

Office of the City Auditor

Audit Report

Water and Sewer Rate Increase Audit

October 2012



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Table of Contents

Executive Summary	1
Background	2
Proposition 218.....	2
Audit Objective, Scope and Methodology.....	3
Results	4
WATER RATES	4
SEWER RATES	7
Recommendations	8
Management's Response.....	Appendix A

Executive Summary

The Office of the City Auditor conducted an audit of the water and sewer rate increases initiated by the Long Beach Water Department (LBWD) during fiscal years (FY) 2009 through 2011. Our audit was limited to the budget process for determining rates. We did not audit LBWD's operations or the appropriateness of the expenses incurred.

The mission of the LBWD is to deliver an uninterrupted supply of quality water to their customers, to effectively dispose of or reclaim sewage, and to operate in a manner that is economically efficient and environmentally responsible. Long Beach drinking water is known for being one of the best tasting and highest quality municipal water sources in the state of California. The LBWD is recognized for being a regional leader in water conservation and environmental stewardship and was recently recognized for its Lawn to Garden Incentive Program. When compared to other large cities and water service providers in California, LBWD's rates are on the lower end of the rate spectrum even with double-digit water rate increases during FYs 2009 and 2010.

For the period of the audit, LBWD's policy was to maintain operating reserves close to \$6 million for water operations. This audit does not address whether the reserve balances set by LBWD are reasonable or sufficient, but only if the fund balances agreed with the department's policy. We found that since the double-digit rate increases occurred in FY 2009 and 2010, the department's fund balance has consistently exceeded the \$6 million target. By FY 2011, fund balances had grown to \$43.3 million, a 566% increase since FY 2008.

Fund balances increased because budget assumptions did not always appear realistic when compared to what actually occurred. Although deficits were projected in each of the three years reviewed, actual expenses and revenues instead produced large surpluses. While the timing of the budget preparation, which is seven months before the end of the fiscal year, can make accurate revenue and expense projections difficult, the current budgeting approach seems to include inflated contingencies which are resulting in increasing reserves.

We were able to assert that a large portion of the variances can be attributed to the Capital Improvement Program (CIP). While project delays have resulted in substantially less work being performed, these delays were not considered in the budgeting process over the three years reviewed, resulting in inflated budgets. This problem was apparent in both the water and sewer CIP projects. For FY 2009 through 2011, water CIP projects spent only 57% of the amounts projected, and sewer CIP projects spent even less at 25% of estimated costs.

Management is basing decisions on whether to raise rates, in part, on projected budget numbers. To ensure these projections are realistic, LBWD should evaluate existing processes and policies to improve the effectiveness of their annual budget estimates.

We appreciate the cooperation afforded to our Office by the LBWD staff. We respectfully request an update in nine months on the department's efforts to implement the recommendations outlined in this report.

Background

The Long Beach Water Department (LBWD) provides water and sewer services to nearly half a million people through more than 90,000 service connections. A primary responsibility is to supply the residents of Long Beach with a high-quality, reliable water supply that is cost-effective and affordable. Another primary responsibility is to provide swift removal of sanitary sewage from Long Beach residences and places of business to nearby wastewater treatment facilities. The LBWD charges its customers a water and sewer rate for the services provided. As an enterprise operation, water and sewer rates are examined annually to ensure they recover all direct and indirect costs of services. LBWD determines the rates when estimating its budget for the following fiscal year (FY). The budget and rates must be approved by the Board of Water Commissioners, followed by approval from the Long Beach City Council. Table 1 shows the 5-year history of the approved water and sewer percentage rate increases.

Table 1
Percentage Rate Increases

Fiscal Year	Water	Sewer
2009	15%	20%
2010	16%	22%
2011	0%	9%
2012	0%	5%
2013	0%	0%

Proposition 218

Proposition (Prop) 218 became effective on July 1, 1997 and limits the methods by which local governments can create or increase taxes, fees and charges without taxpayer consent. It created substantive and procedural requirements for fees and charges for property-related services, such as water and sewer. Prop 218 specifies requirements for how rates are set and how the funds generated by those rates are used. Some of the requirements include:

- Fees imposed must not exceed the cost of providing the service.
- Revenues generated from collection of the fee may not be used for any other purpose other than that for which the fee was imposed.
- Amount of the fee may not exceed the proportional cost of the service attributable to the parcel receiving the service.
- Reasonable operating reserves may be maintained.

