reline 6-foot discharge pipes with mortar lining.

Phase	Construction & Closeout
% Complete for Current Phase	55%
Construction Contract Awarded	August 2019
Appropriation Number	15481
Contract Number	1923

Contractor completed installation of concrete piers, stairways and landings at the Intake Pumping Plant. The contractor will demobilize in July 2020 and will remobilize in January 2021 to complete the remaining shutdown work in February 2021.



Intake Delivery Line No. 3 concrete anchor block formwork

**CRA Reliability Program:  
CRA Radial Gates Replacement**

This project will improve the reliability of the Colorado River Aqueduct by replacing seven radial gates along the aqueduct. The work includes installation of new radial gates and actuators, upgrade of electrical equipment, and rehabilitation and expansion of the gate operating platforms.

Phase	Construction & Closeout
% Complete for Current Phase	44%
Construction Contract Awarded	August 2019
Appropriation Number	15438
Contract Number	1920

The contractor successfully completed the demolition and replacement of a section of the Vidal Wasteway. Due to multiple resubmittals for the stainless steel radial gate and actuators, fabrication on both items was delayed. In the upcoming quarter, the contractor plans to begin fabrication of the new radial gates and actuators.

*Estimated Construction  
Completion Date:  
June 2021*

*Total Project Estimate:  
\$19.1 million*

*Current Phase Estimate:  
\$15.0 million*

*Cost to Date for Current Phase:  
\$5,349,623*



Installation of temporary formwork and reinforced concrete at Vidal Wasteway

## 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 2018 through June 2020)**

\$8.03 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$9.70 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

Status

Biennium expenditures for this program are more than planned through June 2020 due to shifts in timing of the work, with expenditures offset by schedule delays of several other projects in the remaining appropriations within this program.

Accomplishments

- Enterprise Content Management – Completed additional file migrations associated with Water System Operations and initiated file migrations with Chief Financial Office

Upcoming Activities

Upcoming work for the next quarter will include:

- Initiate WINS Water Billing System Upgrade project
- Initiate design activities for:
  - Budget System Replacement System
  - Real Property Business Systems Replacement
- Enterprise Content Management – Continue file migrations associated with Water System Operations and Chief Financial Office
- Complete design and advertise for construction bids for Stage 1 rehabilitation of the existing Diamond Valley Lake wave attenuator system

## 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 2018 through June 2020)

\$107.27 million

### Actual Biennium-to-date Expenditures (July 2018 through June 2020)

\$83.15 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

#### Status

Biennium expenditures for this program are less than planned through June 2020 due to COVID-19 related suspension of construction contracts and due to shifts in the timing of planned work for the following projects:

- Orange County Feeder Lining Replacement – Reach 3
- West Valley Feeder No. 1 Improvements
- Dam Assessment – Phase 3

#### Accomplishments

- Completed final design of the Lake Perris Bypass Pipeline Relining
- Completed final design of Lakeview Pipeline Improvements
- Completed final design of the Lake Mathews Wastewater System Improvements
- Continued final design of Eagle Mountain and Hinds Pumping Plants utility improvements and roadway asphalt replacement

#### Upcoming Activities

Upcoming work for the next quarter will include:

- Award construction contracts for the Lake Perris Bypass Pipeline Relining and Lakeview Pipeline Improvements
- Continue fabrication and delivery of Earthquake Resistant Ductile Iron Pipe and welded steel pipe for the Casa Loma Siphon Barrel No. 1 Seismic Upgrade
- Complete construction of the East Orange County Feeder No. 2 Service Connection A-06 Rehabilitation
- Complete construction of the Orange County Region Service Center
- Continue final design of the Eagle Mountain and Hinds Pumping Plants utility improvements and roadway asphalt replacement



**Distribution System Reliability Program:  
Lake Perris Bypass Pipeline Relining**

This project will reline approximately 1,200 feet of the Lake Perris Bypass Pipeline.

Phase	Final Design
% Complete for Current Phase	99%
Final Design Authorized	November 2019
Appropriation Number	15503

Final design was completed, and the project was advertised for bids. Activities planned for the upcoming quarter include award of contract, initiation of the submittals process and procurement of steel liner.

*Final Design Completion Date:  
June 2020*

*Total Project Estimate:  
\$7.98 million\**

*Current Phase Estimate:  
\$375,000\*\**

*Cost to Date for Current Phase:  
\$389,594*

*\* Revised in May 2020 from  
\$7.5 million to \$7.98 million.*

*\*\* Revised in May 2020 from  
\$300,000 to \$375,000.*



Lake Perris Bypass Pipeline Alignment

**Distribution System Reliability Program:  
Lakeview Pipeline Upgrades**

This project will replace the 60-inch pipe tee-fitting at the Lake Perris Control Facility, and reline a portion of the Lakeview Pipeline at the east portal of the Bernasconi Tunnel.

Phase	Final Design
% Complete for Current Phase	99%
Final Design Authorized	January 2020
Appropriation Number	15488

Final design was completed, and the project was advertised for bids. Activities planned for the upcoming quarter include award of contract, initiation of the submittals process and procurement of steel liner.



Location of tee-fitting at Lake Perris Control Facility

*Final Design Completion Date:*  
**June 2020**

*Total Project Estimate:*  
**\$5.0 million**

*Current Phase Estimate:*  
**\$575,000**

*Cost to Date for Current Phase:*  
**\$570,436**

**Distribution System Reliability Program:  
Wadsworth Sleeve Valves Refurbishment**

This project will refurbish the seven sleeve valves at the Wadsworth Pumping Plant. Work includes fabrication and installation of valve internal components by Metropolitan Forces.

Phase	Construction & Closeout
% Complete for Current Phase	20%
Construction Authorized	November 2019
Appropriation Number	15503

Refurbishment of Unit No. 1 was completed. In the upcoming quarter, staff will complete the refurbishment of Unit No. 4 and will begin the refurbishment of Unit No. 2.

*Estimated Construction  
Completion Date:  
February 2021*

*Total Project Estimate:  
\$952,000*

*Current Phase Estimate:  
\$767,000*

*Cost to Date for Current Phase:  
\$247,129*



Deep pits at the stainless steel-to-carbon steel interface in Wadsworth sleeve valve Unit No. 4

## 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 2018 through June 2020)**

\$0

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$0.93 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

**Status**

This is a new capital program that was not initially included in the biennial CIP budget; hence there are no planned expenditures for the biennium.

**Accomplishments**

- Desert housing conceptual design report has now been completed
- Updated plan for design and construction of desert housing
- Employee village enhancement master planning document is 90% complete

**Upcoming Activities**

Upcoming work for the next quarter will include:

- Complete planning and proceed with design of desert housing improvements
- Complete employee village enhancement master planning document



## Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program

**Program Information:** The PCCP Reliability 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 2018 through June 2020)**

\$92.35 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$121.67 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

**Status**

Biennium expenditures for this program are more than planned through June 2020 due to earlier than anticipated delivery of pipe and better than anticipated construction progress for the Second Lower Feeder PCCP Rehabilitation project.

**Accomplishments**

- Second Lower Feeder (SLF) Reach 2 – Completed pipe rehabilitation, which included installation of all steel liner, completion of all welding, grouting of annular space, and mortar lining
- SLF Reach 3 – Continued final design and coordination with local agencies for permit approvals; continued shutdown coordination with member agencies
- SLF Reach 8 – Completed final design and obtained permits from local agencies. In June, the Board authorized an increase in change order authority on the Reach 2 contract to allow the urgent repair of Reach 8. Shutdown a portion of the feeder and initiated construction, which included installation of a bulkhead, steel liner, welding, grouting of all annular space, and mortar lining
- Sepulveda Feeder, Rialto Feeder, Calabazas Feeder and Allen-McColloch Pipeline Preliminary Design – Continued system hydraulic analyses, access portal optimizations, and valve replacement studies

**Upcoming Activities**

Upcoming work for the next quarter will include:

- SLF Reach 2 – Disinfection of the pipe and all activities to return the feeder to service. Completion of these activities were rescheduled to coincide with completion of Reach 8
- SLF Reach 8 – Complete construction, which includes installation of all steel liner, completion of all welding, grouting of all annular space, and all mortar lining of the steel liner pipe, disinfection, and all activities to return the feeder to service
- The following activities are planned but may experience some delays due to COVID-19 impacts:
  - SLF Reach 3 Final Design – Continue design and obtain preliminary permitting approvals from local agencies; continue shutdown coordination with member agencies

**Estimated Shutdown & Post Construction Activities**

**Completion Date:**  
November 2020

**Total Project Estimate:**  
\$65 million

**Current Phase Estimate:**  
\$61,846,000

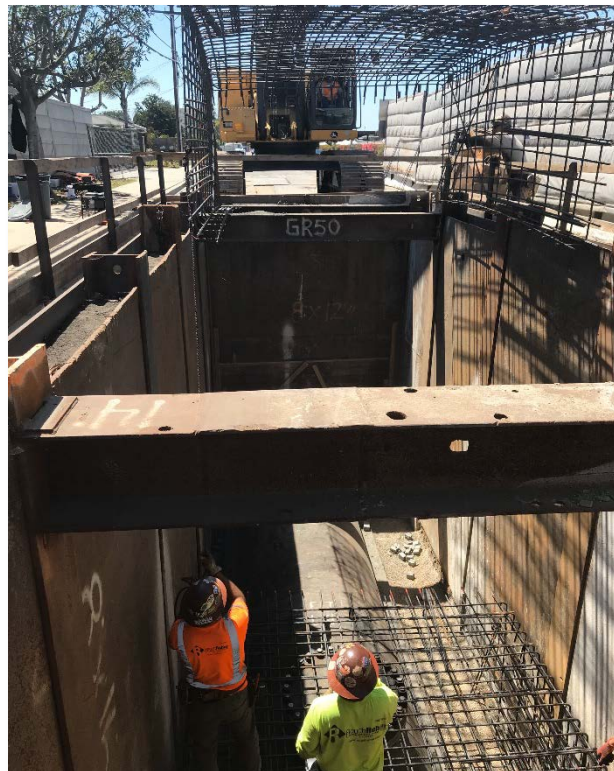
**Cost to Date for Current Phase:**  
\$57,230,983

**PCCP Reliability Program:  
Second Lower Feeder PCCP Rehabilitation – Reach 2**

This project will rehabilitate approximately 4.5 miles of PCCP segments of the Second Lower Feeder – Reach 2 with a steel liner.

