THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Report
Office of the General Auditor
June 29, 2012

Internal Audit Report for June 2012

Summary

Five reports were issued during the month:

- **Interest Rate Swap Program Audit Report**
- **Audit Department Quality Assurance Review**
- **Remarketing Statement for the Water Revenue Refunding Bonds, 2009 Authorization, Series A-2**
- **Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series C and D**
- **Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series E1, E2, and E3**

Discussion Section

This report highlights the significant activities of the Internal Audit Department during June 2012. In addition to presenting background information and the opinion expressed in the audit reports, a discussion of findings noted during the examinations is also provided.

Interest Rate Swap Program Audit Report

Background

California Government Code Section 5922 permits government agencies to utilize interest rate swaps to reduce debt service costs, and reduce the amount or duration of interest rate risk. In September 2001, the Board adopted a Master Swap Resolution, which authorized Metropolitan to enter into swap transactions and related agreements. The Board also approved a Master Swap Policy, which defines the purpose and parameters of the Interest Rate Swap Program (Program).

In July 2009, the Master Swap Policy was amended to enable Metropolitan to execute risk-reducing interest rate swaps with existing counterparties whose credit ratings have dropped below the minimum credit rating thresholds established by the Board. This policy was further amended in May 2010 to reflect changes in the credit market to enable Metropolitan to reduce risk, and to provide additional opportunities to manage the swap portfolio to reduce debt cost. This Program is administered by the Chief Financial Officer and is used as part of the Debt and Investment Management Program. In accordance with the Master Swap Policy, a summary report of outstanding swap transactions is presented to the Finance and Insurance Committee on a monthly basis.

An interest rate swap is a contractual agreement between Metropolitan and a qualified swap counterparty where one party agrees to pay the other (in cash) the difference between fixed and variable interest rates, variable and fixed interest rates, or a percentage of a taxable index and a percentage of a tax-exempt index over an agreed upon period of time, based upon a notional amount. The notional amount is required to compute the interest payments that will be periodically paid by each party.

For example, Metropolitan may agree to pay to a counterparty a fixed rate of 3.3 percent on a notional amount of $100 million, in exchange for receiving a variable rate equal to 60 percent of the one month London Interbank Offered Rate. In this instance, Metropolitan would be hedging variable rate bond payments to bondholders (which over the life of the swap transaction are anticipated to equal the payments received from the counterparty).

Metropolitan, and many other public agencies, use interest rate swaps as part of a bond refunding transaction, in new money transactions to lower interest costs, and to mitigate interest rate risk and other risks. As of February 29, 2012, there were 16 outstanding swap transactions totaling approximately $1.4 billion. This amount decreased by $322 million, as of June 30, 2012, as two swaps were terminated and five additional swaps were partially terminated from the proceeds of an issuance of water revenue refunding bonds.

Opinion

In our opinion, the accounting and administrative procedures over the Interest Rate Swap Program include those practices usually necessary to provide for a generally satisfactory control structure. The degree of compliance with such policies and procedures provided effective control during the period from July 2009 through February 2012. Although this opinion is an acceptable rating, we do express concern over the accuracy of actual savings, swap fair values, and posted collaterals reported to the Board. We believe that more accurate reporting of these values is necessary for board information and discussions.

Comments and Recommendations

BOND/SWAP ACTUAL SAVINGS

Interest rate swaps are utilized to better manage assets and liabilities and to take advantage of market conditions to lower overall costs and reduce interest rate risks. Metropolitan's interest rate swap portfolio is primarily composed of fixed payer swap transactions; whereby, Metropolitan pays a fixed rate to a swap counterparty and receives a variable rate based on a percentage of an index. Metropolitan entered into these trades in conjunction with an advance refunding of fixed rate revenue bonds. The "Actual Savings" derived from these transactions is the total of three elements: net debt service savings, actual basis gain (loss), and the assumed basis loss. "Net Debt Service Saving" is the difference between the cost of prior fixed rate bonds, the cost of the new variable rate bonds (which are offset by the receiver rate of the swap), bank fees, and assumed basis loss and the fixed payer rate of the swap.

