



- ITSP Quarterly Report - Written Report (period ending Sept. 2015)

Report

Business Technology Group

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, 2015. 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 2015 with the vision for IT to provide leadership, innovation, performance and, above all, customer value; the characteristics of a world class service provider. Oversight of IT investments in ITSP is provided by the IT Guidance Committee which consists of senior management in Metropolitan. In addition, IT projects are evaluated through the Capital Investment Projects (CIP) budgeting process.

There were a number of important milestones achieved during this period that are summarized in the report. Selected accomplishments include: completed all 31 radio repeater site installations for the Emergency Radio System project; completed the testing of the communication network and conducted the electrical system fault study for the Hiram Wadsworth Pumping Plant project; successfully implemented PeopleSoft HCM project; and successfully opened the Metropolitan’s Innovation Hub (iHub).

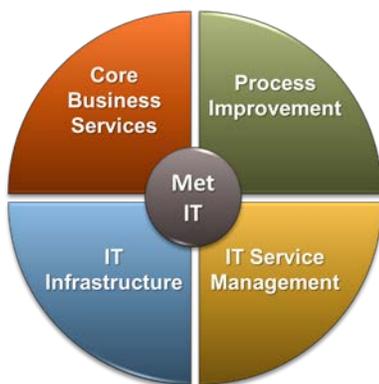
Key milestones for the upcoming quarter ending December 31, 2015 include: the acceptance tests for the Emergency Radio System project; construction to upgrade the Union Station network rooms as part of the Network Reliability Upgrade project; and the installation for pilot testing on the Hiram Wadsworth Pumping Plant 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.

Detailed Report

Attached are highlights of progress and major milestones reached on IT projects / initiatives during the period of July 1, 2015 through September 30, 2015. The projects are categorized by business driver as follows:



IT STRATEGIC PLAN

Core Business Services – Initiatives to create IT services that are essential to the operation of customer business processes

IT Infrastructure – Initiatives to develop IT infrastructure that allows Met IT to deliver Core Business Services

IT Service Management – Initiatives that enable change within the IT Section to improve delivery of IT services and creates customer value

Process Improvement – Initiatives that enhance Core Business

Core Business Services:	Through 1 st Quarter FY Budget: \$3.52M FY Expended: \$6.23M
<p>Key Accomplishments Included:</p> <p>Emergency Radio System (Two Way Radio) Project</p> <p>Background: Metropolitan staff relies on handheld, vehicle-mounted, and fixed-station radios for both emergency response and day-to-day operational communications. The existing radio configuration uses a combination of three different localized systems which were deployed over a period of three decades. The systems lack reliability, capacity, and coverage to meet disaster recovery needs, and are difficult to use. During recent disaster recovery exercises, the radio systems could not provide an effective means of communication. This project will replace the existing three systems with a single system of sufficient capacity, usability, and coverage to communicate across Metropolitan’s entire service area.</p> <ul style="list-style-type: none"> ▪ During this period, the project team addressed the installation punch list issues, (i.e. antennas which receives the radio signal for processing, status all defective antennas were replaced and tested; duplexers are radio signal filters, defective duplexers identified and will be replaced upon receipt from vendor) all of which either had been resolved or are in resolution. Also, the project team delivered to the contractor the requirements for the configuration of talk-groups and specific radio functionality. ▪ Currently, the project team is continuing to install the Distributed Antenna System (DAS is used where radio signals are weak like in underground chambers at the plants) at the Diemer and Jensen plants. Mills Plant work is expected to start shortly after Diemer finishes. All DAS installation work is on schedule and expected to complete by second quarter of the fiscal year. <p>Next step: Staff will begin the Coverage Acceptance Drive Tests after the failed antennas (vendor owns antennas which Metropolitan has not approved or accepted are new antennas that</p>	

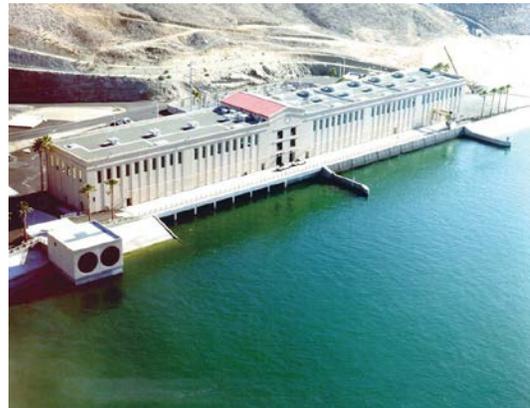
failed immediately when tested after being placed on tower; antennas then were removed and sent back to factory) are replaced. Following this, staff will distribute handhelds and install mobile/vehicle radios for initial full system user acceptance testing.

