



Internal Audit Report for January 2020

Summary

Two reports were issued during the month:

- 1. Local Resources Program-Groundwater Recovery Projects Audit Report**
- 2. Information Technology Infrastructure Reliability Program - IT Network Reliability Upgrades Audit Report**

Discussion Section

This report highlights the significant activities of the Internal Audit Department during January 2020. In addition to presenting background information and the opinion expressed in the audit report, a discussion of findings noted during the examination is also provided.

Local Resources Program-Groundwater Recovery Projects

The Audit Department has completed a review of the operating and administrative controls over the Local Resources Program (LRP)-Groundwater Recovery Projects as of April 30, 2019.

Scope

Our review consisted of evaluating the internal controls over the LRP-Groundwater Recovery Projects, specifically project selection and program administration. These tests included reviewing the annual assessment and reconciliation of production yields. We also evaluated the reasonableness and propriety of financial incentives paid to member agencies and tested compliance with the program and the Administrative Code.

Background

In 1982, Metropolitan established the LRP to provide financial incentives to member agencies to develop new local supplies that assist in meeting the region's water needs. The program provided member agencies with incentives for implementing water recycling, groundwater recovery, and seawater desalination projects. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on the district's infrastructure and reduce system costs and free up conveyance capacity to the benefit of all system users.

The program has evolved throughout the years with changes to the project selection criteria and incentive amounts that created the stimulus for member agencies to increase local supplies. In 2007, the Board set the LRP target at 174,000 acre-feet per year (AFY) of new annual production. Between 2007 and 2014, Metropolitan signed agreements totaling 106,000 AFY, leaving an available balance of 68,000 AFY.

In October 2014, the Board authorized LRP modifications to stimulate local resource production further and to be responsive to the existing drought conditions. These changes provide member agencies with three incentive payment options that include a sliding scale option over 25 years (with payments up to \$340/AF) or over 15 years (up to \$475/AF) and a fixed incentive payment structure over 25 years (up to \$305/AF). Moreover, in October 2018, the Board set an interim target of 170,000 AFY for new local supplies, as the remaining balance of 68,000 AFY was insufficient to accommodate existing applications, and additional local supplies were needed.

The LRP includes 107 projects, out of which 97 are in operation, and others are in various stages of development. Since its inception, the LRP has provided \$631 million for the production of 3.7 million acre-feet (MAF).

Of these LRP projects, there are 17 Groundwater Recovery Project agreements in place as of April 30, 2019, with fourteen active, one expired, and two terminated. Metropolitan has paid members and sub-agencies \$23.4 million for the recovery of 161,995 acre-feet of groundwater between FY2015-16 and April 30, 2019. Since its inception in FY 1984-85, Metropolitan has paid \$160.8 million for the recovery of 957,320 acre-feet of groundwater through April 30, 2019.

Opinion

In our opinion, the operating and administrative procedures over LRP-Groundwater Recovery Projects include those practices usually necessary to provide for a generally satisfactory internal control structure. The degree of compliance with such policies and procedures provided effective control for the period July 1, 2015, through April 30, 2019.

Comments and Recommendations

PRODUCTION YIELD

Groundwater recovery agreements include performance targets at the start of each project, along with ongoing production expectations. Also, provisions in these agreements allow for member agencies, sub-agencies, and Metropolitan to mutually amend these terms from changing the contractual yield up to the termination of the contract.

A. Overpayment

We verified the production yield to the meter reading documentation maintained by the member agencies for seven projects active in FY 2017-18. This review revealed that the production yield was overstated for the Chino Basin Desalination Project by 159.8 acre-feet in June 2018. This

miscalculation resulted in excess payment of \$16,299.60 (159.8 acre-feet x \$102 per acre-foot) to the member agency.

We recommend that the Resource Implementation Section (RIS) management request the reimbursement of the overpayment. We also recommend that RSI management remind personnel of the importance of compliance with operating practices and conduct periodic tests to ensure compliance.

