



- Capital Investment Plan (CIP) Quarterly Report for the period ending March 2014

Summary

This report provides a summary of fiscal year accomplishments, capital expenditures to date, and status updates on major capital projects. Also included in this report is information regarding service connections and relocations authorized by the General Manager during the reporting period.

During the third quarter of fiscal year 2013/14, twelve Board actions appropriated a total of \$54.8 million, and six construction contracts were awarded. Through March 2014, 73 appropriations encompassing over 350 projects were underway. For all capital programs, fiscal year expenditures through March 2014 totaled \$122.2 million, compared to a budget of \$214.6 million. For the entire fiscal year, the projected capital expenditures are \$175 million, compared to a budget of \$295 million. The fiscal year variance is primarily attributed to the significant cost savings for a single under-budget construction contract, the main ozonation facilities for the Weymouth Oxidation Retrofit Program (ORP), and the need to adjust the scope and/or schedule for several refurbishment and replacement (R&R) projects to: 1) Combine them with other projects at the same location; or 2) Evaluate multiple design alternatives, in order to realize overall cost savings.

For the quarter ending March 2014, \$19.5 million in construction contract payments were disbursed, reflecting progress on projects such as the Weymouth ORP, the La Verne Machine Shop upgrades, filter surface wash upgrades at the Jensen plant, the San Jacinto Tunnel East Adit repairs, and the Weymouth Filter Building seismic upgrades. Seven construction contracts were completed during the third quarter of fiscal year 2013/14.

At the end of the third quarter, 21 construction contracts and 7 procurement contracts are underway with a total value of approximately \$189 million. Four contracts are 99 percent complete. All capital appropriations are within their authorized budgets.

More detailed information regarding accomplishments is included in the following pages.

Purpose

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

Attachments

Not applicable

Detailed Report

Section 2720 of the Administrative Code requires the General Manager to report quarterly to the Engineering and Operations Committee on the Capital Investment Plan, including service connections approved by the General Manager pursuant to Sections 4700-4708 with the estimated cost and approximate location of each, and the execution of any relocation agreements involving an amount in excess of \$100,000 under the authority of Section 8122(c).

No new agreements for service connections or relocations were approved by the General Manager pursuant to Sections 4700-4708 during the reporting period.

Highlights of progress and major milestones on selected projects are presented below, grouped by drivers. The project drivers are described below:

Water Quality – Projects to ensure Metropolitan meets all applicable water quality regulations and codes.

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Infrastructure Reliability – Projects to upgrade, refurbish, or replace existing facilities and equipment, including pipeline relocations and protection; and to ensure the protection, safety, and security of Metropolitan’s employees, visitors, and all real and intellectual properties and assets.

Regulatory – Projects to ensure Metropolitan’s operations and processes are in full compliance with applicable regulations and codes other than water quality regulations.

Cost/Efficiency/Productivity – Projects to upgrade, replace, or provide new facilities; software applications; or technology that will provide economic savings that outweigh project costs through enhanced business and operating processes.

Supply and Delivery – Projects to provide new water supplies, and/or provide major delivery or treatment facility expansions, including service connections.

Water Quality

- **Weymouth Oxidation Retrofit Program**

- **Main Ozonation Facilities**

Weymouth represents the final Metropolitan treatment plant to receive ozone as the primary disinfectant.

Construction of the Stage 1 Weymouth ozone facilities commenced in July 2012, and is approximately 49 percent complete. In December 2013, Metropolitan’s Board authorized an increase in change order authority to construct Stage 2 of the Weymouth ORP, which will increase the ozone treatment capacity up to the full plant capacity of 520 million gallons per day (mgd).

The scheduled construction completion date of August 2016 is being updated to incorporate the Stage 2 work.



**Weymouth Plant
Ozone contactors**

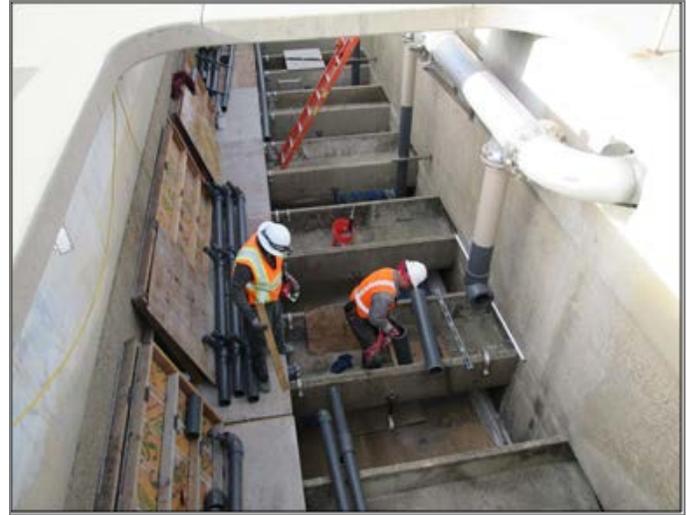
Infrastructure Reliability – Treatment Plants

- **Jensen Filter Surface Wash Upgrades**
- **Weymouth Filter Building Seismic Upgrades**

- **Jensen Filter Surface Wash Upgrades**

This project is replacing the existing surface wash system with a new fixed-nozzle surface wash system. During filter backwashing, the top surface of a filter bed is sprayed with water to break up solids that build up during the filtration process, which helps to clean the filter media.

