



Village of Silver Springs

Water Accountability and Billing

Report of Examination

Period Covered:

January 1, 2013 — April 6, 2015

2015M-139



Thomas P. DiNapoli

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State of New York Office of the State Comptroller

Division of Local Government and School Accountability

September 2015

Dear Village Officials:

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 Village 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 Village of Silver Springs, entitled Water Accountability and Billing. 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 New York State 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 Village of Silver Springs (Village) is located in the Town of Gainesville in Wyoming County and has a population of approximately 780. The Village is governed by an elected four-member Board of Trustees (Board) and an elected Mayor. The Board is responsible for general oversight of Village operations and designing and implementing internal controls to safeguard Village assets from loss or misuse. The Clerk-Treasurer is the Village's chief fiscal officer. The Deputy Clerk is responsible for billing, collecting and recording water user charges.

The Village provides various services to residents, including street repair, snow plowing, water, fire protection and general government support. Budgeted appropriations for the 2014-15 fiscal year totaled \$678,000, funded primarily with real property taxes, State aid and user charges.

The Village produces its own water from two wells and one spring and provides water services to approximately 300 residential and commercial accounts.¹ The Department of Public Works Superintendent (Superintendent) oversees the water operations and, along with his two employees, is responsible for reading the master water meter on a daily basis. A Department of Public Works employee reads each meter monthly. The Deputy Clerk downloads the readings from the handheld meter reader into the billing system.

Objective

The objective of our audit was to evaluate the Village's water billing and production operations. Our audit addressed the following related question:

- Does the Village properly account for water and bill customers completely and accurately?

Scope and Methodology

We examined the Village's water billing and production operations for the period January 1, 2013 through April 6, 2015. Our testing focused on the period January 1, 2013 through December 31, 2014.

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 C of this report.

¹ The Village also provides service to four customers located outside the Village.

**Comments of
Village Officials and
Corrective Action**

The results of our audit and recommendations have been discussed with Village officials, and their comments, which appear in Appendix A, have been considered in preparing this report. Except as specified in Appendix A, Village officials generally agreed with our recommendations and indicated they would take corrective action. Appendix B includes our comment on an issue raised in the Village's response letter.

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 Clerk-Treasurer's office.

Water Accountability and Billing

Village officials are responsible for controlling the cost of operating the Village's water system. To fulfill this responsibility, Village officials should track water usage throughout the system and identify areas that need attention, particularly large volumes of unaccounted-for water. Unaccounted-for water is the difference between the amount of water produced and the amount of water billed. Unaccounted-for water can result for various reasons such as source meter errors, faulty customer meters, unmetered customers, accounting procedure errors, illegal connections, malfunctioning distribution system controls, storage tank overflows, underground leaks, and municipal use such as flushing of fire hydrants and firefighting.

Procedures should be in place to monitor and identify the cause of water loss. It is essential to perform a periodic reconciliation of water produced with water billed to provide officials with the information necessary to detect and reduce water loss. A large volume of unaccounted-for water could be a warning sign of significant infrastructure problems. The United States Environmental Protection Agency has established an industry goal of 10 percent for unaccounted-for water system losses.

During the audit period, the Village produced 54 million gallons of water at a cost of approximately \$440,000 and generated revenue totaling approximately \$388,000² but could not account for 22 million gallons (41 percent) of the water it produced.³ The Village billed customers for 30 million gallons and had authorized, unbilled usage of 2 million gallons, for a total of 32 million gallons of water recognized as consumed. This significant water loss occurred because the Board and Superintendent have not taken adequate steps to identify and reduce the unaccounted-for water within the Village's system. Village officials do not have written procedures for reconciling the water produced by the Village's water system to the amount billed. Annually, the Superintendent prepares a handwritten reconciliation comparing the total amount of water produced to the total amount of water billed to estimate the approximate water loss. However, he estimated the amounts of water used for municipal purposes and to flush the system – rather than actual usage – and did not develop

² Village officials planned for operating deficits in each of the years during our audit period, appropriating fund balance of approximately \$47,000. As a result, there was a small unplanned operating deficit of approximately \$4,400.