Phase	Pipe Procurement, Construction & Closeout
% Complete for Current Phase	90%
Pipe Procurement Contract Awarded	November 2018
Construction Contract Awarded	May 2019
Appropriation Number	15497
Pipe Procurement Contract Number	1925
Construction Contract Number	1902

Completed all relining activities and restoration work for Reach 2. Upcoming activities for the next quarter include completing coating work within manhole structures, placing the feeder back in service.



Second Lower Feeder – Reach 2: Installation of reinforcement in preparation for concrete encasement

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*Estimated Pipe Relining Activities Completion Date:*  
**August 2020**

*Total Project Estimate:*  
**\$7.2 million**

*Current Phase Estimate:*  
**\$6.9 million**

*Cost to Date for Current Phase:*  
**\$1,462,166**

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**PCCP Reliability Program:  
Second Lower Feeder PCCP Rehabilitation – Reach 8**

This project will rehabilitate approximately 2,900 feet of PCCP segments of the Second Lower Feeder – Reach 8 with a steel liner. This work will be completed as a change order to Contract No. 1902.

Phase	Construction & Closeout
% Complete for Current Phase	15%
Construction Contract Awarded	May 2019
Change Order Authorized	June 2020
Appropriation Number	15497
Construction Contract Number	1902

Acquired encroachment permit and completed final design. Board approved increase in change order authority for Contract No. 1902 (Reach 2 contract), authorizing Reach 8 construction. Contractor commenced construction activities for Reach 8, including traffic control and establishment of pipe ventilation sites. Upcoming activities for next quarter include installation of liner pipe; removal of traffic control and bulkhead; disinfection of pipeline and return to service; street restoration and project close-out.



Second Lower Feeder – Reach 8: Pipemobile transporting pipe

## Regional Recycled Water Supply Program

**Program Information:** The Regional Recycled Water Supply Program includes the design and construction of the Advanced Water Treatment 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 2018 through June 2020)

\$4.19 million

### Actual Biennium-to-date Expenditures (July 2018 through June 2020)

\$13.20 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

#### Status

Biennium expenditures for this program are more than planned through June 2020 due to shifts in timing of the work and extended construction and commissioning of the Advanced Water Treatment (AWT) Demonstration Facility.

#### Accomplishments

- Completed demonstration pre-testing
- Performed warranty repairs on equipment and post-contract system improvements to enhance safety and operational reliability

#### Upcoming Activities

Upcoming work for the next quarter will include:

- Commencement of demonstration baseline testing
- Improving the current system configuration to support the on-going testing effort

## Regulatory Compliance Program

**Program Information:** The Regulatory Compliance Program is comprised of projects to provide for prudent use and management of Metropolitan’s assets in compliance with regulations and codes other than water quality.

**Planned Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$8.25 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$1.00 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

Status

Biennium expenditures for this program are less than planned through June 2020 due to rescheduling the work to allow the performance of a comprehensive utility investigation and coordination with village enhancements under consideration. The utility improvements will proceed in four stages: Eagle Mountain, Hinds, Iron Mountain/Gene, and Intake. Each utility construction package will include sewer, water distribution, and village roadway asphalt replacement projects, in order to minimize disturbance to residents and to gain contracting cost efficiencies. Eagle Mountain and Hinds utility improvements are being managed under the Distribution System Reliability Program.

Accomplishments

- Completed 30% design package and established design criteria base map for Iron Mountain and Gene Pumping Plants utility improvements and roadway asphalt replacement

Upcoming Activities

Upcoming work for the next quarter will include:

- Continue final design of Eagle Mountain, Iron Mountain and Gene Pumping Plants improvements and roadway asphalt replacement
- Continue preliminary design of Intake Pumping Plant improvements and roadway asphalt replacement

## 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 2018 through June 2020)

\$12.39 million

### Actual Biennium-to-date Expenditures (July 2018 through June 2020)

\$1.37 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

#### Status

Biennium expenditures for this program are less than planned through June 2020 due to negotiations with permitting agencies over conditions and restrictions for environmental permits, and acquisition of rights-of-way taking longer than anticipated.

#### Accomplishments

- Awarded a construction package of first six sites for Orange County Region
- Negotiations over the rights-of-way for five of the project sites have been completed, while negotiations for rights-of-way for seven additional project sites requiring rights-of-way in the Orange County Region are ongoing
- Negotiations over environmental permits for the Orange County Region project sites that require permits are ongoing

#### Upcoming Activities

Upcoming work for the next quarter will include:

- Orange County Region
  - Continue construction activities for the first six sites
  - Proceed with final design activities for the next group of project sites
- Western San Bernardino Region – Continue with final design activities on first group of project sites in the region



**Right of Way Infrastructure Protection Program:  
Erosion-Control Improvements for Six Sites in  
Orange County Region**

This project will construct erosion-control improvements for six sites in the Orange County region.

Phase	Construction & Closeout
% Complete for Current Phase	Initiated
Construction Contract Awarded	June 2020
Appropriation Number	15474
Contract Number	1924

Completed final design for six project sites and awarded a construction contract. Upcoming activities include initiation of submittals review and contractor mobilization at the first of six sites.

*Estimated Construction  
Completion Date:  
June 2021*

*Total Project Estimate:  
\$1.1 million*

*Current Phase Estimate:  
\$648,295*

*Cost to Date for Current Phase:  
\$3,485*



Access road to be improved along Allen-McColloch Pipeline

## 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 2018 through June 2020)**

\$9.13 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$26.54 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

**Status**

Biennium expenditures for this program are more than the planned expenditures through June 2020 since rehabilitation of the Greg Avenue Pump Station started earlier than planned

**Accomplishments**

- Restarted on-site construction work for the Greg Avenue Pump Station Rehabilitation after it was temporarily suspended under Metropolitan’s response to COVID-19

**Upcoming Activities**

Upcoming work for the next quarter will include:

- Continue construction at Greg Avenue Pump Station
- Continue design of the Perris Valley Pipeline Tunnels
- Continue record surveys of properties associated with the Verbena Land Acquisition



**System Flexibility/Supply Reliability Program:  
Greg Avenue Pump Station Rehabilitation**

This project will improve the reliability of the Greg Avenue Pump Station by replacing the existing pumps, control building, and surge tanks, and upgrading key electrical, mechanical, and control equipment at the facility.

Phase	Construction & Closeout
% Complete for Current Phase	64%
Construction Contract Awarded	February 2019
Appropriation Number	15488
Contract Number	1911

The contractor completed the delivery and installation of motor control center and medium voltage switchgear; completed installation of surge tank and pump pad foundations, and the HVAC units and conduits for HVAC power at the control building roof; and continued work on the ductbank installation.

In the upcoming quarter, the contractor plans to start installing the surge tank, and complete ductbank and medium voltage gear installation. LADWP plans to start transformer installation and energizing power to the larger facility.

*Estimated Construction*

*Completion Date:*

*January 2021*

*Total Project Estimate:*

*\$33.6 million*

*Current Phase Estimate:*

*\$27,082,000*

*Cost to Date for Current Phase:*

*\$19,106,258*



Surge tank and pump foundations

## 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 2018 through June 2020)

\$90.66 million

### Actual Biennium-to-date Expenditures (July 2018 through June 2020)

\$74.85 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

Status	Biennium expenditures for this program are less than planned through March 2020 due to significant variations in cash-flow due to project timing, particularly schedule delays on specific major projects.
Accomplishments	<ul style="list-style-type: none"> <li>• MWD Cyber Security Upgrade – Procured identity and access management components for the endpoint security solution</li> <li>• IT Datacenter Modernization and Relocation – Completed migration to production of MyHR (PeopleSoft) Oracle Cloud Initiative</li> <li>• Continued construction of Headquarters Building Improvements</li> </ul>
Upcoming Activities	<p>Upcoming work for the next quarter will include:</p> <ul style="list-style-type: none"> <li>• Boardroom Audiovisual Systems Upgrade <ul style="list-style-type: none"> <li>○ Authorize an agreement for equipment procurement and deployment; and initiate procurement</li> <li>○ Authorize an increase of change order authority for boardroom modifications to accommodate the new equipment</li> </ul> </li> <li>• Datacenter Modernization – Authorize an agreement for equipment procurement and initiate procurement</li> <li>• Cyber Security Operations Center Upgrade – Select Cyber Security Operations Center location and initiate acquisition of cybersecurity products</li> <li>• Desert Microwave Tower Sites Upgrade – Initiate pilot procurement</li> <li>• Water Ordering and Energy Scheduling System – Place water ordering functionality into production</li> <li>• Wifi Upgrade – Initiate design activities</li> </ul>

**Estimated Design Completion Date:**  
December 2020

**Total Project Estimate:**  
\$4.9 million

**Current Phase Estimate:**  
\$1.9 million

**Cost to Date for Current Phase:**  
\$1,096,186

**System Reliability Program:  
Cyber Security Operations Center Upgrade**

This project will upgrade the Cyber Security Operations Center (CSOC), purchase software and hardware tools, and implement emerging best practice cyber security measures. CSOC serves as the integration point and central monitoring hub for cyber threat detection. In addition to providing alerting capability when cyber threats are detected, CSOC also provides enhanced network access controls, as well as identity and access management, and security information and event management.