In addition, in order to be financially conservative for each of the London Interbank Offered Rate based fixed payer swaps, Metropolitan built in an "Assumed Basis Loss" into the original bond refunding transaction; this reduced anticipated future savings for the swap and refunding transactions. "Actual Basis Gain (Loss)" is the difference between the variable rate paid on bonds by Metropolitan, and the variable rate received on the swaps from counterparties. These variable rates "are expected to be roughly the same" over the life of the transaction, leaving Metropolitan paying the fixed swap rate. We reviewed the actual savings reported to the Board through February 2012 and noted:

1. Actual savings for 2006 swaps (J.P. Morgan "JP" and Deutsche Bank) were overstated by $255,438, as the savings were calculated based on incorrect Net Debt Service Savings of $4,464,443 rather than $4,209,005.

2. Actual Savings for 2003 C1 C2 swaps (JP and Deutsche Bank) were understated by $33,254, as the actual basis loss was calculated based on incorrect notional amount of $366,444,000 rather than $330,545,000 or $329,275,000. This calculation error was made from June 2011 through February 2012.

3. Actual basis loss totaling $23.5 million was incurred for five selected swaps, as the variable rates paid to the bondholders were higher than the variable rates received from the counterparties through February 2012. We understand that through the end of the swap term, the variable rates on bond and swap are expected to be roughly the same. It was noted that despite this basis mismatch loss, Metropolitan still realized an additional $6.8 million in actual savings, when compared to the swap's assumed basis loss of $30.3 million at the time of the original transaction. Details of the actual and assumed basis loss are as follows:

	Swap	Associated Bond	Actual Basis Loss	Assumed Basis Loss	Variance-Actual Under (Over)
1	2001 B - Deutsche and JP	2008 A1 A21	$ 7,731,265	$ -0-	$ (7,731,265)
2	2003 C1 C2 – JP and Deutsche	2000 B2-B4/ 2001C-1	7,184,660	10,912,281	3,727,621
3	2002 A&B - Morgan Stanley and JP	1999B&C, 1997B	3,794,318	7,137,182	3,342,864
4	2004A - Morgan Stanley	2004 A1 A2	2,244,665	5,103,880	2,859,215
5	2004 C – Morgan Stanley	2004 C	2,519,824	7,164,769	4,644,945
	Total		$ 23,474,732	$30,318,112	$ 6,843,380

It should be noted that despite the aforementioned calculation discrepancies and basis loss, overall Metropolitan has net actual savings of $82.7 million from these bond/swap transactions as of February 29, 2012.

4. Although the Financial Services Section calculates the actual savings each week, we noted that the measurement, monitoring, and verification procedures for the actual savings were not formalized in writing.

We recommend that Financial Services management conduct periodic reviews to ensure accuracy of the actual savings calculation. We also recommend that the Financial Services management develop procedures to measure, monitor, and verify actual savings and include them in the desk procedures to be developed for the Program.

FAIR VALUE AND NOTIONAL PRINCIPAL AMOUNT

GASB 53 requires governments to measure interest rate swaps at fair value in their financial statements. Fair values of swaps reported in the Swap Monthly Report distributed to management and the Board should be consistent with the recorded amounts in the general ledger. Further, the swap's notional principal amount (a predetermined dollar amount) is used to calculate the fixed rate paid to counterparty, and the variable rate received from the counterparty on the swaps. Neither Metropolitan nor the counterparty pays or receives the notional principal amount.

