



● CIP Quarterly report for the period ending June 2012

Summary

This report provides a summary of fiscal year accomplishments, fiscal year 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 fourth quarter of fiscal year 2011/12, seven board actions appropriated a total of \$171.1 million, while one procurement contract and five construction contracts were awarded. Through June 2012, 63 programs encompassing over 300 projects were underway. All capital programs are within their appropriated budgets. Actual fiscal year expenditures through June 2012 for all capital programs totaled \$152 million, compared to a fiscal year budget of \$282 million. The fiscal year variance between budgeted and expended dollars is primarily due to the rescheduling of construction of the Weymouth Oxidation Retrofit Program (ORP) to begin in fiscal year 2012/13. Other program variances are due to rescheduling of several construction projects to minimize potential conflicts with other ongoing projects at the same location, to better define the scope and cost of the work, and to evaluate alternative designs and schedules. A high priority continues to be assigned to projects required for safety and to meet regulatory compliance deadlines, as well as those needed for reliable and efficient operation.

During the period from July 2011 through June 2012, \$65.7 million in construction contract payments were disbursed, reflecting progress on projects such as the Diemer ORP, the electrical system upgrades at the Weymouth plant, the LaVerne Shop upgrades, and the domestic and fire water system improvements at the Diemer plant. Twenty-two construction contracts were completed during fiscal year 2011/12.

At the end of the fourth quarter, 18 construction contracts were underway with a total value of approximately \$361 million. Two contracts are 99 percent complete.

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

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 during the reporting period.

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

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

Infrastructure Reliability – Programs 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 – Programs to ensure that Metropolitan's operations and processes are in full compliance with all applicable regulations and codes, other than water quality regulations.

Board Report CIP Quarterly report for the period ending June 2012

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

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

Water Quality

- **Diemer Oxidation Retrofit Program**
- **Weymouth Oxidation Retrofit Program**
- **Cross Connection Prevention Program**

- Diemer Oxidation Retrofit Program

Construction of ozone facilities at the Diemer plant is approximately 97 percent complete. Testing and start-up activities are planned to commence in late 2012. A shutdown of the Diemer plant was successfully completed in January 2012 to tie-in the new facilities to the existing plant.



**Diemer Plant
New ozone diffusers**

- Weymouth Oxidation Retrofit Program

The construction contract for the main Weymouth ORP facilities was awarded in June. Completion of the construction is scheduled for early 2016. Construction of the new ORP Switchgear Building is 93 percent complete and is scheduled to be completed by late 2012. Construction of the Weymouth Inlet Conduit Relocation project, which is required to support the Weymouth ORP, was completed in October 2011.



**Weymouth Plant
New ORP switchgear**

- **Cross Connection Prevention Program**

This program was initiated to address 300 sites where air release/vacuum valves located in underground vaults create a potential cross connection. A total of 12 construction contracts have been utilized to relocate the valves to above-ground enclosures. Phases I, II, and III have been completed, covering a combined total of 221 sites.

Phase IV, which addresses the remaining 79 sites, commenced construction in March 2011 under three separate contracts. Two contracts are complete and the third is 99% complete.



Installed piping in trench in City of Downey

Infrastructure Reliability – Treatment Plants

- **Diemer North Access Road**
- **Weymouth Electrical Upgrades**
- **Diemer Fire and Potable Water Pump Station**
- **Diemer Filter Media Replacement**

- Diemer North Access Road

The Diemer North Access Road will provide a secondary access route to the Diemer plant. The road will also enhance security and provide fire break capabilities for the plant. Road construction was completed in February 2012.

A final re-vegetation contract to provide erosion control was completed in April 2012. Environmental monitoring will continue for a period of five years.



Diemer North Access Road

- Weymouth Electrical Upgrades

This project will replace and upgrade numerous components of the plant’s power distribution system. The existing system’s principal components date back to the plant’s original construction and have reached the end of their service life. The upgrades will also enable the Weymouth plant to operate under the increased power demands of the new ozone facilities. Construction is 93 percent complete and is scheduled to be completed by late 2012.



**Weymouth Plant
Electrical cable installation**

- **Diemer Fire and Potable Water Pump Station**

This pump station is being relocated and upgraded to meet increased fire water demands resulting from the new and planned facilities at the Diemer plant, and to draw potable water from downstream of the plant's finished water reservoir. The new pumps have been successfully tested, and construction is complete.



**Diemer Plant
Fire and potable water pump station**

- **Diemer Filter Media Replacement**

This project will replace anthracite and sand filter media to improve filter performance and prevent the release of manganese to the plant's treated water following the commencement of ozonation and biological filtration. Construction is 65 percent complete and is scheduled to be completed by September 2012.



**Diemer Plant
Filter bays**

Infrastructure Reliability - Distribution System

- **Prestressed Cylinder Concrete Pipe (PCCP) Rehabilitation**

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This comprehensive long-term program was established to enhance the reliability of Metropolitan’s distribution system and to reduce the risk of costly emergency repairs of PCCP lines. Rehabilitation of PCCP segments on the Allen McColloch Pipeline, Sepulveda Feeder, and Foothill Feeder were completed during recent shutdowns. Final design of joint repairs for several other PCCP lines is in progress. In addition, electromagnetic inspections of 33 miles of PCCP lines on the Foothill, Sepulveda, and South Coast Feeders, and the Lake Perris and Jensen Bypass Pipelines, have been completed.



Carbon fiber-wrapped pipe segment Sepulveda Feeder

Infrastructure Reliability – Colorado River Aqueduct

- **Eagle Mountain Pumping Plant Standby Generator Replacement**
- **CRA High Voltage Disconnect Switches Replacement**

- Eagle Mountain Pumping Plant Standby Generator Replacement

The objective of this project is to relocate and replace the existing 50-year-old standby diesel engine generator, fuel tank, and accessories. Standby generators at the CRA pumping plants are needed to provide back-up power for critical auxiliary systems such as fire and cooling water pumps, emergency lighting, and sump pumps. Construction was completed in May 2012.