Phase	Design
% Complete for Current Phase	50%
Board Authorized	August 2018
Appropriation Number	15378

Identity and access management components of the CSOC Upgrade were forced ahead of the intended schedule due to COVID-19 remote work requirements. These items have been procured, and Two-Factor Authentication tokens are currently being deployed. In the upcoming quarter additional monitoring functionality will be provided as it becomes available.



2FA (two-factor authentication) token that can be carried on a key ring will replace employee user name and password once fully deployed

### System Reliability Program: Maximo Mobile Computing Upgrade

This project will replace existing mobile devices used in Water System Operations with the latest tablet technology. The devices will interact with Metropolitan’s maintenance management software (IBM Maximo) and facilitate access to existing mobile software systems that are not available using the existing legacy hardware devices.

Phase	Design
% Complete for Current Phase	90%
Design Authorized	December 2019
Appropriation Number	15501

Conducted review sessions with Conveyance & Distribution (C&D) teams participating in the pilot stage to determine what works and identify potential improvements. In the upcoming quarter, the team plans to issue additional iPads to the participating C&D teams, monitor usage, and provide additional functionality as it becomes available.

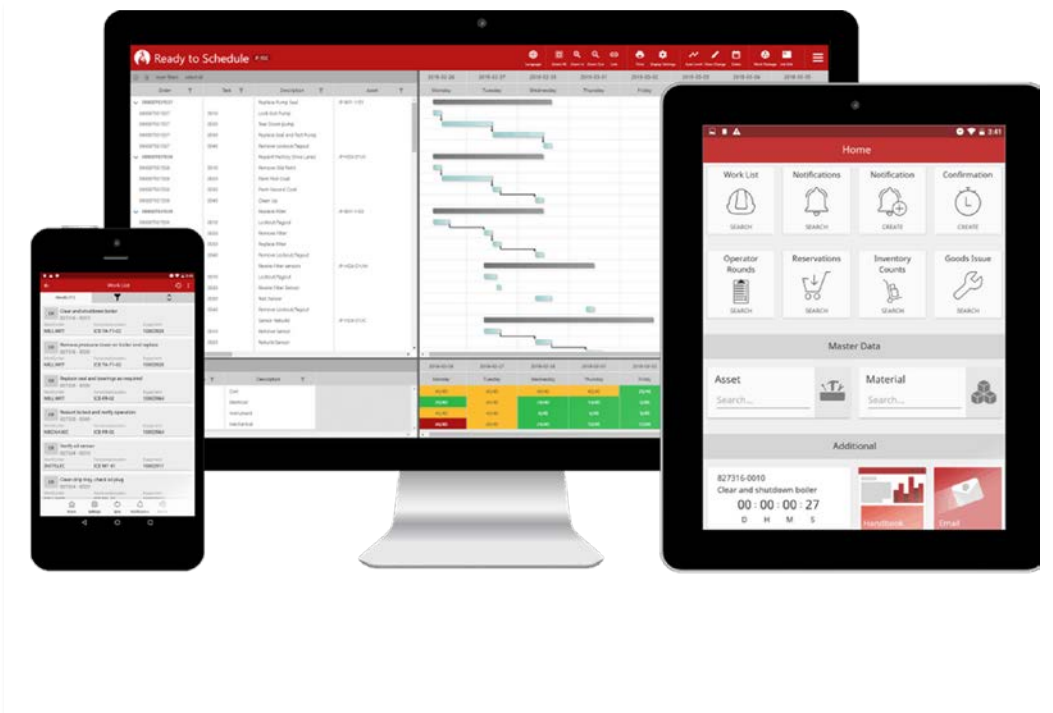
**Estimated Design Completion**

**Date:**  
July 2020

**Total Project Estimate:**  
\$630,000

**Current Phase Estimate:**  
\$60,000

**Cost to Date for Current Phase:**  
\$50,496



Mobile devices provide instant access to Maximo, asset drawings and photos, maps, and collaborative communications

## 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 2018 through June 2020)**

\$68.00 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$89.03 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

Status	Biennial expenditures for this program are more than planned through June 2020 due to shifts in timing of the work.
Accomplishments	<ul style="list-style-type: none"> <li>● Continued construction for the following:             <ul style="list-style-type: none"> <li>○ Diemer Water Sampling System Improvements</li> <li>○ Jensen Module Nos. 2 and 3 Flocculator Rehabilitation</li> <li>○ Mills Module Nos. 3 and 4 Flash Mix Chemical Containment Upgrades</li> <li>○ Weymouth Water Quality Instrumentation Improvements</li> </ul> </li> <li>● Restarted on-site construction activities for the following, after temporary suspension due to Metropolitan’s response to COVID-19:             <ul style="list-style-type: none"> <li>○ Diemer West Basin and Filter Building Rehabilitation</li> <li>○ Jensen Electrical Upgrades – Stage 2</li> <li>○ Weymouth Chlorine System Upgrade</li> <li>○ Weymouth Domestic Water System Improvements</li> </ul> </li> <li>● Started procurement of power supply units and dielectrics to rehabilitate the ozone generation system at the Jensen plant</li> <li>● Completed preliminary design of Weymouth Basins 5-8 Rehabilitation</li> </ul>
Upcoming Activities	<ul style="list-style-type: none"> <li>● Continue construction of:             <ul style="list-style-type: none"> <li>○ Diemer Water Sampling System Improvements</li> <li>○ Diemer West Basin and Filter Building Rehabilitation</li> <li>○ Jensen Module Nos. 2 and 3 Flocculator Rehabilitation</li> <li>○ Jensen Electrical Upgrades – Stage 2</li> <li>○ Mills Module Nos. 3 and 4 Flash Mix Chemical Containment Upgrades</li> <li>○ Weymouth Chlorine System Upgrade</li> <li>○ Weymouth Domestic Water System Improvements</li> <li>○ Weymouth Water Quality Instrumentation Improvements</li> </ul> </li> <li>● Continue procurement of Jensen ozone generator power supply units and dielectrics</li> <li>● Start final design of Weymouth Basins 5-8 Rehabilitation</li> <li>● Start final design of Mills Electrical Upgrades – Stage 2</li> </ul>



**Estimated Construction Completion Date:**  
**March 2021**

**Total Project Estimate:**  
**\$13.9 million**

**Current Phase Estimate:**  
**\$11.9 million**

**Cost to Date for Current Phase:**  
**\$4,074,196**

**Treatment Plant Reliability Program:  
 Jensen Module Nos. 2 & 3 Flocculator Rehabilitation**

This project rehabilitates the Module Nos. 2 and 3 flocculators at the Jensen Water Treatment Plant. The work includes replacing mechanical rotating assemblies, paddle boards, and baffle boards; and refurbishing bearing housings.

Phase	Construction & Closeout
% Complete for Current Phase	37%
Construction Contract Awarded	May 2019
Appropriation Number	15442
Contract Number	1931

Contractor completed procurement of new equipment in Basin Nos. 11 and 12, with installation planned for the upcoming quarter.



New fiberglass reinforced plastic paddle and baffle boards being installed in Basin No. 12

**Treatment Plant Reliability Program:  
Diemer West Basin & Filter Building Rehabilitation**

This project will rehabilitate the Diemer plant’s west flocculation/sedimentation basins and filter building. The work includes the replacement of treatment basin equipment, and filter valves, abatement of hazardous materials, and seismic strengthening of the filter building.

Phase	Construction & Closeout
% Complete for Current Phase	73%
Construction Contract Awarded	October 2018
Appropriation Number	15380
Contract Number	1900

Contractor completed all construction, commissioning, and testing activities in Basin Nos. 5 and 6 (now fully operational) and Filter Nos. 37-42; and initiated demolition activities in Basin No. 7. Upcoming activities for the next quarter include initiating equipment installation in Basin No. 7, and completing installation of valves and actuators in Filter Nos. 43-48.

*Estimated Construction  
Completion Date:  
March 2021*

*Total Project Estimate:  
\$56.6 million*

*Current Phase Estimate:  
\$44.2 million*

*Cost to Date for Current Phase:  
\$29,398,488*



Diemer West Basin No. 7: Removal of existing launders

## 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 2018 through June 2020)**

\$3.29 million

**Actual Biennium-to-date Expenditures  
(July 2018 through June 2020)**

\$3.25 million

### PROGRAM HIGHLIGHTS (4<sup>th</sup> Quarter)

Status

Biennial expenditures and progress are consistent with the plan for this program

Accomplishments

- Continued preparation of record drawings for the Weymouth Enhanced Bromate Control Facilities and Weymouth ORP Switchgear

Upcoming Activities

Upcoming work for the next quarter will include:

- Weymouth Enhanced Bromate Control Facilities – Continue with preparation of record drawings
- Weymouth ORP Switchgear – Complete record drawings



## **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 appropriates the entire two-year budget for the program. 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 established by the June 2018 Board action Item 8-3. Prior to that action, the budget cap for minor cap projects was \$250,000. Staff manages these projects so that each project is completed within three years of its initial authorization.

For the past two bienniums, the two-year budgets for the Minor Cap Program have been \$8 million and \$10 million, respectively. In June 2018, the Board appropriated an initial amount of \$10 million for the current biennium. An additional \$5.5 million, for a new total of \$15.5 million, was appropriated by the Board in January 2020. 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.

### **Minor Cap Program Historical Summary**

The following table provides the overall status of the Minor Cap appropriations for the fiscal years 2014/15–2015/16 through 2018/19–2019/20.

