



Office of the District of Columbia Auditor

009:12:SDG:VJ:AW:fs

**Sufficiency Review of the Reasonableness of the
District of Columbia Water and Sewer Authority's
(DC Water) Fiscal Year 2012 Revenue Estimate
Totaling \$426,416,477**

February 27, 2012

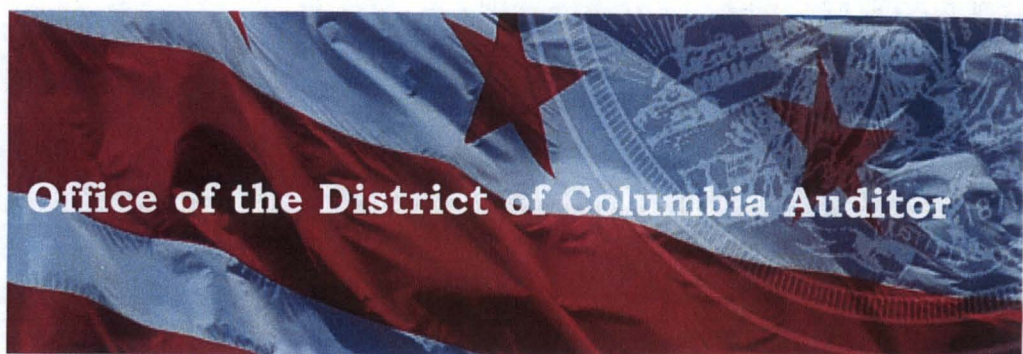
Review Conducted By:

Sharyn Davis-Gordon, Senior Financial Analyst

Veronica Johnson, Senior Financial Analyst

Amy Wu, Financial Analyst

Yolanda Branche, District of Columbia Auditor



Sufficiency Review of the Reasonableness of the District of Columbia
Water and Sewer Authority's (DC Water) Fiscal Year 2012 Revenue
Estimate Totaling \$426,416,477

February 27, 2012

Review Conducted By:
Sharyn Davis-Gordon, Senior Financial Analyst
Veronica Johnson, Senior Financial Analyst
Amy Wu, Financial Analyst

A Report by the Office of the D.C. Auditor (ODCA)
Yolanda Branche, D.C. Auditor

Table of Contents

Acknowledgements	Page 3
Agency Accomplishments	Page 4
Introduction	Page 5
Objectives, Scope and Methodology	Page 6
Background	Page 8
Results	Page 10
Appendix A	Page 17

Acknowledgements

The D.C. Auditor (Auditor) would like to thank the District of Columbia Water and Sewer Authority (DC Water) staff from the following departments: Finance and Budget, General Counsel, Customer Service, Risk Management, and the General Manager for their assistance and cooperation during the attestation engagement.

Agency Accomplishments

DC Water reported the following agency accomplishments:

- DC Water ended FY 2011 with a strong financial performance. DC Water's, year-end cash balance was \$182.7 million or \$57.2 million above the DC Water, Board of Directors' (Board) established \$125.5 million reserve requirement. On a cash basis, actual revenues for the FY 2011 exceeded the budgeted revenues by \$4.9 million and actual expenses were \$36.3 million less than the budgeted expenses.
- On October 12, 2011, DC Water broke ground on its twenty-year, \$2.6 billion DC Clean Rivers Project. The goal of the DC Clean Rivers Project was to reduce combined sewer overflows to the Anacostia and Potomac Rivers, and the Rock Creek by 96 percent, thereby improving the health of the Chesapeake Bay.
- On May 17, 2011, DC Water broke ground on the \$1.5 billion Biosolids Digester Project at Blue Plains. The Biosolids Digester Project will be the first waste water treatment project in North America to deploy thermal hydrolysis for wastewater treatment and will become the largest source of renewable energy in the region. It is anticipated that the Biosolids Digester Project will reduce the biosolids produced from Blue Plains by 50 percent. The Biosolids Digester Project is expected to reduce annual electricity costs by an estimated \$10 million.