³ To provide perspective, applying an average residential water rate to 50 percent of the unaccounted-for water, the Village could potentially have generated revenue of approximately \$50,000.

a plan to address the causes of significant unaccounted-for water. Further, the Superintendent did not report the significant water loss that he calculated to the Board. As a result, the Board was unaware of the loss.

The water loss is particularly concerning because, in 2011, the Village was awarded and subsequently spent \$450,000 in grant money in 2013 on improvements to the water system.⁴ Additionally, during 2011 and 2012, the Village issued a \$350,000 bond anticipation note to replace approximately 400 of the Village's water meters, over 6,000 feet of aged spring line and an outdated lift pump, and to update the meter reading and billing software. Village officials also had a leak detection service performed on the Village's water system. The service examined 75 percent of the distribution system and found one significant leak, which was detected and corrected.⁵ The Wyoming County Water Resource Agency, when testing its new equipment, provided this service free of charge to the Village. At the time of our audit, no further leak detection testing had been scheduled.

Although underground leaks may be responsible for a portion of the unaccounted-for water, we found that a portion of the water loss may be attributed to unmetered and unbilled bulk water sales.⁶ The Village sells unmetered water in bulk to certain customers who are allowed to fill up tanker trucks at the pump house using a hose. The customer phones the Village ahead of arrival and a Village employee opens the pump house hose that morning. The customer arrives and fills his/her tanker truck without Village personnel present. The customer is responsible for recording the amount of water pumped and informing the Deputy Clerk of the amount pumped. The Deputy Clerk then bills the customers using this self-reported information. However, the Deputy Clerk cannot be assured that she has been provided complete or accurate information.

Bulk sales totaled 303,500 gallons in 2013 but only 13,800 in 2014, a 95 percent decline. We analyzed water production over the audit period and identified 31 instances totaling 1.3 million gallons in which daily water production spiked an average of 42,000 gallons

⁴ The grant was funded by the United States Department of Housing and Urban Development under the Community Development Block Grant for the purpose of making improvements to the Village's water system including replacing water main valve, meter, hydrant, main and computer controls, cleaning and inspecting the storage tank, and installing an energy efficient tank mixer and certain new meter pits.

⁵ The leak detection survey was performed in October and November 2013.

⁶ Customers are responsible for the portion of the water line from the roadway to inside the customer's unit/dwelling. Any water lost between the road and the house due to leaks would not be accounted-for or billed to the customer because the meters are located in the customer's home.

more than the daily average production level of 100,000 gallons. There were no recorded bulk sales corresponding to these spikes and Village officials were not able to explain the reasons for these spikes.⁷ The unexplained spikes in daily water production could be indicative of potential unauthorized, unreported or unbilled consumption of water such as unbilled bulk water sales.

We tested 85 randomly selected water accounts to ensure customers were billed properly in accordance with the rates and regulations established by the Board. We also reviewed water billing, accounts receivable and cash receipt records totaling \$4,214 to ensure amounts collected were deposited in a timely manner and posted to the appropriate user accounts. We found all customer accounts tested were properly billed in accordance with the rates and regulations established by the Board and all amounts due were properly collected and deposited. We reviewed all billing adjustments made during the audit period and found all were sufficiently supported and appropriate.

Metered water user charges are the water fund's primary source of revenue. When unaccounted-for water is due to unmetered sales, the Village loses water revenues for the amount not billed. Additionally, we estimate that it costs the Village approximately \$.30 for electricity and chemicals to produce 1,000 gallons of water. Therefore, the Village spent approximately \$6,600 during our audit period to produce 22 million gallons of unaccounted-for water. The Village has an opportunity to reduce water operation costs if Village officials can better account for water produced and not accounted-for.

