



● ITSP Quarterly Board Report - (period ending March 2013)

Summary

This report provides a quarterly update on progress to implement Metropolitan’s Information Technology Strategic Plan (ITSP) and on information technology (IT) activities for the period ending March 31, 2013. The ITSP provides a roadmap to guide the investment and deployment of information technology at Metropolitan over the next three to five years. The plan was updated in 2010 based on changing business needs and technologies. The goal of the plan is to leverage information technology investments to increase long-term reliability, while improving Metropolitan’s overall efficiency and effectiveness. Oversight of IT investments is provided by the IT Guidance Committee consisting of senior management and the Capital Investment Plan (CIP) Evaluation Team as part of the annual CIP planning process.

There were a number of important milestones achieved during the period that are summarized in this report. Selected accomplishments include completing and deploying customer requested enhancements to Metropolitan’s maintenance management system to consolidate and streamline work order processes; successfully migrating SharePoint worksites from on-premise to a newer cloud based solution; completing an outside independent consultant review of final design and implementation for the Emergency Communication Radio System Project; and completed reviewing final submittals for upgrades to selected microwave transmission sites as part of the wide area network upgrade project to enhance communication reliability.

Key milestones for the upcoming quarter ending June 30, 2013 include completing the construction of a new structure and installation of associated communication equipment at Cooper Basin Reservoir to provide alternative path of communication; deploying new software tool to enhance the security of electronic file transfers, configuring and test new security tool for the Supervisory Control and Data Acquisition (SCADA) System, completing planned upgrades to water quality applications (e.g. Lab Sheet) in support of Water System Operations; and initiating the pilot deployment phase as part of the PC Replacement Program.

Purpose

Administrative Code 2700; Article 2 Quarterly Reports; Section 2720 General Manager’s Quarterly Reports; (e) To the Organization, Personnel and Technology Committee, the status of all information technology projects throughout the organization.

Attachments

Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of December 31, 2012 through March 31, 2013. The projects are categorized by business driver as follows:



IT STRATEGIC PLAN
Enhanced Reliability – Enhance system reliability
Improved Water Quality – Ensure water quality excellence
Enhanced Cyber Security – Effectively manage and safeguard assets
Productivity / Cost Efficiency – Improve process efficiency and effectiveness

Request for Bid (RFB) to solicit competitive bids for hardware (e.g. server) replacements as part of enhancing the reliability of the Supervisory Control and Data Acquisition (SCADA) servers.

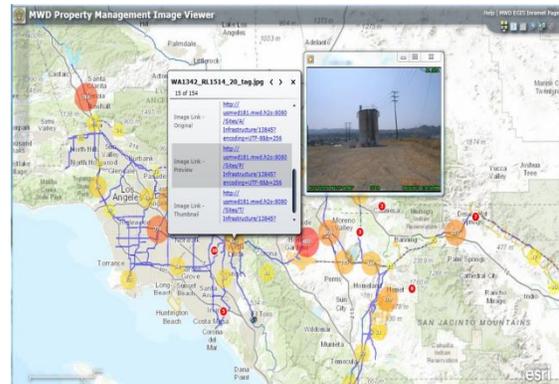
- Continued upgrade efforts to replace obsolete frame relay with the current Multiprotocol Label Switching (MPLS) for Metropolitan’s SCADA control communications. MPLS is used in telecommunication to direct data packets within a network. The upgrade replaces outdated technology that will no longer be supported by telecommunication carriers as it is being phased out.
- Reviewed consultant design submittals for the fiber optic system as part of on-going IT support for the Weymouth Water Treatment Plant – Oxidation Retrofit Program. The fiber optic is part of the network used to transmit communications and data.

Property Management Imagery

- Information Technology staff has initiated the loading of Property Management imagery into Cumulus, Metropolitan’s system used to store and catalog Metropolitan’s imagery and pictures. The purpose/goal is to integrate the imagery with RePortfolio, Metropolitan’s new property management system, and the Geographic Information System mapping system. Links to images of Metropolitan’s property will be available directly from RePortfolio. Staff will also develop a GIS mapping system that will show the locations of these images relative to Metropolitan’s properties and facilities with direct links to the images in Cumulus. The pilot phase to test the integration is scheduled to complete by June.