Introduction

In a letter dated November 8, 2011, the General Manager of DC Water informed the Auditor that DC Water planned to issue bonds. The letter provides that the purpose of the bonds would be to finance a portion of DC Water's FY 2012 capital improvement budget. D.C. Code, Section 34-2202.09(h), provides that prior to the issuance of any new debt, DC Water is required to obtain an expert study and analysis to support its revenue certification and certify to the Auditor that DC Water's revenues are sufficient to pay operating costs, debt service on outstanding and proposed bonds, and other obligations.

This report provides the Auditor's analysis of the reasonableness of DC Water's FY 2012, \$426,416,477 revenue estimate to pay its costs, debt service on outstanding, proposed bonds and other obligations.

Objectives, Scope, and Methodology

Audit Objective

The objective of this attestation review was to determine whether DC Water's FY 2012 \$426.42 million revenue estimate (as provided by DC Water and supported by an expert study and analysis) was sufficient to cover the following: (1) DC Water's FY 2012 costs; (2) the principal, interest, and other requirements relating to proposed notes and outstanding revenue bonds; and (3) debt service payments and transfers on bonds as the payments become due and payable.

Audit Scope

The attestation review covered FY 2012, October 1, 2011 through September 30, 2012.

Audit Methodology

To meet the attestation objective, the Auditor reviewed and analyzed the following:

- DC Water's Operating Budgets;
- DC Water's Comprehensive Annual Financial Reports for FYs 2008 through 2011;
- Financial Statements and Independent Auditor's Report for Years Ended September 30, 2010 and September 30, 2011;
- Expert Study and Analysis completed by Amawalk Consulting Group, LLC;
- Minutes of the Board and Finance Committee meetings;
- Board Resolutions;
- DC Water's 10-year Financial Plan;
- FY 2012 financial data; and
- Audits of Federal Grant Awards (A-133 audits).

We also conducted interviews with key DC Water officials and Amawalk Consulting Group, LLC representatives.

Auditor's Responsibilities Regarding DC Water's Borrowing of Money and Incurring of Debt

D.C. Code, Section 34-2202.09(h) provides that:

During each fiscal year in which debt service on the proposed bonds and outstanding revenue bonds issued by the Authority, and the transfer provided in § 34-2202.07(f) becomes due and payable, the Authority may not issue bonds, notes, or other obligations or borrow money unless the Authority first certifies, to the reasonable satisfaction of the District of Columbia Auditor, that the revenues of the Authority are sufficient to pay its costs, the principal of and interest on and other requirements pertaining to the proposed bonds and outstanding revenue bonds issued by the Authority, and amounts equal to the debt service payments on District general obligation bonds issued by the District prior to October 1, 1996, which financed Department of Public Works, Water and Sewer Utility Administration capital projects, as such bonds and transfers become due and payable. The Authority's certification shall be supported by expert study and analysis.

Auditor's Determination of Revenue Reasonableness

DC Water's revenue estimate was based on information that can and often changes rapidly. For example, an unforeseen national or local event can result in significant changes to DC Water's certified revenue estimate. However, at the time of our review, we believe that DC Water's FY 2012 revenue estimate of \$426.42 million was reasonable.

This attestation review was conducted in accordance with standards applicable to attestation engagements contained in Government Auditing Standards issued by the Comptroller General of the United States. Consistent with these standards, the Auditor's review included an examination, on a test basis, of evidence supporting DC Water's FY 2012 revenue estimate. The Auditor believes the procedures used in conducting this review provided a framework for assessing the reasonableness of DC Water's FY 2012 revenue estimate.

Background

DC Water's mission is to "[s]erve all its customers with outstanding service by providing reliable and cost-effective water and wastewater services in accordance with best practices."

To accomplish its mission, DC Water provides retail water and wastewater services to approximately 600,000 people in the District. Additionally, DC Water provides wholesale wastewater conveyance and treatment to approximately 1.6 million people in areas of Prince George's County and Montgomery County, Maryland; and Fairfax County and Loudoun County, Virginia. These jurisdictions are collectively referred to as the "User Jurisdictions".

