



## ● ITSP Quarterly Board Report - (period ending September 2012)

### Summary

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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 September 30, 2012. There were a number of important milestones achieved during the period that are summarized in this report. Key milestones for the upcoming quarter ending December 31, 2012 include completing the rollout of WorkTech (5.1 Web Version) Upgrade; completing Phase One of the e-Discovery project; continuing the design and development of the cloud-based Environmental and Safety Management Information System; and issuing the notice-to-proceed to begin the construction phase for the microwave network upgrade.

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.

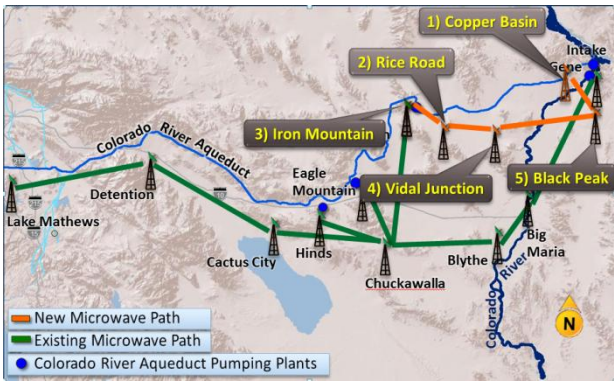


### Attachments

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Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of July 1 through September 30, 2012. The projects are categorized by business driver as follows:



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

<p style="text-align: center;"><b>Enhanced Reliability:</b></p>	<p style="text-align: center;"><b>Through 1<sup>st</sup> Quarter</b>  <b>FY Budget: \$1.64 M      FY Expended: \$0.31 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <p><b>Colorado River Aqueduct – Wide Area Network Upgrades</b></p> <ul style="list-style-type: none"> <li>▪ During the period, staff received authorization from the Board to proceed with the construction phase of the wide area network upgrades on the Colorado River Aqueduct between Gene Pumping Plant and Iron Mountain Pumping Plant. The approved upgrades include adding secondary communication links (by installing five new microwave transmission sites) which will improve the reliability of the communications and data link between the CRA facilities, the Operations Control Center in Eagle Rock, and Metropolitan’s Headquarters Building in Los Angeles. Recent project activities include: <ul style="list-style-type: none"> <li>▪ Pre-construction validation for bonding, insurance and related activities</li> <li>▪ Prepared Notice-To-Proceed to begin the construction phase</li> <li>▪ Coordinate internal staff for monitoring and oversight of field constructions activities</li> </ul> </li> </ul> <p><b>Continued Design and Development of the new Cloud-Based Environmental and Safety Management Information System (EMIS)</b></p> <ul style="list-style-type: none"> <li>▪ Currently in development is a new external cloud-based system for Water System Operations' Safety and Environmental Section (SES) 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. The new system support SES staff to enhance the management of various health and safety related permits under the purview of numerous regulatory agencies.</li> <li>▪ During the period, staff continued design and development of the new Environmental and Safety Management Information System by completing the initial set-up and configuration of the new Compliance Tracking Module. Staff also conducted a design review of the module and created a testing environment that allows users to perform testing and initial assessment of features and functions of the Compliance Tracking Module.</li> </ul>	 <p>The map displays the Colorado River Aqueduct route with five new microwave transmission sites highlighted in yellow: 1) Copper Basin, 2) Rice Road, 3) Iron Mountain, 4) Vidal Junction, and 5) Black Peak. It also shows existing microwave paths in green and Colorado River Aqueduct pumping plants in blue. Key locations include Lake Mathews, Detention, Cactus City, Hinds, Eagle Mountain, Chuckawalla, Blythe, Big Maria, and Intake Gene.</p>  <p>This photograph shows a white control building with a microwave tower in the background, illustrating the infrastructure for the new communication links.</p>  <p>This image shows hands typing on a laptop keyboard, representing the development and use of the new cloud-based EMIS system.</p>

**Initiated Supervisory Control and Data Acquisition Master Planning**

- Metropolitan utilizes a Supervisory Control and Data Acquisition (SCADA) system to monitor and control its water system operations; water planning; regulatory compliance; maintenance management; and energy management. A Water System Control Master Planning effort is currently underway to provide a roadmap to ensure continued system reliability. Some of the more recent accomplishments are:
  - Formed Oversight, Core, and Subject Matter Expert Teams comprised of key stakeholders from Water System Operations, Engineering and IT and held associated kickoff meetings.
  - Began staff interviews to capture initial information on system strengths, weaknesses, opportunities, and threats.
- The team expects to have an initial draft of the SCADA master plan developed for managements review by the end of this fiscal year.



