



## ● ITSP Quarterly Report - Written Report (period ending Mar 2014)

### 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 March 31, 2014. 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 refreshed in 2010 and is currently being updated 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 CIP planning process.

There were a number of important milestones achieved during the period that are summarized in this report. Selected accomplishments include completing Metropolitan’s Supervisory Control and Data Acquisition (SCADA) Master Plan and deployment of personal computers as part of the PC Replacement Program; continued development of Metropolitan’s SCADA cyber security enhancements and Laboratory Information Management System Upgrade; and initiated recent Board approved actions including the Enterprise UNIX Server Upgrade and SCADA Control System Server Replacement projects.

Key milestones for the upcoming quarter ending June 30, 2014 include: obtaining Board approval for the Emergency Radio Communications System and Wadsworth Control and Protection Upgrade projects; completing the Request for Proposal as part of the Oracle E-Business Suite; and continuing development of the PeopleSoft, Accounts Payable Automation, and Communication Infrastructure Reliability Upgrade projects.

### Purpose

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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

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Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of January 1, 2014 through March 31, 2014. 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 3rd Quarter</b>  <b>FY Budget: \$7.37 M      FY Expended: \$4.84 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <p><b>Initiated the Enterprise UNIX Server Upgrade</b></p> <ul style="list-style-type: none"> <li>▪ In December, the Board approved funding and authorization for award of contract to replace the existing Enterprise UNIX Servers. These servers support key enterprise business applications (e.g. Oracle &amp; PeopleSoft).</li> <li>▪ During the period, staff completed the professional services agreement; conducted project kick-off with consultant and project team; and took delivery of the new UNIX servers. Current activities include set-up and configuration of the servers and review of consultant design and deliverables to ensure they meet Metropolitan’s requirements. Beginning the next period, staff’s activities include the installation of Oracle database to provide for enhanced high availability capabilities, building the disaster recovery server, and planning the migration of the databases associated with applications. Once fully deployed, the new UNIX Servers will enhance reliability by replacing existing units that have reached the end of their normal expected service life.</li> </ul> <p><b>Continued Development of Hydraulic Modeling Project</b></p> <ul style="list-style-type: none"> <li>▪ The Hydraulic Modeling Project will develop a dynamic system-wide hydraulic model. This project supports upcoming rehabilitation of existing pipelines which requires careful planning and hydraulic analyses to minimize adverse hydraulic impacts to Metropolitan’s system.</li> <li>▪ During the period, IT staff working in close coordination with Engineering and Water System Operations continued development of a hydraulic model to support decision making for operations and to evaluate design alternatives. To-date, staff has substantially completed two out of the four modeling areas representing the distribution system. Next steps include testing to verify accuracy using actual flow measurements recorded under varying operating scenarios.</li> </ul> <p><b>Continued Supervisory Control and Data Acquisition (SCADA) Server Upgrade</b></p> <ul style="list-style-type: none"> <li>▪ In the prior reporting period, the Board approved funding and authorization for award of contract to replace the existing end-of-life SCADA Servers.</li> </ul>	  

The new servers will enhance reliability critical to monitoring and controlling a wide range of water system processes, such as water conveyance, distribution, and treatment.

- Current efforts to replace end-of-life servers for the SCADA system are proceeding according to plan with initial installations planned for the Weymouth treatment plant and Lake Mathews facilities. Once fully deployed, the new servers will enhance security, provide redundancy, and maintain water system reliability.

**Other Key Activities and Accomplishments**

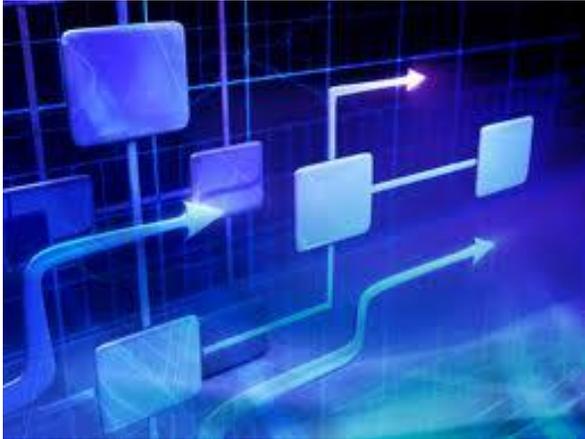
- Completed the Water Systems Control Master Plan to fully coordinate the operational and business needs of the SCADA Systems.
- Continued to conduct detail planning for upcoming Information Technology Disaster Recovery Exercises to ensure reliability of IT systems.
- Continued Emergency Radio Communication System project to support Metropolitan's emergency response plan by upgrading the two-way radio communication system used for operational and emergency response communications. Staff completed a competitive RFP selection process to seek consulting services to conduct final design, furnish hardware/equipment, and commission the upgrade.
- Continued development of staff recommendation for the Wadsworth Pumping Plant Control and Protection System Upgrade project. Based on the successful completion of the preliminary design phase, preparations are underway to seek Board authorization to proceed with final design and pilot implementation of control and protection upgrades.

