



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

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 December 31, 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 the acceptance tests at Diemer and Jensen Plants for the Emergency Radio Systems project; completed the installation planning workshop for the Hiram Wadsworth Pumping Plant project; completed the order of the telephone system hardware and software equipment for the Telephone Replacement project; and started the construction work to upgrade network rooms at Metropolitan’s Headquarters Building for the Network Reliability Upgrade project.

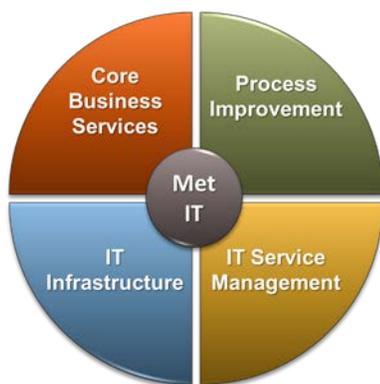
Key milestones for the upcoming quarter ending March 31, 2016 include: the acceptance tests at Mills Plant for the Emergency Radio System project; start on the telephone pilot phone deployment for the Telephone Replacement project; continue with the construction to upgrade the Metropolitan’s Headquarters Building network rooms as part of the Network Reliability Upgrade project; start the pilot testing on a fully upgraded Unit 2 (pump/generator) as part of the final design on the Hiram Wadsworth Pumping Plant; and completion of the Oracle Upgrade.

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 October 1, 2015 through December 31, 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 Services and improve customer business processes

Core Business Services:	Through 2 nd Quarter FY Budget: \$6.76M FY Expended: \$9.59M
<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 prior 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 completed the Distributed Antenna System (DAS) installation and Coverage Acceptance Test Plan (CATP) at Jensen and Diemer Plants. The DAS installation at Mills Plant started in December and is estimated to be completed by the third quarter of the fiscal year. Overall, CATP is 85% completed and currently conducting additional testing in the desert area. ▪ Staff also completed several Motorola training classes: <ul style="list-style-type: none"> ▪ Three Motorola “train-the-trainer” sessions were completed at Weymouth Plant. Staff was shown how to train others on the “how to use” handhelds and mobile radios, this includes features based on the new trunked system. ▪ A one week console training course occurred at Eagle Rock for the system administrators. ▪ Several two-hour training courses occurred at Eagle Rock for operators (EOC). 	

Next step: Staff will be distributing mobile and hand held radios next quarter and performing the unstructured tests 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, staff completed the Factory Acceptance Test (FAT) on all control system components (electrical, protection relays, programming and vibration monitoring). In addition, staff completed the plans for the startup of the pilot unit (Unit No. 2).

Next step: Staff will start the pilot testing on a fully upgraded Unit 2 (pump/generator) 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, the System Integration Testing is substantially completed. Staff began the User Acceptance Testing (UAT). Currently, in preparation of completing the project, staff is reviewing and discussing the Oracle shutdown plan and training for different site locations.

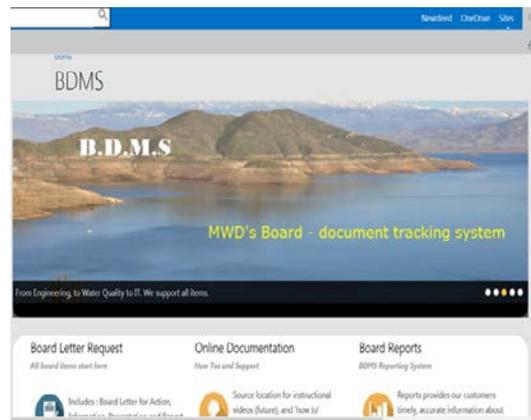
Next step: Depending upon the outcome of UAT, staff expects the project to be completed by the third quarter of the fiscal year.

Other Key Activities and Accomplishments

The Machine Shop in La Verne requires software to track jobs for internal and external customers. After a competitive bidding process, a vendor was selected and a contract was set up. During this reporting period, staff finalized and signed off on a purchase order for the software and an implementation services agreement to commence in third quarter of the fiscal year.

The Board Document Management System (BDMS) is a system used by Board Letter Coordinators to allow collaboration on Board documents and agenda items. During this reporting period, staff worked collaboratively with the Lead Board Letter Coordinator to migrate BDMS from SharePoint 2007 to SharePoint 2013. Staff created testing and production environments, migrated the application and all content to SharePoint 2013, completed User Acceptance Testing, and placed the SharePoint 2013 system into production. Additional user-requested incremental enhancements are expected to be completed by end of third quarter of the fiscal year.

