



• CIP Quarterly Report for the period ending September 2011

Summary

This report provides a summary of accomplishments, fiscal year expenditures to date, and variance explanations for all Capital Investment Plan (CIP) programs. Also included in this report is information regarding service connections and relocations authorized by the General Manager during the reporting period.

During the first quarter of fiscal year 2011/12, 11 Board actions appropriated a total of \$25.6 million, and 2 construction contracts were awarded. Through September 2011, 63 programs encompassing over 300 projects were underway. Actual fiscal year capital expenditures through September 2011 for these programs totaled \$36.8 million, compared to a budget of \$59.6 million.

During the period from July 2011 through September 2011, \$18.5 million in construction contract payments were made, reflecting progress on projects such as the Diemer Oxidation Retrofit Program (ORP), the domestic and fire water improvements at the Weymouth plant, the new Diemer North Access Road, and the electrical upgrades at the Weymouth and Diemer treatment plants. Five construction contracts were completed during the same period.

At the end of the first quarter, 21 construction contracts were underway with a total value of approximately \$317 million. Five contracts are 99 percent complete.

More detailed information regarding accomplishments and budget variances is included in the following pages. Cumulative actual capital expenditures to date along with the total capital budget are shown by Project Driver in Figure 1. Total actual capital expenditures versus budget to date are shown by reporting category in Figure 2.

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, 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).

There were no new service connections constructed and no new relocations approved during the reporting period.

Highlights of progress and major milestones on selected projects are presented below, grouped by reporting category. Variance explanations are provided for categories where actual expenditures differ from the budget by more than 10 percent.

Project Categories

For this report, projects are categorized as shown below:

Oxidation Retrofit – Projects in this category are included in one of the ORP appropriations.

Treatment Plant Reliability – Projects in this category are primarily Infrastructure Reliability projects and are located at one of Metropolitan's five regional treatment plants.

Distribution System Reliability – Projects in this category are primarily Infrastructure Reliability projects and are located throughout Metropolitan's distribution system.

CRA Reliability – Projects in this category are primarily Infrastructure Reliability and Regulatory projects, and are located along the Colorado River Aqueduct (CRA) or at one of the five CRA pumping plants.

Board Report (<CIP Quarterly Report for the period ending September 2011>)

LaVerne Shop Facilities Upgrades – Projects in this category are included in the LaVerne Shop Facilities Upgrade Program.

Chlorine Containment and Handling Facilities – Projects in this category are included in the Chlorine Containment and Handling Facilities Program.

Information Technology – Projects in this category are included in one of the Information Technology programs.

Other – Projects in this category are included in programs not specifically related to one of the above categories or locations, such as the Minor Capital Project programs, Power Reliability, Quagga Mussel Control, and Reservoir Cover Replacement programs.

Project Drivers

Each project discussed in this report is identified under one of the following drivers:



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



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.

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.

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

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

<p>Oxidation Retrofit</p> <ul style="list-style-type: none"> • Diemer Oxidation Retrofit Program • Weymouth Oxidation Retrofit Program 	<p style="text-align: center;">Through 1st Quarter Budget: \$13.9M Expended: \$13.6M</p>
<ul style="list-style-type: none"> • Diemer Oxidation Retrofit Program (Water Quality): <p>Construction of ozone facilities at the Diemer plant is approximately 84 percent complete and is scheduled to be completed in mid-2012. The commissioning of the new 66kV incoming electrical service from Southern California Edison to the Diemer plant is complete. An upcoming shutdown of the Diemer plant is scheduled for early 2012, which will connect the new ozone contactor structure to the plant’s inlet piping.</p> 	 <p style="text-align: center;">Diemer Plant New chemical feed piping trench</p>
<ul style="list-style-type: none"> • Weymouth Oxidation Retrofit Program (Water Quality): <p>Final design of the main ORP construction contract is 98 percent complete and is scheduled to be completed in October 2011. This project is scheduled to be advertised for bids in late 2011. The ORP Switchgear Building construction is 79 percent complete and is scheduled to be completed by mid-2012. Construction of the Weymouth Inlet Conduit Relocation project, which is required to support the Weymouth ORP, is 99 percent complete and is scheduled to be completed in October 2011.</p> 	 <p style="text-align: center;">Weymouth ORP Switchgear Building Installation of tile roof</p>