	Fiscal Year			Totals
	2014/15– 2015/16	2016/17– 2017/18	2018/19– 2019/20	
<b>Amount Appropriated</b>	\$8M	\$10M	\$15.5M	\$33.5M
<b>Expenditures through June 2020</b>	\$6.7M	\$6.8M	\$5.6M	\$19.1M
<b>Number of Projects Approved</b>	36	44	48	128
<b>Number of Projects Completed (through June 2020)</b>	35	24	6	65
<b>Percent of Work Complete</b>	99%	84%	51%	N/A
<b>Number of Projects with Durations of Over 3 Years</b>	1	1	0	2

Through June 2020, 65 of the 128 projects have been completed, and two active projects have exceeded three years in duration:

- Construction of the Mills Washwater Return Improvements was completed in June 2019, but additional time is required to complete record drawings. This project is scheduled to be complete by August 2020.
- The Jensen Washwater Reclamation Plant Flocculator Platform Improvements experienced delays as staff evaluated the needed reclamation plant capacity.

Planned biennium expenditures to date (July 2018 through June 2020) for the Minor Capital Projects Program were \$9.21 million, while actual biennium expenditures for the same period were \$8.92 million.

## Minor Cap Projects, 4<sup>th</sup> Quarter

### Authorized Projects

Five projects were authorized under the Minor Cap Program during the 4<sup>th</sup> Quarter of fiscal year 2019/20 (April through June 2020):

- Sunset Garage Security Upgrades – This project will enhance security of the Sunset garage vehicle maintenance facility by installing two motorized main entry gates along with new badge card readers and associated devices. The project budget is \$340,000.
- Sepulveda Feeder Stray Current Drain Station Improvements – This project will add three stray current mitigation drain stations on the Sepulveda Feeder to prevent corrosion of the prestressed concrete cylinder pipe. The project budget is \$248,000.
- Rialto Feeder Manhole Refurbishment – This project will replace and refurbish critical components of a manhole structure on Rialto Feeder, including the roof lid, riser rings, upper ring, and lower ring, all of which have deteriorated. The project budget is \$190,000.
- West Coast Feeder/Palos Verdes Feeder Interconnection Valve Automation – This project will install SCADA automation controls, pressure/flow instrumentation, and valve indication to the existing manually operated valves in the West Coast Feeder/Palos Verdes Feeder Interconnection structure. The project budget is \$388,000.
- Gene Communication System Reliability Improvement – This project will install 22 poles and approximately two miles of fiber optic cable from Parker Dam to the administration building at Gene Pumping Plant, to improve the network speed and enhance reliability and resiliency of the plant communication system. The project budget is \$370,000.

**Completed Projects**

Seven projects were completed under the Minor Cap Program during the 4<sup>th</sup> Quarter of fiscal year 2019/20 (April through June 2020):

- DVL Marina Water Tank Replacement
- Skinner Belt Filter Press Rehabilitation
- Temescal Hydroelectric Plant Generator Cooler Refurbishment
- Corona Hydroelectric Plant Generator Cooler Refurbishment
- Service Connection LA-35 Slide Gate Operator Rehabilitation
- Skinner ORP Switchgear Battery Replacement
- SCADA Network Intrusion Detection System

**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 4<sup>th</sup> Quarter of FY 2019/20, through the authority delegated by the Board in October 2018. The total funding amount authorized for new work during the 4<sup>th</sup> Quarter by the General Manager is \$390,000, through three 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 Minor Capital projects as well as any board items heard in closed session.

*Table 5: Capital Projects Funded by General Manager Authorization*

Project Authorized	Activity Authorized	Amount Authorized for Current Biennium	Total Amount Authorized
Capital Investment Plan Budget and Planning Tool	Procurement & Deployment	\$10,000	\$106,000
CRA Domestic Water Treatment System Replacement	Procurement	\$200,000	\$1,800,000
Diamond Valley Lake Floating Wave Attenuator – Stage 1 <sup>2</sup>	Design	\$180,000	\$180,000
	<b>Total</b>	<b>\$390,000</b>	<b>\$2,086,000</b>

<sup>2</sup> Project was authorized in Q3 of FY 2019/20

Table 6 lists projects that received additional funds for change orders from Appropriation No. 15509 during the 4<sup>th</sup> Quarter to complete authorized work. Reasons for these allocations include: additional cost to perform design due to differing field conditions or information gained during the study phase; increased inspection costs due to longer than anticipated construction durations; additional mobilization costs after suspension of construction due to COVID-19; additional costs to deal with construction contract claims; additional costs to develop options to address unanticipated input from permitting entities and/or land owners; additional costs to address design modifications; additional costs to complete record drawing preparation; and additional costs to break out and award multiple, smaller construction contracts to minimize shutdowns and reduce outages to member agencies during construction.

Table 6: General Manager Actions for Change Orders to Allocate Funds from Appropriation 15509

Project	Activity Authorized	Amount Authorized for Current Biennium
La Verne Shops Stage 4 Building Completion & Equipment Procurement	Design	\$500,000
Palos Verdes Reservoir Cover Replacement	Construction Claims Support	\$1,003,000
Palos Verdes Reservoir Facility Sewer Connection	Final Design	\$450,000
Lake Skinner Outlet Tower Seismic Upgrade	Study	\$200,000
Perris Valley Pipeline – Tunnels	Final Design	\$1,700,000
Mile 12 Flow And Chlorine Monitoring Station Upgrades	Design	\$800,000
Etiwanda Pipeline Lining Replacement – Stage 3	Design and Procurement	\$1,050,000
Mills Module Nos. 3 & 4 Flash Mix Chemical Containment	Construction	\$200,000
Hydroelectric Plant Rehabilitation	Project Planning	\$120,000
Detailed Reliability Improvements Of The Western San Bernardino County Operating Region	Final Design	\$1,900,000
Programmatic Environmental Documentation For Western San Bernardino Co. Operating Region	Environmental Documentation and Permitting	\$200,000
Right Of Way Survey And Mapping	Study	\$1,200,000
Middle Feeder Relocation For SCE Mesa Substation	Construction	\$3,000,000
CRA Overhead Crane Replacement	Design	\$830,000
CRA Main Pump Rehabilitation (Stage 1) – Demonstration	Final Design, procurement, and installation	\$950,000
CRA Delivery Line Rehabilitation	Study	\$220,000

Project	Activity Authorized	Amount Authorized for Current Biennium
CRA Water Distribution System Replacement – Hinds & Eagle Mountain	Design	\$650,000
Jensen Fluoride Tank Replacement	Final Design and Construction	\$500,000
Lake Mathews Wastewater System Replacement	Final Design	\$100,000
CRA Housing Improvements – Renovation of Short Term Accommodations at Eagle Mtn. and Iron Mtn. Pumping Plants	Final Design	\$137,000
Enterprise Content Management – Phase 1	Design	\$220,000
Weymouth Hazardous Waste Staging and Containment	Preliminary Design	\$65,000
Skinner Finished Water Reservoir Slide Gate Rehabilitation	Construction	\$416,000
<b>Total:</b>		<b>\$16,411,000</b>

Due to a reduction or increase in anticipated expenditures through June 2020 on the following projects, approximately \$37.7 million was returned to and \$32.0 million was reallocated from the CIP Appropriation (Appropriation No. 15509). Reallocations from Appropriation No. 15509 were distributed to the previously authorized projects listed in Table 7 below. While these reallocations changed the biennial funded amount, the total authorized funding for each project remained the same.

Table 7: General Manager Actions to Reallocate Capital Project Funds

Project	Amount Authorized for Reallocation To/From CIP Appn.	Total Amount from CIP Appn. for Current Biennium
Lake Mathews Sodium Hypochlorite Tank Rehabilitation	\$(1,000,000)	\$49,996
West Valley Feeder No. 1 – De Soto Valve Structure	\$(1,500,000)	\$616,433
CRA 6.9 kV Power Cables Replacement	\$(1,800,000)	\$18,241,358
CRA Pump Plant Sump System Rehabilitation	\$(10,400,000)	\$2,447,500
Jensen Modules Nos. 2 & 3 Flocculator Refurbishment	\$(3,000,000)	\$2,918,005
Jensen Electrical Upgrades – Stage 2	\$(5,000,000)	\$3,598,956



Table 7: General Manager Actions to Reallocate Capital Project Funds

Project	Amount Authorized for Reallocation To/From CIP Appn.	Total Amount from CIP Appn. for Current Biennium
System-wide Control System Upgrade	\$(1,973,610)	\$-
Weymouth Chlorination System Upgrades	\$(2,300,000)	\$7,745,009
Electrical Upgrades at 290 Structures in the Orange County Region	\$(1,900,000)	\$900,000
Desert Microwave Tower Site Upgrades (Phase 1 of 2)	\$(1,600,000)	\$515,507
Second Lower Feeder PCCP Rehabilitation Valve Procurement	\$(3,500,000)	\$271,000
Second Lower Feeder PCCP Rehabilitation – Reach 4	\$(3,700,000)	\$17,697,130
Gene Wash Reservoirs Discharge Valve Rehabilitation	\$1,600,000	\$2,600,000
CRA Radial Gates Replacement	\$750,000	\$5,507,200
Headquarters Improvements	\$8,500,000	\$32,263,000
CRA Discharge Line Isolation Couplings Assemblies	\$4,000,000	\$18,788,615
CRA Conduit Structural Protection	\$50,000	\$650,000
CRA Domestic Water Treatment System Replacement	\$400,000	\$600,000
Second Lower Feeder PCCP Rehabilitation – Reach 2	\$11,500,000	\$47,641,360
Second Lower Feeder PCCP Rehabilitation – Reach 3	\$5,000,000	\$12,353,956
Skinner Finished Water Reservoir Slide Gate Rehabilitation	\$234,235	\$1,114,000
<b>Total:</b>	<b>\$(5,639,375)</b>	

## **CEQA DETERMINATIONS**

Table 8 lists CEQA exemption determinations made by the General Manager during the 4<sup>th</sup> Quarter. Consistent with CEQA, the Board delegated this authority to the General Manager in October 2018. 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 8: CEQA Exemption Determinations*

Projects
Red Mountain Power Plant Rehabilitation – High Pressure Skid Upgrade
Lake Mathews Wastewater System Replacement
Garvey Reservoir Drainage & Erosion Control Improvements – Zones 6 to 8 and 10 & 11

## CONSTRUCTION AND PROCUREMENT CONTRACTS

The table below summarizes the status of all active construction and procurement contracts that were awarded by the Board during the reporting quarter. Total contract earnings for the 4<sup>th</sup> Quarter were approximately \$25,354,461. At the end of the 4<sup>th</sup> quarter, only one construction contract was still suspended due to the Covid-19 pandemic, the CRA Pumping Plants – Sump Rehabilitation. The suspended contract will be reexamined the first quarter of FY 2020/21 to determine risks associated with the pandemic to both the contractor and Metropolitan personnel, and construction activities could be resumed if it is determined to be safe for all parties.

