



- ITSP Quarterly Board Report - (period ending June 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 June 30, 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 the 60% design submittals as a part of the Wadsworth Control and Protection Upgrade Project; receiving preliminary approval from the Federal Communications Commission for frequency applications to support emergency radio response and communications; completing planned water quality application upgrades in support of Water System Operations; initiating a pilot deployment phase as part of the PC Replacement project; and continued to conduct IT disaster recovery exercises as part of an ongoing effort to maintain Metropolitan’s ability to recover critical business processes in the event of a disaster.

Key milestones for the upcoming quarter ending September 30, 2013 include: completing microwave equipment installation at five telecommunication sites as a part of the Wide Area Network project and conduct system testing; issuing an Request for Proposal to replace end-of-life Enterprise UNIX servers to enhance infrastructure reliability; completing the initial draft of Metropolitan’s Supervisory Control and Data Acquisition master plan; completing the 90% design submittals as a part of the Wadsworth Control and Protection Upgrade Project; conducting end-user training and acceptance testing for the Environmental Management and Information System project; and continuing to deploy personal computers as part of the PC Replacement project.

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.

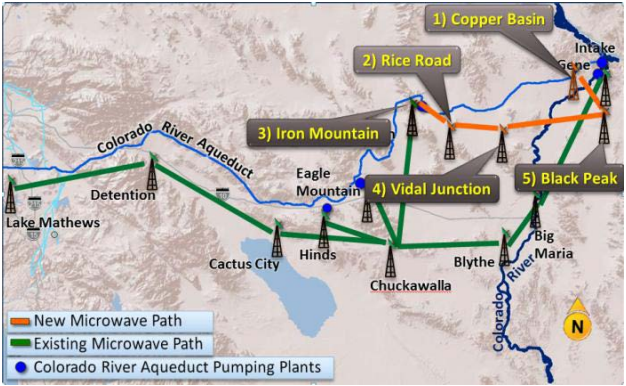


Attachments

Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of April 1, 2013 through June 30, 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

<p style="text-align: center;">Enhanced Reliability:</p>	<p style="text-align: center;">Through 4th Quarter FY Budget: \$7.08 M FY Expended: \$3.56 M</p>
<p>Key Accomplishments Included:</p> <p>Wide Area Network Upgrade Project</p> <ul style="list-style-type: none"> ▪ As part of the effort to enhance communication reliability, staff continued with Board approved upgrades to add secondary communication links to improve communication reliability and data links between the CRA facilities, the Operations Control Center in Eagle Rock, and Metropolitan’s Headquarters Building in Los Angeles. ▪ During the period, staff completed the construction of a new structure at Cooper Basin Reservoir and commenced installation of microwave transmission equipment at five sites including Cooper Basin Reservoir, Iron Mountain Pumping Plant, and Metropolitan communication sites located at Black Peak, Vidal Junction, and Rice Road. Significant progress in the installation of equipment was made during the period at all five sites. Next steps include path alignment testing to ensure the communication equipment are properly aligned and perform as designed and complies with Federal Communication Commission rules. Alignment testing will begin next period as the project is scheduled to complete in September. <p>Wadsworth Control and Protection Upgrade Project</p> <ul style="list-style-type: none"> ▪ As a part of rehabilitation and upgrades of the control and electrical protection systems at the Wadsworth Pumping Plant, staff continued with the preliminary design phase. To-date, all 60% designed submittals have been completed and approved. The 90% submittals are currently in progress and scheduled to complete next period. ▪ In addition, staff continued to develop a prototype and test procedures for control of a full-scale pump/generator unit at the Hiram Wadsworth Pumping Plant. Once its complete, the prototype will be used to test and confirm key technical concepts prior to initiating final design. Development work on the prototype is approximately 25% complete and proceeding according to plan. 	 <p>The map displays the Colorado River Aqueduct system with five new microwave paths (orange lines) connecting various sites: 1) Copper Basin, 2) Rice Road, 3) Iron Mountain, 4) Vidal Junction, and 5) Black Peak. Existing microwave paths are shown in green. Pumping plants are marked with blue dots. The Colorado River and Lake Mathews are also visible.</p>  <p>A photograph showing a large, tan-colored microwave transmission equipment cabinet installed outdoors on a concrete base. The cabinet has a circular access panel and is surrounded by gravel. A shadow is cast on the wall behind it.</p>  <p>A photograph showing three people (two men and one woman) standing in front of an open server rack. They appear to be inspecting or working on the equipment inside the rack, which contains various electronic components and cables.</p>