When a public entity proposes to impose or increase any property related fee it must calculate the amount of the fee proposed, provide written notice by mail to customer, and conduct a public hearing on the proposed new or increased fee not less than 45 days after the mailing of the notice. The entity may impose the fee upon a determination that there is no majority protest.

As previously mentioned, the scope of our audit was limited to the budget process for establishing rates; therefore, compliance with Prop 218 was outside the scope of this audit.

Audit Objective, Scope and Methodology

The objective of our audit was to determine the composition and reasonableness of the factors that drove the water and sewer rate increases initiated by the LBWD during FYs 2009 through 2011. The scope of the audit was limited to the budget process used to determine rates. We did not audit LBWD's operations or the appropriateness of the expenses incurred.

During our audit, we performed the following procedures:

- Interviewed key personnel to gain an understanding of LBWD's budget and rate setting process and controls over key processes that have the greatest impact on rate changes.
- Obtained an understanding of Proposition 218.
- Obtained an understanding of LBWD's approach to purchasing and pumping water during the scope of the audit.
- Reviewed supporting documentation illustrating how water and sewer rate increases were determined during the scope of the audit.
- Identified areas where significant variances exist between the adopted budgets and the actual amounts spent.
- Identified variances between the Capital Improvement Program (CIP) budgets to the actual expenses and reviewed a sample of CIP project files to determine reasons for variances.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results

WATER RATES

Reserve Policy

Prior to FY 2012, LBWD policy was to maintain \$6 million in operating reserves. As shown in Table 2 below, the average fund balance through 2008 was consistent with the department's \$6 million reserve policy. Once the rate increases went into effect, the fund balance for water grew beyond the department's \$6 million reserve target, climbing to \$43.3 million by FY 2011, a 566% increase.

Table 2
Water Ending Fund Balance
(in millions)

Fiscal Year	Target Operating Reserves	Ending Fund Balance
Average 2003-2008	\$6.0	\$6.5
2009	\$6.0	\$16.3
2010	\$6.0	\$35.5
2011	\$6.0	\$43.3
2012 (projected)	\$9.8	\$48.0

For FY 2012, LBWD changed its reserve policy from \$6 million to an amount equal to 90-days of operating expenses of \$9.8 million. Based on expenses through July 2012, it appears the fund balances for FY 2012 will near \$48 million.

Fund Balance Growth

When attempting to determine the reasons for the growing fund balance, we found LBWD's budget amounts varied significantly from actual amounts.

For FY 2009, LBWD projected a shortfall of \$1.9 million, even with the rate increase. However, FY 2009 actually finished with a surplus of \$10.2 million. The difference between budgeted and actual amounts represents 14% of the expense budget. The same scenario exists in FY 2010. LBWD projected a shortfall of \$1.9 million with the rate increase, but finished with a surplus of \$17.9 million. It should be noted that \$10 million of this surplus resulted from an unexpected land sale. Excluding the land sale, the surplus represents an 11% variance.

Table 3
Water Revenue and Expenses
(in millions)

FY 2009	Budget	Actual	Variance	Variance as a % of Budgeted Expenses
Revenue	\$ 85.6	\$ 88.1	\$ 2.5	
Expenses	(87.5)	(77.9)	9.6	
Net	\$ (1.9)	\$ 10.2	\$ 12.1	14%

FY 2010	Budget	Actual	Variance	Variance as a % of Budgeted Expenses
Revenue	\$ 90.8	\$ 102.0	\$ 11.2	
Expenses	(92.7)	(84.1)	8.6	
Net	(1.9)	17.9	19.8	
Land Sale	-	(10.0)	(10.0)	
Adjusted Net	\$ (1.9)	\$ 7.9	\$ 9.8	11%

This budgeting pattern continued in FY 2011. In that year, LBWD had a surplus of \$8 million, but had projected a \$200,000 shortfall. For FY 2012, it is likely a surplus will also occur even though management had projected a \$10 million shortfall.

As with any business operations, management must make assumptions on certain events they reasonably expect to occur during any budget year. While the budget variances provided by management appeared to be reasonable, they did not indicate significant changes in LBWD operations that would result in substantial changes in revenues or expenses.

