



Town of Java

Water Accountability

Report of Examination

Period Covered:

March 1, 2012 — October 17, 2013

2013M-338



Thomas P. DiNapoli

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State of New York Office of the State Comptroller

Division of Local Government and School Accountability

February 2014

A top priority of the Office of the State Comptroller is to help local government officials manage government resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of local governments statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and Town Board governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard local government assets.

Following is a report of our audit of the Town of Java, entitled Water Accountability. This audit was conducted pursuant to Article V, Section 1 of the State Constitution and the State Comptroller's authority as set forth in Article 3 of the General Municipal Law.

This audit's results and recommendations are resources for local government officials to use in effectively managing operations and in meeting the expectations of their constituents. If you have questions about this report, please feel free to contact the local regional office for your county, as listed at the end of this report.

Respectfully submitted,

*Office of the State Comptroller
Division of Local Government
and School Accountability*

Introduction

Background

The Town of Java (Town) is located in Wyoming County (County) and has a population of 2,057. The Town is governed by an elected Town Board (Board) comprising the Town Supervisor (Supervisor) and four councilpersons. The Board is responsible for the general management and control of Town finances. The Supervisor is the chief executive officer and chief fiscal officer. The Town's reported 2012 expenditures totaled \$920,961, funded mainly from real property taxes and State aid.

The Town produces its own water and provides service to approximately 83 residential and commercial accounts located in its water district (District). The District reported \$25,302 of expenditures in 2012, funded through real property taxes and metered water sales. The District's 2013 budget totals \$28,919.

The Board is responsible for developing and adopting the budgets for the District, approving employee salaries and setting water rates. The Board established a Board of Water Commissioners (Commissioners), comprising three community members, to oversee the District's day-to-day management and operations. The Commissioners were originally elected by a community vote. However, for the last several years, the Commissioners have been appointed annually by the Board. One of the three Commissioners is responsible for reading the meters on a semi-annual basis, while another Commissioner is responsible for recordkeeping, billing and collecting and depositing water rents. In addition to the three Commissioners, the Board appointed a Water Superintendent (Superintendent) who is responsible for providing general maintenance and repairs and testing water quality.

Objective

The objective of our audit was to review the Town's District operations and address the following related question:

- Does the Town adequately monitor the amount of water produced in comparison with the amount sold to customers?

Scope and Methodology

We examined records and reports for District operations for the period March 1, 2012 through October 17, 2013.

We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information on such standards and the methodology used in performing this audit are included in Appendix B of this report.

**Comments of
Local Officials and
Corrective Action**

The results of our audit and recommendations have been discussed with Town officials and their comments, which appear in Appendix A, have been considered in preparing this report. Town officials agreed with our recommendations and indicated they planned to initiate corrective action.

The Board has the responsibility to initiate corrective action. A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and forwarded to our office within 90 days, pursuant to Section 35 of the General Municipal Law. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. We encourage the Board to make this plan available for public review in the Town Clerk's office.

Water Accountability

Town officials are responsible for controlling the cost of operating the Town's District. To fulfill this responsibility, Town officials should track water usage throughout the system and identify areas that may need attention, particularly large volumes of unaccounted-for water. Unaccounted-for water includes losses that can result from source meter errors, customer meter under-registrations, unmetered customers, accounting procedure errors, illegal connections, malfunctioning distribution system controls, storage tank overflows, theft, underground leaks, flushing fire hydrants and municipal use, such as firefighting. The Federal Environmental Protection Agency (EPA) has established an industry goal of 10 percent for unaccounted-for water system losses. Procedures should be in place to monitor and identify the cause of water loss that is greater than the industry goal. It is essential to perform a periodic reconciliation of water produced with water billed to provide responsible officials with information necessary to detect and reduce water loss. A large volume of unaccounted-for water is a warning sign of significant infrastructure problems.

On a daily basis, the Superintendent reads the master water meter, which records all water produced by the Town. One of the water Commissioners is responsible for reading customer meters on a semi-annual basis to determine water use for billing purposes. The Town charges users a base rate of \$50 for the first 10,000 gallons and \$2 per 1,000 gallons over the initial 10,000 gallons.

Town officials do not have written procedures for reconciling the water produced by the Town's water system, as indicated by the master meter readings, with the water billed to the Town's customers. Although the Superintendent prepared the Water Withdrawal Report Form to be submitted to the New York State Department of Environmental Conservation (DEC) on an annual basis, he did not prepare formal reconciliations comparing the amount of water produced to the total amount metered and estimated amounts for authorized unbilled uses. This type of reconciliation would have allowed Town officials to determine the amount of water loss, compare the rate of loss to industry standards, and take steps to correct identified problems.

For the audit period, the Town could not account for 53 percent of the water produced. The Town produced 21.9 million gallons of water, but billed its customers for only 6.8 million gallons and had authorized unbilled usage as follows: metered but unbilled water usage of 977 gallons, metered use by the Fire Department of 1,135,000 gallons and estimated usage from flushing fire hydrants

of 131,400 gallons, for a total of 8,060,142 gallons, or 37 percent, of the amount produced. The majority of the water processed, 63 percent, was unaccounted for. After deducting the EPA's standard 10 percent allowance, unaccounted-for water was 53 percent of the amount produced.

Table 1: Unaccounted-For Water		
	Gallons	Percent
Gallons Produced	21,915,036	100%
Gallons Consumed	8,060,142	37%
Unaccounted-For	13,854,894	63%
EPA 10% Allowance	(2,191,504)	10%
Adjusted Unaccounted-For	11,663,390	53%

Metered water rents are the primary source of revenue for the District. When unaccounted-for water is due to inaccurate or malfunctioning meters or theft, the Town loses water rent revenues for the amount of water usage that is not billed. Using the rates paid by the Town customers and the 11.6 million gallons of unaccounted-for water in excess of the standard industry allowance, we estimate that the Town lost \$23,327 in revenue if the unaccounted-for water was due to malfunctioning meters.