In a swap transaction, the cash flows are determined from the swap's fixed rate and the swap's variable rate, which are calculated over the notional amount. We reviewed the swap's fair values and notional amounts reported to the Board through February 2012, and noted:

- Total fair values for all 16 outstanding swaps reported in the Swap Monthly Report were overstated by $3,803,295 (negative $204,721,000 versus negative $200,917,705), when compared against the general ledger. Negative value means that Metropolitan would have to pay this amount upon swap termination. We understand that the Swap Monthly Report's overstatement was due to the accrued interests added to the swaps' fair values. It should be noted that the swaps' monthly accrued interests are recorded separately from the swaps' fair values, as short-term liabilities in the general ledger.

We recommend the Financial Services management coordinate with the Controller's Office to ensure consistency of swaps' fair values reported in the Swap Monthly Report, and the amounts recorded in the general ledger.

METROPOLITAN'S POSTED COLLATERALS

Under a swap agreement, Metropolitan requires collateral (above a dollar threshold amount as designated in the agreement) to secure any or all swap payment obligations, when the credit rating of the counterparty falls below the "AA" category. Moreover, Metropolitan is required by the swap agreement to post collateral to counterparties when the swap's fair values become negative. Negative values mean that Metropolitan would have to pay the counterparty for the outstanding fair values at swap termination. As of February 2012, the swaps have fair values of negative $200,917,705 recorded in the general ledger. We reviewed Metropolitan's posted collaterals to counterparties as of February 2012, and noted:

1. Posted collaterals reported in the Swap Monthly Report for Morgan Stanley and J.P. Morgan swaps differed by approximately $163,000 ($27,600,000 versus $27,437,000), and $19, 230 ($900,000 versus $919,230), as book value was reported in lieu of market values (per the February 29, 2012 Portfolio Summary from the Metropolitan's Treasurer's Sympro Report).

2. Although Metropolitan has agreed to deposit swap collaterals to the counterparties, we noted that Metropolitan is exposed to a greater risk of loss, especially if the counterparty were to declare bankruptcy. Section 9 (Collateral Requirements) of the Master Swap Policy provides an alternative option for Metropolitan to deposit required collaterals with a third-party trustee. We understand that it is not an industry practice to have collaterals posted with third parties, and that Metropolitan would have to fund the cost of that service.

We recommend that Financial Services management ensure consistency of reported swaps' posted collaterals to the Treasurer's Monthly Sympro Report, as of month-end. We also recommend that Financial Services management consider depositing swap collaterals to a third-party trustee.

COUNTERPARTY CREDIT RATINGS

The Master Swap Policy authorizes Metropolitan to enter into swap transactions only with qualified swap counterparties. A qualified swap counterparty is any financial institution that has demonstrated record of successfully executing swap transactions, and is rated at least "Aa3" or "AA-," or equivalent by any two of the nationally recognized rating agencies (i.e., Moody's, Fitch or Standard and Poor's "S&P"). Metropolitan may also enter into swap transactions with existing swap counterparties whose credit ratings have dropped below the required levels, if the additional swap transactions are an offsetting swap transaction.

We reviewed the counterparty's credit ratings published on-line, and noted that three of four existing counterparties do not currently meet the minimum credit rating thresholds of "Aa3" or "AA-," or equivalent by any two credit rating agencies. We understand that Financial Services reports counterparty ratings in the Swap Monthly Report and notes rating changes, when they occur. Details of the counterparty's credit ratings are as follows:

		Credit Rating Agencies			
	Counterparty	Moody's	Fitch	S&P	Audit Observation
1	JP Morgan Chase	Aa1	AA-	A+	Met minimum credit rating thresholds
2	Deutsche Bank	Aa3	A+	A+	Did not meet minimum credit rating thresholds
3	Morgan Stanley	A2	A	A-	Did not meet minimum credit rating thresholds
4	Citigroup Financial	A3	A	A-	Did not meet minimum credit rating thresholds

We recommend that Financial Services management continue to monitor credit ratings to ensure swap transactions are entered into with qualified counterparties.

