THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Report
Office of the General Auditor

Internal Audit Report for November 2016

Summary

Three reports were issued during the month:

1. **Director and Employee Expense Reports**
2. **Colorado River Water Users Association Financial Report**
3. **Regional Turf Removal Program**

Discussion Section

This report highlights the significant activities of the Internal Audit Department during November 2016. 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.

Director and Employee Expense Reports

Background

Metropolitan's Administrative Code § 6320 Expense Account Regulations Policy and Travel Guide establish travel guidelines, expense reporting procedures, and instructions for preparing and submitting expense reports. Directors and employees who have incurred travel or operating expenses on behalf of Metropolitan prepared expense reports for processing through the Travel Expense Reporter (TER) system until December 2015 and through the Oracle iExpense system starting January 2016. The Accounts Payable Team of the Controller Section in the Office of the Chief Financial Officer administers expense reports and issues reimbursements.

Director and employee expenses totaling $3.07 million were processed through the TER and iExpense systems during the thirteen-month period ended June 31, 2016. This amount resulted from 5,455 employee expense reports ($2.96 million) and 108 director expense reports ($115,022). Expenses consisted of per diem allowances (25%), airfare (17%), tuition reimbursements (15%), lodging (14%), and business mileage claims (8%). Director and employee expenses from this audit period are 5% less than those of the prior audit period April 1, 2014 through May 31, 2015.

Opinion

In our opinion, the accounting and administrative procedures over Director and Employee Expense Reports 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 June 1, 2015 through June 30, 2016.

Date of Report: November 30, 2016

Comments and Recommendations

LATE OR UNFILED EXPENSE REPORTS

Metropolitan's Administrative Codes § 6331(b) (2) and § 6331(b)(3) Preparation, Approval and Processing of Claims require that directors and employees submit expense claims to the Board of Directors' Section or the Office of the Chief Financial Officer, respectively, no later than the end of the month following the month in which the director or employee incurred the expense or participated in an activity for which Metropolitan funds were used on the director's or employee's behalf. This is commonly interpreted as a 60-day standard. Moreover, Administrative Code § 6331(b) (4) requires an additional level of approval for reimbursement of claims over 90 days after the expenses incurred.

We reviewed 30,296 expense line items within 5,563 expense reports (108 directors and 5,455 employees) for timely submission from June 1, 2015 through June 30, 2016:

1. **Director Expense Reports**: We noted that 91 expense reports ($50,082.93) were submitted beyond the 60-day standard:

Days after Expense was Incurred	Expense Line Items	TERs/iExpense	Expenses Claimed
61-90	266	56	$31,578.46
91-180	182	32	$17,017.59
181-365	9	3	$1,486.88
Total	457	91	$50,082.93
Period Total	1,222	108	$115,022.95

2. **Employee Expense Reports**: We noted that 365 expense reports ($188,468) were submitted beyond the 60-day standard:

Days after Expense was Incurred	Expense Line Items	TERs/iExpense	Expenses Claimed
61-90	1,541	282	$136,815.28
91-180	400	77	$50,931.22
181-365	16	6	$721.95
Total	1,957	365	$188,468.45
Period Total	29,073	5,455	$2,956,086.74

We also reviewed 808 expense line items for expenses totaling $157,513 prepaid by

Metropolitan and incurred by directors and employees as of June 30, 2016. These items were prepaid through check payments or Metropolitan issued credit cards. Our review revealed:

3. **Outstanding Expense Reports**: 55 expense line items totaling $6,228 have not been submitted by 4 directors and 18 employees ($1,583 for directors and $4,645 for employees). However, these items already have been reconciled properly to the credit card statements by the Accounts Payable Team.

