



Audit Department Report for January 2015

Summary

Four reports were issued during the month:

- **Weymouth Plant Improvements Audit Report**
- **Chemical Management Audit Report**
- **Quarterly Board Reports Review**
- **Remarketing Statement for the Water Revenue Refunding Bonds, 2009 Series A-2**

Discussion Section

This report highlights the significant activities of the Audit Department during January 2015. In addition to presenting background information and opinions expressed in the audit reports, a discussion of findings noted during the examinations is also provided.

Weymouth Plant Improvements Audit Report

Background

The Audit Department has completed a review of the accounting and administrative controls over the Capital Investment Plan – F. E. Weymouth Water Treatment Plant (Weymouth Plant) Improvements Appropriation 15369 as of November 30, 2014. Specifically, we reviewed three Weymouth Plant seismic upgrade projects including the Filter Building Seismic Upgrades Project, the Structural Integrity Project, and the Washwater Tanks Seismic Upgrade Project.

This Weymouth Plant Improvements Appropriation was established in 2001 to provide for infrastructure reliability and regulatory compliance projects. At the core of this appropriation are significant construction projects that rehabilitate, upgrade, and improve operations at the plant. Filter building and sedimentary basin rehabilitation, incoming electrical service routing, power system, chemical feed system and solids handling facility upgrades make up the bulk of the \$241.0 million total appropriation estimate. As of November 30, 2014, the appropriated amount totaled \$174.2 million and the expenses totaled \$165.9 million. The appropriation is estimated to be 70% complete.

As an integral part of this appropriation, extensive seismic evaluations and risk assessments were completed. These studies also evaluated retrofit options to meet current seismic design practices and building code requirements. This examination consisted of a review of three seismic projects under this appropriation.

The first project involved the seismic reinforcement of the Weymouth Plant filter and control buildings. The plant's first filter building was completed in 1941 and expanded in 1962, while the second filter building was added in 1969. Previously conducted seismic assessments had identified

that these structures needed to be strengthened to reduce the risk of damage following a major earthquake. Accordingly, in August 2013, the Board awarded a contract to J. F. Shea Construction, Inc. (Shea) for \$3.8 million to reinforce the walls, floors, roof and columns of these buildings. Payments to Shea as of November 30, 2014 totaled \$3,807,702.

The second project involved preparation of seismic evaluations, structural calculations and risk assessments for the administration and control buildings, which were constructed in the late 1930s. It also required preliminary and final design services on structural repairs and construction support. Accordingly, in September 2008, Metropolitan issued a Request for Qualifications (RFQ 884) to prequalify firms to provide these services and in October 2011, Metropolitan entered into a contract with Degenkolb Engineers (Degenkolb) in the amount of \$240,000 to perform structural studies and seismic engineering services. Payments to Degenkolb as of November 30, 2014 totaled \$103,285.

The third project involved the completion of detailed seismic analyses of the two washwater tanks which were initially placed into service in 1941 and 1960. These above ground tanks, with filtered water storage capacities of 1 million and 1.3 million gallons respectively, are used in backwashing the plant's filters. Previously conducted seismic assessments had indicated that both tanks required structural upgrades and recommended further review. Accordingly, in November 2005, the Board approved \$129,000 for staff to perform a detailed seismic analysis of the soil and structure interaction to assess potential mitigation measures. Further, in May 2010, the Board approved \$190,000 for staff to perform preliminary design of seismic upgrades of the washwater tanks. In September 2011, the Board authorized \$384,000 for staff to develop final design activities including detailed drawings and specifications, computer modeling, and development of cost estimates for the construction phase. Finally, in October 2014, the Board awarded a construction contract and appropriated funds for construction of the east tank. These actions are included in the Washwater Tanks Seismic Upgrade Project and total \$2,862,500. As of November 30, 2014, project charges totaled \$724,356.

Our review consisted of evaluating administration and reporting practices and reviewing project authorization and closeout processes. We also evaluated the validity and accuracy of invoice payments for assurance that the amounts billed were properly calculated and adequately supported. In addition, we reviewed internal labor costs and associated overhead costs for accuracy and completeness. Lastly, we reviewed actual versus budgeted costs and compared these totals to the appropriated amounts and to management reports.

Opinion

In our opinion, the accounting and administrative procedures over the three seismic 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 of July 1, 2011 through November 30, 2014.

Comments and Recommendations

COMPLIANCE TO TERMS AND CONDITIONS OF THE AGREEMENT

Compliance with contractual requirements is necessary to ensure accurate accounting records, proper supporting detail, and adequate control over the administration of the agreement. Furthermore, compliance with the contract's terms and conditions also ensures that parties fully discharge their duties and obligations and exercise their legal rights associated with the agreement.