DESK PROCEDURES

Procedures assist management in the training of new employees and cross-training of staff, provide guidance for consistent performance of daily responsibilities, and provide a source of reference for Metropolitan personnel. Written procedures should be established and documented to provide a framework for achieving Metropolitan's goals and objectives. During our review, we noted that detailed desk procedures and practices, specific to swap transactions, have not been formalized in writing. These "desk procedures" should contain staff roles and responsibilities, process descriptions, instructions for the performance of tasks, and related monitoring and reporting activities.

We recommend that Financial Services management develop detailed "desk procedures" to ensure swap's processes and controls are not adversely impacted by employee turnover. We also recommend that Financial Services management cross-train current employees to lessen the risk associated with turnover.

Audit Department Quality Assurance Review

Background

As part of our quality enhancement efforts and to encourage continuous improvement in the Audit Department, we implemented a Quality Assurance and Improvement Program (QA&IP) in 2007. This QA&IP, which is required by the *International Standards for the Professional Practice of Internal Auditing (Standards)* set forth by The Institute of Internal Auditors (IIA), encompasses all types of audit activities. Major elements of the QA&IP include training and ongoing reviews, periodic internal assessments, and external assessments of audit operations and processes. These external assessments, which are performed by qualified, independent evaluators, external to the organization, are required every five years.

In preparation for our 2012 external assessment, we first prepared a detailed self-assessment utilizing the IIA's Quality Assessment guidance. The purpose of this self-assessment was to examine our conformity to the *Standards,* to evaluate our effectiveness in carrying out our mission, to identify opportunities to enhance management and work processes, and to enhance the Audit Department's value to Metropolitan.

Supporting documents for our self-assessment included anonymous surveys of both audit clients and audit staff; documentation of risk assessment and audit planning processes; audit policies, procedures, and tools; engagement and staff management practices; board and management communication methods; and related governance processes. Central to our assessment was a detailed review of a selection of audit work papers and audit reports, in comparison with the *Standards*. We then assessed our performance versus the key conformance criteria for each *Standard* and developed a self-assessment report. Next, we contracted with the IIA to conduct an independent validation of our self-assessment.

The objectives of this review were twofold. First, the IIA verified the assertions made in our self-assessment report concerning adequate fulfillment of Metropolitan's expectations of the Audit Department. Secondly, the IIA review verified the Audit Department's conformity to the *Standards.* This external review conducted on-site from May 7-10, 2012, consisted primarily of evaluation and testing of procedures, review of selected work papers, and interviews with the Chairman of the Board of Directors, Chair of the Audit and Ethics Committee, General Manager, Chief Operating Officer, Chief Financial Officer, other senior members of management, members of the audit staff, and the external auditors.

Quality Evaluation

In June 2012, we were pleased to be notified that the IIA evaluator concurred fully with our self – assessment report with an overall opinion that the Audit Department "Generally Conforms" to the *Standards* and Code of Ethics. "Generally Conforms" is the top rating and means that an audit activity has a charter, policies, and process that are judged to be in conformance with the *Standards*. However, there were opportunities for improvement. Specifically, the report noted that the Audit Department partially conformed to one *Standard* and also identified several recommendations related to best practices. We have prepared a Management Response and Action Plan, and are in the process of implementing these enhancements.

Comments and Recommendations

PART I – MATTERS FOR THE CONSIDERATION OF THE BOARD

The Board's direct oversight of the Audit Department promotes effective governance and control within Metropolitan. The Audit and Ethics Committee's current Charter, as set forth in the Administrative Code, generally provides adequate authority to effectively oversee its Audit Department's responsibilities. However, the IIA has published a "Model Audit Committee Charter" that contains best practices, including additional suggested responsibilities related to governance of the Audit Department.

We present two "best practices" for board consideration which could enhance effectiveness. First, consider revising the Audit and Ethics Committee Charter to expand some oversight responsibilities, particularly with respect to reviewing the adequacy of the Charter annually and confirming annually that all responsibilities outlined in the Charter have been carried out. Second, based on interviews with the Chairman of the Board and the Chair of the Audit and Ethics Committee, there is a need and an opportunity to enhance the effectiveness of the Audit and Ethics Committee's oversight of the Audit Department by providing training on the role and responsibilities of committee members and of the Audit Department.