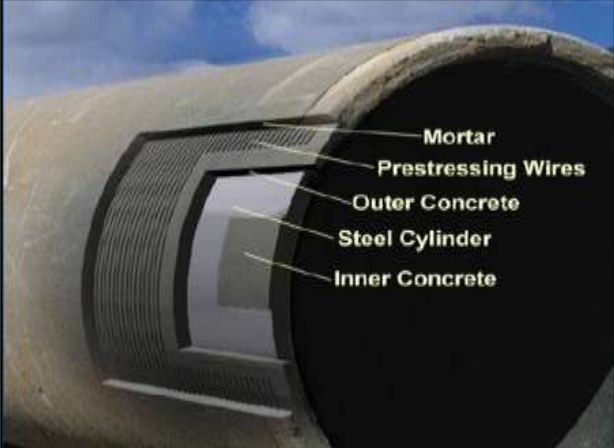

<p>Treatment Plant Reliability</p> <ul style="list-style-type: none"> • Diemer North Access Road • Weymouth Power System Upgrade • Diemer Fire and Potable Water Pump Station 	<p style="text-align: center;">Through 1st Quarter Budget: \$18.4M Expended: \$10.3M</p> <p>Variance explanation: The fiscal year variance between budgeted and expended dollars is primarily due to contractor progress payments for the Diemer Filter Media Replacement project that were less than budget estimates. The work is on schedule. Additionally, construction was rescheduled for the Jensen Surface Wash Upgrades project to include installation of service water pumps.</p>
<ul style="list-style-type: none"> • Diemer North Access Road (Infrastructure Reliability): <p>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. Construction is 98% complete, with projected contract completion in October 2011.</p> <p>A re-vegetation program will continue for a period of five years, in accordance with the project's environmental permits.</p> 	 <p style="text-align: center;">Recently paved Diemer North Access Road</p>
<ul style="list-style-type: none"> • Weymouth Power System Upgrade (Infrastructure Reliability): <p>The Weymouth Power System Upgrade project will replace and upgrade numerous components of the plant's electrical distribution system. The existing system design and many of the principal components date to the plant's original construction and have reached the end of their service life. The new upgrades will also enable the Weymouth plant to operate under the increased power demands of the new ozone facilities. Construction is 79 percent complete and is scheduled to be completed by mid-2012.</p> 	 <p style="text-align: center;">New power cable being pulled through underground conduits throughout the Weymouth Plant</p>


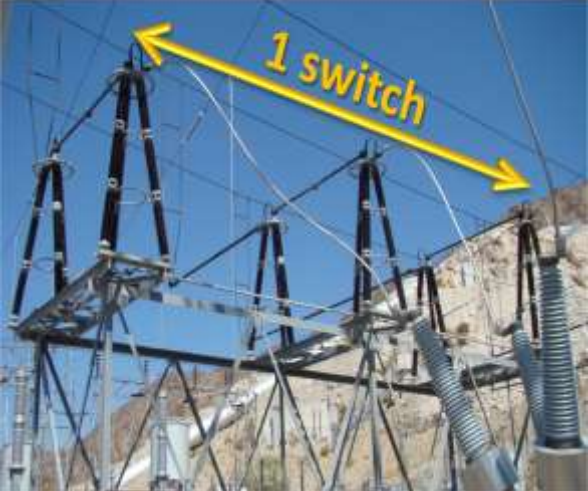
- **Diemer Fire and Potable Water Pump Station (Infrastructure Reliability):**


The Diemer Fire and Potable Water Pump Station is being relocated and upgraded to meet increased fire water demands from new and planned facilities at the Diemer plant, and to draw potable water downstream of the Diemer Finished Water Reservoir. Construction is 75 percent complete and is scheduled to be completed by January 2012.