Hiram Wadsworth Pumping Plant Project

Background: The Board authorized the final design to replace the control and electrical protection systems for the Hiram W. Wadsworth Pumping Plant at Diamond Valley Lake (DVL). These systems automatically operate and protect the pump/turbine units, enabling the facility to control flows between DVL, the Inland Feeder, and the San Diego Canal. These systems have reached the end of their service life and individual components have begun to fail. The pumping plant's control and electrical protection systems are failing due to their length of time in service, while spare parts are no longer available. The upgrades are needed to maintain full operational control and reliability of the facility.

- During this period, completed the testing of the communication network and conducted the electrical system fault study. Metropolitan's project team including staff from IT, ESG, and WSO installed a new Ethernet network (i.e. pulled the cables and added switches) and tested it according to the approved testing procedure that included checking the effectiveness and performance of the network. Also, project team tested whether the network can handle future traffic. The electrical fault study looked at the integrity of the electrical system. It verifies that the electrical system works properly, and that the equipment is sized appropriately.
- In addition, completed and approved the product description/specification provided by the vendor for the vibration monitoring system.

Next step: Staff will start on the installation for pilot testing of unit 2 as part of the final design.



Oracle Release 12 (R12) Upgrade Project

Background: The Oracle Financial application supports Metropolitan’s core business functions. In order to maintain vendor support and provide new functionality, the application requires an upgrade to the current version. There has not been a major upgrade to the Oracle Applications since 2002, when the Project and Grants Accounting module was deployed. Additionally, the existing Travel Expense Reimbursement system is based on older technology that is no longer supported. This project will replace the existing Travel Expense Reporting system with an integrated Oracle module, iExpenses.

- During this period, in preparation of the System Integration Testing (SIT), staff completed the application configurations in Conference Room Pilot and migrated customizations to the SIT environment. SIT is the last testing environment prior to User Acceptance Testing (UAT).

Next step: Depending upon the outcome of SIT, staff will prepare for and execute UAT in preparation for Production cutover.

PeopleSoft Human Capital Management (HCM) Upgrade 9.2

Background: PeopleSoft application is used for payroll processing, tracking of employee-related information, and monitoring of compliance training. Staff evaluated alternative solutions and the findings indicate that upgrading the PeopleSoft application is the most reliable path to pursue for Metropolitan. The HCM application includes Employee Relations, Payroll, Benefits and Temporary Workers, and Consultant Tracking Modules. The upgrade will allow Metropolitan to continue to receive vendor support and needed tax updates.

- During this period, PeopleSoft HCM 9.2 was successfully implemented in August. There were no significant problems and staff resolved only a few minors remaining issues.
- PeopleSoft HCM 9.2 is in production for the 2015-16 Open Enrollments



<p>Next step: Staff will be working on project closure.</p> <p>Other Key Activities and Accomplishments The Machine Shop in La Verne requires software to track jobs for internal and external customers. A Request for Proposal was performed and successful respondent selected. During this reporting period, staff conducted negotiations over the terms and conditions of the agreement with the vendor.</p> <p>Expenditure for the Productivity / Cost Efficiency category exceeded the planned budget for this fiscal year due to cost associated with carryover invoices from the previous year. All projects within the program are expected to be completed within appropriated amounts.</p>	
<p>IT Infrastructure:</p>	<p>Through 1st Quarter FY Budget: \$1.18M FY Expended: \$1.11M</p>
<p>Key Accomplishments Included: Network Reliability Upgrades Project Background: Metropolitan’s network connects workstations, servers, and computer equipment via communication lines that extend throughout the distribution system and to the Colorado River Aqueduct (CRA) pumping plants. A majority of Metropolitan’s communication network devices have been in continuous operation between 7 and 12 years. Recent inspections have identified network hardware components showing signs of wear and requiring increasingly frequent repairs. Metropolitan depends on this communication network to transmit data, voice, video, and command signals to operate its distribution and business systems.</p> <ul style="list-style-type: none"> ▪ During this period, the project team received approximately \$3.3 million of network equipment for replacing end-of-life communications infrastructure. To date, staff 	

deployed over 238 out of 386 network devices throughout the field sites.

- In August, a Change Order was approved by Steering Committee to use remaining budget to purchase additional network equipment to improve network speed and compatibility between the new and older components on the network.
- In September, the construction schedule was finalized to begin upgrading the network rooms at Metropolitan's Headquarters Building. (Upgrades to the cooling, power supply, and backup power systems are needed to support the ongoing telephone replacement and network hardware replacement projects).
- Completed one microwave path to the West side of the reservoir of the Diamond Valley Lake microwave pilot project.

Next steps:

- Prepare for construction to upgrade the Metropolitan's network rooms which is scheduled for the second fiscal quarter.
- Process Change Order to use remaining budget and initiate procurement of needed network components.
- Complete survey and design of the four remaining microwave paths for the Diamond Valley Lake microwave pilot project.