We reviewed three of eight Degenkolb invoices totaling \$81,270 from January through December 2012 and noted the following:

1. Two of three invoices were not certified by the consultant as to their propriety, which is in contrast to the requirements of the Billing and Payment section of the agreement.
2. One invoice tested did not identify the beginning date of the billing period, as required by the Billing and Payment section of the agreement.
3. Labor hours for two staff were not consistent with hours reflected on the timesheets for services performed. This resulted in under billing Metropolitan \$577.
4. We noted a discrepancy between billed labor hours and supporting timesheets for one consultant's staff in one invoice. Further review revealed that the additional hours were for hours worked but not billed during the prior billing period. It should be noted that there was no financial impact.

We recommend that the agreement administrator remind the consultant to comply with the terms and conditions of the agreement and conduct periodic review to ensure compliance. We also recommend that the agreement administrator performs spot checks of invoices and the supporting documentation.

PROJECT MANAGEMENT

Project management entails planning, organizing, securing, and managing resources to achieve specific goals and objectives. Accordingly, project management involves monitoring and controlling activities from project initiation to closeout. Moreover, projects should be closed after all contractual requirements have been met, all invoices have been accrued and/or paid, and Metropolitan has discharged all obligations.

We assessed the status for 19 of 36 projects (9 complete and 10 in-process) by reviewing the Project Accounting and Grant Management (PAGM) reports, project authorizations, project completion notices, and Program Management reports.

Our review of project status revealed:

1. Actual costs for three projects exceeded the budgets by \$40,263 as of November 30, 2014. Further review revealed that change orders have not been approved to cover these overages.
2. As of November 30, 2014, two of ten in-process projects were between 153 and 2,526 days past their estimated completion dates. Further, the change order requests (Form 541) have not been approved to update the project's estimated completion dates.
3. Four of nine completed projects have not been closed in PAGM as of November 2014. Further, the Notice for Project Completion (Form 542) was not located for one project with a completion date of July 29, 2005.
4. We noted discrepancies between the project data reflected in the Budget Summary Report and the PAGM system.

We recommend that management remind the project managers to comply with project management procedures. Specifically, management should ensure timely close-out of projects and updates to estimated completion dates. Finally, we recommend that management conduct periodic reviews to ensure compliance.

Report on Chemical Management Audit Report

Background

The Audit Department has completed a review of the accounting and administrative controls over Chemical Management as of October 31, 2014.

The Business Technology Group (BTG) and the Water System Operations Group (WSO) share responsibility for the management of chemicals used at Metropolitan's water treatment plants and throughout the conveyance and distribution system. The Contracting Unit within the Business Services Section of BTG is responsible for negotiating and initiating chemical purchase agreements, whereas WSO utilize these contracts for the purchase, use, and management of chemical inventory levels.

Within WSO, the Water Treatment Section is responsible for placing chemical orders, receipting for deliveries, maintaining secure storage facilities, and executing water treatment strategies at the plants and at the Perris Chemical Unloading Facility (CUF). The Business Support Teams are responsible for tracking chemical orders, reviewing bills of lading, recording deliveries and issuances into the inventory records, and for performing month-end chemical inventory reconciliations. It is important to note that the Conveyance & Distribution Section is responsible for these activities along the Colorado River Aqueduct and at the treated water reservoirs. Finally, the Water Quality Section is responsible for water treatment strategies, they assist in the negotiations and administration of the chemical purchase contracts and they issue the annual chemical usage reports.

Metropolitan's treatment plants, conveyance system, and distribution reservoirs use bulk chemicals for water treatment processes that include water disinfection, coagulation, pH (hydrogen ion concentration) level adjustment, and quagga mussel control. Chemicals utilized for these treatment strategies include chlorine, alum, ferric chloride, sulfuric acid, sodium hydroxide, sodium hypochlorite, ammonia, fluorosilicic acid, hydrogen peroxide and oxygen (for the production of ozone). Purchases of treatment chemicals for FY 2011/12, FY 2012/13, FY 2013/14 and for the four months ended October 31, 2014 totaled \$19.0 million, \$17.1 million, \$18.2 million, and \$6.6 million, respectively.

Our review consisted of evaluating the internal controls over the purchase, delivery, storage, and accounting for treatment chemicals. Specifically, we reviewed agreement administration, reconciliation, and reporting practices for the purchase of chemicals. We also tested compliance with terms and conditions of these agreements and with delivery and storage procedures. In addition, we evaluated the validity and propriety of invoice payments for assurance that the amounts paid were properly calculated and adequately documented.