Management states part of the issue lies in the timing of budget preparation. The budget process begins in March of each year. With 42% of the year completed, they must estimate costs for the remaining seven months of the current year and apply these figures towards projected revenues and expenses for the next fiscal year. For example, in March 2008, management projected their ending fund balance for September 30th. This figure is then used as the beginning fund balance for the next fiscal year and becomes part of the rate calculation. When reviewing FY 2009 and 2010 beginning fund balance estimates, we found they varied substantially from actual as noted in Table 4.

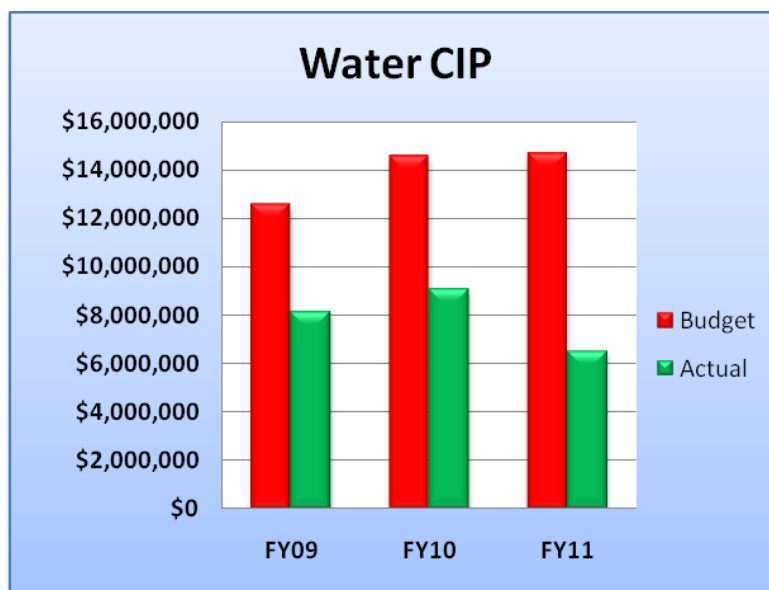
Table 4
Water Beginning Fund Balance

Fiscal Year	Projected Beginning Fund Balance	Actual Beginning Fund Balance	Variance	% Variance
2009	\$ 4,124,428	\$ 7,030,957	\$ 2,906,529	70%
2010	\$ 7,997,002	\$ 16,265,045	\$ 8,268,043	103%

When considering whether a rate increase was warranted in these years, management based their decision on these projected numbers. It is unclear whether management reevaluated its projections as they neared fiscal year-end or considered reducing the proposed rate increase.

Capital Improvement Program Budget

We were able to identify that a significant portion of the differences between budget and actual expenses occurred in the CIP. During FYs 2009 through 2011, total CIP expenses were \$18.2 million below projections.



Management attributes the variances to delays in engineering design which deferred project schedules, turnover of senior staff, unforeseen delays in the permitting process, and customer driven projects that did not proceed. While we did find evidence to support these reasons, we also found these situations were not taken into consideration in the budget process. As a result, a pattern developed over the three fiscal years reviewed. During FY 2009, 2010, and 2011, actual CIP costs were only 65%, 62%, and 44% of budget, respectively.

Each year, particularly for projects in the planning and design phase, unrealistic costs were budgeted. We noted instances where costs for design, construction and construction management were all budgeted in the same year. However, an average CIP project takes approximately 25 months from design phase to end of construction. Therefore, it is highly unlikely all these costs would occur in a budget window of only 12 months.