Director Expense Reports

Days after Expense was Incurred	Expense Line Items	Expenses Claimed
61-90 days	1	$346
91-180 days	12	$1,236
Total	13	$1,583

Employee Expense Reports

Days after Expense was Incurred	Expense Line Items	Expenses Claimed
61-90 days	22	$1,818
91-180 days	20	$2,827
Total	42	$4,645

Failure to provide a timely and accurate accounting of expense reports could result in inaccurate reporting or inappropriate use of public funds.

We recommend that management emphasize the importance of submitting expense reports within the guidelines and conduct periodic reviews to ensure compliance.

REVIEW AND APPROVAL

Review and approval controls serve to protect against unauthorized, inaccurate, or duplicate transactions; identify items that require correction; and ensure that follow-up procedures exist for exceptions. For expense reports, authorized personnel review supporting detail for compliance to policies and procedures, check documents for accuracy and completeness, and examine expenses for propriety.

Our review revealed:

1. Three employees submitted duplicate expense reports in the TER system resulting in over-reimbursement of $881. We understand that the Accounts Payable Team already contacted and received reimbursements for these duplicate items.

2. Receipts for 18 expense line items over $25 were submitted to the Accounts Payable Team as required by the expense reporting procedures. However, we noted that these receipts were submitted to the Accounts Payable Team in hard copies instead of attaching them directly in the iExpense system.

Failure to conduct proper review of expense reports could result in financial losses to Metropolitan due to fraudulent, invalid or erroneous transactions. Failure to use the iExpense system as intended could result in inefficiency and delay in the expense reporting and reimbursement process.

We recommend that management remind reviewers of the importance of ensuring the validity, accuracy, and completeness of expense reports. We also recommend that the Accounts Payable Team perform more thorough reviews of the expense reports to identify duplicate items.

Lastly, we recommend that the Accounts Payable Team emphasize the importance of submitting receipts for items over $25 directly in the iExpense system.

UPDATE TO POLICY AND PROCEDURES

Policies and procedures should be written, reviewed and updated periodically to reflect organizational changes and needs and to provide clear guidance to staff.

The Travel Guide, which was last updated in April 2009, provides instructions for preparing and submitting expense reports in the TER system. However, since January 2016, expense reports have been submitted and processed through its replacement system Oracle iExpense. Moreover, we noted that the Travel Guide requires directors and employees to submit a TER no later than 60 days after the expense was incurred. This is contrast to the Administrative Code **§** 6331(b) (4) and Operating Policy C-03 that require directors and employees to submit expense claims within 90 days after the expenses incurred. We understand that the Controller Section is in the process of updating the Travel Guide.

Failure to establish and update policies and procedures could result in inefficiencies, inconsistent practices, and delays in processing expense reports.

We recommend that the Controller Section establish a target date for the completion of the Travel Guide. We also recommend that the Controller Section provide training to staff to ensure that they understand how to perform the tasks indicated in the Travel Guide.

Colorado River Water Users Association Financial Report

At the request of the Metropolitan Water District of Southern California Board of Directors, we examined the Colorado River Water Users Association Financial Report for the period April 1, 2015 through March 31, 2016. The following summarizes the scope of work performed and results obtained:

Scope and Purpose

We performed the following procedures to gain reasonable assurance that information included in the Colorado River Water Users Financial Report for the period April 1, 2015 through March 31, 2016 is accurate and is supported by appropriate documentation:

a) We agreed the financial information from the Financial Report to source documentation including the bank statements, receipts and other third party provided documents.

b) We performed analysis and computations, when necessary, and validated 100% of the information contained in the Financial Report to the summary documents.

c) We examined monthly bank reconciliations and assessed reasonableness of reconciling items and accuracy of balances.

Since our examination was limited in scope, we do not express an opinion on the internal control structure over the Colorado River Water Users Association taken as a whole.

Background

The Colorado River Water Users Association (CRWUA) was founded in 1945 and incorporated in the State of Nevada on December 6, 1968. Its mission is to provide a forum for exchanging ideas and perspectives on Colorado River use and management with the intent of developing and advocating common objectives, initiatives and solutions.