Opinion

In our opinion, the accounting and administrative procedures over Chemical Management 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 2011 through October 2014.

POLICIES AND PROCEDURES

Policies and procedures should be established and documented to provide a framework for achieving Metropolitan's goals and objectives. Procedures provide employees with guidance for the consistent performance of daily operations, assist management in the training of new employees and provide a source of reference for experienced personnel. The Water System Operations Group (WSO) memorandum "Water Treatment Chemical Delivery/Security Protocols" contains detailed procedures for bulk chemical deliveries to ensure security, safety, quality assurance, and environmental compliance. Moreover, WSO's Summary of Established Chemical Storage Requirements (SECSR) provides guidance to ensure availability of treatment chemicals in the event of disruptions in the supply chain.

Our analysis of inventory levels for thirteen chemicals and our review of forty-five invoices revealed:

1. Average inventory for the thirteen chemicals reviewed were between 13 and 59 days rather than the SECSR stipulated storage of 7, 10, or 14 days depending on the type of chemical. WSO Treatment Section management indicated that these storage targets are intended to be the minimums that would be needed under plant design flow and average chemical dosage conditions. We noted, however, that the SECSR does not distinguish between standards of storage for design purposes versus operational purposes. Moreover, the SECSR is silent on an analysis of maximum storage targets.

2. Chemical delivery forms for 12 of 45 invoices reviewed could not be located. These invoices were for chemical deliveries to the Jensen (9 invoices), Weymouth (2 invoices), and Diemer (1 invoice) water treatment plants for the period beginning July 2011 through August 2014. We understand that security staff is responsible for initiating this form upon the arrival of the chemical cargo trailer/railcar at Metropolitan's facility, and the Treatment O&M team is responsible for completing and signing this form to ensure that final inspection of the chemical delivery is complete.

We recommend that Water Treatment Section management develop chemical day storage standards. Consideration should be given to establish procedures that minimize inventory holding and ordering costs and balances these considerations with the risks associated with excess chemicals in plant storage and the risk of higher future unit costs. Scrutiny should also be given to the potential lag time between ordering and procuring of chemicals in a manner that optimizes inventory replenishment practices. We also recommend that Water Treatment Section management remind staff of the importance of completing and maintaining chemical delivery forms to comply with the established delivery/security protocols.

REVIEW AND APPROVAL

Review and approval controls are designed to verify the accuracy of billings for goods and services, provide assurance as to the propriety of transactions, confirm compliance with contractual terms and conditions, and ensure that follow-up procedures exist for exception processing. For chemical

purchases, procedures require that Water Treatment staff record the quantities received in the Oracle Inventory System to ensure that payments are accurate and correct. Month end chemical inventory balances are then reconciled against the deliveries and usage. These reconciliations serve to identify exceptions so that timely actions can be taken.

Our review of forty-five invoices (totaled \$492,000) and six monthly reconciliations for bulk chemicals from March to August 2014 revealed:

1. Chemical quantities received and/or used in the monthly bulk chemical reconciliations for thirteen chemicals were inconsistent with the amounts recorded in the Oracle Inventory System. For example the quantities received and used for Liquid Oxygen reported in the monthly bulk reconciliations at 150,571,434 cubic feet (cu. ft.) and 143,990,815 cu. ft. were recorded in the inventory system at 143,227,431 cu. ft. and 144,096,598 cu. ft., respectively.
2. Bulk chemical reconciliations procedures could not be located.
3. Lastly, we noted that nine of forty-five invoices reviewed were billed incorrectly which resulted in an overpayment of \$274. Further review revealed that billed quantities were calculated by the supplier based on a "minimum density" of 9 pounds per gallon rather than the "varying density" for each delivery, as shown on the Affidavit of Compliance.

We recommend that Water Treatment O&M and Business Support Services teams resolve the discrepancies noted between the monthly bulk chemical reconciliations and the Oracle Inventory System. Further, we recommend that Water Treatment Section management establish detailed procedures for bulk chemical reconciliation to ensure consistency. In addition, we recommend that Water Treatment Section management remind the suppliers to submit invoices based on terms and conditions agreed upon in the contracts. Lastly, we recommend that Water Treatment Section management conduct tests of reconciliations and invoices to ensure compliance.

Quarterly Board Reports Review

We reviewed the reports for consulting and professional service agreements and for routine services contracts for the period ending September 30, 2014 issued by the Business Technology Group for the first quarter of fiscal year 2014/15. This review included the 1st Quarterly Report of Professional Services (Professional Services) and the Report of Contracts for Equipment, Materials, Supplies and Routine Services of \$250,000 or Above (Contracts) for the First Quarter of Fiscal Year 2014/15. The purpose of this review is to gain reasonable assurance that information included on the quarterly report is accurate, complete and timely, and in compliance with the Metropolitan Water District Administrative Code.