Our response to the first recommendation is that we will review the Audit and Ethics Committee Charter in comparison with the "Model Audit Committee Charter", and identify potential enhancements for the Audit and Ethics Committee's consideration.

With regards to the second recommendation, the Chair of the Audit and Ethics Committee has directed Audit Department staff to assist in developing workshop alternatives related to the roles and responsibilities of committee members, and of the Audit Department.

PART II – ISSUES SPECIFIC TO AUDIT DEPARTMENT ACTIVITIES

COMPLIANCE WITH POLICIES AND PROCEDURES

In order to ensure high quality audit work consistent with the *Standards*, auditors should comply with established Audit Department policies and procedures. Established procedures in such areas as audit field work ensure that sufficiently detailed audit work programs are developed in order to achieve audit objectives. Current procedures detail the supervisory review requirements for work programs before field work commences, in order to ensure sufficient quality audit work is planned to support the audit opinion.

During our review of a sample of audit work papers, we noted that selected work programs were not sufficiently detailed to properly provide direction for identifying, analyzing, evaluating, and documenting information during the audits. Also, we noted that in one instance the auditor did not follow prescribed planning procedures related to obtaining approval of the work program prior to beginning field work.

We have developed a plan to strengthen compliance with Audit Department policies and procedures. First, we will modify our planning procedures to ensure audit programs include sufficiently detailed audit procedures that are more directly linked with the risks in the area under review. This may involve expanding the current "Control Matrix" by matching detailed audit procedures to the related audit objectives. Next, we reminded auditors of existing procedures that require supervisory review and approval of planning and work programs prior to commencement of field work. Finally, the recent creation of two unit manager positions provides additional assurance that these procedures will be followed.

ENHANCE AUDIT DEPARTMENT EFFECTIVENESS

The Audit Department has established internal processes to provide adequate management and monitoring to ensure that staff is effectively deployed. Additionally, audit client communication processes, including "Entrance Conferences" have been implemented to discuss audit objectives and timing. These client communication practices are essential to fostering professional working relationships with our audit clients.

As part of our self-assessment, we requested feedback from audit clients regarding the audit process, relationships with staff, and the value added of audits. While the client feedback was largely positive, review of these surveys indicated that several clients felt that the duration of audits could be improved. We also noted that auditor time-charging to audits is lower than a recent IIA benchmarking exercise. Finally, during interviews between the validator and clients, we noted an opportunity to provide timelier and broader communication with management regarding upcoming audits.

We will continue to identify methods to streamline audit processes and cycle time and to increase auditor productivity. Further, we will continue to use recently implemented "Planning Conferences" to ensure a robust risk assessment in the beginning stages of the audit, resulting in more efficient audit work. Finally, we will evaluate current communication processes with management, including "Entrance Conferences," and develop enhancements to communicate more effectively.

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

The Audit Department has completed a review of the Remarketing Statement for the Water Revenue Refunding Bonds, 2009 Authorization, Series A-2. This review was undertaken to provide the remarketers of the Bonds "comfort" that the Remarketing Statement for the Bonds is complete, consistent with supporting financial records, and accurate in all material respects. The review was completed and no exceptions were noted. We issued letters describing the agreed upon review procedures performed, and the results obtained to the remarketers of the Bonds.

Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series C and D

The Audit Department has completed a review of the Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series C and D. We performed this review to provide the issuer of the Bonds "comfort" that the Official 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 issued letters to the underwriter describing the agreed upon review procedures performed, and the results obtained.

Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series E1, E2, and E3

The Audit Department has completed a review of the Official Statement for the Water Revenue Refunding Bonds, 2012 Authorization, Series E1, E2, and E3. We performed this review to provide the issuer of the Bonds "comfort" that the Official 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 issued letters to the underwriter describing the agreed upon review procedures performed, and the results obtained.