The third quarter variance between budgeted and expended dollars is lower than plan primarily due to projects being deferred to allow additional time to investigate alternative approaches and other cost-effective options.



<p style="text-align: center;"><b>Enhanced Cyber Security:</b></p>	<p style="text-align: center;"><b>Through 3rd Quarter</b>  <b>FY Budget: \$0.44 M      FY Expended: \$0.34 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <ul style="list-style-type: none"> <li>▪ As a part of enhancing Metropolitan’s Supervisory Control and Data Acquisition (SCADA) cyber security capabilities, Information Technology and Water System Operations staff continued efforts aimed at implementing new network monitoring software, and related cyber security tools. In the prior period, staff took delivery of new hardware (e.g. servers) in preparation for implementing new SCADA security capabilities.</li> <li>▪ During this period, staff completed initial server set-up, configuration, and preliminary testing and deployed the units to designated SCADA field sites. Next steps include final system configuration and testing by authorized consultant personnel and Metropolitan’s information security staff. Oversight for installation of the new security tool(s) is done by WSO’s SCADA Support Staff along with IT Security personnel.</li> </ul> <p><b>Other Key Activities and Accomplishments</b></p> <ul style="list-style-type: none"> <li>▪ IT Staff continued to monitor and participate in local and national efforts aimed at enhancing security capability for the water sector. During the period, key activities included:</li> <li>▪ Reviewed National Institute of Standards and Technology (NIST) – Preliminary Cybersecurity Framework issued in February 2014.</li> <li>▪ Developed presentation for Information System Audit and Control Association (ISACA) Conference to co-present with LADWP Security Manager (April 7-9<sup>th</sup> ISACA Conference). The presentation covered the recently issued NIST Framework released on February 12, 2014.</li> <li>▪ Participated in local and regional security forums aimed at enhancing cyber security capabilities by sharing information, solutions and strategies among IT professionals.</li> <li>▪ Tested vendor issued security patches prior to deployment to ensure compatibility and protect Metropolitan’s computing environment.</li> </ul> <p>Expenditures in the Enhanced Cyber Security category were within plan for the third quarter of the fiscal year. All projects are projected to complete within Board approved budgets.</p>	<div style="text-align: center;">  </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>

<p style="text-align: center;"><b>Improved Water Quality:</b></p>	<p style="text-align: center;"><b>Through 3rd Quarter</b>  <b>FY Budget: \$0.0 M      FY Expended: \$0.0 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <p><b>Continued Upgrades to Laboratory Information Management System</b></p> <ul style="list-style-type: none"> <li>▪ IT programming staff continued to work closely with WSO’s Water Quality Section to upgrade Metropolitan’s Laboratory Information Management System (LIMS) to the latest software version. This upgrade is needed to maintain priority vendor support and software currency. The LIMS application contains Metropolitan’s water quality State compliance data and is the data-of-record. LIMS manages water quality samples and results for water quality compliance, operational monitoring, and research programs.</li> <li>▪ During the period, staff continued to work collaboratively with Water Quality staff on the development phase of the LIMS project. With the recent completion of the new servers (e.g. set-up, configuration, and initial testing), staff continued to work on data migration and storage as part of the upgrade. As the project prepares to transition from the development phase to the deployment phase, staff is working on the deployment plan, user acceptance test plan, along with scheduling end-user training. The LIMS upgrade is proceeding according to plan with initial deployment scheduled for next period.</li> </ul> <p><b>On-going Water Quality Programming Support</b></p> <ul style="list-style-type: none"> <li>▪ IT staff provided on-going support to other Water Quality software applications that go towards supporting Water System Operations. These applications include: <ul style="list-style-type: none"> <li>▪ <i>Water Quality Lab Sheet</i> used by Water Quality staff for compliance data collection and reporting.</li> <li>▪ <i>Electronic Systems Log (ESL)</i> used to capture water operation and water quality related events that must be recorded for regulatory compliance and event monitoring.</li> </ul> </li> </ul> <p>No capital dollars were budgeted in the Water Quality category for this fiscal year. All activities in this category reflect work being done as part of the fiscal year 2013-14 O&amp;M budget.</p>	<div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div>