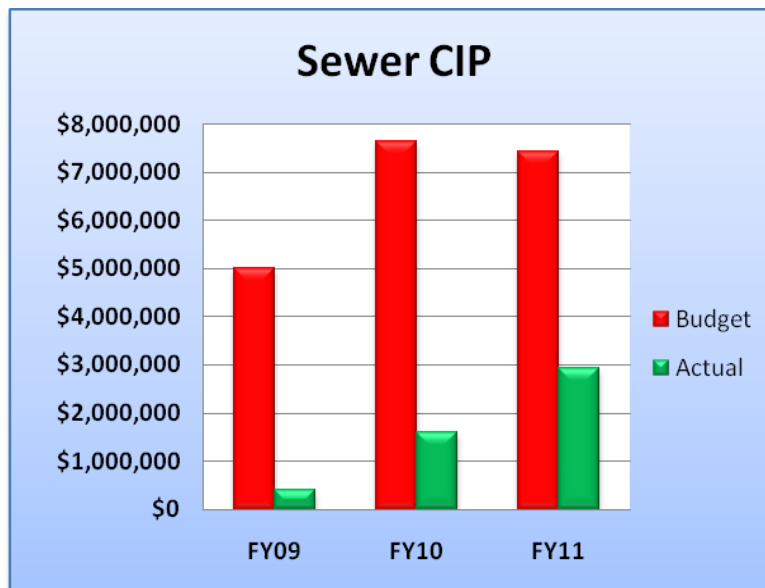
For the CIP costs that did not occur in a budget year, the approach was to re-budget the projects in the next fiscal year without adjusting the budget amount to reflect delays/issues being encountered and/or considering amounts budgeted in the prior fiscal year.

Example:

- *In FY 2009 design costs were budgeted for the Bridge Crossings Repair/Maintenance program. The project did not start in FY 2009 and as of FY 2011 had not begun. However, the same design costs, along with additional costs for construction and construction management services, have been carried over and included in the FY 2010, 2011 and 2012 budgets.*

SEWER RATES

While the annual expenses for water operations were \$83.7 million for FY 2011, the sewer operations budget is much smaller at \$17.2 million. Approximately one-third of the sewer budget for FYs 2009 through 2011 was dedicated to the CIP. As with the water operations, we found significant variances between the CIP budget and actual expenses incurred. During FYs 2009, 2010, and 2011, actual CIP costs were only 8%, 21%, and 39% of budget, respectively.



During FYs 2009 through 2011 amounts spent on CIP were \$15.1 million lower than budget. Continual delays in projects were not considered when preparing realistic CIP costs in any given year. As a result, the costs continued to be re-budgeted for the next fiscal year.

Example:

- *In FY 2009, \$1.63 million was budgeted for the Cement Pipe Rehabilitation program. The projects did not begin in FY 2009 due to staffing issues. As a result, the costs associated with these projects were re-budgeted in FY 2010, totaling \$1.97 million. The projects were again deferred in FY 2010 for the same reason, and the costs were again re-budgeted in FY 2011. The projects were completed in FY 2011.*

Recommendations

The budgeting process and practices employed by the LBWD are contributing to an increase in fund balances that exceed its current reserve policy. LBWD should evaluate existing processes and policies to improve the effectiveness of their annual budget projections. Specifically, LBWD should:

- Establish an appropriate operating reserve that reflects actual operational needs and potential operating risks if they believe that a 90-day operating reserve is insufficient.
- Improve CIP budget planning by considering all factors which may occur in any given year. Management should realistically estimate what can be accomplished by evaluating available staff, procurement requirements, planning, construction timelines, and prior budgets to actuals.
- Before allocating current fund balances to future capital projects, management should be confident the project will begin in the budget year for which the fund balance is allocated.
- When considering the possibility of rate increases, continued evaluation of budget projections should be performed throughout the process, including an analysis of the impact of the rate increase once it is implemented.

Appendix A

Management's Response



Long Beach Water Department

The Standard in Water Conservation &
Environmental Stewardship

Date: September 27, 2012

To: Laura Doud, City Auditor

From: Kevin L. Wattier, General Manager, Water Department *KLWattier*

Subject: Response to Report on Water and Sewer Rate Increase Audit,
September 2012

The Long Beach Water Department (LBWD) would like to thank the Office of the City Auditor (Auditor) for conducting the review of Water and Sewer rate increases for Fiscal Years 2009, 2010 and 2011. The collaborative process of the audit helped management facilitate implementation of enhanced budget processes that we believe are addressing the findings in the report and producing desired results.

The following provides the Management Response to the findings and recommendations of the audit.

Management Response to Audit Recommendations

The Auditor's report contained a series of recommendations focused on the areas of fund balance or reserves, Capital Improvement Program (CIP) budget planning, and overall budget planning. We have organized our responses to the specific recommendations into three categories – Management of Reserves, CIP Budget Planning and Monitoring, and Continued Evaluation of Budget Projections.

The Auditor has requested an update in nine (9) months, and we will provide an update during the course of our FY2013-2014 budget process, which will begin in February 2013.