Construction is 55 percent complete and is scheduled to be completed by December 2014.



**Jensen Plant
Filter surface wash upgrades**

- **Weymouth Filter Building Seismic Upgrades**

The Weymouth plant has two integrated filter buildings. A seismic assessment of the filter buildings identified that these structures need to be strengthened to reduce the risk of damage following a major earthquake.

This project will include reinforcement of the walls, floors, roof, and columns of the filter control buildings. Construction of the seismic upgrades commenced in September 2013 and is 55 percent complete.



**Weymouth Plant
Concrete placement in filter building**

Infrastructure Reliability – Distribution System

- **Prestressed Concrete Cylinder Pipe Rehabilitation**
- **Etiwanda Pipeline Lining Repairs**

- **Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation**
This comprehensive long-term program was established to enhance the reliability of Metropolitan’s distribution system and reduce the risk of costly emergency repairs of PCCP lines.

Second Lower Feeder PCCP Repairs at Sites 1 and 2:

This project will line 1,400 feet of existing PCCP with steel liner pipe. Construction at Site 1 consisted of lining 500 feet in the city of Long Beach, and was completed in March 2014. The Site 2 work, which is also in Long Beach, consists of lining 900 feet. The Site 2 repairs are planned to commence in May 2014.

Second Lower Feeder PCCP Repairs at Site 3:

This project will line 4,900 feet of existing PCCP with steel liner pipe. The construction contract was awarded in March 2014, and installation is scheduled to begin in November 2014.

Second Lower Feeder PCCP Rehabilitation:

This project consists of relining 28 miles of PCCP sections within the Second Lower Feeder. Preparation of environmental documentation and preliminary design are currently underway.



Steel liner pipe being lowered into position

- **Etiwanda Pipeline Lining Repairs**
This project will replace the Etiwanda Pipeline’s damaged interior mortar lining with a polyurethane lining. The first phase of repairs will line approximately 2,800 feet of the pipeline.
Construction for the first phase is ten percent complete and is scheduled to be completed by October 2014.



**Etiwanda Pipeline
Damaged pieces of cement mortar lining**

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Infrastructure Reliability – Colorado River Aqueduct

- **San Jacinto Tunnel East Adit Repairs**
- **Gene Pumping Plant Delivery Line Expansion Joints**

- San Jacinto Tunnel East Adit Repairs

This project structurally reinforced a 230-foot-long reach of the east entrance adit to the San Jacinto Tunnel.

Construction was completed during a scheduled CRA shutdown in April 2014.



**San Jacinto Tunnel
East adit repairs**

- Gene Pumping Plant Delivery Line Expansion Joints

This project rehabilitated twelve mechanical expansion joints on the 10-foot-diameter delivery pipelines at Gene Pumping Plant.

Construction was completed in April 2014.



**Gene Pumping Plant
Installation of expansion joint follower ring**

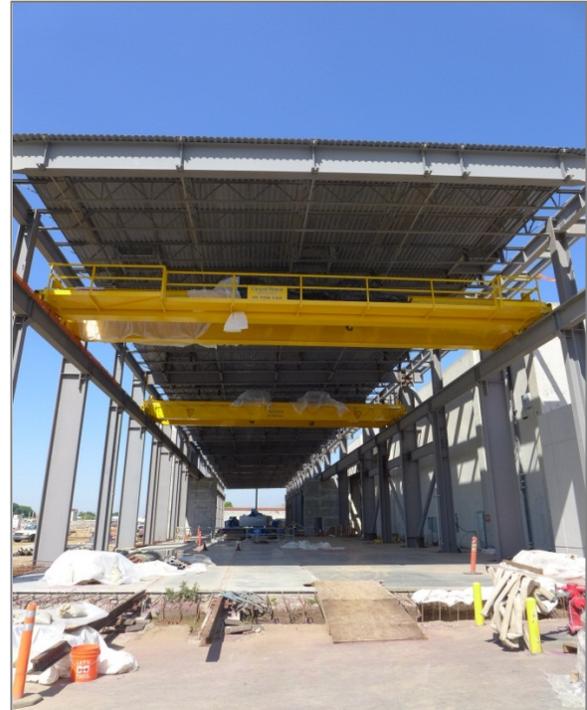
Infrastructure Reliability – Other

- **La Verne Fabrication and Machine Shop Upgrades**

- **La Verne and Machine Shop Upgrades**

This project is extending the Machine Shop buildings; installing new cranes to handle large items such as valves, pipe segments, and pump impellers; installing a new HVAC system and fire sprinklers; and upgrading the electrical system.

