



- ITSP Quarterly Report - Written Report (period ending Mar. 2016)

## 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 March 31, 2016. 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 Oracle Financial Upgrade; started the pilot testing on the fully upgraded Unit 2 (pump/generator) as part of the final design phase on the Hiram Wadsworth Pumping Plant; deployed about 48 percent of mobile and portable radios in the western area of Metropolitan’s service area for the Emergency Radio System project; deployed over 70 percent of the network devices throughout Metropolitan’s service area as part of the Network Reliability Upgrade project; completed the installation of the telephone subscriber lines, called SIP (Session Initiation Protocol) trunk lines, for the Telephone Replacement project.

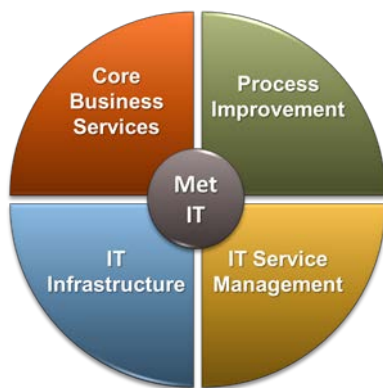
Key milestones for the upcoming quarter ending June 30, 2016 include: continue to deploy mobile and portable radios for the Emergency Radio System project; start on the telephone pilot phone deployment for the Telephone Replacement project; and continue with the deployment of the remaining network devices for the Network Reliability Upgrade 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 and initiatives during the period of January 1, 2016 through March 31, 2016. 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:	
<p><b>Key Accomplishments Included:</b></p> <p><b>Emergency Radio System (Two Way Radio) Project</b></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"> <li>▪ During this period, the project team completed the Distributed Antenna System (DAS) which is used where radio signals are weak such as in underground chambers at the plants) installation at the following plants: Weymouth and Mills. An additional Coverage Acceptance Test Plan was successfully completed across Metropolitan’s service area.</li> <li>▪ To date, staff deployed approximately 48 percent of mobile and portable radios (500 radios distributed) in the western area. Currently, staff is awaiting the completion of new firmware installation prior to restarting deployment in the eastern area next quarter.</li> </ul> <p>Next step: Staff will continue to distribute mobile and hand held radios next quarter.</p> <p><b>Hiram Wadsworth Pumping Plant Project</b></p> <p>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</p>	

the pump/turbine units, enabling the facility to control flows between DVL, 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 installation of the pilot unit (e.g., electrical, protection relays, programming and vibration monitoring). The project team continued to work on the balance of plant which consists of the remaining systems, components, and structures that comprise a complete power plant system (e.g., gas turbine, steam turbine, and waste heat boiler). In addition, staff started on the pilot testing of the fully upgraded unit 2 (pump/generator) as part of the final design. The project identified several issues, mostly related to the equipment provided by the vendors.

Next step: The project team will work in conjunctions with consultant and vendors on the identified issues from the pilot testing of unit 2.

### **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 upgrade the Oracle Financial application to the current version and replace the existing Travel Expense Reporting system with an integrated Oracle module, iExpenses.

- During this period, staff completed User



**ORACLE®**

Acceptance Testing and conducted user training of the Oracle upgrade throughout Metropolitan field sites including Headquarters, La Verne Facility and Mills Plant. In February, staff successfully deployed the Oracle application.

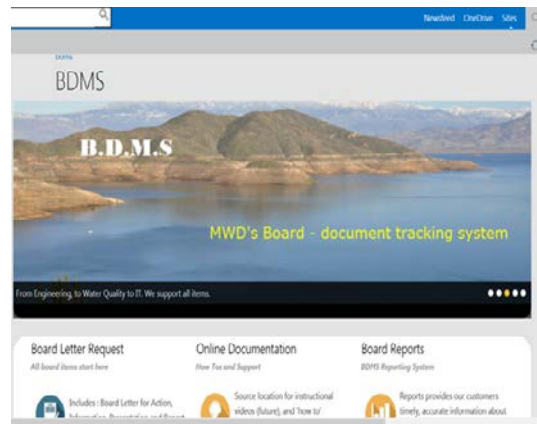
Next step: Staff is in the process of project closure.

**Other Key Activities and Accomplishments**

The Machine Shop in La Verne requires software to track jobs for internal and external orders. During this reporting period, staff acquired the software and scheduled a kickoff meeting. Next step, staff will begin the implementation of the software to track internal and external orders.

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 to a newer system. Staff created testing and production environment, migrated the application and all content to a newer system, completed User Acceptance Testing, and placed the newer system into production. User-requested enhancements for reporting and navigation have been completed. Additional user-requested incremental enhancements will be made as needed.

Expenditures for the Core Business Services category exceeded the planned amount for the third quarter. This is because each project’s expenditure is tied to key deliverables. However, all the projects in this category are expected to be completed within budget.



**IT Infrastructure:**

**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.

- During this period, the project team deployed approximately 278 out of 386 network devices throughout various field sites including Jensen Treatment Plant and Eagle Rock. The target completion date is toward the end of the current fiscal year.
- Construction to upgrade the electrical power and HVAC in network rooms on each floor at Metropolitan’s Headquarters building continued in March 2016 focusing on three of the twelve floors to support the Telephone Replacement project. Furthermore, staff successfully completed the building electrical shutdown to connect building power to the upgraded electrical power equipment. By early fourth quarter, three of the twelve floor equipment rooms at Headquarters building should be ready to support the telephone pilot.

Next steps:

- Deployment of the remaining 108 network devices is proceeding according to plan. The installation of the network devices are scheduled to complete towards the end of the current fiscal year. The benefit of the upgrade network devices is to maintain equipment reliability and to support communication network to transmit data, voice, video, and command signals to operate distribution and business systems.
- Continue with the construction to upgrade





Metropolitan's Headquarters network rooms.

### 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, the project team completed the installation of 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 installed the new telephone core infrastructure equipment at the datacenter sites, (e.g., Metropolitan's Headquarters building and Lake Mathews).
- Staff received 270 telephones and other hardware and software in preparations for the three pilot phases: 1) pre-pilot, 2) internal IT pilot, and 3) pilot at Lake Mathews and Soto.

Next steps:

- In preparation for system acceptance testing by Metropolitan in early fourth quarter of current fiscal year, Metropolitan's telecommunication administrations and consultants are working on finalizing the necessary software and hardware test documentation to verify unit and system test results (e.g., system configuration settings are configured satisfactorily, and user software modules operate properly). Once the unit and system tests are completed, staff will deploy and initiate pilot testing on 6th and 7th floors of Metropolitan's Headquarters Building.

### 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. The March exercise involved executing recovery strategies that support Metropolitan’s Oracle Financials, EForms, Water Information System (WINS) and ProjectWise system.

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

**IT Service Management:**

**Key Activities and Accomplishments  
IT Service Management Framework Process Implementation:**

As part of the continual implementation of the initiatives which are stated in Metropolitan’s IT Strategic Plan, over 85 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 begin the process of implementing the best practice of ITIL framework within Information Technology.

All activities in this category reflect work being done as part of the fiscal year 2015-2016 O&M budget.



**Process Improvement:**

<p><b>Key Accomplishments Included:</b></p> <ul style="list-style-type: none"><li>▪ 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 that allows cycle count coordinators to count asset items and upload information in real-time. Staff successfully integrated the application to the new Oracle Financials R12. This new version improves usability, performance and allows for login authentication, when internet is not available, and provides more advance search criteria.</li></ul> <p>All activities in this category reflect work being done as part of the fiscal year 2015-2016 O&amp;M budget.</p>	