Conversely, if the unaccounted-for water is due to leaks rather than malfunctioning meters, the Town is incurring excess costs for producing water. We estimate that it costs the Town \$1.06 to produce 1,000 gallons of water. Therefore, it cost the Town \$12,394 to produce the Town's 11.6 million gallons of unaccounted-for water.

The Superintendent and Town officials were unable to provide specific reasons for the unaccounted-for water loss, but believe that leaks and malfunctioning meters contribute to a significant portion of the unaccounted-for water. The Superintendent indicated that while the majority of the water mains were replaced in 2000 when the water system was updated, most of the lateral lines from the curb boxes to the homes in the District were not replaced and leaks may be occurring as a result of those aged lines.

Each home in the District has an indoor meter and an outside reader. Meter readings and billings are expected to be based on the indoor meter reading; however, in some cases, the outside reader may need to be read, if the indoor meter is inaccessible. The Superintendent and Commissioners stated that the outside readers are inaccurate, due to the readers and indoor meters being installed at different times and the ease with which the outdoor readers can be unhooked. The meters throughout the District are believed to be approximately 20

years old and have never been recalibrated or replaced. According to the American Water Works Association (AWWA), the recommended calibration frequency for a 3/4-inch meter, typically found in a residential home, is eight years. The AWWA also recommends the implementation of a planned meter replacement program.¹

This combination of potential causes suggests that the Town may be losing money not only from producing wasted water, but also from missed revenue for water that is actually used, but inaccurately recorded because of meters and/or readers that are either not working properly or have been tampered with. The Town does not have a formal monitoring program and Town officials did not routinely inspect the distribution system to detect and repair leaks, or to regularly calibrate and test meters. The Town is currently working with the County to pilot test leak detection equipment to help identify possible water loss locations.

Recommendations

1. The Board should ensure that the Superintendent develops procedures for periodically reconciling the amount of water produced with the amount billed. The Superintendent should perform a periodic reconciliation and remedy the causes of significant discrepancies in a timely manner.
2. The Superintendent should develop a plan to locate and repair leaks in the system.
3. The Board should ensure that Town officials review meter readings for reasonableness and periodically inspect meters for damage or tampering.
4. The Superintendent should develop a meter calibration plan and work to develop a meter replacement plan taking into consideration the associated costs.

¹ Per Town Board minutes, the cost to purchase 84 new meters for the Town would be approximately \$8,400 to \$12,600, not including installation costs.

APPENDIX A
RESPONSE FROM LOCAL OFFICIALS

The local officials' response to this audit can be found on the following page.

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Java Center, New York 14082
Phone: (585)457-3233

Supervisor:
Vanessa McCormick

Town Clerk:
Janet Zielinski

Town Board Councilman:

Russell Reisdorf
Ronald Bishoff

Trace George
Henry Rose

January 24, 2014

Office of the State Comptroller
Robert Meller, Chief Examiner
295 Main Street Suite 1032
Buffalo, New York 14203

RE: Town of Java Water Accountability Report / Period Covered: March 1, 2012 to October 17,
2013

2013M-338

Dear Chief Examiner Meller:

The Town of Java would like to express our gratitude to this office for our recent audit. We are thankful for your recommendations to improve internal controls over our water district.

The overall objective of this audit was to review the districts overall operation and address the monitoring practices of the town over the water district. It was also an objective to compare the amount of water produces to the amount of water billed.

Upon reviewing the audit findings with the auditor, this board agrees with the findings and has begun the process of setting up a corrective action plan with all involved. We will forward this corrective action plan on to this office with in the allotted 90 days.

Again, thank you for your time and oversight in this matter. We are glad that your findings concur with what this board already had identified.

Respectfully,

Vanessa A. McCormick
Supervisor, Town of Java

APPENDIX B

AUDIT METHODOLOGY AND STANDARDS

Our overall goal was to assess the adequacy of internal controls put in place by officials to safeguard Town assets. To accomplish this, we performed an initial assessment of the internal controls so that we could design our audit to focus on those areas most at risk. Our initial assessment included evaluations of the following areas: financial oversight, cash receipts and disbursements, payroll and personal services, and operations of the Court, Town Clerk, Tax Collector and Highway and Water departments.

During the initial assessment, we interviewed appropriate Town officials, performed limited tests of transactions and reviewed pertinent documents, such as Board minutes, financial records and reports. After reviewing the information gathered during our initial assessment, we determined where weaknesses existed and evaluated those weaknesses for the risk of fraud, theft, or professional misconduct. We then decided upon the reported objective and scope by selecting for audit those areas most at risk. We selected District operations for further audit testing.

To accomplish our objective, our procedures included the following:

- We interviewed appropriate Town officials and employees to gain an understanding of District operations.
- We compared properties within the District, as listed on a map of the District and the 2013 tax roll, to water billing records to ensure all water users were receiving bills for usage.
- We compared the amount of water produced from reports the Town submits to the DEC to the amount of water billed in the District for 2012 and 2013. We used this comparison to determine if water loss within the system was acceptable based on industry standards established by the EPA.
- We reviewed water account files to determine if meters were working correctly, and what, if any, repairs had been made.
- We reviewed meter reading records and billing records to determine that water bills were accurate.
- We reviewed invoices of production costs for the District to determine cost savings if water loss is reduced.
- We reviewed Town records to determine the amount of water use attributed to flushing hydrants and the Fire Department.

We conducted this performance audit in accordance with GAGAS. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

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