Conducted Information Technology Disaster Recovery Exercise

- Staff conducted an IT disaster recovery exercise as part of an ongoing effort to maintain Metropolitan’s ability to recover critical business processes in the event of a disaster. The January exercise involved executing recovery strategies that support Metropolitan’s Engineering ProjectWise system. ProjectWise is a software tool that manages and tracks Computer-Aided Design (CAD) drawings and associated electronic



files for engineering design projects.

Other Key Activities and Accomplishments

- In February, the Board authorized staff to proceed with the project construction phase to enhance system reliability by replacing end-of-life Uninterruptable Power Supply units that protect critical equipment in Metropolitan’s data-center. During the period, staff issued a Notice to Proceed and conducted a pre-construction meeting with the contractor and Metropolitan’s project team. Development of submittals by the consultant is currently underway and mobilization effort is scheduled to begin next period.
- Completed an independent review by an outside consultant of the Request for Proposal for the final design and implementation as a part of the Emergency Communication Radio System Project. This project will upgrade Metropolitan’s Two-Way Radio system which is a critical element to Metropolitan’s communication strategy and emergency response in the event of a disaster.
- Continued development of a Supervisory Control and Data Acquisition (SCADA) Master Plan to provide a roadmap to ensure continued system reliability. Metropolitan utilizes a SCADA system to monitor and control a variety of water treatment and distribution operations.
- Completed PeopleSoft enhancements and CalPERS initiatives. Staff in Information Technology and Human Resources worked to provide required reports for a State Audit review of retirement practices for CalPERS. In addition, staff completed revisions to PeopleSoft ensuring that Metropolitan is complying with the Public Employees Pension Reform Act passed in October 2012 by the State Legislature.

The fiscal year variance between budgeted and expended dollars is primarily due to projects being deferred to allow additional time to investigate alternative approaches and other cost-effective options. A variance in this category is expected to remain pending final recommendations and Board authorization for these reliability initiatives.



<p style="text-align: center;">Enhanced Cyber Security:</p>	<p style="text-align: center;">Through 3rd Quarter FY Budget: \$0.41 M FY Expended: \$0.21 M</p>
<p>Key Accomplishments Included: Continued On-Going Cyber Security Monitoring, Remediation and Enhancements</p> <ul style="list-style-type: none"> ▪ Metropolitan’s Information Security Team performed on-going security monitoring, assessments, and enhancements aimed at protecting Metropolitan’s computing environment. On an on-going basis, new cyber security tools and processes are evaluated and implemented based on changing technologies, new threats identified, and information obtained through cyber security partnerships and alliances with other government agencies. ▪ During the period, staff evaluated new cyber security tools for enhancing the Supervisory Control and Data Acquisition system, used by Water System Operations to monitor and control critical operations and processes related to the distribution and treatment of water. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> ▪ Prepared a cyber-security briefing for the Organization, Personnel and Technology Committee. ▪ Reviewed executive order issued by the President on February 12, 2013 calling for improving critical infrastructure cyber-security. IT Security Staff currently reviewing the proposed executive order framework and timeline to develop recommendations. ▪ Applied latest security patches to ensure up-to-date security protection for Metropolitan’s computing environment. ▪ Continued to monitor and participate in local and national efforts aimed at enhancing security capability for the water sector to help identify prudent steps and best practices. ▪ Provided on-going security awareness by publishing monthly cyber security tips; conducted security orientation for all new hires; and issued IT Alert notices of specific threats or phishing scams aimed at installing malicious software seeking unauthorized access. <p>Expenditures in the Enhanced Cyber Security category were within plan, with total expenditures projected to be on-target for the fiscal year. All projects are projected to complete within Board approved budgets.</p>	<div data-bbox="906 436 1386 898" data-label="Image"> </div> <div data-bbox="906 1121 1386 1444" data-label="Image"> </div> <div data-bbox="867 1604 1430 1789" data-label="Image"> </div>