From April 1, 2015 through March 31, 2016, CRWUA reported total receipts of $359,915 and total disbursements of $407,225. It should be noted there was a net loss of $47,310 due to increased conference costs. CRWUA experienced a loss of $53,200 in the preceding fiscal year for the same reason. To offset increased costs, the Board authorized increases in conference registration, exhibit, and membership fees. As of March 31, 2016, CRWUA's total fund available was $558,211.

Testing results

Our examination did not reveal any material differences between the reported amounts and supporting documentation.

Date of Report: November 30, 2016

Regional Turf Removal Program

Background

This audit was originally scoped as a review of the Program as modified, approved, and funded by the Board of Directors at a Special Board Meeting held on May 26, 2015. However, as the audit planning advanced, it became apparent that an understanding of the events and circumstances that led up to this special meeting was crucial to construct a holistic view of the program that was approved at that meeting.

Metropolitan's water supply and demand curves have been in flux for as long as imported water supplies have been constrained by operating limitations and severe drought conditions. In response, actions were taken to soften the demand curve in the form of conservation incentives as a way of broadening strategic efforts aimed at creating water supply/demand market equilibrium. 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.

These conservation incentives began on an episodic basis due to dry weather in the 1970s and became a part of larger ongoing efforts in the 1990s. Further, conservation became a core water resource in the 1996 Integrated Resources Plan (IRP). This plan marked a milestone for Metropolitan, as it found that lowering local demand and increasing local supplies was essential to maintain reliable water supplies. In 2004 the IRP was revised further to assume that local conservation and supply efforts would provide the water necessary for future growth. Turf removal incentives became part of the conservation program and in 2008 they were set at $.30 sq. ft. As the program evolved incentives were increased to $1.00 sq. ft. through grant funds from the United States Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR).

More recently, following two consecutive dry years, calendar year 2013 was the driest on record. In response, on January 17, 2014, Governor Jerry Brown issued an emergency drought declaration. In declaring the emergency, the governor pointed to the need for efficient water use and called on everyone in the state to conserve and use water wisely. Moreover, the Governor called on Californians to reduce residential urban water use by an average of 25 percent.

In addition, the State Water Resources Control Board (SWRCB) adopted emergency regulations for conservation. The board responded to these events by taking multiple actions on the conservation incentive program, beginning with increasing the incentive to $2.00 per square foot. The following is a partial list of rebate incentives, budget actions, and plan modifications.

Rebate Incentive Increases

Board Letter	Rate per sq. ft.	Fiscal Year
April 8, 2008	$0.30	2008/09
September 10, 2013	$1.00	2013/14
May 13, 2014	$2.00	2013/14

Budget Actions

Board Letter	Funding (millions)	New Budget	Comment
April 8, 2008	$40	$40	Part of total conservation budget
February 11, 2014	$20	$60	Increase in biannual budget
December 9, 2014	$40	$100	Increase in funding
May 26, 2015	$350	$450	Increase in funding

Regional Turf Removal Program Modifications

Board Letter	Fiscal Year	Comment
April 8, 2008	2008/09	Listed as a device incentive – Synthetic Turf – $0.30 per square foot without limitations
September 10, 2013	2013/14	Establishes MWD incentive as grant funding ends – $1.00 per square foot without limitations
May 13, 2014	2013/14	Increase incentive – $2.00 per square foot without limitations
May 26, 2015	2015/16	**Residential Applicants** - $2.00 per square foot for up to 3,000 square feet. **Public Agency Applicants** - $2.00 per square foot for the first 3,000 square feet; $1.00 per square foot above 3,000 with a $50,000 max. per property/per fiscal year **Commercial/Other Applicants** - $1.00 per square foot up to 25,000 sq. ft.