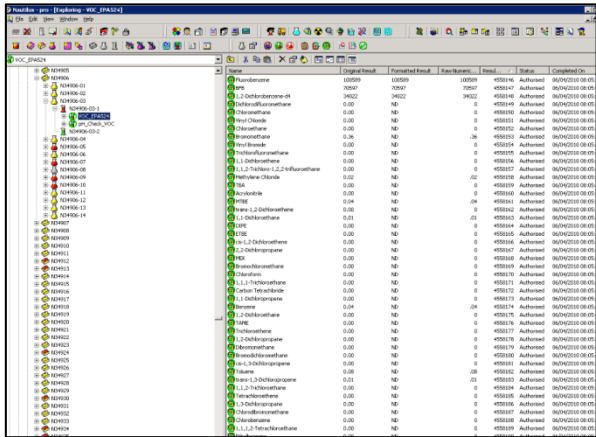
**Other Key Activities and Accomplishments**


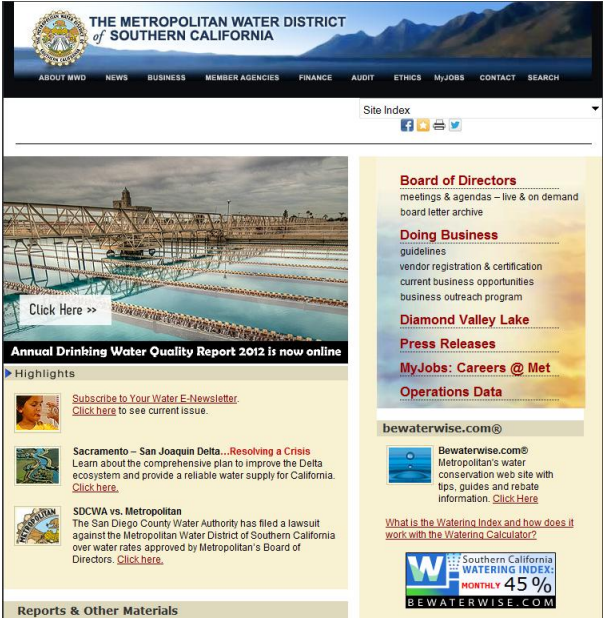
- As part of the IT Strategic Plan to upgrade Metropolitan’s core systems, staff prepared a business case and board letter for the Human Resources System (PeopleSoft) project. Board action is scheduled for December 2012.
- Successfully completed an upgrade to the Oracle e-Business Suite. The Oracle financial system is comprised of software modules, many of which are critical in supporting Metropolitan’s business/operation. This upgrade ensures reliability and allows Metropolitan to maintain the level of vendor support services required.
- Substantially completed user-acceptance testing as part of the Electronic Discovery (e-Discovery) project. The e-Discovery software tools for Legal will enhance Metropolitan’s efficiency and effectiveness in responding to discovery and public records request.

The fiscal year variance between budgeted and expended dollars is primarily due to; withholding vendor payment pending acceptance of deliverables; and 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.



Enhanced Cyber Security:	Through 1 <sup>st</sup> Quarter FY Budget: \$0.13 M    FY Expended: \$0.09 M
<p><b>Key Accomplishments Included:</b></p> <ul style="list-style-type: none"> <li>▪ The Information Technology (IT) Section provides on-going security monitoring and develops proactive counter-measures to protect IT infrastructure, data, and electronic assets. Staff utilizes a complement of security software tools and methods/processes to enhance the protection of all Metropolitan's cyber assets.</li> <li>▪ During the period, staff completed the highest priority remediation efforts based on recommendations of a recent security assessment performed on Metropolitan's Supervisory Control and Data Acquisition (SCADA) system.</li> </ul> <p><b>Continued on-going Security Initiatives and Best Practices</b></p> <ul style="list-style-type: none"> <li>▪ Staff 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.</li> <li>▪ Continued to assess and evaluate new cyber security tools to keep up with evolving technologies and changing business environment. For example, the increasing number of mobile devices (e.g. Smart Phones, tablets and laptops) that connect to Metropolitan's wireless network.</li> <li>▪ The IT Security Team continued to publish monthly cyber security tips on Metropolitan's internal website; provided security orientation for all new hires; and continued to enhance security awareness by notifying employees of suspicious activities such as fake virus alerts or other forms of Phishing designed to get users to unknowingly download virus infected content.</li> </ul> <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="841 1367 1453 1627" style="border: 1px solid black; padding: 5px;"> <p><b>Cyber Security Tips</b></p> <p><b>CYBER LINKS</b></p> <p><b>OnGuardOnline</b> – practical tips to help you be on guard against Internet fraud, secure your computer and protect your personal information.</p> <p><b>Stop, Think, Connect:</b> The first Global Online Safety Campaign Launches Stop and think about the places we visit online, the information that we share, and the communities in which we participate while connected to the Internet.</p> <p>2012</p> </div>  <div data-bbox="841 1680 1453 1743" style="background-color: red; color: yellow; text-align: center; padding: 10px; font-weight: bold;"> <span style="font-size: 2em;">((!))</span> IT Alert         </div>