Recommendations

The Superintendent should:

1. Periodically reconcile water produced with amounts billed and identify the causes of discrepancies and unaccounted-for water in a timely manner.
2. Develop a plan to address the causes of significant unaccounted-for water and report the findings and recommendations to the Board.
3. Report the results of the periodic reconciliations to the Board.
4. Ensure that bulk water sales are metered and monitored by a Village Department of Public Works employee.

⁷ For reasons such as tank flushing or line testing

The Board and Superintendent should:

5. Develop written policies and procedures for water reconciliations and periodic reporting requirements.
6. Consider obtaining periodic leak detection services to examine the Village's water system.
7. Address and remedy the causes of unaccounted-for water loss if it is cost effective for the Village to do so.

APPENDIX A

RESPONSE FROM VILLAGE OFFICIALS

The Village officials' response to this audit can be found on the following pages.

MAYOR
Denise Coffey

TRUSTEES
Thomas Coverdale, Jr.
Raymond King
Kimberly Rogers
Karen M. Tallman

Village of Silver Springs

Established in 1895

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Susan A. Hatch

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September 8, 2015

Jeffrey D. Mazula
Chief Examiner of Local Government and
School Accountability
295 Main Street
Suite 1032
Buffalo, NY 14203-2510

Mr. Mazula:

Please accept this letter as official acknowledgement of the Water Accountability and Billing Report of Examination Draft for January 1, 2013 through April 6, 2015 – audit #2015M-139. This letter will also serve as the Corrective Action Plan.

We appreciate the opportunity we had to work with our Examiner who was very helpful and knowledgeable. The overall process was informative and educational for all involved.

We do take exception to some of the items listed in the report as findings when they are, in fact, suppositions based on hearsay. In our exit discussion we were told that we could only ask for corrections based on facts and feel that the same guidelines should also be adhered to by the examiners preparing the report. Our exceptions are as follows:

-In the section of the report that discusses bulk water sales the report states that “although leaks may be responsible for a portion of the unaccounted water, we found that a portion of the water loss may be attributed to unmetered and unbilled bulk water sales”. The report also states that “the Village sells unmetered water in bulk to certain customers”.

This statement implies that customers were “stealing” water and that the loss couldn’t possibly be due to an aged water system with leaking lines yet there is no proof of water theft or under billing in these instances. This statement also implies that the SPW and/or Board were favoring “certain customers” which was not the case.

-In the section of the report that discusses the drop in bulk water sales the report states that between 2013 and 2014 there was a 95 percent decline in bulk water sales yet there were instances in which daily water production spiked. It also states that “the unexplained spikes in daily water production could be indicative of potential unauthorized, unreported and/or unbilled consumption of water such as unbilled bulk water sales”.

The decline in bulk water sales from 2013 to 2014 has been explained.

This statement, again, implies theft of water sans proof and ignores the myriad of other reasons for spikes in usage. The report also offers no proof that these spikes in production were not billed to customers.

See
Note 1
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DEPUTY CLERK
Teri Schabloski

The Village of Silver Springs is a small community with mostly low to moderate income residents. The Board and Superintendent of Public Works along with the Clerk/Treasurer strive to provide the best possible services that we are able to while keeping cost to the residents manageable. We have taken many steps to improve our water system and will continue to do so without creating a strain on our residents. The Board feels that our Superintendent has done the best job possible with the resources available to him.

Over the last 13 years the Village has made the following improvements to the water system:

- 1997 – New Storage Tank
 - Replace 2.5 miles of water main and fire hydrants
 - Installed master meter at pump house
- 2001 – Removed water line that was losing 4,000,000 gallons a year
- 1999 – Present – Located and replaced 47 Village owned portions of residential water services
- 2011 – Replaced aged meters with more accurate radio read meters
 - Replaced 111 year old spring line
 - Replaced outdated 20HP lift pump with more energy efficient 15HP lift pump
- 2012 – Updated meter reading and billing software
- 2013 – Replaced computer control at pump house
 - Replaced cathodic protection in storage tank
 - Cleaned storage tank
 - Installed tank mixer
 - Replaced 21 inoperable and leaking water valves
 - Replaced 14 leaking and inoperable fire hydrants
 - Replaced 1000 feet of old water mains
 - Replaced 18 village owned water service lines
 - Removed abandoned water meter and pit
 - Replaced 4" water meter that serves one of our largest customers
 - Installed new meter pits at a multiple resident location with backflow prevention
 - Leaks found and repaired through leak detection service

