THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Report

Engineering Services Group

CIP Quarterly Report for the period ending December 2010

Summary

This report provides a summary of accomplishments, fiscal year expenditures to date, and variance explanations for all Capital Investment Plan (CIP) programs. During the second quarter of fiscal year 2010/11, 10 Board actions appropriated a total of $8.8 million, and 2 construction contracts were awarded. Through December 2010, 55 programs encompassing over 300 projects were underway. Actual fiscal year capital expenditures through December 2010 for these programs totaled $110.6 million, compared to a budget of $131.5 million.

During the period from July 2010 through December 2010, $50 million in construction contract payments were made, reflecting progress on the Diemer and Weymouth Oxidation Retrofit Programs (ORP's), the domestic and fire water improvements at the Weymouth plant, and the electrical upgrades at the Weymouth and Diemer treatment plants. One construction contract was completed during the same period.

At the end of the second quarter, 23 construction contracts were underway with a total value of approximately $500 million. Two contracts are 99 percent complete, with punch list work remaining.

More detailed information regarding accomplishments and budget variances is included in the following pages. Cumulative actual expenditures along with the total capital budget in each reporting category are shown in Figure 1.

Attachments

Not applicable

Detailed Report

Highlights of progress and major milestones on selected programs 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. The programs are categorized as follows:

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.

Date of Report: 2/8/2011

Supply and Delivery Reliability	**Through 2nd Quarter** **Budget: $2.9M Expended: $10.2M**
• Perris Valley Pipeline: North Reach: Metropolitan reached a settlement agreement with the prime contractor for the North Reach pipeline. Metropolitan's legal and engineering staff is addressing a lawsuit from a local business alleging that it was impacted by the construction work. South Reach: Two tunnel segments have been deleted from the contract due to unanticipated groundwater conditions near Van Buren Blvd. and the Interstate 215 Freeway. The remaining pipeline construction is nearly complete and is expected to be completed by early 2011.	 **Perris Valley Pipeline South Reach** **Drilling for installation of shoring for 97-inch pipe** **Variance explanation:** The fiscal year variance between budgeted and expended dollars is primarily due to the settlement payment to the contractor for the Perris Valley Pipeline North Reach.
Infrastructure Reliability	**Through 2nd Quarter** **Budget: $75.3M Expended: $52.7M**
• Diemer Water Treatment Plant: Construction of the Diemer North Access Road is approximately 61 percent complete and is scheduled to be completed by May 2011. Road construction in several areas resumed in July 2010 after the US Fish & Wildlife Service approved Metropolitan's mitigation response to the discovery of endangered species nests. Foundation and bridge abutment construction for the Carbon Canyon Creek crossing were completed. Extensive rainfall in December 2010 caused some delays, but did not result in significant damage or erosion.	 **Diemer North Access Road** **Backfilling Carbon Canyon Creek Railcar Bridge Abutment**

Infrastructure Reliability	**continued**

- Weymouth Water Treatment Plant:

  Construction of the Weymouth Electrical Upgrades is 33 percent complete and is scheduled to be completed by mid-2012. Construction of the Rapid Mix and Fire/Domestic Water Systems is 63 percent complete and is scheduled to be completed by May 2011. Construction of the Junction Structure Seismic Upgrades is 70 percent complete and is scheduled to be completed by May 2011.

- Construction of the Colorado River Aqueduct (CRA) Access Cover Replacements and Water Tank Safety Improvements is approximately 60 percent complete and is scheduled to be completed by May 2011.

- LaVerne Shop Facilities Upgrades:

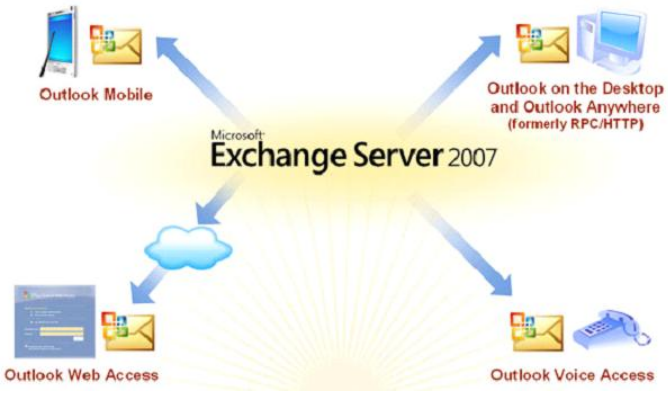
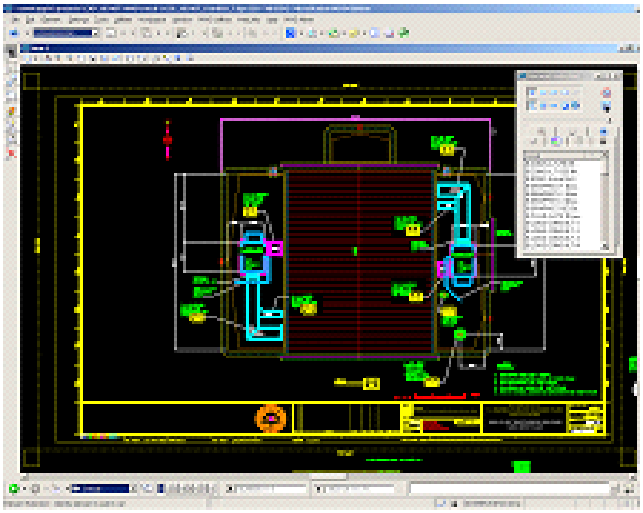
  In March 2008, Metropolitan's Board authorized final design activities for the La Verne Shops Upgrade Program. While overall final design is now 99% complete, the construction has been prioritized and executed in four stages.

  - Stage 1 includes the refurbishment and replacement of 38 pieces of equipment in the machine and fabrication shops, and is currently 50 percent complete.
  - Stage 2 includes replacement of the Machine Shop roof, seismic retrofit of the Fabrication Shop building, and the upgrade of the bridge cranes in the Fabrication and Machine Shops. The goal is to improve safety and handling of materials, equipment and components. A construction contract was awarded in July 2010 for this work, which is approximately 50 percent complete.

Weymouth Junction Structure Seismic Upgrade
Steel reinforcment placement at structure base

CRA Water Tanks Safety Improvements
Installation of new stairway at Hinds Pumping Plant

Infrastructure Reliability	**continued**
• LaVerne Shop Facilities Upgrades (continued): o Stage 3 will include the consolidation and expansion of two existing Coating Shop buildings. A construction contract for Stage 3 is scheduled to be recommended for award in March 2011. o Stage 4 will include the expansion of the existing Fabrication and Machine Shop buildings. It is scheduled to be constructed following completion of Stage 3.	 **La Verne Machine Shop Upgrades** **Installation of roof on Machine Shop Building** **Variance explanation:** The fiscal year variance between budgeted and expended dollars is primarily due to contractor progress payments for the CRA Fault Current Protection Upgrades and the Diemer Fire and Potable Water Pump Station projects that were less than the budget estimates. Also, progress on the Diemer North Access Road construction was temporarily delayed due to heavy rainfall.

Cost/Efficiency/Productivity	**Through 2nd Quarter** **Budget: $1.1M Expended: $0.8M**
• Staff substantially completed the Exchange 2007 Upgrade project, and the majority of users have been migrated. This project involved an upgrade to the new, vendor-supported versions of Metropolitan's e-mail client (Outlook), the e-mail back-end system (Exchange), the public folders implementation (Sharepoint), and the remote web access capability (Outlook Web Access). A small number of remaining users will be moved after electronic discovery archiving of mailboxes is completed upon the implementation of Metropolitan's Electronic Discovery (E-Discovery) project. • The Computer-Aided Design (CAD) Management System will replace the current, obsolete application for storing and managing engineering drawings with a system that is fully integrated with the CAD system used to create the design drawings. During the period, staff completed the pilot effort and started roll-out of the system.	 **Exchange 2007**  **CAD Management System** **Variance explanation:** The fiscal year variance between budgeted and expended dollars is primarily due to deferral of the Accounts Payable (A/P) Imaging project in order to assign staff to the higher priority effort to upgrade the Oracle Financial applications. Also, the impact of the selected Oracle upgrade package on the application selection for the A/P Imaging project needs to be evaluated prior to implementation.