<p>Improved Water Quality:</p>	<p>Through 3rd Quarter FY Budget: \$0.0 M FY Expended: \$0.09 M</p>
<p>Key Accomplishments Included:</p> <p>Enhanced Water Quality Data Collection</p> <ul style="list-style-type: none"> ▪ During the period, staff implemented a new application to enhance water quality data collection by eliminating manual data entry of information collected from field locations. By using mobile hand-held devices, staff can automatically upload information into the WQ database once the hand-held unit is placed onto a docking station connected to Metropolitan’s WQ system. In addition, the new software is able to automatically generate work order(s) to help ensure field instrumentation is maintained regularly. <p>Continued On-going Water Quality Programming Upgrades</p> <ul style="list-style-type: none"> ▪ Internal IT programming staff continued to support WSO by upgrading and enhancing water quality software and applications. <ul style="list-style-type: none"> ▪ Water Conservation Application is use by Metropolitan staff to administer Board approved water conservation programs. ▪ Water Quality Lab Sheet is used for by Water Quality staff for compliance data collection and reporting. ▪ Electronic Systems Log is used to capture water operation and water quality related events that must be recorded for regulatory compliance and event monitoring. ▪ Development, programming and preliminary testing for each of these applications are proceeding according to plan. During the period, IT staff began testing the new web version of the Water Conservation Application and Water Quality Lab Sheet by performing the parallel run phase. This test phase ensures the new applications perform as designed by comparing data against the base system. <p>No capital dollars were budgeted in the Water Quality category for this fiscal year. All activities in this category is proceeding according to plan and is being done as part of the fiscal year 2012-13 O&M budget. A small variance in capital expenditures was incurred as a result of final invoice payments for the Water Quality Monitoring and Rapid Event Detection Project, which completed under-budget.</p>	<div data-bbox="885 367 1404 772" data-label="Image"> </div> <div data-bbox="885 892 1404 1260" data-label="Image"> </div> <div data-bbox="885 1375 1404 1732" data-label="Image"> </div>

Productivity / Cost Efficiency:	Through 3 rd Quarter FY Budget: \$0.22 M FY Expended: \$0.0 M
<p>Key Accomplishments Included:</p> <p>Continued Personal Computer Replacement Program</p> <ul style="list-style-type: none"> Continued Metropolitan’s Personal Computer Replacement Program (PCRP) for deploying new computing technology throughout the organization. During the period, staff continued efforts by updating the IT Guidance Committee on progress based on a comprehensive review of user requirements, validated best practices with industry experts (e.g. Gartner, Forrester), performed technology options analysis to determine user requirements to match use cases with device capability (e.g. desktop, note book, ultra book, and tablets) providing best match between device with user requirements. In addition, staff commenced concurrent negotiations with selected vendors via Western States Contracting Alliance (WSCA). This is a cooperative multi-state contracting process designed to obtain optimum discount levels. The PCRP project is proceeding according to plan with pilot deployment beginning next quarter. <p>Rolled out enhancements to Metropolitan’s Maximo System</p> <ul style="list-style-type: none"> Maximo is a software package used by Water System Operations (WSO) to manage maintenance activities such as preventive and corrective action maintenance work orders. During the period, IT staff deployed customer requested enhancements to track and report on Maximo Assets or locations at a Job Task Level. The enhancements are fully integrated with our Maximo Mobile Solution (Hand Held Computers), consolidating and streamlining the work process of multiple work orders against different locations into one while being able to retain the same detail information as required by WSO. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> As part of leveraging cloud-based technology, staff successfully migrated SharePoint collaborative site from on-premise to the newer Office 365. A key benefit of this cloud-based solution is that users may now access the sites easily from anywhere via the internet to enhance accessibility and productivity. 	  

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- Updated Metropolitan’s enterprise agreement with Microsoft for software licensing and support. The new agreement provides software currency and compliance for Microsoft Office productivity suite of tools (e.g. Word, Excel, and PowerPoint) as well as the newer cloud-based system (e.g. Office 365).
- Continued to assess and test mobile computing capabilities related to timesheet approval and requisition approval using mobile devices such as smart phones to enhance productivity.
- In an effort to increase reliability and streamline the accounts payable processes, staff completed a Request for Proposal (RFP) for the Accounts Payable Imaging Project to implement an imaging system that will automate electronic storage of invoices and approvals and improve on-time payment to vendors.

There were no capital expenditures for the Productivity /Cost Efficiency category through the third quarter. The variance in this category stem from the Accounts Payable Imaging Project which will be presented to the Board for authorization, once a final recommendation is made based on the RFP process.