<p><b>Productivity / Cost Efficiency:</b></p>	<p><b>Through 3rd Quarter</b>  <b>FY Budget: \$1.12 M      FY Expended: \$0.58 M</b></p>
<p><b>Key Accomplishments Included:</b></p> <p><b>Completed the Personal Computer Replacement Program</b></p> <ul style="list-style-type: none"> <li>During the period, staff substantially completed Metropolitan’s Personal Computer Replacement Program (PCRP) for deployment of new computing technology throughout the organization. Key PCRP benefits included: enhanced reliability by replacing end-of-life workstations and laptop computers; increased security by upgrading computer operating system to a newer version of the operating system; and improved organizational effectiveness by deploying the latest technologies and office productivity tools (e.g. Microsoft Office Suite). For the next period, staff will initiate post-deployment activities in preparation for project closure.</li> </ul> <p><b>Continued Oracle Accounts Payable Automation System Project</b></p> <ul style="list-style-type: none"> <li>The implementation of the Accounts Payable (AP) Automation System project will enhance workflow for Metropolitan’s AP staff through automated processing. Once fully deployed, the new system will maximize workforce productivity and improve reliability for vendor payments by implementing the tools necessary to provide scanning of invoices, storage of electronic data, and automated workflow.</li> <li>During the period, staff continued on the design and development phase of the project. Key activities and accomplishments included: set-up of development and testing environments (e.g. servers), configuration of systems (e.g. software), and initial testing. Work is proceeding according to plan as IT continued to work closely with AP staff on system configurations. Deployment of the Accounts Payable Automation System is currently scheduled for the first half of next fiscal year.</li> </ul> <p><b>Deploy smart technologies and innovative business services to enhance efficiency</b></p> <ul style="list-style-type: none"> <li>Maximo Maintenance Management Systems—In January, staff made enhancements to Metropolitan’s maintenance management system. This system is used by Water System Operations to manage maintenance activities such as preventive and corrective maintenance work</li> </ul>	  

orders. The new software enhancements provide ease of use for mobile hand-held units to capture field data (e.g., Confine Space Entry measurements) and streamline workflow by enabling the software to record and store the information electronically in Water System Operations' maintenance database.

**Other Key Activities and Accomplishments**

- Continued PeopleSoft 9.2 Upgrade Project for enhanced workflow, vendor support and required tax updates. Completed set-up of development environment allowing IT programmers and HR staff to conduct initial testing.
- Initiated update to Metropolitan's Information Technology Strategic Plan (ITSP) as IT Staff and consultant conducted the project kick-off and began initial data-gathering. The purpose of the ITSP is to provide a roadmap to guide the investment and deployment of information technology at Metropolitan over the next three to five years. The plan is updated periodically based on changing business needs and technology advancements.
- Initiated deployment of new voting equipment for the board committee rooms (US2-145 and US2-456). The new system complies with recent Brown Act amendments for voting at public meetings of local legislative bodies.
- IT Staff supported the roll-out of new multifunctional copiers to reduce printer/copier/fax/scanning costs and to replace equipment that is no longer supported. Key activities necessary to support the effort included: network reconfiguration and setup for network printing, scanning, emailing, and faxing capabilities.
- Supported the deployment of a New Online Training Program. IT and HR staff worked closely to launch SKILLPORT, a new online training tool that has a comprehensive library of resources and is accessible 24/7, providing convenient access to training curriculums.

Expenditures for the Productivity / Cost Efficiency category through the third quarter were lower than planned but are projected to complete on-target for the fiscal year. All projects within this category are projected to complete within Board approved budgets.

