



● Information Technology Strategic Plan (ITSP) - Quarterly Report for the period ending September 2011 Summary

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 September 30, 2011. 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, 2011 include completing final design for the wide-area-network communication upgrade; completing the RFQ requirements for the selection of a SCADA security consultant; begin transfer of email files into the electronic discovery (e-Discovery) central storage area; and conduct final consultant selection as part of the Wadsworth Pumping Plant Controls Upgrade project.



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.

Detailed Report

Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of July 1 through September 30, 2011. 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 1th Quarter FY Budget: \$2.44 M FY Expended: \$0.22 M</p>
<p>Key Accomplishments Included:</p> <p>Obtained Board Authorization to Proceed with Final Design for the Uninterruptible Power Supply (UPS) Upgrade</p> <ul style="list-style-type: none"> ▪ In the prior period, staff completed the preliminary design report to replace the uninterruptible power supply for the data center at Metropolitan's Headquarters at Union Station. The upgrade project will replace existing 12-year-old data center UPS that have reached the end of its service life. The purpose of the UPS is to prevent fluctuations in electrical power and to serve as a backup power supply in the event of loss of utility power. ▪ In July, staff obtained board authorization to proceed with the final design phase and work is proceeding according to plan. Upon completion, staff will return to the board to seek authorization for the construction phase. <p>Enhanced Reliability by Conducting Regular IT Disaster Recovery (DR) Exercise</p> <ul style="list-style-type: none"> ▪ As part of an ongoing effort to refine Metropolitan's ability to recover critical IT systems in the event of a disaster, staff conducted a disaster-recovery exercise involving critical applications (e.g. Water Quality Labsheet) and validated staff's ability to access the internet system in the event of an incident/emergency. Key objectives of the August exercise included: <ul style="list-style-type: none"> ▪ IT incident response and recovery processes ▪ Emergency teams roles & responsibilities ▪ Problem solving and action planning ▪ Process enhancements and refinements ▪ The disaster-recovery exercise was successfully executed and was conducted in conjunction with the annual Headquarters facility power shut-down allowing IT staff to test critical "fail-over" capabilities using Metropolitan's remote disaster-recovery site by enabling remote servers. 	 

Completed Vendor Selection for the Environmental Safety and Management Information System (EMIS) project

- The EMIS project will replace Metropolitan's existing Environmental, Health and Safety systems which consist of standalone databases, spreadsheets and 14-year-old applications. The Safety and Environmental Services Section handles over 800 permits for equipment and processes in the areas of air quality, wastewater, hazardous materials and waste, under and above ground fuel and chemical storage tanks, and health and safety requirements.
- In September, IT staff working in conjunction with Metropolitan's Contracting Team completed the vendor evaluation and selection process based on a competitive solicitation (Request for Proposal No. 972).

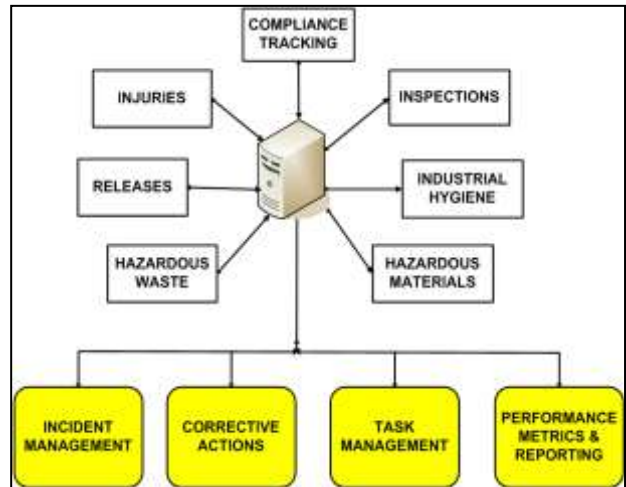
Other Key Activities and Accomplishments

Upgrade Metropolitan's Two-Way Radio System

- Metropolitan's existing 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. In addition to using the two-way radio system for daily operational needs, it is an important element in supporting Metropolitan's emergency response communications.
- During the period, IT staff continued to work with the Legal Department in the preparatory process related to the acquisition of regional clear channel radio-frequencies needed to expand Two-Way Radio coverage. To complete the current phase, staff requested and was approved to use \$180,000 from the program level contingency. Upon completion of procurements and preliminary design, staff will return to Board for authorization to proceed with final design and implementation.

