



Organization, Personnel and Technology Committee

IT Manager's Report

Item 7b

August 16, 2022

Information Technology

- **Three data center** locations with over 500 servers (physical & virtual) that provide processing and backup for over MWD applications and 700 terabytes of data storage
- **Network infrastructure** supporting the enterprise (Business and SCADA) comprised of 29 primary sites, 73 microwave sites, 3 internet paths enabling communication of 25,000 computer devices and 150 terabytes of traffic daily
- **Communications (VoIP)** providing 1.7 million calls and 688,000 voicemail messages annually
- **Cybersecurity** providing monitoring, detection and alerting of data disclosure or alteration and prevention of unauthorized system access across Metropolitan's service area
- **Enterprise Business and Water Operations** 65 applications supporting day-to-day enterprise operations
- **IT Service Desk** servicing over 2,800 computers and resolution of 1,300 tickets monthly



IT Roadmap

IT Roadmap Developed Five Years Ago

- Areas of Focus
 - Organization
 - Cybersecurity
 - Resiliency
 - Modernization
 - Data Analytics

IT Roadmap Accomplishments

Organization

- Chief Information Security Officer (CISO)
 - ✓ Hired MWD's first CISO
- IT Leadership
 - ✓ Created two additional Section Manager roles
 - ✓ Total of three IT Section Managers focused on Applications, Infrastructure and Cybersecurity
- Established the IT PMO
 - ✓ Hired Unit Manager
 - ✓ Manages IT CIP and large O&M projects
 - ✓ 50+ projects in flight

IT Roadmap Accomplishments

Organization

- IT Service Manager
 - ✓ Implemented unified intake process for incidents, service requests and project requests
 - ✓ Implemented new service desk software to support intake process
 - ✓ Monthly IT Operations Report to support continuous improvement

IT Roadmap Accomplishments

Organization

- Business Analysis
 - ✓ Hired first IT Business Analyst
 - ✓ Partners with Business to document current/future business processes
 - ✓ Works with Business to document requirements for system enhancements/new systems

IT Roadmap Accomplishments

Cybersecurity

- ✓ Hired CISO
- ✓ Hired dedicated threat analyst
- ✓ Transferred non-Cyber duties to Service Desk
- ✓ Implemented Multi-Factor Authentication
- ✓ Implemented Mobile Device Management software for MWD-owned devices and email access

IT Roadmap Accomplishments

Cybersecurity

- ✓ Upgraded the security infrastructure to support COVID telecommuting and hybrid work environment
- ✓ Upgraded PC operating systems to Windows 10
- ✓ Implemented new End Point Protection
- ✓ Consistent monthly security patches
- ✓ Initiated Security Operations Center project

IT Roadmap Accomplishments

Resiliency

- Data Center Relocations
 - ✓ WAN DC – In region
 - ✓ Backup DC – In region
 - Primary DC – Out of region
- Cloud Migration
 - Microsoft Azure – 75 Servers
 - Oracle Cloud – 20 Servers
 - ✓ Amazon Web Services – External Website

IT Roadmap Accomplishments

Resiliency

- Cloud Migration
 - ✓ MS Exchange Online
 - ✓ MS OneDrive
- Upgraded End of Life Systems
 - ✓ Board/Committee Rooms Upgrade
 - ✓ Budgeting System
 - ✓ PeopleSoft Upgrades
 - ✓ Oracle EBS Upgrades
 - ✓ Maximo Upgrade

IT Roadmap Accomplishments

Resiliency

- Upgraded End of Life Systems
 - ✓ LIMS Upgrade
 - ✓ Learning Management System
 - ✓ Recruiting System
 - ✓ External Website
- Disaster recovery for all business-critical systems

IT Roadmap Accomplishments

Modernization

- ✓ MS Office365
- ✓ MS Teams
- ✓ Mobile Apps
- ✓ Water Ordering System
- ✓ GIS Enhancements
- ✓ PeopleSoft Modern User Interface
- ✓ Unmanned Aerial Vehicle program

IT Roadmap Accomplishments

Data Analytics

- ✓ Investment in data and decision analytics
- ✓ Approved CIP
- ✓ Documented 75+ uses cases for enhanced analytics to support decision making
- ✓ Analytics technology roadmap under development

IT Roadmap

Look Ahead

- Cybersecurity
 - Complete and fully staff Security Operations Center
- Resiliency
 - Complete Primary Data Center relocation
 - Install fiber to Gene Camp
 - Install fiber to remaining Desert plants
 - Continue migrating servers and applications to the Cloud including Oracle EBS
 - Upgrade both Desert and LA Basin Microwave network

IT Roadmap

Look Ahead

- Resiliency
 - Upgrade Wi-Fi at both HQ and Field locations
 - Complete Fuel Management System replacement
- Modernization
 - Upgrade SCADA Control Systems at Mills and continue to next locations
 - Complete Timekeeping new platform
 - Deploy Maximo Mobile tablets to field staff
 - Implement Enterprise Content Management System

IT Roadmap

Look Ahead

- Data Analytics
 - Release RFP for development services
 - Phased implementation of 75+ analytics use cases based on priority