<p style="text-align: center;"><b>Improved Water Quality:</b></p>	<p style="text-align: center;"><b>Through 1<sup>st</sup> Quarter</b>  <b>FY Budget: \$0.0 M      FY Expended: \$0.09 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <ul style="list-style-type: none"> <li>▪ Programming upgrades for software applications that support Metropolitan’s water quality (WQ) treatment, monitoring, and compliance reporting are required on an on-going basis. Modifications are typically needed as a result of changing regulatory compliance requirement, and other treatment process modifications.</li> <li>▪ During the period, IT staff continued the development of planned software upgrades to support WSO by enhancing Metropolitan’s Water Conservation Application, Lab Sheet, and Electronic System Log applications to be web-enabled.</li> <li>▪ A key benefit of web-enabling the selected WQ application is to provide user flexibility. Once upgrades are completed and fully deployed, this will enable WSO management to monitor and retrieve selected WQ data securely and remotely (e.g. online, website). In addition, enhancing Metropolitan’s Water Conservation Application will provide Member Agencies the ability to enter rebate requests directly into the Water Conservation application for processing streamlining the current manual process.</li> <li>▪ Programming for these water quality application are on-schedule and proceeding according to plan. Upgrades to the web-enabled applications are scheduled to complete in the fourth quarter of this fiscal year.</li> </ul> <p><b>Other Key Activities and Accomplishments</b></p> <ul style="list-style-type: none"> <li>▪ As part of water quality related activities, IT worked with WQ staff to migrate important water quality data to a new storage environment to enhance reliability as the existing server had reached its end-of-life.</li> </ul> <p>No capital dollars were budgeted in the Water Quality category for this fiscal year. Expenditures under this category were for final payments associated with the Water Quality Monitoring and Rapid Event Detection Project, which completed under-budget in the prior period. The water quality related work for the current fiscal year are planned as part of O&amp;M.</p>	<div style="text-align: center;">  <p><b>WATER QUALITY LABORATORY</b> THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA</p> </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div>

Productivity / Cost Efficiency:	Through 1 <sup>st</sup> Quarter FY Budget: \$0.06 M    FY Expended: \$0.0 M
<p><b>Key Accomplishments Included:</b></p> <p><b>Continued Development and Testing of a New Communications Expenses Tracking System</b></p> <ul style="list-style-type: none"> <li>▪ During the period, IT staff continued to work with a third party provider to implement a new application to assist Metropolitan’s IT Telecommunication Team to track, monitor and reconcile communication expenses. The new system is needed to effectively monitor and track the large number of communication billings (e.g. voice, data), usage and related data, allowing improved control and identification of potential mischarges and associated fees.</li> <li>▪ Key benefits of the new system includes           <ul style="list-style-type: none"> <li>▪ New capabilities to enhance monitoring and identifying incorrect / mischarges (providing cost recovery opportunities)</li> <li>▪ Improve management of circuits and disconnects to enhance billing accuracy</li> <li>▪ The new system is automated and is integrated to Metropolitan’s financial application (Oracle)</li> <li>▪ Replaces manual processes to enhance efficiency and effectiveness</li> </ul> </li> <li>▪ The new system is currently in development and will be placed into production next period.</li> </ul> <p><b>Supported External Affairs Group with the Web Redesign Project</b></p> <ul style="list-style-type: none"> <li>▪ A project is currently underway to update Metropolitan’s external website. The objective of the project is to re-design the current look and feel of the website which includes design, programming, review and implementation utilizing consultant services as well as internal MWD staff. The modernized website will present content that is relevant, better reflects the organization as the forward-thinking, dynamic leaders in delivering reliable water, easily accessible, while offering a clean and organized website to enhance user experience.</li> <li>▪ To date, the assessment phase of the project has been completed and a project timeline is being developed. The design phase will commence once the development of the scope of work and schedule are finalized.</li> </ul>	 

**Conducted User-Acceptance Testing and User Training for the new Web-Based WorkTech Timekeeping System**

- As a part of upgrading Metropolitan’s time keeping system (WorkTech v5.1), staff conducted end user training workshops and user-acceptance testing in preparation for final acceptance and deployment. The planned upgrade will keep software and maintenance current and provide for future capabilities such as remote time approval using wireless devices (e.g. smartphone). User-Acceptance testing of the web-based version is proceeding according to plan with deployment scheduled for next quarter.

**Other Key Activities and Accomplishments**

- Continued Metropolitan’s Personal Computer Replacement Program (PCRP) for deploying new computing technology throughout the organization. During the period, staff continued PCRP efforts by meeting with designated representatives from each business group to determine user requirements and developing of procurement strategy.
- Continued IT internship program that provides college students hands-on work experience while giving Metropolitan access to skill sets familiar with emerging technology.
- Conducted on-going efforts to deliver cost-effective IT services. For example, staff continued to evaluate technology advancements to determine its appropriateness for Metropolitan. During the period, staff continued to conduct pilots related to collaboration tools utilizing cloud based computing to allow efficient and effective exchange of information. These types of pilot testing, involving internal and external users help to determine the type of technologies that fit with our computing environment.

There are no expenditures for the Productivity / Cost Efficiency category for the first quarter of the fiscal year. The variance in this category primarily stems from the A/P Process Improvement Project that was deferred to focus on the highest priority efforts. A variance in this category is expected to remain pending final recommendation and Board authorization for the A/P Process Improvement Project.