Water Quality	**Through 2nd Quarter** **Budget: $49.8M Expended: $46.0M**

- Diemer ORP:

  Construction of ozone facilities at the Diemer plant is approximately 60 percent complete and is scheduled to be completed in mid-2012. Fabrication of ozone equipment is complete. Major activities continue on the Ozone Generator Building and liquid oxygen tank farm. Startup and testing of the electrical facilities continued in the new switchgear and emergency generator building, in preparation for the full plant shutdown scheduled for February 2011. One of the significant activities during this shutdown will be energizing the plant's new SCE 66kV substation.

- Weymouth ORP:

  The Weymouth ORP consists of multiple, staged construction contracts. Final design of the Ozone Generation Building and ozone contactors is 91 percent complete and is scheduled to be completed in early 2011. Construction of the Weymouth Inlet Conduit Relocation project, which is required to support the Weymouth ORP, is 63 percent complete and is scheduled to be completed in April 2011.

- 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, covering a combined total of 153 sites.

  A total of 68 sites are currently being modified under Phase III. The work is approximately 50 percent complete. Phase IV, covering the remaining 79 sites under this program, is scheduled to commence construction in March 2011 and to be completed in June 2012.

Diemer Treatment Plant
Liquid Oxygen Tanks

Weymouth Treatment Plant Inlet Conduit Relocation
Installation of a 96-inch basin inlet pipe

Regulatory	**Through 2nd Quarter** **Budget: $2.0M Expended: $0.8M**
• Chemical Unloading Facility (CUF) – Chlorine Containment. The CUF facilities will include a new chlorine storage building to house two 90-ton liquid chlorine railcars and four 19-ton cargo trailers; a new control building; a new maintenance, electrical/air compressor and chlorine process building; and a chlorine neutralization system to treat an accidental chlorine release. The chlorine containment facility will also include a recompressor system for use during transloading operations and routine trailer maintenance. Preliminary design is 90% complete and final design is scheduled to commence in early 2011.	 **Existing Chemical Unloading Facility**
• Jensen Tank Farm Chemical Containment Upgrade – Upgrade/refurbishment of the Jensen plant bulk chemical tank farm containment system includes removal and replacement of the asphalt floor with a concrete floor, repair of cracks in existing containment walls, extension of the height of the existing containment walls, and application of chemical-resistant seal coating to both walls and floor to assure a liquid-tight system. Preliminary design is 80% complete, and final design is scheduled to commence in August 2011.  **Jensen Tank Farm Chemical Containment Upgrade**	
	Variance explanation: The fiscal year variance between budgeted and expended dollars is primarily due to the longer than anticipated evaluation of options for the Jensen Tank Farm Chemical Containment upgrade in conjunction with the design of the new tank farm roof. The evaluation has been completed and final design is proceeding.

Capital Program for Projects Costing Less Than $250,000 for FY 2010/11 (Minor Cap 10/11)

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, urgent 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.

The following Minor Cap projects were authorized during the second quarter of FY 2010/11:

- Eagle Mountain Reservoir Slide Gate No. 2 Refurbishment. The cast iron frame that holds one of the 66-inch reservoir isolation gates at Eagle Mountain Reservoir has deteriorated. This gate isolates Pump No. 2 within the pump house from the inlet reservoir. The old slide gate frame must be removed and a new replacement frame must be installed. The actual replacement will occur during the planned CRA shutdown in February 2011.

- Lake Mathews Outlet Tower Chlorination System – This project will install a sodium hypochlorite injection system at Lake Mathews Outlet Tower No. 2 for Quagga mussel control downstream of the tower, including the Junction Structure shaft, the tunnel leading to the forebay, and the Lake Mathews hydroelectric power plant.

The following table provides the overall status for the FY 2010/11 Minor Cap program.

Minor Cap Program FY 2010/11	Total Estimate
6 Projects Authorized	$ 1,215,900
Unallocated Funds	$ 1,981,100
Remaining Budget	$ 303,000
Total Program	**$3,500,000**

Figure 1

Cumulative Capital Budget vs. Actual Expenditures

FY2010/11