DC Water provides wholesale customer services in accordance with the following agreements: (1) Intermunicipal Agreements; (2) Potomac Interceptor Agreement; and (3) Loudoun County Sanitation Authority Agreement. These agreements provide for DC Water's recovery of costs associated with providing retail water and wastewater conveyance and treatment services.

DC Water is governed by DC Water's Board of Directors (Board), which consists of 11 principal and 11 alternate members. Each member is appointed for a staggered four-year term. The Mayor, with the advice and consent of the Council, appoints six principal members to the Board to represent the District. The Mayor, with recommendations from the User Jurisdictions, also appoints the remaining five principal members to represent the User Jurisdictions (two from Prince George's County and Montgomery County in Maryland, and one from Fairfax County, Virginia). DC Water's daily operations are managed by a General Manager who is appointed by the Board.

DC Water and Its Relationship to the District

DC Water has the following three Memoranda of Understandings (MOU) with the District's Chief Financial Officer (CFO): (1) Payment In Lieu of Taxes (PILOT) payments, (2) debt service payments, and (3) Right of Way (ROW) fees. The three MOUs, in pertinent part, include the following provisions:

- MOU dated January 29, 1998, (modified by a September 12, 2003 MOU) provides that DC Water will pay the District a PILOT for District government services it receives, such as: police, fire, and emergency services. During our review, DC Water and the District were meeting to discuss the District's

estimate for these services (Refer to page 15 of this report for further discussion and details of the PILOT).

- MOU dated March 23, 1998, provides for DC Water's obligation to make debt service payments to the District for the District's General Obligation Bonds. The District issued the General Obligation Bonds to finance Water and Sewer Utility Administration (DC Water) capital projects. In September 2011, DC Water made a \$245,000 final debt service payment to the District.
- MOU dated September 12, 2003, provides for the ROW occupancy permit fee. The MOU provides that all utilities located in the District will be levied an occupancy fee for public underground infrastructure ROW usage. In accordance with the MOU, DC Water's occupancy fee is capped at \$5.1 million through September 13, 2013.

DC Water and its Relationship to the Washington Aqueduct

DC Water purchases water from the U.S. Army Corps of Engineers, Washington Aqueduct Division (Aqueduct) and then supplies water to its DC Water customers. Pursuant to a Water Sales Agreement dated July 31, 1997, DC Water purchases approximately 75% of the finished water produced by the Aqueduct.

RESULTS

AMAWALK IN ITS EXPERT STUDY AND ANALYSIS FOUND DC WATER'S PROJECTION TO BE REASONABLY DEVELOPED AND ATTAINABLE

DC Water's FY 2012 revenue estimate was \$426,416,477. D.C. Code, Section 34-2202.09(h) provides that DC Water's revenue estimate must be supported by an expert study and analysis. DC Water's FY 2012 revenue estimate of \$426,416,477 was supported by an expert study and analysis conducted by Amawalk Consulting Group LLC (Amawalk). Amawalk's Study/Analysis provides a determination that DC Water:

1. Provided adequate documentation of the principal assumptions underlying the forecast enabling Amawalk to readily verify the forecast.
2. Developed the forecast using the most current information available as of the date of the forecast.
3. Demonstrated a thorough understanding of the risk factors inherent in the forecast and took them into consideration.
4. Appropriately computed the projected revenues for FY 2012 through FY 2014.

Amawalk offered the following conclusions:

- The financial policies established by the Board require gradual increases in rates and charges.
- DC Water bills the federal government and wholesale customers in advance. This process reduces the amount of deviation between forecasted and actual revenues in any given year.
- FY 2012 projected revenues assume a 2.2% decline in water consumption compared with customer usage in FY 2011. Year-to-date consumption by retail customers for the two month period ending November 30, 2011, excluding the Washington Aqueduct, is 6.5% lower than the usage for the same period in FY 2011. However, Amawalk concluded that the risk of lower consumption was mitigated to some degree because any lower water demand would only affect water and sewer revenues within the District and would not affect revenues from wholesale customers or the federal government.
- Amawalk further concluded that it is anticipated that the risk of lower than projected consumption and the corresponding projected revenues for FY 2012 will be mitigated. Amawalk

anticipates that DC Water will need less revenue to cover expenses, in part, because of DC Water's track record, in recent years, of incurring actual costs that are lower than budgeted costs.