The regional Program generated an enthusiastic response from the public. During the period under review, over 85,000 applications were received for the removal of 270 million square feet of turf. Of these totals, more than 46,000 reservations were approved and completed with payments of $239 million made for the removal of 103 million square feet of turf through the audit date.

These totals are both significant in number, and instructive as to the program's impact on consumer behavior within Metropolitan's service area. That is, conservation efforts dramatically increased the demand curve for turf removal projects. Acting on the precept "adequate turf removal incentives will, ceteris paribus, reduce outside water demand", Metropolitan established the stimulus necessary to change behaviors. That the Program was accepted and subscribed to in so great a volume also speaks to the synergy created by the Governor, Metropolitan, and the Member Agencies in supporting this program. It is with these accomplishments in mind that this conservation program can be considered a decisive success when considering the square feet volume of turf removed.

The regional Program is administered under an agreement with EGIA. The contract stipulates that they perform inspection and verification procedures and process requests for residential, public, and commercial turf removal incentives. The contract allows for member agencies to contribute matching funds into the Program which are paid through the EGIA contract.

The WRM Water Efficiency Team is responsible for administering the Regional Turf Removal Program. Specifically, they are responsible for providing a high level of customer service for applicants, administering the EGIA contract, and preparing Board and management reports.

We would like to thank the WRM Water Efficiency Team and the Engineering Service Infrastructure Reliability Section for their cooperation during this review. Their assistance was crucial to understanding the evolution of the program and evaluating the risks associated with each turf removal application, and it was invaluable in the performance of the inspection and verification work. Moreover, the timeliness of their responses was important to the completion of this review.

It is important to note that Metropolitan management is responsible for establishing and maintaining a system of internal control. The objectives of internal controls are to provide reasonable assurance as to the reliability and integrity of information; compliance with policies, plans, procedures, laws and regulations; the safeguarding of assets; the economical and efficient use of resources; and the accomplishment of established goals and objectives. In fulfilling this responsibility, judgments by management are required to assess the expected benefits and related costs of control practices and procedures and to assess whether those practices and procedures can be expected to achieve Metropolitan's financial and operational objectives.

Opinion

In our opinion, the accounting and administrative procedures over the Program provide for a less than satisfactory internal control structure. This opinion was the result of inadequate planning, execution, and follow-up of inspection and verification procedures. Moreover, administrative procedures did not provide for reasonable assurance that the third party verification vendor (EGIA) was in compliance with the terms and conditions of their contract.

Comments and Recommendations

INSPECTION AND VERIFICATION PROCEDURES

Internal Control Activities
Internal control activities can be described as being either preventive or detective. Preventive controls are designed to deter or prevent undesirable events from occurring. They are proactive activities that help to prevent an error or loss. Examples of preventive controls are separation of duties, review and approval, authorization, and policies and procedures. Detective controls, on the other hand, are designed to detect errors or irregularities. They provide evidence that a processing deficiency has occurred in order to ensure timely correction. Examples of detective controls are account reconciliations, budget variance analyses, and physical inspections. Both types of controls are essential to establishing an effective system of control.

Inspection Procedures

Within the turf removal program process, inspection and verification procedures act as a detective measure that should provide reasonable assurance as to the veracity and accuracy of turf removal program payments. These procedures should consider rebate information such as: quantity (square footage/dollar amount), type of qualifying property (residential, commercial, public), and complexity (geometric shape) of the underlying land boundaries. These elements should be used to inform the nature and extent of the sophistication applied to the inspection and verification procedures. That is, testing procedures should match the inherent risk associated with the turf removal application.

In this regard, cursory inspection routines could be expected on small, comparable residential applications. Testing could include the use of information readily available through the internet such as mapping applications and real estate programs (e.g., Goggle Maps or Zillow) that can provide property pictures and square footage data. Site inspections for these properties could be limited to drive-by visitations.