Emergency Radio Communications Upgrade project

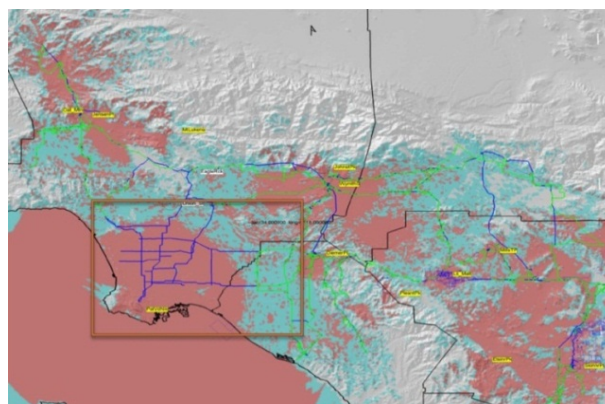
- Metropolitan's existing Emergency Two-Way Radio communication system was initially designed and installed 18 years ago. The system was originally designed with local communication needs in mind utilizing limited radio frequencies that do not provide regional communication coverage.
- To-date, conceptual design has been completed and reviewed by an independent party. Recent important frequency conversion applications have been approved by the Federal Communications Commission (FCC), confirming system capacity. One final and important frequency acquisition for the Weymouth area has been approved by frequency coordinators and is in 30-day public review, precedent to final application with the FCC. The next major milestone is to publish the system RFP.

Metropolitan's Supervisory Control and Data Acquisition (SCADA) Master Planning

- During the period, IT staff working closely with WSO's SCADA staff continued with the development of Water Systems Control Master Plan to fully coordinate the operational and business needs of Metropolitan's SCADA Systems.
- After completion of interviews, internal and external research, and system supplier workshops, the final drafts of the Water System Control (control system / SCADA) Architecture and Infrastructure reports have been received. Initial drafts of communications network and instrumentation have also been received. The System Interface and Usability report has been started, and Security and Data Management reports are planned to begin shortly.

Other Key Activities and Accomplishments

- Provided on-going Information Technology (IT) services for engineering capital programs (e.g. Weymouth Oxidation Retrofit Program) and projects to enhance Metropolitan's infrastructure reliability. In most cases, each capital project will directly or indirectly involve IT, whether it's a new facility, system or upgrades to field instrumentation that requires transmission of voice/electronic data over Metropolitan's communication network.



- During the period, staff completed final review of a Request for Proposal (RFP) as a part of the Enterprise UNIX Server Replacement project. This project replaces end-of-life servers that support key enterprise business applications (e.g. Oracle), and will enhance the reliability of Metropolitan’s enterprise applications that depend on the performance of these servers. The RFP will be posted for competitive bidding next period.

Conducted Information Technology Disaster Recovery Exercise

- IT Staff partnering with key business units continued to conduct IT disaster recovery (DR) exercises as part of an ongoing effort to maintain Metropolitan’s ability to recover critical business processes in the event of a disaster. During the period, staff conducted three DR exercises on software system/applications covering Labsheet, Exchange and the Internet. Each exercise was successfully completed and achieved the recovery objectives.




Environmental Management and Information System Project

- Continued deployment of the new Environmental Management and Information System (EMIS) for Water System Operations' Safety and Environmental Section (SEC) to enhance the tracking and monitoring of compliance activities related to air quality, wastewater, hazardous materials and waste, fuel and chemical storage tanks, and safety requirements.
- During the period, staff developed detailed training plans in preparation for end-user training. Comprehensive training workshops are scheduled for key modules of the new EMIS system such as Compliance Tracking; Audits and Self Inspections. In addition, staff has begun final preparations for user-acceptance testing beginning next month. The EMIS project is scheduled to complete next quarter pending final acceptance testing.

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.



Compliant

<p>Enhanced Cyber Security:</p>	<p>Through 4th Quarter FY Budget: \$0.56 M FY Expended: \$0.38 M</p>
<p>Key Accomplishments Included:</p> <p>Deployed Electronic File Transfer Protocol Tool</p> <ul style="list-style-type: none"> During the Period, Information Security staff deployed a new software tool to enhance the security of electronic file transfer capabilities at Metropolitan. The new software tool was successfully deployed to Legal, External Affairs, Engineering and other business users. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> Issued End User Computing Information Security Standards to remind all employees of their responsibilities to comply with Metropolitan’s cyber security guidelines, standards and procedures. During the period, staff continued to evaluate 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. 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. Upcoming event include the US National Institute of Standards and Technology workshop next month. The purpose for the workshop is to participate in the development of content for the Cybersecurity Framework, in response to Executive Order 13636 (Improving Critical Infrastructure Cybersecurity). Information Security staff continued to test and deploy the latest security patches to ensure up-to-date cyber security protection for Metropolitan’s computing environment. <p>Expenditures in the Enhanced Cyber Security category were within plan, with total expenditures within-target for the fiscal year. All projects are projected to complete within Board approved budgets.</p>	  