Diemer Fire and Potable Water Pump Station



<p>Distribution System Reliability</p> <ul style="list-style-type: none"> • Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation and Replacement Program • Cross Connection Prevention Program 	<p style="text-align: center;">Through 1st Quarter Budget: \$10.1M Expended: \$3.2M</p> <p>Variance explanation:</p> <p>The fiscal year variance between budgeted and expended dollars is primarily due to rescheduling of the final design and construction of the Lake Skinner West Bypass Screening Structure to evaluate alternative configurations and/or reconstruction of the existing canal outlet structure. Also, construction progress payments for the final three contracts of the Cross Connection Prevention Program were lower than expected.</p>
<ul style="list-style-type: none"> • Prestressed Concrete Cylinder Pipe (PCCP) Rehabilitation and Replacement Program (Infrastructure Reliability): <p>The Board authorized the initial stage of the PCCP Rehabilitation and Replacement Program in September 2011. This comprehensive long-term program was established to provide reliability for Metropolitan’s water distribution system and to reduce the risk of costly emergency repairs of PCCP lines. In addition to developing the long-term plan, staff is currently performing final design for repairs to eight PCCP lines as well as soliciting proposals for electromagnetic inspection and acoustic fiber monitoring of PCCP lines.</p>	 <p style="text-align: center;">Cross-section of typical PCCP</p>
<ul style="list-style-type: none"> • Cross Connection Prevention Program (Water Quality): <p>The Cross Connection Prevention 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 are being utilized to relocate the valves to above-ground enclosures. Phases I and II have been completed, addressing a combined total of 153 sites.</p> <p>A total of 68 sites are currently being modified under Phase III. This work is approximately 94 percent complete. Phase IV, which addresses the remaining 79 sites, commenced construction in March 2011 and is approximately 50 percent complete. Construction is scheduled to be completed by mid-2012.</p>	 <p style="text-align: center;">Excavation of trench for pipe installation located in Costa Mesa</p>

<p>CRA Reliability</p> <ul style="list-style-type: none"> • Eagle Mountain Pumping Plant Standby Generator Replacement • CRA High-Voltage Disconnect Switches Replacement 	<p style="text-align: center;">Through 1st Quarter</p> <p style="text-align: center;">Budget: \$4.4M Expended: \$2.1M</p> <p>Variance explanation:</p> <p>The fiscal year variance between budgeted and expended dollars is primarily due to construction contract payments for the CRA Water Tank Access project that were planned for fiscal year 2011/12 but were paid in fiscal year 2010/11. Also, final design for the Iron Mountain Tunnel Rehabilitation and Reservoir and Discharge Line Isolation Gate projects has been rescheduled to better define the scope and cost of the work.</p>
<ul style="list-style-type: none"> • Eagle Mountain Pumping Plant Standby Generator Replacement (Infrastructure Reliability): <p>This project will 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 is 10% complete, and is scheduled to be completed by May 2012.</p>	 <p style="text-align: center;">Existing 50-year-old standby generator at the Eagle Mountain Pumping Plant</p>
<ul style="list-style-type: none"> • CRA High-Voltage Disconnect Switches Replacement (Infrastructure Reliability): <p>The existing high-voltage switches at all five CRA pumping plants were installed in the 1930's and 1950's and are at the end of their service life. Some switches fail to operate, while 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. The construction notice to proceed was issued to the contractor in September 2011. The work is scheduled to be completed by March 2013.</p>	 <p style="text-align: center;">Existing "center-break" high voltage switch</p>

<p>La Verne Shop Facilities Upgrades</p> <ul style="list-style-type: none"> • La Verne Coating Shop Upgrades 	<p style="text-align: center;">Through 1st Quarter</p> <p style="text-align: center;">Budget: \$1.7M Expended: \$1.2M</p> <p>Variance explanation:</p> <p>The fiscal year variance between budgeted and expended dollars is primarily due to construction progress payments for the coating shop upgrades that are lower than anticipated. The advertisement for construction of the Machine Shop and Equipment upgrades has been postponed to optimize timing in consideration of ongoing work at the Weymouth plant.</p>
<ul style="list-style-type: none"> • La Verne Coating Shop Upgrades (Infrastructure Reliability): <p>There are two coating shop buildings at La Verne that are over-crowded and do not meet up-to-date building codes. The upgraded facility will improve quality, increase efficiency, and enhance worker safety. The project includes a self-contained sand-blast 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 20 percent complete and is scheduled to be completed by December 2012.</p>	 <p style="text-align: center;">New coating shop building foundation preparation</p>

<p>Chlorine Containment and Handling Facilities</p> <ul style="list-style-type: none"> Chemical Unloading Facility Chlorine Containment 	<p style="text-align: center;">Through 1st Quarter Budget: \$1.3M Expended: \$0.7M</p> <p>Variance explanation: The fiscal year variance between budgeted and expended dollars is primarily due to slower than anticipated progress by the CUF Chlorine Containment design consultant. Also, the Weymouth Filter Outlet Chlorination Capacity Increase project was rescheduled to accommodate completion of the plant water piping system upgrades.</p>
<ul style="list-style-type: none"> Chemical Unloading Facility (CUF) Chlorine Containment (Regulatory): <p>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 to 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 facilities will include a new enclosed building that will house two liquid chlorine railcars and four cargo trailers, transloading equipment, chlorine neutralization system, process monitoring room, maintenance area, emergency generator, and a recompression system for use during transloading operations and routine trailer maintenance. Final design is 30% complete and is scheduled to be completed by late 2012.</p>	 <p style="text-align: center;">Existing Chemical Unloading Facility</p>