According to the Amawalk Study/Analysis, DC Water expects a surplus of approximately \$26.3 million for FY 2012.

RESULTS OF ODCA ANALYSES

We reviewed DC Water's revenues, expenses, (debt service, PILOT, ROW) and reserve categories to determine the reasonableness of DC Water's revenue estimate. Details of our review are provided in the following paragraphs.

Revenues

DC Water collects revenues from customers for water and sewer services it provides. DC Water's customer accounts are divided into four categories: (1) residential, (2) commercial, (3) government, and (4) wholesale.

DC Water's actual revenue for FY 2011 was \$403.97 million (cash basis accounting) and the FY 2011 budgeted revenue was \$399.11 million. The difference between the actual and budgeted revenue is \$4.9 million and represents a revenue increase over the FY 2011 budgeted amount.

DC Water's FY 2012 projected revenue is \$426.42 million. The FY 2012 projected revenue includes a October 1, 2011, retail water and sewer rate increase and an impervious area charge (IAC) rate increase.

DC Water's FY 2012 revenue estimate reflects a 4.5% increase in the water and sewer rate from \$6.89 per Ccf (metered water usage stated in one hundred cubic feet or 748 gallons) in 2011 to \$7.20 in FY 2012. Additionally, the estimate includes a 92% increase in the (IAC) rate. The IAC rate increased from \$3.45 per ERU to \$6.64 per ERU. The new Ccf and IAC rates were effective October 1, 2011. Revenue from IAC, also called the Clean Rivers Impervious Area Charge (CRIAC), is projected to increase by approximately 90% in FY 2012 over actual collections in FY 2011, primarily because of the 92% IAC rate increase.

We determined that on average overall water and sewer consumption decreased 1.52% from FY 2008 to FY 2011. Also, the water consumption for the 1st quarter of FY 2012 was 8% less than the water consumption for the 1st quarter of FY 2011. According to DC Water's Chief Financial Officer (CFO), the water consumption, decline was due primarily to the mild winter. The decline in water consumption between FY 2008 and FY 2001 does not necessarily

establish a trend for FY 2012. This belief is predicated on the fact that, in the past, water consumption rebounded by the end of the respective fiscal years. For example, our analysis indicated that for the 1st quarter of FY 2009 and FY 2010, water consumption was down on average 5.3% over the two years. However, consumption rebounded an average of 49% by the end of both years and was down on average only 2.6%, at both year ends. Further, DC Water officials indicated that consumption increases during warmer weather because of an increase in outdoor related activities and functions, such as: filling swimming pools, washing cars and watering lawns. As such, it is reasonable to anticipate that water consumption will increase after the winter months. ODCA's analysis for FYs 2010 and 2011 indicated that average monthly consumption increased during the last six months of the fiscal year by 14% in FY 2010 and 15% in FY 2011 as compared to the first six months of the year.

In previous fiscal years, DC Water provided Howard University with free water and sewer services for some accounts. However, effective June 2011, DC Water began billing Howard University for all water and sewer services provided to them. As a result, DC Water's FY 2012 revenue estimate includes approximately \$2.3 million increase in revenue from Howard University.

Expenses

Between FY 2010 and FY 2011, DC Water's overall operating expenses increased \$4.8 million or 1.9% (excluding depreciation and amortization). DC Water's operating expenses include the following: (1) personnel services (staff), (2) contractual services, (3) chemicals, (4) supplies and small equipment, (5) utilities and rent, (6) water purchases, and (7) other. The details of our review of DC Water's expenses are provided in the following paragraphs of this section.