Continued Implementing the Electronic Discovery Management System (e-Discovery) Project

- The e-Discovery project will reduce legal risk, effort, time and costs associated with discovery of electronically-stored information and enhance Metropolitan's legal compliance efforts. This project provides a comprehensive system with effective tools to comply with statutory



requirements related to the discovery of electronically stored information needed for litigation. This system will help Metropolitan avoid exposure to e-Discovery errors and delays that may otherwise result in possible court imposed sanctions in the context of litigation.

- To date, approximately 85% of the e-Discovery software has been installed and configured to meet Metropolitan's requirements. The next area of focus will be to migrate historical email messages into the new e-Discovery email archive database where it will be preserved and made available for future access. During the period, staff conducted final preparations to begin the migration of emails into the electronic discovery central storage area.

Initiated Oracle Financial System Upgrade




- The Oracle financial system is comprised of software modules, many of which are critical in supporting Metropolitan's daily business operations. The purpose of this software upgrade to version 11.5.10 is to ensure reliability as support for the existing Oracle is set to expire. Oracle may not provide the necessary support required should a problem occur in the existing version. By conducting this upgrade, Metropolitan will be able to maintain the level of vendor services required.
- During the period, IT staff began building, configuring, and testing software and hardware (e.g. servers) in preparation for the end-user test phase. The end-user functional testing involves key users from the Chief Financial Officer's Office. Comprehensive testing of the financial system modules and workflow will be conducted over the next several months, with deployment scheduled for the fourth quarter of this fiscal year.

Other Key Activities and Accomplishments




- As a part of the DVL Hiram W. Wadsworth Pumping Plant project, staff continued the RFQ/RFP processes to select an owners-engineer and a prime consultant to assist Metropolitan with the project. Recommendations to award are scheduled to complete next quarter and staff will seek the Board's authorization to proceed in February 2012.



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 1st Quarter FY Budget: \$0.15 M FY Expended: \$0.02 M</p>
<p>Key Accomplishments Included:</p> <p>Completed Request for Qualification (RFQ) Requirements for SCADA Security Assessment</p> <ul style="list-style-type: none"> ▪ As a part of assessing Metropolitan's Supervisory Control and Data Acquisition (SCADA) Cyber Security capabilities and effectiveness, staff recently completed requirements for an RFQ solicitation. The purpose is to select a security firm specializing in SCADA and industrial control system security and to conduct a comprehensive vulnerability assessment. Based on the findings, remediation efforts will be prioritized to address any priority items to ensure adequate protections are in place and to plan for longer term countermeasures to help protect against unauthorized access into Metropolitan's SCADA system. The assessment is scheduled to complete in the third quarter of this fiscal year. <p>Completed software upgrade rollout of service pack 2 for Windows Vista operating system</p> <ul style="list-style-type: none"> ▪ Vista is the operating system currently installed on Metropolitan desktop and laptop computers. This software upgrade is a key part of the Information Technology Security Team's on-going effort to update and maintain current security software versions and regularly deploy the latest security patches to protect Metropolitan's IT network, infrastructure and data. ▪ During the period, staff completed the Vista-Service Pack 2 updates for desktops and laptops. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> ▪ Continued to monitor national efforts aimed at enhancing security capability for the water sector to help identify prudent steps and best practices. ▪ IT Security Team continued to publish a monthly cyber security tips on Metropolitan's internal website providing practical information on current security issues and provided security orientation for all new hires. <p>Expenditures for the category were lower than plan. The first quarter variance is expected to decrease in the third quarter of the fiscal year once the security assessment is completed and remediation actions are underway.</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;">Improved Water Quality:</p>	<p style="text-align: center;">Through 1th Quarter FY Budget: \$.08 M FY Expended: \$0.07 M</p>
<p>Key Accomplishments Included:</p> <p>Completed final user acceptance - Water Quality Monitoring and Rapid Event Detection System</p> <ul style="list-style-type: none"> ▪ In the prior period (June), staff rolled out the new Water Quality Monitoring and Rapid Event Detection System to Metropolitan's Water Quality Section. The event detection system software collects and analyzes data from existing water quality instrumentation located throughout Metropolitan's treated water distribution system. The new application allows for real-time monitoring of water quality in the distribution system and to notify staff of potential contamination and unusual water quality conditions. ▪ During the period, IT staff and key users from the Water Quality Section completed final user acceptance testing and documentation. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> ▪ Programming upgrades for software applications that support Metropolitan's water quality treatment, monitoring, and compliance reporting are required on an on-going basis. Modifications are typically needed as a result of changing regulatory compliance requirements, and other treatment process modifications. During the period, the following software application upgrade was completed. ▪ IT staff completed software programming upgrades to the Interim Enhanced Surface Water Treatment (IESWTR) application to include Weymouth contact time calculation to be aligned with new filtration processes at the Weymouth Treatment Plant. The IESWTR software application is used by Metropolitan for California surface water filtration and disinfection treatment regulations compliance reporting. <p>Expenditures for the Improve Water Quality category were on target through the first quarter of the fiscal year. All projects are projected to complete within Board approved budgets.</p>	<div data-bbox="824 352 1463 779" data-label="Image"> </div> <div data-bbox="837 915 1458 1360" data-label="Image"> </div>