More rigorous testing however is to be expected on larger, higher dollar, and therefore greater inherent risk turf removal applications. Sophisticated techniques utilizing geographic information science (GIS) data sets, multilayered aerial imagery, and land surveying methodologies should be used to verify the accuracy of turf removal measurements. Site inspections for these properties should be done in concert with other tests and may consist of the verification of data elements utilized by the GIS or aerial imagery. In other instances, onsite measurements of subject parcels could be necessary to confirm the accuracy of the turf removal application.

Findings
Our audit revealed a dichotomy in the design of the internal control structure over turf removal application processing. Whereas preventive controls were thorough, careful, and well thought out, detective controls were deficient in their detail and lacked the rigor necessary to provide for reasonable assurance as to the accuracy of incentive payments.

Specifically, our audit revealed that operating procedures and guidelines did not provide detailed instructions to ensure the accuracy and veracity of application incentive payments. We reviewed the Inspection/Quality Control for Turf Removal procedures, Metropolitan's Guidelines for Turf Removal Incentives, along with the EGIA Task Order Scope of Services Required document for verification and inspection activities. Our review revealed the following deficiencies in procedures or the lack of specific instructions:

1. Random selection of applications for inspections do not define sampling criteria such as: population stratification, definition of the sampling frame (example: alphabetical list, area/square foot list, or dollar size list), property location or member agency consideration.
2. Selection instructions do not identify the sampling method as simple random, stratified, cluster or systematic random sample, with or without replacement.
3. Aerial software/internet site used for verification is not identified nor are the step-by-step instructions for measuring parcels by the use of aerial photography described.
4. Step-by-step instructions for measuring parcels on a manual basis are not described.
5. Step-by-step instructions for testing applications for compliance to program requirements or for the accuracy of customer information are not described.

6. Selection criteria that call for a 5% selection within a subset of 5% of applications for further work are stipulated without regard to parcel size or dollar amount of application.
7. Definition of “forced inspections” is not provided nor do they establish step-by-step instructions on the work to be performed.
8. Discrepancies between the applicant and EGIA are referred to the member agency for “on-site inspection” but they do not detail specific procedures to be completed.
9. Acceptable error rates are defined as 20% for residential and 10% for commercial/public agency without consideration of the dollar amount of the application.
10. Pre- and post-inspection of all applications exceeding 50,000 square feet do not describe the step-by-step instructions on this work.
11. Definition of swapped parcels is not provided nor do they establish step-by-step instructions on how to account for these exchanges.

Note: Some of these issues were addressed by management in the Regional Turf Removal Program Modifications made in the May 26, 2015 board letter which established payment limitations.

Failure to verify the veracity and accuracy of turf removal program payments could result in overpayments to applicants or could result in processing applications that do not comply with program standards.

We recommend that operating policies and procedures be modified to address the noted deficiencies. These procedures should describe step-by-step instructions for the tasks needed to verify the accuracy of the application. Procedures should aim to achieve efficiency, ensure quality output and uniformity of performance, while reducing miscommunication and failure to comply with program requirements.

Our audit also recognized the value of performing a statistical based survey of subject turf removal parcels that would inform decisions on the payment of applications. These surveys would also serve to infer results for the whole population as to the veracity of all payments. Accordingly, we recommend in such instances that management conform to generally accepted statistical methods. That is, staff initiating a survey must develop a written plan that sets forth a justification, including: goals and objectives; potential users; the decisions the survey is designed to inform; key survey estimates; the precision required of the estimates (e.g., the size of differences that need to be detected); the tabulations and analytic results that will advise decisions and other uses; when and how frequently users need the data; and the level of detail needed in the tabulations and public-use data files.