Operating Expenses:

- Personnel services spending increased by 5.7%, primarily, because of increases in wages, health and retirement benefit costs.
- Contractual services spending increased by 2.3% because of increases in Information Technology (IT) related costs and energy management activities. Also, included in contractual services was the cost to provide various types of insurance.
- Utilities and rent expenses declined by 1.67% because DC Water procured electricity through a block purchase strategy. DC Water will continue to utilize the block purchase strategy in FY 2012;

- The costs of chemicals and supplies declined from FY 2010 to FY 2011 by 2.81%, in part, because of a slight reduction in chemical costs; and
- The cost of purchasing water declined from FY 2010 to FY 2011 by 1.51% primarily because of a decrease in water consumption.

DC Water's year-end operating expenses were below the budgeted expenditure amount. We determined that for the last four years, DC Water's operating expenses, on average, were 15.8% below the budget. Further, Amawalk's Study/Analysis provides that DC Water had a track record of incurring actual costs in each year that were lower than budgeted costs.

Should the historical trend continue for FY 2012, it is likely that DC Water's operating expenses for FY 2012 will be below the budget.

Debt Service (Interest Expense and Fiscal Charges)

From FY 2010 to FY 2011, DC Water's debt service expense increased \$13.2 million or 22.7%. The debt service expense increased because of the interest payments associated with DC Water's FY 2011 issuance of \$300 million in public utility subordinate lien revenue bonds (Series 2010A). DC Water utilized a 35% federal subsidy from the Build America Bonds Program to issue the bonds.

DC Water's debt service expenditures for FY 2010 were 35.6% below the budgeted amount and FY 2011 debt service expenditures were 27.5% below the budgeted amount. The FY 2010 and FY 2011 debt service expenditures reduction was due to lower than anticipated financing costs and conservative budgeting practices. Historically, DC Water's debt service expenditures have been below the budget.

In addition to its long term debt, DC Water has established a commercial paper program to provide interim financing for costs related to DC Water's capital improvement program. Under this program, DC Water issues fixed rate, short-term (no greater than 270 day) notes. The commercial paper issuance is backed by a letter of credit. At the end of FY 2011, DC Water had \$35.2 million in outstanding taxable and tax-exempt commercial paper.

Payment in Lieu of Taxes/Right of Way (PILOT/ROW)

In accordance with an MOU, DC Water makes PILOT/ROW payments to the District to cover the cost of police services, fire services, trash services and the occupancy or use of public space or public rights. DC Water's PILOT payment in FY 2011 was \$16.9 million and the ROW payment was \$5.1 million for a combined FY 2011 total of \$22 million. The FY 2012 PILOT/ROW forecast total is \$22.3 million. During our review, DC Water's CFO indicated that DC Water and District officials have met several times to discuss the PILOT (see page 15 regarding PILOT discussion). However, at the time of our review the parties had not reached an agreement (Refer to page 15 of this report, *DC Water Should Work Towards Resolving The PILOT With The District*).

DC Water Reserve Funds

DC Water's financial position is strengthened by the following reserve accounts:

1. an operating reserve that has funding equal to approximately six months of operating and maintenance expenses.¹
2. a DC Insurance reserve; and
3. a DC PILOT reserve that includes a set aside to pay any differences in the PILOT.

Additionally, DC Water established a Rate Stabilization Fund (RSF) that consists of the cash remaining after DC Water has funded the operating reserve to the required funding level. The RSF totaled \$16.7 million at the close of FY 2011. According to the Board's policy, the RSF can be used at any time during the fiscal year and is in addition to the Board-required six-month operating and maintenance reserve fund. DC Water's reserve accounts are presented in Table 1.

¹ The reserve funding is more than the amount required by the Master Indenture of Trust, which only required DC Water to maintain a balance equal to 60 days of operating and maintenance expenses. This reserve also includes a renewal and replacement reserve.

Table 1

**DC Water's Reserves
As of December 31, 2011**

Reserve	Account Balance
Operating Reserve	\$41,514,000
Renewal and Replacement Reserve	35,000,000
Undesignated Reserve	48,986,000
Total Operating and Maintenance Reserves	\$125,500,000

Source: DC Water's Manager Treasury and Debt

In addition to the reserves presented in Table One, as of December 31, 2011, DC Water's Insurance Reserve totaled \$1,000,000 and the DC PILOT reserve totaled \$10,000,000.