<p>Productivity / Cost Efficiency:</p>	<p>Through 1st Quarter FY Budget: \$0.06 M FY Expended: \$0.01 M</p>
<p>Key Accomplishments Included:</p> <p>Initiated a new cloud-based Lease Management System</p> <ul style="list-style-type: none"> ▪ The Lease Management System will replacing existing in-house developed software comprised of modules up to 17 years old. A new system is needed as the existing application no longer meets all of Metropolitan's business needs and the newer software is more cost-effective than modifying the outdated existing system. This project is sponsored by the Property Management Unit within the Real Property Development and Management Group. ▪ During the period, IT staff obtained management approval to proceed with a cloud-based application. <p>Deployed Software Enhancements to Metropolitan's MAXIMO Hand-Held System</p> <ul style="list-style-type: none"> ▪ During the period, IT staff deployed into production a number of customer requested software enhancements to the Maximo hand-held system. Maximo is used by Water System Operations to organize, plan and record maintenance activities such as preventive and corrective maintenance work orders. Key software upgrades include: <ul style="list-style-type: none"> ▪ Enhanced usability allowing greater search capabilities without having to switch views or log into different software modules. ▪ Improved access to information such as detailed work order history and equipment specification information. ▪ Improved data validation to streamline data entry and standardization. <p>Other Key Activities and Accomplishments</p> <ul style="list-style-type: none"> ▪ The Business Technology Group was the recipient of a 2011 PMI Distinguished Project Award by the Project Management Institute (PMI). The award was based on an entry submitted for the Transportation and Fuel Management Project. This project implemented modern fleet and fuel management systems that improved the tracking of fleet assets by replacing ad-hoc systems and manual processes; replaced stand-alone databases 	  

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with a central fleet maintenance system; improved tracking, scheduling and reporting of preventative and corrective fleet maintenance; and implementing sophisticated technology to manage fuel dispensing to authorized vehicles by electronically capturing information such as amount of fuel dispensed, vehicle mileage, and employee identification.

- The Information Technology Section initiated an internship program to provide college students hands-on work experience to augment their studies with practical work experience. Currently, there are three interns on-board, with additional internship positions being evaluated.
- Staff continued to evaluate cloud computing technology, investigate alternative approaches and options for delivering cost-effective IT services. Two new cloud-based applications that are being recommended include a new Lease Management System for the Real Property Development and Management Group and the Environmental Safety and Information Management system to effectively manage Metropolitan's environmental compliance activities.

Expenditures for the Productivity / Cost Efficiency category were under-budget for the first quarter of the fiscal year. A variance is expected to remain in this category based on revised plans which include: the deferral of the Ozone capital project, a slight deferral of projects in this category to investigate alternative approaches and other cost-effective options, and the Lease Management System project which was re-scoped from a capital project to an O&M project utilizing a cost-effective cloud-based solution.