**Eagle Mountain Pumping Plant
New standby generator**

- CRA High Voltage Disconnect Switches Replacement

The existing high voltage switches at all five CRA pumping plants were installed in the 1930's and 1950's, and have reached the end of their service life. Some switches do not operate reliably and spare parts are no longer available. The switches are needed to isolate equipment so that maintenance and repairs can be performed in a safe and timely manner. Construction at the Eagle and Hinds Pumping Plants was completed in early 2012. The remaining work is scheduled to be completed during the fiscal year 2012/13 winter shutdown period.



**Colorado River Aqueduct
High voltage disconnect switches**

Infrastructure Reliability – Other

- **La Verne Shops Upgrades**

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There are two coating shop buildings at La Verne that are overcrowded and whose equipment has reached the end of its service life. The upgraded facility will improve quality, increase efficiency, and enhance worker safety. The project includes a self-contained sandblasting booth; a modern blast media collection and filter system, several new paint/drying booths, material staging areas, and work benches. Construction of the coating shop upgrades is 76 percent complete and is scheduled to be completed by December 2012.

The final phase of this program will be the improvements to the Machine and Fabrication Shops, and the procurement and installation of new equipment. The construction contract for the Machine and Fabrication Shop Upgrades was awarded in May 2012.



**LaVerne Coating Shop
New electrical duct bank and manhole**

Regulatory

- **Chemical Unloading Facility Chlorine Containment**

- **Chemical Unloading Facility (CUF) Chlorine Containment**

The Chemical Unloading Facility, which was constructed in 1975, is used to transfer liquid chlorine from vendor-supplied rail cars to Metropolitan-owned cargo trailers. These cargo trailers are then delivered by truck to several Metropolitan treatment plants where they are housed within chlorine containment facilities. Metropolitan’s policy is to provide containment facilities where chlorine is stored in order to meet up-to-date fire code requirements and provide a consistent level of safety and security. Chlorine containment facilities have been completed at Metropolitan’s five water treatment plants. CUF is the final location to be addressed. The planned facilities include a new enclosed building that will house two 90-ton liquid chlorine railcars and four 19-ton cargo trailers, trans-loading equipment, chlorine neutralization system, process monitoring room, maintenance area, and an emergency generator. Final design is 90% complete and is scheduled to be completed by late 2012. Construction is scheduled to begin in fiscal year 2013/14.



Existing Chemical Unloading Facility

Cost/Efficiency/Productivity

- **Electronic Discovery Management System**
- **CEQA and Entitlement for Solar Power Facilities at Diamond Valley Lake**

- **Electronic Discovery Management (E-Discovery) System**

Staff completed the migration and archiving of emails for the majority of users who are currently on Legal Hold (used to preserve all forms of relevant information when litigation is reasonably anticipated) to the new central storage area. Additionally, emails were archived for 400 users who have extensive email records. Staff performed User Acceptance Tests for functionality related to responding to e-discovery and public records requests, as well as legal review of emails and attachments. The testing was substantially completed with two remaining functions scheduled for further testing. Upon finalization of the User Acceptance Tests, the project team will conduct a commissioning workshop in the first quarter of fiscal year 2012/13 in preparation for placing the first phase of the system into production.



- **CEQA and Entitlement for Solar Power Facilities at Diamond Valley Lake**

In February 2011, the Board authorized initiation of CEQA compliance and entitlement activities related to the proposed Diamond Valley Lake solar power projects. Currently, SunEdison is negotiating with Southern California Edison on the interconnection to Edison’s grid. Additionally, SunEdison is finalizing a Power Purchase Agreement (PPA) to sell the energy generated by the project. This phase of the project is 33% complete.



SunEdison solar farm in North Carolina

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

The Minor Cap program is authorized every fiscal year to enable staff to expedite small capital projects that invariably 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 seventeen projects have been authorized under the Minor Cap 2011/12 program through the fourth quarter of fiscal year 2011/12. No new projects were authorized during the period from April 1 through June 31, 2012.

The following table provides the overall status of the 2006/07 through 2011/12 Minor Cap programs.

FY Budget	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Amount Appropriated	\$5.6M	\$5.0M	\$4.825M	\$4.5M	\$3.5M	\$3.0M
Number of Projects Approved	33	32	22	23	18	17
Number of Projects Completed Through June 2012	31	32	20	19	6	4
% of Work Complete	95%	100%	97%	90%	62%	54%
Number of Projects Over 3 years	2	0	2	0	0	0
Expenditures Through June 2012	\$3.71M	\$4.23M	\$3.55M	\$3.19M	\$1.75M	\$1.28M

Through June 2012, 112 of the 145 projects have been completed, while four have exceeded three years in duration. The four projects and their variance explanations are as follows:

Fiscal Year 2008/09 Minor Cap – Projects Over Three Years in Duration

- Replace electrical components at multiple control structures in the Western Region of the Distribution System
- Replace 6 residual solids pumps at the Skinner plant

Fiscal Year 2006/07 Minor Cap - Projects Over Three Years in Duration

- Install an Uninterruptible Power Supply at the Perris Control Facility
- Upgrade Microwave Buildings at 6 locations for code compliance associated with the emergency generators and fuel tanks

These projects have experienced delays due to either non-responsive bids for equipment that required re-advertisement, incorrect equipment delivered by the vendor, delays in permitting with local agencies, or scheduling shifts to accommodate other projects or shutdowns. All four projects are scheduled to be completed by December 2012.