<p>Information Technology</p> <ul style="list-style-type: none"> • Electronic Discovery Management System • Supervisory Control and Data Acquisition (SCADA) Remote Terminal Unit (RTU) and Operating System Replacement 	<p style="text-align: center;">Through 1st Quarter Budget: \$2.5M Expended: \$0.2M</p> <p>Variance explanation: The fiscal year variance between budgeted and expended dollars is primarily due to an extended consultant selection process for design and installation oversight of the Wadsworth Pumping Plant Control and Protection Upgrades. Additionally, capital expenditures for the SCADA Remote Terminal Unit and Operating System Replacement project are reduced due to further evaluation of hardware and software options.</p>
<ul style="list-style-type: none"> • Electronic Discovery Management (E-Discovery) System (Cost/Efficiency/Productivity): <p>During the period, staff continued development and testing of email archiving and E-Discovery software tools for the Legal Department to use in responding to discovery and public records requests. The E-Discovery project will reduce legal risk, effort, time and costs associated with discovery of electronically-stored information and enhance legal compliance efforts.</p>	
<ul style="list-style-type: none"> • SCADA RTU and Operating System Replacement (Infrastructure Reliability): <p>This project will replace all of Metropolitan’s SCADA RTU’s that have reached the end of their service life, and which use Windows 2000 as the operating system. Windows 2000 is no longer supported by its vendor. The SCADA RTU’s are necessary for the operation of the distribution system and treatment plants, and monitor and control myriad processes such as chemical feed, pressure and flow control, and power generation at Metropolitan’s hydroelectric power plants. During the period, staff continued to research, test and evaluate control system hardware and software technology options. Upon completion of these investigations, a set of requirements will be developed for use in procurement of materials and services.</p>	 <p style="text-align: center;">RTU at the Weymouth Plant</p>

<p>Other Programs</p> <ul style="list-style-type: none"> • Quagga Mussel Control Program • Palos Verdes Reservoir Cover Replacement 	<p style="text-align: center;">Through 1st Quarter Budget: \$7.2M Expended: \$5.5M</p> <p>Variance explanation: The fiscal year variance between budgeted and expended dollars is primarily due to cancellation of the Hayfield Groundwater Extraction project and deferral of the Diamond Valley Lake Owen Dam Slope Protection due to the rapid filling of the reservoir. The slope protection is only needed, and can only be performed, when the reservoir level is at a much lower level.</p>
<ul style="list-style-type: none"> • Quagga Mussel Control Program (Infrastructure Reliability): One of Metropolitan’s current practices to control the growth and spread of Quagga Mussels is to provide chlorination capability at various locations throughout the conveyance and distribution system and at critical locations at the water treatment plants. Final design is currently underway to provide such capability on the ozone cooling water system at the Diemer plant. That effort is 60% complete and is expected to be completed in November 2011. Construction by Metropolitan forces is expected to be completed in June 2012. 	 <p style="text-align: center;">Diemer ORP chemical trench Site of ozone cooling water chlorination system</p>
<ul style="list-style-type: none"> • Palos Verdes Reservoir Cover Replacement (Infrastructure Reliability): The floating cover on the Palos Verdes Reservoir has reached the end of its service life. Additionally, the reservoir’s existing gunite-concrete liner surface has several areas of damage and will require installation of a new membrane liner and subdrain system. Preliminary design for the cover replacement is 50% complete and is scheduled to be completed by January 2012. The existing floating cover has been removed in order to proceed with the geotechnical investigation. A baseline survey of the existing liner damage has been completed. 	 <p style="text-align: center;">Palos Verdes Reservoir dewatered with the cover removed</p>

Capital Program for Projects Costing Less Than \$250,000 for Fiscal Year 2011/12 (Minor Cap 11/12)

The Minor Cap program is authorized every fiscal year in order to enable staff to expedite smaller, unscheduled capital projects that invariably arise during the year. Because 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 implement projects that meet the criteria during the fiscal year without seeking additional board approval.