Construction is 60 percent complete and is scheduled to be completed by October 2014.



**La Verne Machine Shop
Structural steel painting**

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Regulatory

- **Chemical Unloading Facility Chlorine Containment**

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The Chemical Unloading Facility is used to transfer liquid chlorine from vendor-supplied rail cars to Metropolitan-owned cargo trailers. The new chlorine containment facilities will include an enclosed building to house the rail cars and trailers, trans-loading equipment, chlorine neutralization system, process monitoring room, and an emergency generator.

The construction contract was awarded in March 2014.



Chemical Unloading Facility

Cost/Efficiency/Productivity

- **Yorba Linda Power Plant Upgrades**

- Yorba Linda Power Plant Upgrades

This project is replacing the existing Pelton wheel hydraulic turbine at the Diemer plant with a Francis turbine capable of operating under post-ORP hydraulic conditions, and is modifying the electrical configuration to use the power on-site to meet energy demands of the Diemer plant.

Construction is 15 percent complete and is scheduled to be completed by July 2015. The turbine generator has been manufactured and is scheduled to be delivered in May 2014.



**Yorba Linda Power Plant
Removal of existing turbine**

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Capital Program for Projects Costing Less Than \$250,000

The Minor Cap program is authorized each fiscal year to enable staff to expedite small capital projects that arise during the year. 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 during the fiscal year without seeking additional Board approval.

A total of forty-six projects have been authorized under the 2012/13–2013/14 Minor Cap appropriation through the third quarter of fiscal year 2013/14. Twelve projects were authorized during the third quarter (January through March 2014) and are listed below:

- **Iron Mountain Reservoir Panel Repair** – This project will replace distressed concrete panels at Iron Mountain Reservoir.
- **Cajalco Creek and Lake Mathews Automatic Data Acquisition System Replacement** – This project will install a new automatic data acquisition system at the Cajalco Creek Dam and at Lake Mathews.
- **Diemer Chlorine Meter Replacement** – This project will replace deteriorating chlorine mass flow meters inside the chlorinator room of the chlorine handling facility.
- **Diemer Magnetic Flow Meter Upgrade** – This project will upgrade three deteriorating magnetic flow meters at the Diemer washwater reclamation facilities.
- **Weymouth Cake Pump Drive System for Belt Presses 1 through 3** – This project will rehabilitate dissimilar shaft materials for the bridge breaker and cake pump drive system for belt presses located in the solids handling building.
- **Garvey Reservoir Water Quality Laboratory Rehabilitation** – This project will rehabilitate the outdated water quality laboratory at Garvey Reservoir.
- **OC-88 Surge Anticipator Valve Crane Relocation** – This project will relocate the existing crane system in order to improve access for maintenance of eight surge anticipator valves.
- **Temescal Hydroelectric Plant Roof Replacement** – This project will replace the failing roof at the Temescal Hydroelectric Plant.
- **Corona Hydroelectric Plant Roof Replacement** – This project will replace the failing roof at the Corona hydroelectric plant.
- **Temescal Hydroelectric Plant Cooling/Seal Water Line Replacement**– This project will replace the copper cooling and seal water lines with stainless steel tubing at Temescal hydroelectric plant.
- **Corona Hydroelectric Plant Cooling/Seal Water Line Replacement**– This project will replace the copper cooling and seal water lines with stainless steel tubing at the Corona hydroelectric plant.
- **Access Road Improvements for West Valley Feeders East Portal** – This project will perform drainage improvements and replace pavement along a portion of the East Portal Road within a state park and Chatsworth Park. This road provides access to facilities on the West Valley Feeders Nos. 1 and 2.

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The following table provides the overall status of the 2008/09 through 2012/13–2013/14 Minor Cap appropriations.

FY Budget	2008/09	2009/10	2010/11	2011/12	2012/13-2013/14 (2 Fiscal Yrs)
Amount Appropriated	\$4.825M	\$4.5M	\$3.5M	\$3.0M	\$10.0M
Number of Projects Approved	22	23	17	15	46
Number of Projects Completed Through March 2014	21	23	15	10	6
Percent of Work Complete	99%	100%	90%	83%	34%
Number of Projects Over 3 years	1	0	0	0	0
Expenditures Through March 2014	\$4.22M	\$3.56M	\$2.76M	\$2.33M	\$3.47M

Through March 2014, 75 of the 123 projects have been completed, while one has exceeded three years in duration. This project will replace six solids handling pumps at the Skinner plant. The project experienced delays due to non-responsive bids for equipment that required re-advertisement, and scheduling shifts to accommodate other projects. The equipment was delivered in December 2013, and installation of the six pumps is currently underway and is planned to be completed in June 2014.