Expenditures for the Core Business Services category exceeded the planned amounts for this second quarter; however, all the projects in this category are expected to be completed within



budget.	
IT Infrastructure:	Through 2nd Quarter FY Budget: \$2.08M FY Expended: \$1.71M
<p>Key Accomplishments Included:</p> <p>Network Reliability Upgrades Project</p> <p>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 all orders, approximately \$3.6 million, of network equipment for replacing end-of-life communications infrastructure. To date, staff deployed approximately 269 out of 386 network devices throughout various field sites (e.g. Jensen Treatment Plant and Eagle Rock). The target completion date is toward the end of the current fiscal year. ▪ Metropolitan issued a Notice To Proceed to contractor on the installation of the electrical conduit and HVAC pipes in electrical rooms on each floor here at Metropolitan’s Headquarters building. Construction permits were obtained from the City of Los Angeles for upgrading electrical power and cooling upgrades and procurement of materials was commenced. ▪ Completed the design of the last remaining four microwave paths for the Diamond Valley Lake microwave pilot project. <p>Next steps:</p> <ul style="list-style-type: none"> ▪ Deployment of the remaining 117 devices is proceeding according to plan. The installation 	<div data-bbox="889 520 1404 976" data-label="Image"> </div> <div data-bbox="906 1285 1386 1669" data-label="Image"> </div>

of the network devices are scheduled to complete towards the end of the current fiscal year.

- Continue with the construction to upgrade at Metropolitan’s Headquarters network rooms.
- Complete the procurement of remaining materials needed for 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 began testing the telephone subscriber lines, called SIP (Session Initiation Protocol) trunk lines, from AT&T to allow for Voice over Internet Protocol (VoIP) telephone calls.
- Furthermore, the project team completed the design of the Phase I Pilot Deployment which will occur in three locations with a total of 366 phones:
 - Metropolitan’s Headquarter Building (184 phones)
 - Lake Mathews (130 phones)
 - Soto Street (52 phones)
- Staff and consultants finalized the bill of materials lists with the telephone deployment vendor and purchased telephone hardware and software.

Next steps:

- In preparation for acceptance testing by Metropolitan, consultants are working on the staging center, which is normally a three week process for assembly and configuration, unit test, system test, repack and shipment of equipment. Once the products arrive at the



sites, staff will power up, install/test and initiate pilot testing on 6th and 7th floors of Metropolitan’s Headquarters Building.

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.

- The final assessment is completed and a report was provided by the vendor. The project completion was presented to the Steering Committee where they were informed there are some residual issues. It is anticipated the residual issues will be resolved with projects in the works currently.

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 business processes in the event of a disaster. October’s exercise involved executing recovery strategies that support Metropolitan’s PeopleSoft system.

Expenditures in the IT Infrastructure category were within plan for the second quarter. All projects are projected to complete within Board approved budgets.



IT Service Management:

<p>Key Activities and Accomplishments</p> <p>IT Service Management Framework Process Implementation:</p> <p>As part of the continual implementation of the initiatives which are stated in Metropolitan’s IT Strategic Plan, over 50 percent of IT staff had a formal introduction of the service delivery process based on the guidance delivered in the Information Technology Infrastructure Library (ITIL) framework. The next step is to have all IT staff trained on the ITIL framework by end of the fiscal year.</p> <p>No capital funds were budgeted in the IT Service Management category for the second 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>Key Accomplishments Included:</p> <ul style="list-style-type: none"> ▪ Support the General Manager’s California Water Fix strategic priority: Staff worked with stakeholders to successfully provide video conferencing capability. The system is installed and functional (can receive calls and make outgoing calls only from inside the network. The firewall does not permit inbound calls from the Internet). ▪ As a part of developing innovative solutions, IT Staff worked in collaboration with Administrative Services Section staff to evaluate a mobile asset application. The new application “Fixed Asset Cycle Count” is a system of applications with features to allow cycle count coordinators to count asset items and upload information in real-time. IT recently deployed the new application to integrate with Oracle (R11). This new version improves usability and performance to include the following features: 	

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<p>a. Allows for offline login authentication using local credentials to provide solution for remote location where internet connection isn't available.</p> <p>b. Increases auto lock session time out so that users don't have to login frequently.</p> <p>c. Allows for location, employee and inventory lookup and download.</p> <p>d. Features Physical Inventory transaction look up.</p> <p>e. Improves the advanced search criteria by class and serial. Some old assets do not have barcode tags. This feature allows users to look up asset by serial number.</p> <p>Next step, staff will integrate this application to the new Oracle Financials R12 in the third quarter of this fiscal year.</p> <p>All activities in this category reflect work being done as part of the fiscal year 2015-2016 O&M budget.</p>	
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