COMPLIANCE WITH CONTRACT TERMS AND CONDITIONS

Compliance with contractual requirements is necessary to ensure accurate accounting records, proper supporting details, and adequate control over the administration of the agreement. Furthermore, compliance with contract terms and conditions ensures that parties fully discharge their duties and obligations, and exercise their legal rights associated with the agreements. In addition, procedures should ensure that invoices are reviewed for accuracy prior to payment and that management reporting is timely and accurate. For turf removal applications, MWD’s contract with EGIA requires a detailed inspection and verification prior to payment. Once an application is approved, turf removal incentives are paid by EGIA. Under their contract, EGIA submits invoices to MWD for reimbursement of these expenditures.

Our review of turf removal applications processed through November 30, 2015 revealed:

- EGIA was paid for completing aerial measurement testing for 212 applications of more than 15,000 square feet, however only 121 applications were reported as being measured.
- Five applications for turf removal of more than 50,000 square feet were not reported as being inspected by EGIS. This practice does not comply with the terms and conditions of the contract, which requires inspections of all applications for the removal of more than 50,000 square feet of turf. Total payments for these five applications were $4.4 million.
- We found one duplicate payment to EGIA in the amount of $1,974. The duplicate payment occurred because EGIA invoiced MWD for the same turf removal project using two different applications.
- Overall, our test measurements varied less than 1.8% from square footage reported by and rebated to applicants. However, we did note:
  - TRM 29583, an apartment complex, received a rebate in the amount of $252,168 for removing 126,084 square feet of turf. Internal Audit’s measurement showed only 110,221 square feet of turf was removed, a 15,863 square feet (13%) shortfall.
  - TRM 114978, a private residence, received a rebate in the amount of $4,400 for removing 2,200 square feet of turf. Internal Audit’s measurement showed only 1,284 square feet of turf was removed; a 916 square foot (42%) shortfall.

Failure to comply with the terms and conditions of the EGIA agreement could result in incorrect payments to applicants or to EGIA. In addition, improper payments could result in inaccurate Board and management reporting.

We recommend WRM address the noted discrepancies. We also recommend management remind personnel of the importance of compliance with the terms and conditions of the EGIA contract and conduct periodic tests to ensure compliance.

STRATEGIC PLANNING

Strategic planning is used to set goals and priorities, focus energy and resources, and establish agreement around intended outcomes and results. It also strengthens operations, ensures that employees are working toward common goals, and builds ways to adjust plans to address changing conditions. Strategic planning involves the following:

- Adapting the organization to its environment;
- Is fluid and complex;
- Affects the entire organization by providing direction;
- Involves both strategy formulation and implementation of the content of the strategy;

- May be planned (intended) or unplanned (emergent);
- Is done at several levels: overall strategy, and individual business strategies; and
- Involves both conceptual and analytical thought processes.

These management techniques have been employed successfully throughout Metropolitan. For example, Water System Operations uses strategic planning in the development of the annual WSO shutdown schedule and in their weekly Ops Planning Meetings. In both instances, employees from multiple Groups are involved in the planning, scheduling, and resource deployment in order to improve efficiency and lessen operational risk. Likewise, the Bay Delta Initiatives Group utilizes a strategic planning approach to assemble a team of engineers, scientists, biologists, water attorneys (among others), to craft a strategy for the advancement of Metropolitan's interests and objectives in the Bay-Delta.

However, during our audit of the Turf Removal Program we noted that the planning, program development, scheduling, and staffing were limited to the resources available within the Water Resource Management Group. This restricted the breadth of skills and experience of those charged with developing the detailed operating policies and procedures to that of one Group. In doing so it failed to leverage the technical expertise available from the wider, cross disciplined employee workforce. Access to the broader workforce could have resulted in guidance from land surveying professionals and statistical sampling experts, and helped advance the precision and sophistication of WRM's policies and procedures.

Moreover, active engagement by the Chief Operations Officer and the Chief Financial Officer in the development of the detailed testing procedures may have created a more integrated and structured approach in designing sound detective controls. Involvement by senior management would help clarify strategic objectives, secure project resources across Group borders, resolve potential conflicts between organizational strategies and program goals, mitigate Board level program risks, and assist in decision making.