*Table 9: Summary of Construction and Procurement Contracts during 4<sup>th</sup> Quarter  
(April through June 2020)*

Summary	Construction	Procurement
Number of Contracts Active during this Quarter <sup>3</sup>	24	16
Total Contract Amount of Active Contracts	\$313,293,460	\$73,795,857
Number of Contracts Completed this Quarter <sup>4</sup>	5	1
Number of Contracts Awarded this Quarter	1	2
Total Contract Amount of Contracts Awarded this Quarter	\$429,295	\$1,398,720
Contract Earnings <sup>5, 6, 7</sup> this Quarter	\$24,582,758	\$771,703

The figures on the next two pages show the locations of the twenty four active and recently completed construction contracts.

<sup>3</sup> Number of Contracts Active during this Quarter includes those that were underway as well as those that were completed during the 4<sup>th</sup> Quarter.

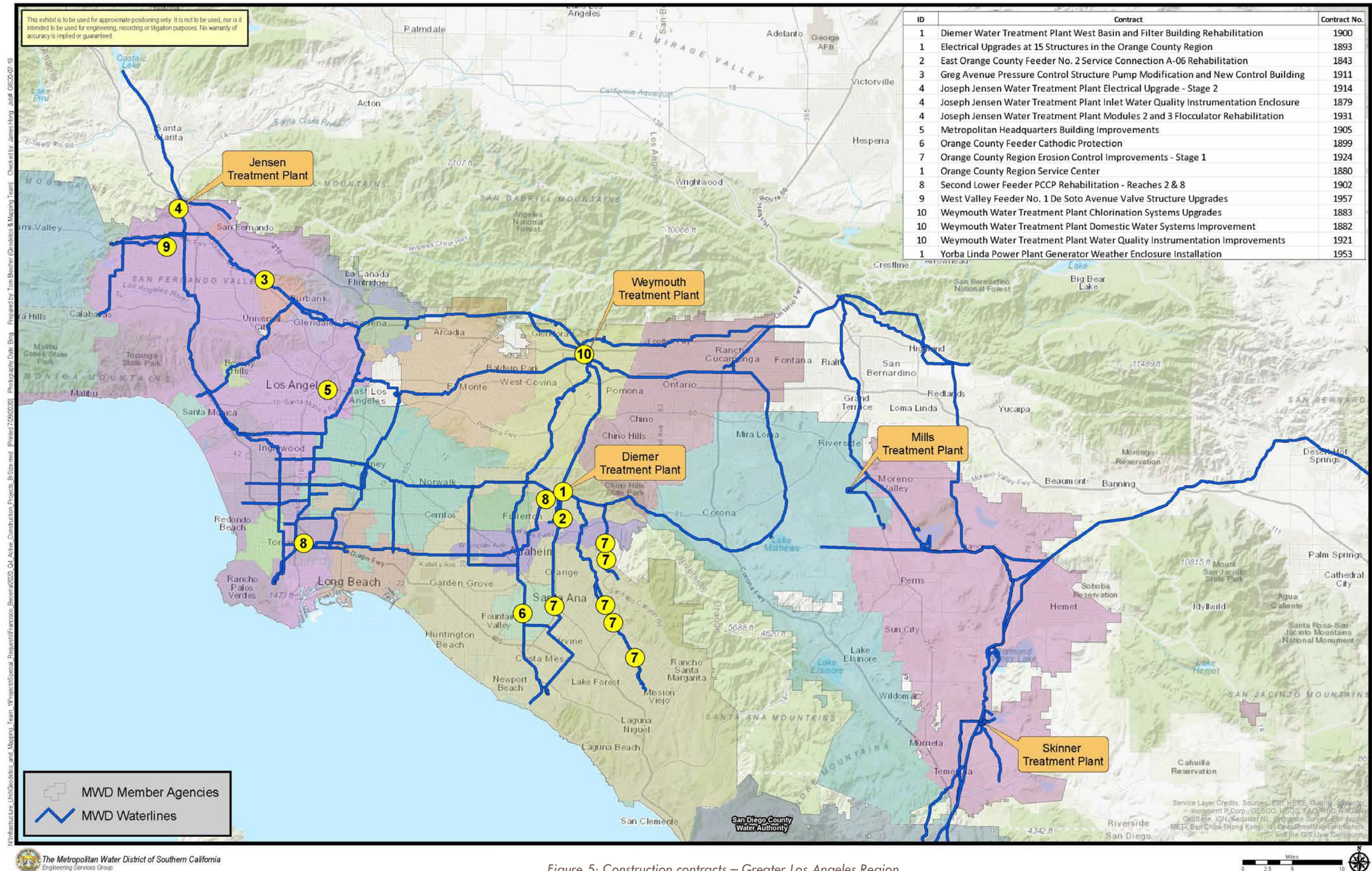
<sup>4</sup> Completed construction contracts are those which Metropolitan has accepted as physically complete and has filed Notice of Completion during the 4<sup>th</sup> Quarter. Completed procurement contracts are those which Metropolitan has received complete delivery and use of field services during the 4<sup>th</sup> Quarter. No procurement contracts were completed during the 4<sup>th</sup> Quarter.

<sup>5</sup> Contract earnings reflected in this report represent the value of the work performed by the contractor by the 25<sup>th</sup> 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.

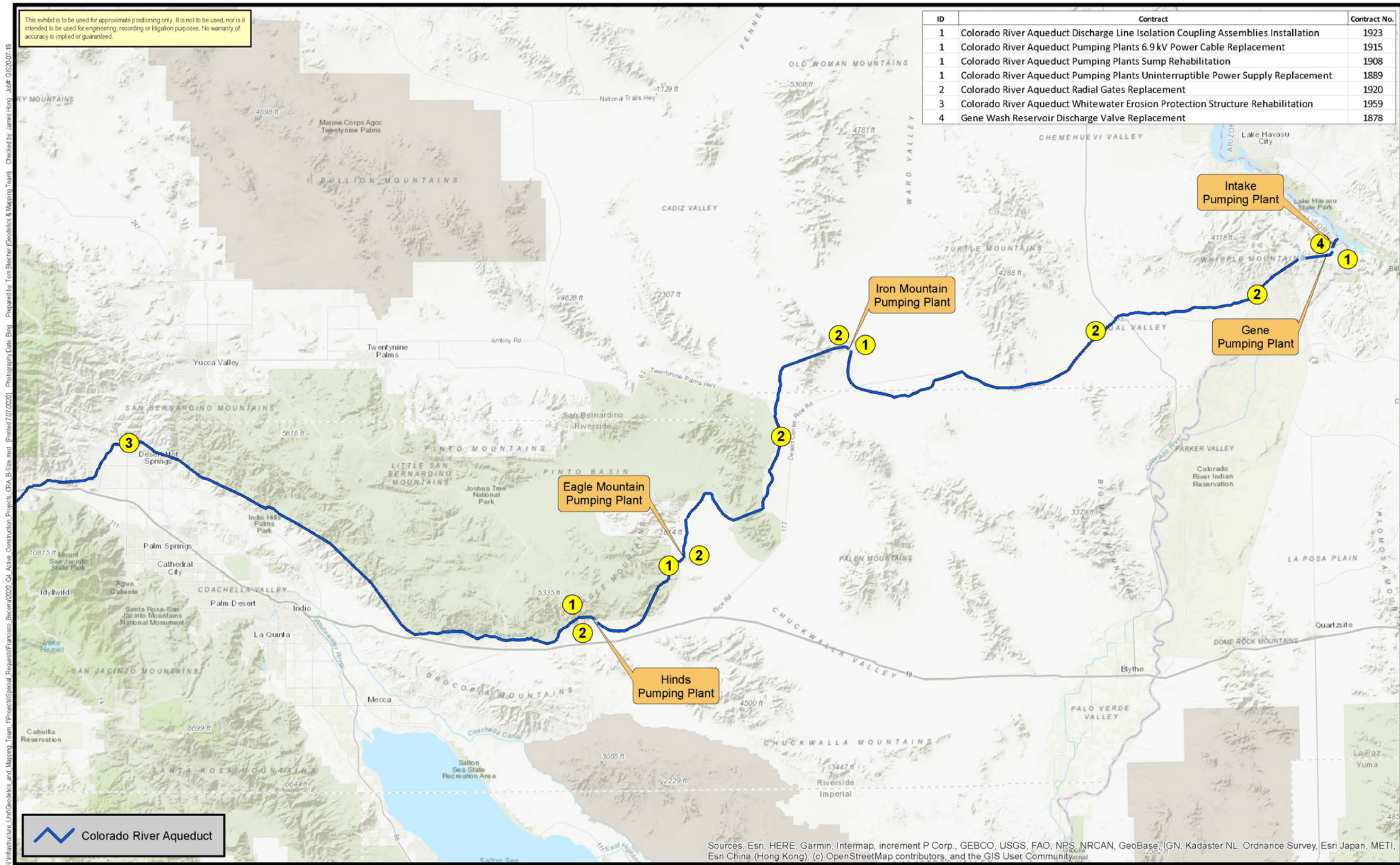
<sup>6</sup> Contract payments are typically made by Metropolitan in the month following performance of the work.