B. Projects not Meeting Production Targets

We performed an analysis of fifteen projects that were active from FY 2015-16 through FY2017-18. This review revealed that seven projects were not meeting production expectations over the last three fiscal years. Specifically, we noted that their average production ranged from 21% to 66% of contract yield. We understand that these projects are due for performance evaluations over the next two years. See details below:

Item Count	Project	Operations Start Date	Current Contract Yield	Average Production (FY 2015-16 to FY 2017-18)	
				Acre-Feet	Percent
1	Madrona Desalination Facility (Goldsworthy Desalter) Project	Jun 2002	2,400	508.9	21%
2	Capistrano Beach Desalter Project	Dec 2007	1,300	332.9	26%
3	San Juan Basin Desalter Project	Dec 2004	4,800	1,404.8	29%
4	IRWD Wells 21 & 22 Desalter Project	Mar 2013	6,400	2,172.6	34%
5	Irvine Desalter Project	Aug 2007	6,700	3,576.4	53%
6	Colored Water Treatment Facility Project	Jan 2001	8,941	5,006.0	56%
7	Temescal Basin Desalting Facility Project	Oct 2001	10,000	6,636.2	66%
	Total		40,541	19,638	48%

We recommend that RIS management assess the viability and efficacy of these projects and consider modifications to these agreements.

C. Projects with Zero Production

In addition, two of the seven projects cited above (Madrona Desalination Facility and Capistrano Beach Desalter Project) had zero production in FY 2015-16 and FY 2016-17, respectively. Lastly, we noted that the Beverly Hills Desalter had zero production for FY 2015-16 through FY 2017-18, and the Round Mountain Water Treatment Plant had zero production in FY 2017-18.

We recommend that RIS management review these projects, evaluate their progress, and assess the agencies' ability to achieve targeted production. If an agency is not actively working on achieving part or all on the LRP contract amount, management should consider terminating its existing agreement. At the least, WRM management should consider amending its target amounts to reflect more realistic targets and release unused amounts to other agencies.

D. Procedures Manual

We reviewed the Local Resources Program (LRP) Application Process & Agreement Administration manual and noted it was last updated in August 2017. Changes have occurred to the LRP since, including but not limited to new target yield, new contact persons, and required attachments for assessment and reconciliation purposes. The manual defines the policies and procedures utilized by RSI to administer the LRP-Groundwater Recovery, Water Recycling, and Sea Desalination projects.

We recommend that RIS management update the procedures manual to reflect current practices and procedures.

Information Technology (IT) Infrastructure Reliability Program - IT Network Reliability Upgrades (Project 104682)

The Audit Department has completed a review of the accounting and administrative controls over Information Technology (IT) Infrastructure Reliability Program - IT Network Reliability Upgrades (Project 104682) as of February 28, 2019.

Scope

Our review consisted of evaluating the accounting and administrative controls over the IT Network Reliability Upgrades project. Specifically, we reviewed the contractor and vendor selection process, tested compliance with the terms and conditions of the contracts, evaluated the validity and propriety of contractor pay applications and vendor invoices, and assessed the monitoring and tracking procedures for communication network devices. Finally, we reviewed the recording of project costs and compared the actuals with the values reported to management and the Board.

Background

The IT Network Reliability Upgrades project was established in 2014 under Appropriation 15487 "IT Infrastructure Reliability" to replace a majority of communication network devices and supporting equipment. This appropriation was initiated in FY 2013/14 to implement multiple projects to ensure the reliability and efficiency of IT infrastructure in support of Metropolitan's operational and business applications. These plans consist of three sub-projects: (1) Communication network hardware upgrade throughout the service area, (2) Headquarters' network rooms' upgrade, and (3) Diamond Valley Lake's microwave radio, network electrical, and backup power system upgrade.

Metropolitan's communication network hardware includes 617 switches and routers and 134 microwave radios. The switches connect workstations, servers, and computer equipment within a facility or floor, while the routers connect switches and also connect Metropolitan's networks to the Internet. The microwave radios connect network routers and switches between facilities to provide end-to-end connectivity for Metropolitan's wide area network. Recent staff inspections

revealed that the majority of the communication network hardware showed signs of wear and tear and were near or at the end of their useful life. These upgrades provide the necessary capacity, reliability, and features to handle the increased traffic on Metropolitan's network, which is expected to double within the next five years.