No Minor Cap projects were authorized during the first quarter of fiscal year 2011/12

The following table provides the overall status for the fiscal year 2011/12 Minor Cap program.

Minor Cap Program Fiscal Year 2011/12	Total Estimate
No Projects Authorized in 1 st Quarter	\$0
Unallocated Funds	\$2,740,000
Remaining Budget	\$ 260,000
Total Program	\$3,000,000

Figure 1
Cumulative Capital Budget vs. Actual Expenditures
Fiscal Year 2011/12
By Project Driver

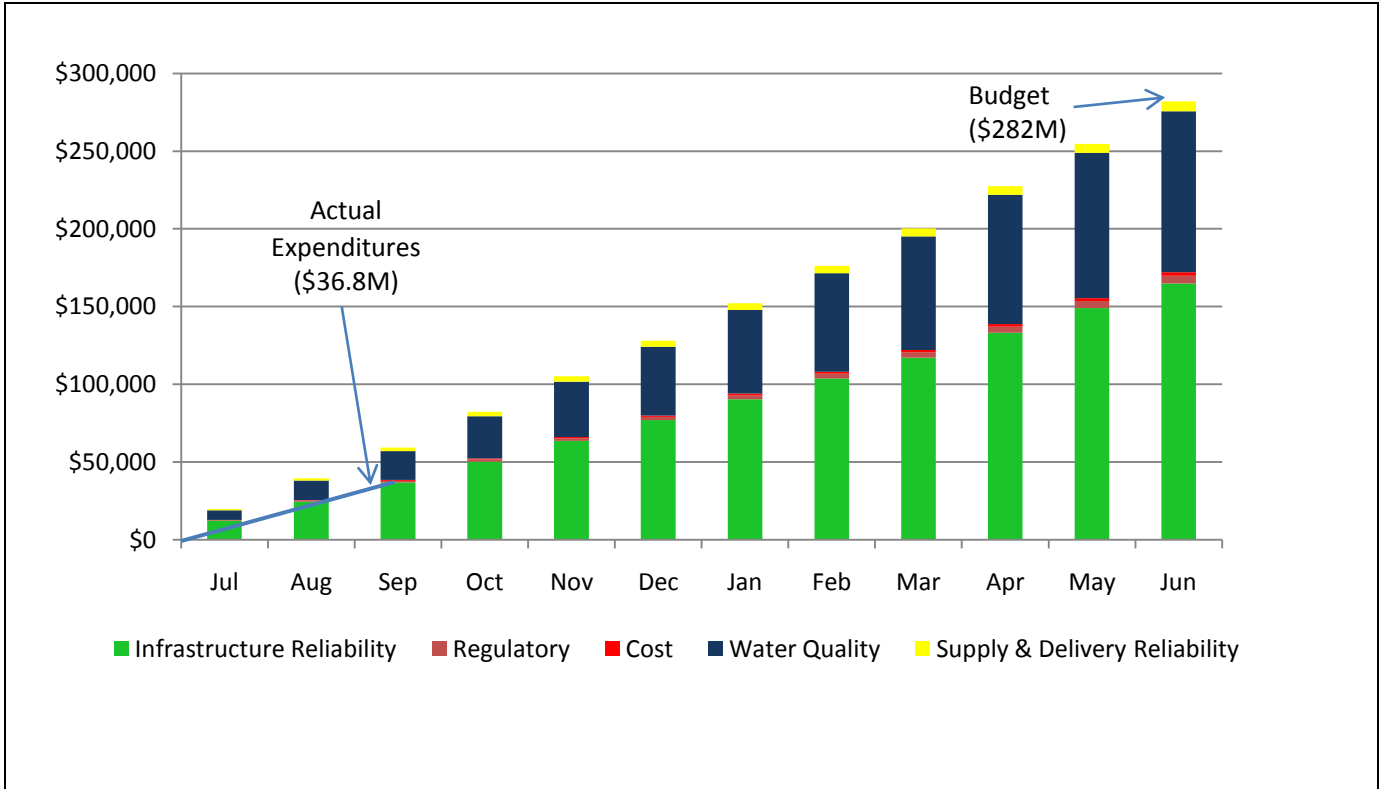


Figure 2
CIP Budget vs. Actual
Jul 2011 - Sep 2011
By Reporting Category