During the audit process the following water system issues were also addressed:

- Found and fixed major water leak on North Main Street
- Replaced leaking aged fire hydrant
- Repaired check valve at pump house that was creating inaccurate water production readings

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Corrective Action Plan:

1. The SPW will provide the Board quarterly reports regarding water produced that will be compared to water billed so that any loss may be identified in a timely manner and reduced. These reports will commence at the regular November Board meeting of 2015.
2. The SPW along with Board is in the process of applying for grant money to replace existing water mains that are approximately 115 years old. We will also be scheduling leak detection services through the Wyoming County Water Resource Agency for every 36 months.
3. The SPW will provide reports to the Board on a quarterly basis beginning in November of 2015.
4. Bulk water sales are no longer available. This took effect in April of 2015.
5. The Board will develop written policies and procedures for water reconciliation along with reporting requirements. These written policies will be in place by January of 2016.
6. The Board along with the SPW will be scheduling leak detection services on a 36 month schedule. This leak detection service will be budgeted for in our FYE 2017 budget and will commence in June of 2016.
7. The Board is in the process of applying for grant money to assist with updating our water system. It is the opinion of the Board that any additional debt would be burdensome on our residents.

This Corrective Action Plan was approved by Resolution #2015-091 at the regular Board meeting on September 1, 2015.

We thank you for your time.

Respectfully,

Denise Coffey
Mayor

Village@SilverSpringsNY.com

APPENDIX B

OSC COMMENTS ON THE VILLAGE'S RESPONSE

Note 1

We could not determine the reason for all of the Village's unaccounted-for water. Although we have not audited the Village's corrective action plan, we commend Village officials' decision to implement multiple corrective actions which should help reduce potential sources of Village water loss.

APPENDIX C

AUDIT METHODOLOGY AND STANDARDS

The objective of our audit was to examine the Village's water billing and production operations for the period January 1, 2013 through April 6, 2015. Our testing focused on the period January 1, 2013 through December 31, 2014. To achieve our objective and obtain audit evidence, we performed the following audit procedures:

- We interviewed appropriate Village officials and employees to gain an understanding of water operations and if appropriate actions were taken to address unaccounted-for water.
- We compared water production as entered on reports submitted to New York State to water billing records to determine if the Village properly accounted for water produced.
- We compared the amount of unaccounted-for water to industry standards to determine if the amount of water loss was reasonable.
- We tested 85 randomly selected water accounts from the January 2015 monthly billing summary to ensure customers were properly billed using the rates established by the Board effective December 31, 2013. We chose every fifth customer, unless the customer had zero usage, in which case we used the next account listed.
- For the sample selected, we compared meter readings, water billings, cash receipts and accounts receivable records to ensure water billings were accurate and receipts and collections were deposited in a timely manner and posted to correct user accounts.
- For all meters showing no consumption on monthly billing reports, we verified reading accuracy by observing actual meter readings taken by the Superintendent using the handheld meter reader.
- We compared all properties listed on the Village's 2014 tax roll to water billing records, and inquired with Village officials regarding the four customers outside the Village, to ensure that all Village water users are receiving bills.
- We reviewed Village water billing adjustment reports and interviewed appropriate Village officials to ensure that all adjustments were properly supported and approved by the Board or Clerk-Treasurer, as appropriate.
- We reviewed electricity and chemical claim vouchers for the water fund to determine the cost to produce 1,000 gallons of water. We then applied that estimated cost to the amount of unaccounted-for water.

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.

APPENDIX D

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