In October 2014, Metropolitan's Board appropriated \$6.04 million and awarded a \$3.56 million contract to CDW Corporation to supply communication network hardware. The Board also authorized the final design to upgrade the Headquarters' network rooms and the preliminary design and field assessments for microwave upgrades at remote sites. Between December 2014 and March 2016, Metropolitan entered into ten other procurement contracts (total \$230k) with CDW Corporation to supply cables, accessories, adapters, and miscellaneous connectors for use to install the network hardware.

Accordingly, in August 2015, the Board appropriated \$1.24 million and awarded a construction contract (\$930k) to Coleman Construction, Inc. to upgrade the Headquarters' network rooms. Also, in March 2017, Metropolitan entered into a construction contract (\$212k) with Unispec Construction, Inc. to install Metropolitan-furnished microwave radio and antennas at Diamond Valley Lake.

Metropolitan has paid \$3.79 million to CDW Corporation, \$930k to Coleman Construction, Inc., and \$212k to Unispec Construction, Inc. through February 28, 2019. Overall, the IT Network Reliability Upgrades project is 96% complete, with costs totaling \$6.81 million through February 28, 2019. The project costs consisted of operating equipment (capital)-\$2.68 million, contractor services-\$1.14 million, Metropolitan's labor and administrative overhead-\$833k, outside professional services-\$701k, materials and supplies-\$701k, operating equipment (expensed)-\$694k, and various costs-\$64k. All these costs were capitalized and are currently recorded to the construction-in-progress accounts.

Opinion

In our opinion, the accounting and administrative procedures over IT Network Reliability Upgrades project include those practices usually necessary to provide for a generally satisfactory internal control structure. The degree of compliance with such policies and procedures provided effective control for the period January 1, 2014, through February 28, 2019.

Comments and Recommendations

POLICIES AND PROCEDURES

Policies and procedures should be established and documented to provide a framework for achieving Metropolitan's goals and objectives. Procedures provide management with guidelines for consistent performance of daily operations, assist management in the training of new employees, and provide a source of reference for experienced personnel.

Inventory of Communication Network Devices

Operating Policy F-01 “Operating, Expensed and Capital (OEC) Equipment” requires that capital equipment is recorded and tracked in the “Operating Asset Tracking (OAT) System” database.

Operating Policy F-02 “Disposal of Surplus Personal Property” requires that replaced equipment must be turned in for salvage processing within 60 days of replacement.

Our review of all installed and spare new switches and routers (398 units) and replaced devices revealed:

1. Recordation of the location and custodian for all switches and routers (398 units) purchased for the IT Network Reliability Upgrades project have not been input into Oracle Asset Tracking (OAT) System. Further review revealed that initially, the IT Enterprise Network Systems and the WSO SCADA teams had custodianship over these devices. The permanent installation of this equipment should have updated the OATS system. This equipment was procured between February and October 2015.
2. The location was not recorded for 3 of 398 new switches and routers for the SCADA system. We understand that WSO SCADA team is coordinating efforts with field managers to find these devices.

List of Unlocated SCADA Switches and Routers						
Item Count	Barcode	Device	Serial Number	Team	Date Placed in Service	PO Number
1	A083020	Router	FTX190484MP	SCADA Team	2/24/15	150931
2	A083137	Switch	FOC1912Z1HF	SCADA Team	4/28/15	153413
3	A083155	Switch	FOC1912Z1H5	SCADA Team	4/28/15	153413

3. We could not find the internal shipment packing lists prepared by Information Technology Group personnel that identify all replaced switches and routers transferred to Salvage for disposal.
4. Proceeds of \$1,380.80 from the sale of surplus network equipment, which includes replaced switches and routers, were recorded to other non-operating income (account 32400) rather than as a deduction from the project costs as required under Operating Policy F-01.

Failure to properly account for new and replaced network devices may result in a financial loss to Metropolitan due to theft or loss.

We recommend that Information Technology Group management coordinate efforts with the WSO SCADA team to update the OAT system for current location and staff assignment for the new switches and routers. We also recommend that Information Technology Group management remind personnel to comply with the requirements of Operating Policies F-01 and F-02 for the retirement and disposal of replaced devices.