<sup>7</sup> For the reasons listed above in the preceding two footnotes, contract payments in Metropolitan's financial system will be less than the earnings until the final payment has been made to the contractor.









This exhibit is to be used for approximate positioning only. It is not to be used, nor is it intended to be used for engineering, recording or litigation purposes. No warranty of accuracy is implied or guaranteed.

M:\Infrastructure\GIS\Projects\Special Requests\Franco Bernal\2020\_04\_Active Construction Projects\_CRA\_B-Site.mxd [Printed 7/27/2020] Photography Date: Bing Prepared by: Tom Blecher (Geodetics & Mapping Team) Checked by: James Hong (GIS/2020/19)

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Figure 6: Construction contracts – Colorado River Aqueduct



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 the 4<sup>th</sup> Quarter, the Board authorized an increase of \$4.0 million to the General Managers change order authority for construction Contract No. 1902 for the Second Lower Feeder PCCP Rehabilitation – Reach 2, to address urgent prestressed concrete cylinder pipe relining on the Second Lower Feeder – Reach 8 in the city of Placentia.

### **Notice of Completion during 4<sup>th</sup> Quarter:**

The following table shows the five contracts for which Metropolitan accepted the contract as completed during the 4<sup>th</sup> Quarter of FY 2019/20 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.

*Table 10: Notice of Completion Filed This Quarter*

Contract No.	Contract	Notice of Completion	Original Bid Amount	Final Contract Costs	Change Order	Change Order %
1879	Jensen WTP Inlet Water Quality Instrumentation Enclosure	April 2020	\$985,000	\$970,640	(\$14,360)	-1.46%
1889	CRA Pumping Plants Uninterruptible Power Supply Replacement	June 2020	\$939,000	\$925,727	(\$13,273)	-1.41%
1899	Orange County Feeder Cathodic Protection	June 2020	\$556,000	*	*	*
1953	Installation of Yorba Linda Generator Enclosure	June 2020	\$475,000	\$475,000	-	0%
1959	CRA Whitewater Erosion Protection Structure Rehabilitation	May 2020	\$3,634,250	\$3,602,025	-	0%
<b>Totals:</b>			<b>\$6,589,250</b>			

For the 4<sup>th</sup> quarter, the total amount of completed contracts was approximately \$6.6 million. For Contract Number 1899, although Notice of Completion was filed during the reporting quarter, the final contract cost and change order amount are unknown due to outstanding pending issues. Final contract costs shown represent actual earnings as of the end of the quarter and may be refined based on resolution of pending issues subsequent to the completion date.

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. Contract No. 1959 included unit price items.



The rolling average of change orders on completed contracts during the preceding 12-month period (July 2019 through June 2020) is 1.74<sup>8</sup>.

**Contracts Awarded during 4<sup>th</sup> Quarter:**

During the period of April through June 2020, one construction contract totaling \$429,295 and two procurement contracts totaling \$1,398,720.16 were awarded.

*Table 11: Construction Contracts Awarded This Quarter*

<b>Construction Contracts</b>	
<b>Orange County Region Erosion Control Improvements – Stage 1</b>	
Contract Number	1924
Contractor	Pride Construction Engineering Services
Amount	\$429,295
<b>Procurement Contracts</b>	
<b>Furnishing Membrane Filtration Systems for the CRA Domestic Water Treatment Systems</b>	
Contract Number	1955
Contractor	Wigen Water Technologies
Amount	\$1,206,535
<b>Furnishing Inlet Valve Gearboxes for Skinner Module No. 7</b>	
Contract Number	1969
Contractor	R&B Automation, Inc.
Amount	\$192,185.16

The table on the following page lists the 19 ongoing construction contracts through the end of the 4<sup>th</sup> Quarter. Construction Contract No. 1908 continued to have on-site work suspended at the end of the 4<sup>th</sup> Quarter due to Metropolitan’s response to COVID-19.

<sup>8</sup> Original amount of contracts completed (July 2019 through June 2020)	=	\$50,342,547
Change orders for completed contracts (July 2019 through June 2020)	=	\$873,451
Change order percentage for (July 2019 through June 2020)	=	1.74%

Table 12: Active Construction Contracts at the End of 4<sup>th</sup> Quarter

Cont. No.	Contract Title	Contractor	Contract Amount <sup>9</sup>	Earnings Through June 2020	Start Date	Est. Completion Date	Est. Percent Complete	
1	1878	Gene Wash Reservoir Discharge Valve Replacement	Gracon, LLC	\$5,316,900	\$222,504	1/21/20	6/21	4%
2	1880	Orange County Region Service Center	R.I.C. Construction Co.	\$9,474,274	\$9,204,348	4/17/18	7/20	97%
3	1882	Weymouth Plant Domestic Water Systems Improvement	Mladen Buntich Construction Company, Inc.	\$3,945,000	\$3,633,979	6/4/18	7/20	92%
4	1883	F. E. Weymouth Water Treatment Plant Chlorination Systems Upgrades	J. F. Shea Construction, Inc.	\$8,487,170	\$6,484,940	1/28/19	1/21	76%
5	1893	Electrical Upgrades at 15 Structures in the Orange County Region	Minako America Corp dba Minco Construction	\$2,606,700	\$2,597,129	12/14/18	8/20	99%
6	1900	Diemer Water Treatment Plant West Basin and Filter Building Rehabilitation	Environmental Construction, Inc.	\$38,539,196	\$28,245,641	11/13/18	1/21	73%
7	1902 <sup>10</sup>	Second Lower Feeder PCCP Rehabilitation – Reach 2	J. F. Shea Construction, Inc.	\$58,087,826	\$50,674,065	6/12/19	12/20	87%
8	1905	Metropolitan Headquarters Building Improvements	Bernards Bros. Inc.	\$43,725,269	\$28,168,145	1/14/19	6/22	64%
9	1908	CRA Pumping Plants – Sump Rehabilitation	Michels Corp dba Michels Pipeline Construction	\$26,900,000	\$1,134,254	1/24/19	3/22	4%
10	1911	Greg Avenue Pressure Control Structure – Pump Modification and New Control Building	J. F. Shea Construction, Inc.	\$21,560,700	\$13,921,848	3/7/19	12/20	65%
11	1914	Joseph Jensen Water Treatment Plant Electrical Upgrade – Stage 2	Helix Electric, Inc.	\$14,784,000	\$2,317,190	8/14/19	4/22	16%
12	1915	Colorado River Aqueduct Pumping Plants 6.9 kV Power Cable Replacement	Baker Electric, Inc.	\$16,452,832	\$11,015,509	3/11/19	9/20	67%

<sup>9</sup> 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.

<sup>10</sup> Contract 1902 includes work on Reach 8 of the Second Lower Feeder PCCP per June 2020 Board letter.

Cont. No.	Contract Title	Contractor	Contract Amount <sup>9</sup>	Earnings Through June 2020	Start Date	Est. Completion Date	Est. Percent Complete	
13	1920	Colorado River Aqueduct – Installation of Radial Gates at Seven Facilities	McMillen, LLC dba McMillen Jacobs Associates	\$10,439,354	\$4,791,931	9/18/19	6/21	46%
14	1921	F. E. Weymouth Water Treatment Plant Water Quality Instrumentation Improvements	Mehta Mechanical Company, Inc. dba MMC, Inc.	\$2,944,000	\$1,098,863	9/16/19	2/21	37%
15	1923	Colorado River Aqueduct – Discharge Line Isolation Couplings and Bulkheads Installation	J. F. Shea Construction, Inc.	\$32,946,000	\$18,249,209	9/27/19	6/21	55%
16	1924	Orange County Region Erosion Control Improvements – Stage 1	Pride Construction Engineering Services	\$429,295	\$0	7/6/20	6/21	0%
17	1931	Joseph Jensen Water Treatment Plant Modules 2 and 3 Flocculator Rehabilitation	Myers & Sons Construction, LLC	\$8,888,000	\$3,305,407	6/14/19	2/21	37%
18	1943	East Orange County Feeder No. 2 Service Connection A-06 Rehabilitation	Kaveh Engineering & Construction, Inc.	\$594,480	\$391,107	11/14/19	9/20	66%
19	1957 <sup>11</sup>	West Valley Feeder No. 1 De Soto Avenue Valve Structure Upgrades	Kaveh Engineering & Construction, Inc.	\$594,800	\$20,000	2/20/20	TBD	3%
<b>Total contract value for active construction contracts:</b>			<b>\$306,715,796</b>					

<sup>11</sup> The Estimated Completion Date for Contract No. 1957 is unknown at this time due to the cancellation of the shutdown during which construction was to have occurred. The prime contractor has agreed to maintain the contract on a non-compensable basis until the next shutdown.

The following table lists the 15 ongoing procurement contracts through the end of the 4<sup>th</sup> Quarter.