Management of Reserves

In 2009 and 2010, LBWD implemented two debt related actions. First, the Board of Water Commissioners (Board) authorized the creation of a Commercial Paper Program to finance the initial ramp up of Sewer Fund capital projects in response to an updated Sewer Master Plan; and secondly, the Board authorized the refunding of Water Fund Bonds to take advantage of market rates to provide up front savings and a source of funds for City water conservation projects.

In the course of those transactions, staff communicated to the Board that rating agencies were placing heightened emphasis and scrutiny on reserves as a factor in assessing LBWD's credit rating for each transaction. The result was the establishment of the metric of "days cash" for Water and Sewer fund balances. The initial guidance offered by LBWD's financial advisors was that a minimum 90 days cash would be an acceptable metric, given that industry averages for water and sewer enterprises were greater than 300 days, and given LBWD's other strong financial metrics, including its rates and coverage ratios.

As part of our regular budget process with the Board for Fiscal Year 2012-2013, we have established the annual reporting of fund balance components, including operating reserves based on the days cash metric, and reserves for specific projects and programs. For the Fiscal Year 2013-2014 budget process, we will include a discussion of the industry averages of days cash for other similarly rated agencies, as well as the reporting of debt coverage ratios as required.

CIP Budget Planning and Monitoring

For the Fiscal Year 2012-2013 Budget, staff instituted a revised planning process for the longer term, Five Year CIP list of projects and budget, as well as the CIP project list and budget for FY2012-2013. The revised process includes focused discussions on the following inputs to the CIP for both Water and Sewer Funds:

- Monthly and quarterly projections of project schedules
- Assessment of the appropriate timing and priority for the projects
- Risk assessment and potential impacts to schedule and costs
- Grant funding and partnerships affecting CIP project costs

Additionally, the same review process was applied to the current FY2011-2012 CIP to better ascertain Estimates-to-Close (ETCs), and any impacts or risks to project schedules and costs that would affect those ETCs. This review of the current CIP has occurred almost monthly since the beginning of the FY2012-2013 budget process, and LBWD has incorporated the more detailed review of the annual CIP into its budget process and as part of the overall maintenance and monitoring of the CIP. During LBWD's annual budget process, information from monitoring the annual CIP will be factored into the Five Year CIP for long range budget planning.

Under the revised process, the Water Fund CIP for FY2012-2013 is 30% lower than FY2011-2012, reflecting the additional review process for proposed CIP project schedules and budgets. Staff reported to the Board unforeseen circumstances that impacted a critical water supply project in the current Water Fund CIP. The impacts of a reduced CIP and the implications from the project delay were then incorporated into ETCs for the current year and the development of the FY2012-2013 budget.

Review of the Sewer Fund CIP program established the need for reassessment of the Sewer Master Plan and long-term Sewer Fund CIP list of projects. A number of the larger-scale Sewer CIP projects have been completed, along with several cement pipe rehabilitation projects. Condition assessment of the clay pipe portion of the sewer system has commenced, and analysis of the initial data gathered indicates this portion of the system may be more structurally sound than originally anticipated in the Sewer Master Plan. The reassessment has been included in the FY2012-2013 CIP, and will lead to changes in the Five Year CIP.

Review of current Sewer Fund CIP also allowed for a strategic decision to cancel a draw on funds from the Sewer Fund Line of Credit for FY2011-2012 and to draw instead from Sewer Fund reserves.

Continued Evaluation of Budget Projections

As part of its regular budget monitoring process, LBWD has monitored and tracked its overall budget on a quarterly basis, updating ETCs in response to updated information on major budget components. During the current fiscal year, the process of additional monitoring of the CIP has been added, enhancing the reporting of budget information to track against proposed expense and revenue budgets.

For Fiscal Year 2011-2012, consistent review and monitoring of Water and Sewer CIP, coupled with regular reporting assessment of other budget ETCs, indicate that LBWD's budgeted expenses will more closely match ETC estimates that formed the basis for the FY2012-2013 budget adopted by the Board and City Council.

Conclusion

The audit identified several opportunities to enhance budget planning, monitoring and reporting processes that assist in ensuring that LBWD's budget and rate setting processes continue to be implemented in an open and transparent manner. LBWD thanks the Auditor's staff for their assistance and efforts.