Telephone Replacement Project

Background: The new Telephone Replacement project will replace the existing telephone system that has reached the end of its useful life. This system has been in continuous operation for over 22 years. The upgrade to a VOIP-based technology will create the infrastructure foundation to enable future convergence of communications technologies such as messaging (e-mail, instant messaging, text messaging, fax, and voice mail) and conferencing (audio, video, and web).

- During this period, staff and consultants substantially completed a comprehensive design document of how the system would be built and configured. Detail deployment configuration of 2,531 phones and 1,752 analog were completed. Preparations were



initiated to commence a 366-person pilot by second quarter of the fiscal year. The hardware and software licensing requirements were identified for purchase.

Next steps:

- Metropolitan is purchasing telephone subscriber lines, called SIP trunk lines, from AT&T to allow for Voice over Internet Protocol (VoIP) telephone calls to reach outside parties from within Metropolitan.
- Finalize the bill of materials lists with the telephone deployment vendor and purchase telephones hardware and software.



Cyber Security Upgrades Project:

Background: The mission of enhanced cyber security program is to secure system and network resources, protect application systems, safeguard the confidentiality of employee and district information, and educate employees about operating policies, procedures and best practices.

Cyber security is a high priority and key component of Metropolitan’s Information Technology Strategic Plan (ITSP). Maintaining a secure computing environment requires regular enhancements and upgrades to Metropolitan’s IT information security infrastructure to ensure protection against continually evolving cyber threats.

- Information Security is currently working with SCADA Team to identify and prioritize immediate steps to enhance security on the SCADA Network. These steps may require additional funding to insure the security posture is adequate. Security is an ongoing process due to the complexity and changing nature of technology. We continue to evaluate and perform our due diligence to protect our computing environment.



Other Key Activities and Accomplishments

During the period, staff conducted an IT disaster recovery exercise as part of an ongoing effort to maintain Metropolitan’s ability to recover critical

<p>business processes in the event of a disaster. The August's exercise involved executing recovery strategies that support Metropolitan's Engineering ProjectWise system.</p> <p>IT Cyber Security team continues to keep Metropolitan's employees inform with monthly cyber security tips ranging from general tips to online trade phishing attacks.</p> <p>Expenditures in the IT Infrastructure category were within plan for the first quarter. All projects are projected to complete within Board approved budgets.</p>	
<p align="center">IT Service Management:</p>	<p align="center">Through 1st Quarter FY Budget: \$0.00M FY Expended: \$0.00M</p>
<p>Key Activities and Accomplishments IT Service Management Framework Process Implementation:</p> <p>As part of the continual implementation of the initiatives which are stated in Metropolitan IT Strategic Plan, IT staff started a formal introduction of service delivery process based on the guidance delivered in the Information Technology Infrastructure Library framework.</p> <p>No capital funds were budgeted in the IT Service Management category for the first quarter. All activities in this category reflect work being done as part of the fiscal year 2015-2016 O&M budget.</p>	

<p>Process Improvement:</p>	<p>Through 1st Quarter FY Budget: \$0.00M FY Expended: \$0.02M</p>
<p>Key Accomplishments Included:</p> <ul style="list-style-type: none"> ▪ Cloud Computing Technology and Collaborative Work Environment Solutions: <ul style="list-style-type: none"> ▪ Created three new collaboration sites in SharePoint Online: <ul style="list-style-type: none"> ▪ World Water Forum – this site was created for External Affairs to help coordinate activities for the World Water Forum. ▪ MWD GIS User Group – this site was created for the GIS team to support the GIS User Group. ▪ MWD CSU – this site was created to coordinate activities for Control System Upgrade projects. ▪ Continued to provide support for existing SharePoint online collaboration sites. ▪ Successfully opened the Metropolitan’s Innovation Hub (iHub). The iHub will provide Information Technology services where employees may drop in and get assistance from iHub staff. A broad range of technical services will be offered in the iHub. The iHub staff will also provide regular training sessions on topics that will help employees’ productivity with their electronic devices. ▪ Business Technology Group introduced a new Board of Directors touch-screen information panel in the rotunda area. This information panel displays a picture of current Metropolitan Directors and provides a biography of each Director. The screen displays information about the Member Agency that the Director represents. The panel also provides the Member Agency website and QR (Quick Response) code to the 	<div data-bbox="894 506 1395 871" data-label="Image"> </div> <div data-bbox="914 1136 1373 1633" data-label="Image"> </div>

website. The QR code allows people with mobile devices to scan the code and get immediate access to the Member Agency website. The panel allows employees and members of the public to become knowledgeable and familiar with our Board Members and the Member Agencies they represent by walking up to panel and interactively receive information.

- HP Autonomy is working with staff to upgrade the older version of the eDiscovery system Metropolitan. The latest version is an integrated, streamlined package that is simpler and more user friendly. Metropolitan expects the upgrade to be completed by end of second quarter of the fiscal year.

No capital funds were budgeted in the IT Service Management category for the first quarter. All activities in this category reflect work being done as part of the fiscal year 2015-2016 O&M budget.