Table 13: Active Procurement Contracts at the End of 4<sup>th</sup> Quarter

Cont. No.	Contract	Contractor	Contract Amount <sup>12</sup>	Earnings Through June 2020	Start Date	Est. Delivery Completion Date	Est. Percent Complete <sup>13</sup>	
1	1851	Furnishing Horizontal Axially Split Centrifugal Pumps for the Greg Avenue Pump Station	Xylem Water Solutions U.S.A., Inc.	\$1,492,290	\$478,878	5/16/17	10/20	32%
2	1861	Furnishing Lubricated Plug Valves for Second Lower Feeder	Southwest Valve & Equipment, Inc.	\$2,380,909	\$2,362,968	9/11/17	Delivered	99%
3	1867	Furnishing Butterfly Valves for the Weymouth Water Treatment Plant – Schedule 1	Crispin Valve, LLC	\$4,866,067	\$0	12/18/17	9/20	0%
4	1868	Furnishing Butterfly Valves for the Weymouth Water Treatment Plant – Schedule 2	DeZurick, Inc.	\$771,984	\$0	12/18/17	12/20	0%
5	1873	Furnishing One Hydraulic Shear System for the La Verne Maintenance Shops	Landmark Solutions, LLC	\$151,870	\$146,970	3/21/18	Delivered	97%
6	1912	Furnishing Large-Diameter Conical Plug Valves	Ebara Corporation	\$23,750,060	\$3,113,029	12/24/18	6/23	13%
7	1922	Furnishing One Double Column Vertical Machining Center for the La Verne Maintenance Shops	Gosiger Machine Tools, LLC (Gosiger West)	\$2,193,356	\$1,967,295	9/17/18	Delivered	91%
8	1948	Refurbishing Valve Actuators for the Diemer Water Treatment Plant	Flowserve Limatorque	\$3,532,700	\$996,900	2/16/19	3/21	28%
9	1955	Furnishing Membrane Filtration Systems for the CRA Domestic Water Treatment Systems	Wigen Water Technologies	\$1,206,535	\$0	5/28/20	10/22	0%
10	1965	Furnishing Equipment for the Jensen Ozone Power Supply Units Upgrades	Suez Treatment Solutions, Inc.	\$4,100,000	\$0	3/30/20	3/22	0%
11	1968	Furnishing Earthquake-Resistant Ductile Iron Pipe for the Casa Loma Siphon Barrel No. 1	Kubota Corporation	\$9,237,782	\$0	2/12/20	9/20	0%
12	1969	Furnishing Inlet Valve Gearboxes for Skinner Module No. 7	R&B Automation, Inc.	\$192,185	\$0	4/29/20	4/21	0%

<sup>12</sup> 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.

<sup>13</sup> 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.

Cont. No.	Contract	Contractor	Contract Amount <sup>12</sup>	Earnings Through June 2020	Start Date	Est. Delivery Completion Date	Est. Percent Complete <sup>13</sup>	
13	1978	Furnishing Steel Pipe for the Casa Loma Siphon Barrel No. 1	Northwest Pipe Company	\$6,134,208	\$0	1/16/20	12/20	0%
14	PO 188 876	Furnish Two Sodium Hypochlorite Storage Tanks to Replace Existing Tanks at Lake Mathews	Pacific Mechanical Supply	\$331,996	\$0	5/20/19	12/20	0%
15	PO 381 488	Furnishing Equipment to Upgrade the Ozone Control System at Skinner Water Treatment Plant	Royal Industrial Solutions	\$476,000	\$0	4/16/20	3/21	0%
<b>Total contract value for active procurement contracts:</b>			<b>\$60,817,942</b>					

## 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 less than \$3 million, and those with projected construction costs greater 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 15%	9% to 15%
Projects with Construction Costs > \$3 Million	9% to 12%	9% to 12%

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 14 and Table 15 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 14: Performance Metric Actuals, Projects < \$3 Million

Project	Metric	Actual Cost of Metric	Construction Cost	Target Range	Actual %
Erosion-Control Improvements for Six Sites in Orange County Region	Final Design	80,000	\$429,295	9-15%	18.6% <sup>14</sup>
CRA Pumping Plants Uninterruptible Power Supply Replacement	Inspection	\$270,206	\$968,886	9-15%	27.9% <sup>15</sup>
Orange County Feeder Cathodic Protection	Inspection	\$54,073	\$669,000	9-15%	8.1%
Jensen Inlet Water Quality Instrumentation Enclosure	Inspection	\$227,333	\$1,325,854	9-15%	17.1% <sup>16</sup>
Yorba Linda Power Plant Generator Weather Enclosure Installation	Inspection	\$30,610	\$550,231	9-15%	5.6%

Table 15: Performance Metric Actuals, Projects > \$3 Million

Project	Metric	Actual Cost of Metric	Construction Cost	Target Range	Actual %
CRA Whitewater Erosion Protection Structure Rehabilitation	Inspection	\$148,503	\$3,602,025	9-12%	4.1%

<sup>14</sup> Final Design costs for Erosion-Control Improvements for Six Sites in Orange County Region were higher than the target range due to re-design resulting from strong storm events which changed topographical site conditions. Also, the contract work was phased to expedite the work on sites that do not require complex permitting requirements for erosion-control improvements.

<sup>15</sup> Inspection costs for CRA Pumping Plants Uninterruptible Power Supply Replacement were higher than the target range due to longer than anticipated time to complete construction and poor planning by the contractor, which required additional inspection time to cover the work at all five pumping plants.

<sup>16</sup> Inspection costs for Jensen Inlet Water Quality Instrumentation Enclosure were higher than the target range due to contractor-caused delays and longer than anticipated time to complete construction, which required additional inspection.

## **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 (April through June 2020).

### **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**

Progress, costs, and future plans for the projects listed below were evaluated by Engineering Services, Finance, Water System Operations, and Information Technology. This assessment determined that no further work on these projects is warranted. All of the listed projects received the necessary Board authorization for various levels of effort conducted. However, no Metropolitan capital asset was ever placed into service. Accrued costs have been expensed since no capital asset will be constructed in the foreseeable future.

All of the funds appropriated to perform the authorized work for these projects will be returned to funds available for allocation, and the affected Appropriations will be reduced accordingly.

*Table 16: Projects Expensed to Overhead*

<b>Project</b>	<b>Expensed Amount</b>
Diamond Valley Recreation Program – East Marina Lake Improvements	\$63,062
Diamond Valley Recreation Program – Salt Creek Improvements	\$59,912
Jensen Filtration Plant – Module 1 Traveling Bridge Repairs	\$290,108
Diamond Valley Lake (Owen) Dam Slope Protection Assessment	\$144,746
Oxidation Demonstration Plant Rehabilitation – Preliminary Design Report	\$218,091

## 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 17: Program and Appropriation Budget vs. Cost and Planned Expenditures vs. Actuals

Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
<b>Colorado River Aqueduct Reliability Program</b>	<b>Total</b>	<b>\$348,671</b>	<b>\$332,200</b>	<b>\$101,722</b>	<b>\$86,216</b>
Cabazon Radial Gate Facility Improvements	15320	\$696	\$626	\$0	\$172
White Water Siphon Protection	15341	\$15,223	\$14,490	\$2,941	\$5,136
CRA - Conveyance Reliability	15373	\$108,028	\$107,498	\$11,066	\$6,520
CRA - Pumping Plant Reliability	15374	\$24,467	\$23,989	\$3	\$2
CRA - Electrical/Power Systems Reliability	15384	\$45,751	\$40,839	\$20,210	\$18,313
CRA - Reliability for FY2006/07 through FY2011/12	15438	\$97,952	\$94,783	\$17,607	\$18,301
CRA Main Pump Reliability	15481	\$30,879	\$27,623	\$16,583	\$24,527
CRA - Reliability for FY2012/13 through FY2017/18	15483	\$24,320	\$21,128	\$29,356	\$12,021
CRA - Reliability for FY2018/19 through FY2023/24	15507	\$1,355	\$1,225	\$3,957	\$1,225
<b>Cost Efficiency &amp; Productivity Program</b>	<b>Total</b>	<b>\$2,206,548</b>	<b>\$2,169,906</b>	<b>\$8,025</b>	<b>\$9,701</b>
Diamond Valley Lake Program	15123	\$2,007,458	\$1,997,689	\$0	\$10
DVL Recreation Facilities	15334	\$87,064	\$63,921	\$800	\$53
Power Reliability and Energy Conservation	15391	\$54,795	\$52,842	\$24	\$660
Information Technology System - Business, Finance, and HR	15411	\$22,468	\$22,340	\$893	\$732
Yorba Linda Power Plant Modifications	15446	\$17,125	\$17,013	\$0	\$21
Business Operations Improvement	15484	\$7,280	\$6,686	\$1,608	\$772
Project Controls and Reporting System	15490	\$6,440	\$5,954	\$2,319	\$4,286

Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Enterprise Content Management	15500	\$1,900	\$1,601	\$2,380	\$1,306
Property Acquisition, 4725 Via Corona, City Of Yorba Linda	15514	\$1,778	\$1,751	\$0	\$1,751
DVL Recreation Rehabilitation & Refurbishment	15515	\$240	\$110	\$0	\$110
<b>Distribution System Reliability Program</b>	<b>Total</b>	<b>\$379,771</b>	<b>\$347,778</b>	<b>\$107,269</b>	<b>\$83,153</b>
Conveyance and Distribution System - Rehabilitation	15377	\$95,486	\$93,442	\$24,455	\$13,506
Reservoir Cover and Replacement	15417	\$52,964	\$52,516	\$20,204	\$14,270
Dam Rehabilitation & Safety Improvements	15419	\$10,310	\$8,672	\$11,076	\$2,417
Conveyance and Distribution System - Rehabilitation for FY2006/07 through FY2011/12	15441	\$107,829	\$103,516	\$3,824	\$8,557
Hydroelectric Power Plant Improvements	15458	\$18,247	\$14,704	\$3,720	\$7,158
Conveyance and Distribution System - Rehabilitation for FY2012/13 through FY2017/18	15480	\$87,442	\$70,880	\$39,929	\$33,198
Pipeline Rehabilitation and Replacement	15482	\$573	\$204	\$0	\$204
Conveyance and Distribution System - Rehabilitation for FY2018/19 through FY2023/24	15503	\$6,920	\$3,844	\$4,062	\$3,844
<b>District Housing &amp; Property Improvements Program</b>	<b>Total</b>	<b>\$1,500</b>	<b>\$929</b>	<b>\$0</b>	<b>\$929</b>
Employee Village Enhancement	15513	\$1,500	\$929	\$0	\$929
<b>Minor Capital Projects Program</b>	<b>Total</b>	<b>\$47,000</b>	<b>\$30,502</b>	<b>\$9,213</b>	<b>\$8,923</b>
Capital Program for Projects Costing Less Than \$250,000 for FY2010/11	15468	\$3,500	\$3,002	\$0	\$29
Capital Program for Projects Costing Less Than \$250,000 for FY2012/13 through FY2013/14	15476	\$10,000	\$8,432	\$0	-\$26
Capital Program for Projects Costing Less Than \$250,000 for FY2014/15 through FY2015/16	15489	\$8,000	\$6,694	\$1,068	\$600
Capital Program for Projects Costing Less Than \$250,000 for FY2016/17 through FY2017/18	15498	\$10,000	\$6,759	\$4,742	\$2,704

Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Capital Program for Projects Costing Less Than \$400,000 for FY2018/19 through FY2019/20	15504	\$15,500	\$5,616	\$3,404	\$5,616
<b>Prestressed Concrete Cylinder Pipe Rehabilitation Program</b>	<b>Total</b>	<b>\$259,208</b>	<b>\$228,120</b>	<b>\$92,352</b>	<b>\$121,665</b>
Assess Condition Of Metropolitan's Prestressed Concrete Cylinder Pipe	15297	\$7,870	\$7,870	\$0	\$196
PCCP Rehabilitation and Replacement	15471	\$24,243	\$20,457	\$3,897	\$2,372
Sepulveda Feeder PCCP Rehab	15496	\$26,310	\$23,026	\$2,496	\$7,827
Second Lower Feeder PCCP Rehab	15497	\$190,155	\$173,630	\$77,608	\$108,132
Allen-McColloch Pipeline, Calabasas Feeder, and Rialto Pipeline PCCP Rehabilitation	15502	\$10,630	\$3,137	\$8,351	\$3,137
<b>Regional Recycled Water Supply Program</b>	<b>Total</b>	<b>\$21,000</b>	<b>\$20,928</b>	<b>\$4,192</b>	<b>\$13,203</b>
Demonstration-Scale Recycled Water Treatment Plant	15493	\$21,000	\$20,928	\$4,192	\$13,203
<b>Regulatory Compliance Program</b>	<b>Total</b>	<b>\$170,234</b>	<b>\$168,026</b>	<b>\$8,253</b>	<b>\$995</b>
Chlorine Containment and Handling Facilities	15346	\$162,370	\$160,447	\$0	\$815
CRA - Discharge Containment	15385	\$7,864	\$7,579	\$8,253	\$179
<b>Right of Way &amp; Infrastructure Protection Program</b>	<b>Total</b>	<b>\$23,830</b>	<b>\$22,978</b>	<b>\$12,386</b>	<b>\$1,371</b>
Right of Way & Infrastructure Protection	15474	\$23,830	\$22,978	\$12,386	\$1,371
<b>System Flexibility/Supply Reliability Program</b>	<b>Total</b>	<b>\$656,377</b>	<b>\$616,829</b>	<b>\$9,133</b>	<b>\$26,541</b>
Hayfield and Lake Perris Groundwater Recovery	15402	\$1,500	\$857	\$1,767	\$608
Perris Valley Pipeline	15425	\$129,100	\$128,186	\$319	\$2,716
Joint Water Purification Study	15462	\$947	\$686	\$0	\$0
Water Delivery System Improvements	15488	\$53,149	\$49,489	\$1,588	\$21,036
Verbena Property Acquisition	15492	\$264,000	\$260,479	\$3,443	\$1,982

Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Delta Wetlands Properties (Delta Islands)	15494	\$196,000	\$177,131	\$2,016	\$200
Wegis & Wey Property Acquisition	15511	\$11,681	\$0	\$0	\$0
<b>System Reliability Program</b>	<b>Total</b>	<b>\$264,855</b>	<b>\$236,224</b>	<b>\$90,656</b>	<b>\$74,852</b>
Information Technology System - Infrastructure	15376	\$50,321	\$45,714	\$13	\$1,170
Information Technology System - Security	15378	\$9,621	\$8,232	\$2,988	\$1,874
La Verne Shop Facilities Upgrade	15395	\$45,560	\$45,490	\$7,755	\$4,306
Quagga Mussel Control Program	15447	\$10,796	\$10,596	\$0	\$0
Water Operation Control	15467	\$49,440	\$39,320	\$19,416	\$16,095
Union Station Headquarters Improvements	15473	\$51,958	\$48,980	\$24,263	\$38,000
IT Infrastructure Reliability	15487	\$20,840	\$16,693	\$13,855	\$4,655
Operations Support Facilities Improvement	15495	\$18,208	\$16,788	\$8,933	\$5,727
Metropolitan Security System Enhancements	15499	\$4,271	\$2,758	\$6,430	\$1,425
Infrastructure Reliability Information System	15501	\$3,402	\$1,505	\$2,837	\$1,454
System-Wide Paving & Roof Replacements for FY 2018/19 through FY 2019/20	15516	\$439	\$147	\$1,397	\$147
Enterprise Data Analytics	18910	\$0	\$0	\$2,767	\$0
<b>Treatment Plant Reliability Program</b>	<b>Total</b>	<b>\$873,475</b>	<b>\$813,682</b>	<b>\$68,001</b>	<b>\$89,030</b>
Skinner Water Treatment Plant Improvements	15365	\$154,206	\$150,899	\$0	\$108
Weymouth Water Treatment Plant Improvements	15369	\$190,910	\$181,702	\$13,010	\$5,119
Jensen Water Treatment Plant Improvements	15371	\$47,352	\$46,584	\$5,980	\$272
Diemer Water Treatment Plant Improvements	15380	\$213,657	\$189,151	\$6,991	\$33,479
Mills Water Treatment Plant Improvements	15381	\$5,525	\$5,277	\$0	\$0



Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
Skinner Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15435	\$3,860	\$2,109	\$356	\$499
Diemer Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15436	\$70,939	\$62,295	\$8,844	\$9,681
Weymouth Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15440	\$19,559	\$18,761	\$1,664	\$2,007
Jensen Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15442	\$60,620	\$59,066	\$2,004	\$10,429
Mills Water Treatment Plant Improvements for FY2006/07 through FY2011/12	15452	\$21,477	\$19,394	\$3,026	\$3,965
Weymouth Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15477	\$69,257	\$65,518	\$11,627	\$16,019
Diemer Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15478	\$1,425	\$1,006	\$410	\$636
Mills Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15479	\$1,094	\$454	\$3,242	\$285
Skinner Water Treatment Plant Improvements for FY 2012/13 Through FY 2017/18	15485	\$1,990	\$1,723	\$0	\$23
Jensen Water Treatment Plant Improvements for FY2012/13 through FY2017/18	15486	\$7,449	\$6,761	\$1,300	\$3,525
Weymouth Water Treatment Plant Improvements for FY2018/19 through FY2023/24	15505	\$200	\$224	\$323	\$224
Jensen Water Treatment Plant Improvements for FY2018/19 through FY2023/24	15508	\$560	\$322	\$4,268	\$322
Diemer Water Treatment Plant Improvements for FY2018/19 through FY2023/24	15510	\$455	\$383	\$1,367	\$383
Skinner Water Treatment Plant, Improvements For FY 2018/19 Through FY 2023/24	15512	\$2,941	\$2,053	\$2,171	\$2,053
Mills Water Treatment Plant Improvements for FY2018/19 through FY2023/24	18905	\$0	\$0	\$1,417	\$0

Capital Programs/Appropriations	Appn. No.	Total to Date		Biennium to Date	
		Appn. Amount (\$1,000's)	Costs thru June 2020 (\$1,000's)	Biennium to Date Planned Expenditures (\$1,000's)	Biennium Actual Expenditures (\$1,000's)
<b>Water Quality/Oxidation Retrofit Program</b>	<b>Total</b>	<b>\$877,069</b>	<b>\$872,486</b>	<b>\$3,292</b>	<b>\$3,254</b>
Skinner Filtration Plant, Oxidation Retrofit	15388	\$245,155	\$244,582	\$0	\$49
Diemer Water Treatment Plant Oxidation Retrofit	15389	\$370,192	\$370,024	\$1,850	\$219
Weymouth Water Treatment Plant Oxidation Retrofit	15392	\$251,482	\$248,577	\$1,325	\$2,205
Enhanced Bromate Control	15472	\$10,240	\$9,303	\$117	\$780
<b>Total CIP</b>		<b>\$6,129,539</b>	<b>\$5,860,587</b>	<b>\$514,494</b>	<b>\$519,832</b>

Notes on above table:

- Numbers may not sum due to rounding.
- \$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 or write-offs greater than actual costs for this biennium through the reporting quarter
- One appropriation, Weymouth Water Treatment Plant Improvements for FY 2018/19 through FY 2023/24, has exceeded its authorized budget during the 4<sup>th</sup> Quarter. This variance was rectified in July 2020.
  - Weymouth Water Treatment Plant Improvements for FY 2018/19 through FY 2023/24 (Appropriation No. 15505): Preliminary design of the Weymouth Hazardous Waste Staging and Containment project was more extensive than originally anticipated due to unforeseen utility conflicts.

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