Quarterly Professional Services Agreements Report

Background

Administrative Code Section 2720(a)(2) requires that the General Manager report to the Engineering and Operations Committee on the employment of any professional and technical consultant, the extension of any professional and technical consulting agreement, and on the Exercise of Authority under Sections 8121(c) and 8122(h) during the preceding calendar quarter. The Administrative Code also requires that the Professional Services Report indicate when a consultant is a former Metropolitan employee.

Further, Administrative Code Sections 2721-2723 require the General Counsel, General Auditor and Ethics Officer to report quarterly to their respective committees concerning any expert or professional service agreements executed pursuant to their authority under the Administrative Code. Finally, the Professional Services Report is prepared on a quarterly and annual basis to comply with these Administrative Code requirements and identifies those contracts administered by the General Manager, General Counsel, General Auditor, and Ethics Officer.

During the quarter ending September 30, 2014, the Professional Report disclosed that \$23.7 million was paid for consulting and professional services. It should be noted, however, that the totals reported under the General Counsel's authority exclude payments related to the San Diego County Water Authority litigation, which is accounted for under the Self-Insurance Retention Fund.

Fiscal Year-to-Date	General Manager	General Counsel	General Auditor	Ethics Officer
Contract Expenditures	\$23,096,183	\$400,756	\$135,732	\$19,088
Active Agreements	345	24*	1	4
Agreements Terminated	67	0	0	1

* Agreements with transactions during the current fiscal year.

Testing Procedures Performed

Our procedures included a cursory review of the reasonableness of the professional services expenditures and an analysis of consultants with multiple active agreements to determine whether an agreement was split into smaller contract amounts to circumvent established approval limits. We also evaluated whether statistics in the report were adequately supported. Finally, we assessed the timeliness of board reporting.

Testing results

Our review did not reveal any agreements that appeared to be unreasonable or split to override established approval limits. In addition, our review did not reveal any material differences between the reported amounts and supporting documentation. Finally, we noted that the board report was issued on December 9, 2014.

Quarterly Contracts for Equipment, Materials, Supplies and Routine Services Report

Background

Administrative Code Section 2720(b)(2) requires that the General Manager report to the Finance and Insurance Committee on the execution of any contract authorized under Section 8122(g), Contracts for Equipment, Materials, Supplies and Routine Services. This code states that the General Manager may execute contracts for the purchase of materials, supplies, and other consumable items, such as fuels and water treatment chemicals, which are generally identified in the budget, regardless of dollar value, provided that sufficient funds are available within the adopted budget for such purchases.

The Contracts Report is prepared on a quarterly basis to report on contracts that comply with these Administrative Code requirements. During the quarter ended September 30, 2014, the Contracts Report disclosed ten contracts that fit these criteria. We noted that the total maximum amount payable for these contracts is \$17.4 million. Four of these contracts were awarded as a result of competitive bidding, and six were sole-source contracts authorized under Administrative Code Section 8140.

Testing Procedures Performed

Our procedures included a cursory review of the reasonableness of expenditures. They also included verifying that all contracts of \$250,000 or more for the specified items were included in the Contracts Report and were adequately supported. Further, we reviewed sole-source agreements for justification and approval. Finally, we assessed the timeliness of board reporting.

Date of Report: January 30, 2015

Testing results

Our review did not reveal any discrepancies between the number of contracts and amounts shown in the Contracts Report and supporting documentation. In addition, we noted that policies and procedures for competitive bidding, cooperative agreements and awarding sole source agreements are in place. We noted, however, that the Contracts Report neglected to disclose two contracts (AT&T 146149 with start date of 7/18/14 and CA Dept. of Fire 121407-03 with renewal date 7/1/14), contrary to Administrative Code reporting requirements. Finally, we noted that the quarterly report was issued to the Board on December 9, 2014.

Remarketing Statement for the Water Revenue Refunding Bonds, 2009 Series A-2

The Audit Department has completed a review of the Remarketing Statement for the Water Revenue Refunding Bonds, 2009 Series A-2. We performed this review to provide the remarketing agent of the Bonds comfort that the Remarketing Statement for the Bonds is complete, consistent with supporting financial records, and accurate in all material respects. We completed our review in accordance with agreed-upon procedures specified by the underwriter. We found such information to be correct in all material respects. We issued letters to the underwriter describing the agreed-upon review procedures performed, and the results obtained.