Based on our review of the revenue, expense and reserve categories, we were satisfied that DC Water's certification of revenues totaling \$426.42 million for FY 2012 was a reasonable estimate.

DC WATER'S LONG-TERM DEBT HAS INCREASED

DC Water's long-term debt increased primarily because of DC Water's capital improvement program. Between FY 2010 and FY 2011, DC Water's long-term outstanding debt increased by \$282.2 million or 22.7%. DC Water's long term debt increased because of the issuance of \$300 million in public utility subordinate lien revenue bonds in FY 2011.

DC WATER SHOULD WORK TOWARDS RESOLVING PILOT PAYMENTS WITH THE DISTRICT

DC Water entered into negotiations with the District regarding the PILOT payment. However, at the time of our review, DC Water and the CFO had not reached an agreement regarding PILOT payments for FY 2008 through FY 2011.

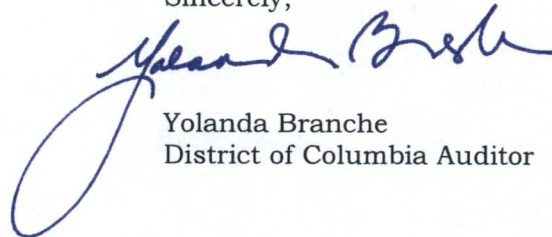
In accordance with a January 29, 1998, MOU, DC Water agreed to pay the District government a PILOT for services the District government provided, such as: police, fire, and emergency services.

The MOU provides that DC Water was to pay an agreed-to amount and the District's CFO was required to provide an annual cost certification. In January 2009, DC Water received the CFO's FY 2008 and FY 2009 cost certification. The District's CFO certification was significantly higher than the amounts specified in the MOU. DC Water and District officials have met several times to discuss the difference between the MOU and the CFO's certification. DC Water continues to make PILOT payments for what DC Water considers the undisputed amount of the PILOT payment. In FY 2011, DC Water established a \$10 million reserve to cover the disputed portion of PILOT payments should it be determined that DC Water must pay the disputed amount.

Conclusion

Based on our review of Amawalk's expert Study/Analysis and our review of DC Water's revenues, expenses and reserves, and other relevant information, we were satisfied that the DC Water's FY 2012 revenue estimate totaling \$426.42 million was a reasonable estimate and is sufficient to pay DC Water's operating costs, outstanding and proposed bond debt service, and other obligations as presented in Appendix A.

Sincerely,

A handwritten signature in blue ink, appearing to read "Yolanda Branche", with a large, stylized loop at the bottom left.

Yolanda Branche
District of Columbia Auditor

Appendix A

DC Water Sufficiency Calculation FY 2012 (Dollars in 000's)

Revenue Type:		
	\$220,090	
Residential, Commercial & Multi- Family, District government and DC Housing Authority		
Federal	41,480	
Metering Fee/Groundwater	10,790	
Payment in Lieu of Taxes/Right of Way Fee	22,510	
IAB CSO Revenue	29,690	
Wholesale revenues	74,360	
Other revenues	<u>27,500²</u>	
Total		\$426,420
Operating Expenses:		
Personnel Services	97,114	
Contractual Services	79,746	
Water Purchases	31,517	
Chemicals & Supplies	29,946	
Utilities & Rent	37,447	
Small Equipment	<u>995</u>	
Subtotal		276,765
Other Expenses:		
Debt Service	100,776	
Payment in Lieu of Taxes /Right of Way Fee	<u>22,365</u>	
Subtotal		123,141
Total Operating Expenses		<u>\$399,906</u>
Projected Operating Surplus		<u>\$26,514*</u>
*Differences due to rounding		

Source: DC Water Cash Flow Summary statement dated November 30, 2011

² The FY 2012 other operating revenues include a \$6.5 million transfer from the Rate Stabilization Fund.