<p style="text-align: center;">Improved Water Quality:</p>	<p style="text-align: center;">Through 4th Quarter FY Budget: \$0.0 M FY Expended: \$0.09 M</p>
<p>Key Accomplishments Included:</p> <p>Completed Project Plan for Upgrades to Laboratory Information Management System</p> <ul style="list-style-type: none"> ▪ In support of Water System Operations, IT programming staff working closely with Water Quality developed a comprehensive project plan to upgrade Metropolitan’s Laboratory Information Management System (LIMS) to the latest software version. The existing version has been in service since January 2010 and this upgrade is needed to maintain priority vendor support and software currency. The LIMS application contains Metropolitan’s water quality compliance data and is the data-of-record for mandatory compliance monitoring. <p>Completed Planned Water Quality Programming Upgrades</p> <ul style="list-style-type: none"> ▪ During the period, IT staff completed planned upgrades to three Water Quality software applications that go towards supporting Water System Operations. ▪ Water Conservation Application enhancements provided internal staff the ability to enter rebate requests using the new web-based software. In addition, IT programming staff will continue to work with Member Agencies/MWD IT Security to allow Member Agency direct and secured access. ▪ Water Quality Lab Sheet is used by Water Quality staff for compliance data collection and reporting. Web-enabled Lab Sheet enables WSO management to monitor and review Lab Sheet data from a secured website. ▪ Electronic Systems Log (ESL) is used to capture water operation and water quality related events that must be recorded for regulatory compliance and event monitoring. Web-enabling enables WSO management to monitor and review ESL information online. <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 were 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 was completed under-budget.</p>	<div data-bbox="841 468 1450 653" data-label="Image"> </div> <div data-bbox="854 764 1437 1268" data-label="Image"> </div> <div data-bbox="850 1381 1437 1780" data-label="Image"> </div>

<p>Productivity / Cost Efficiency:</p>	<p>Through 4th Quarter FY Budget: \$0.30 M FY Expended: \$0.0 M</p>
<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 initiated the pilot deployment phase with selected users from Water Quality and Information Technology. Over 300 units were deployed over this period at Union Station and Weymouth. The pilot has allowed IT technicians to make refinements to configurations and methods in preparation for the larger rollout. Detailed planning is underway with deployment planned for desert region and Union Station Headquarters beginning in July. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> ▪ During the period, IT programming staff worked closely with the HR Group and the Payroll Team to complete the necessary changes to the PeopleSoft system to implement the AFSCME Classification/Compensation Study. Several programs were written to assist HR in validating the input, assisting with data entry and auditing the changes. ▪ IT Enterprise Applications staff developed tools to allow HR to bulk load employee performance evaluation results and merit increase information into the PeopleSoft system. This tool is necessary since all employees are now being evaluated on a common anniversary date. The new tool helped streamline and enhanced the processing of information by HR staff. ▪ Completed procurement of the new Digital Signature software / appliance for the Engineering Services Group. Once fully deployed, the new tool will allow the capture of electronic signatures to facilitate approval of engineering design drawings instead of having to manually sign and approve engineering design drawings. ▪ Continued to assess and test mobile computing options related to timesheet approval and requisition approval using mobile devices such as smart phones to enhance productivity. A final staff recommendation will be made next period based on the assessment. 	<div data-bbox="846 417 1446 758" data-label="Image"> </div> <div data-bbox="837 875 1455 1287" data-label="Image"> </div> <div data-bbox="842 1409 1446 1808" data-label="Image"> </div>

- Deployed a pilot for a new system which manages Underground Service Alerts (DigAlerts). Underground Service Alerts are notifications when digging will occur and utilities are required to respond to determine if any facilities may be affected. Currently, MWD receives approximately 4,000 DigAlert tickets each month which are received as emails in Outlook Public Folders and are manually processed by WSO field staff. The system ingests DigAlert emails and creates tickets that are automatically assigned to the appropriate field staff based on their area of responsibility. This system provides a more efficient and reliable method for managing and processing DigAlert tickets.

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.

