OFFICE OF THE NEW YORK STATE COMPTROLLER



DIVISION OF LOCAL GOVERNMENT & SCHOOL ACCOUNTABILITY

Town of Friendship Water Accountability

Report of Examination

Period Covered: January 1, 2012 — August 12, 2013 2013M-281

Thomas P. DiNapoli

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AUTHORITY LETTER

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Division of Local Government and School Accountability

January 2014

Dear Town 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 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 Friendship 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

The Town of Friendship (Town) is located in Allegany County, which borders Pennsylvania and has a population of approximately 2,000 The Town provides the following services to its residents: stree maintenance; snow removal; water distribution; sewage collection treatment and disposal; as well as general government administration The Town is governed by an elected Town Board (Board) composed of a Town Supervisor and four council members, responsible for the general oversight of Town operations. The Town Supervisor is the chief executive and chief fiscal officer of the Town.
The Superintendent of Public Works is responsible for the Town's water, sewer and sidewalk operations. The Town's water system has 585 metered customers that are billed quarterly for water use. Water meters are periodically read by Town employees for billing purposes Budgeted water fund appropriations for the 2013 fiscal year totaled \$193,819.
The objective of our audit was to determine if Town officials are adequately monitoring water loss and addressed the following related question:
• Have Town officials taken adequate steps to control water loss?
We examined the Town's water operations records and reports for the period January 1, 2012 through August 12, 2013.
We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information or such standards and the methodology used in performing this audit is included in Appendix B of this report.
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 generally agreed with our recommendations and indicated they have taken or plan to take 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 Genera 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

Water loss can be defined as the difference between the amount of water produced and the amount of water billed to customers or used for a municipal purpose over a given period of time. Town officials have a responsibility to control water operation costs. In order to fulfill this responsibility, it is essential that officials periodically compare water produced with water billed and used for routine municipal purposes to determine if there is a significant amount of unaccounted for water or water loss. If significant, Town officials should attempt to identify whether the difference is caused by recordkeeping errors, leaks, theft and/or malfunctioning meters.

To assist in identifying and controlling water loss, the Federal Environmental Protection Agency (EPA), in conjunction with the American Water Works Association (AWWA) recommends the implementation of a Water Loss Control Program (WLCP). Components of a WLCP include a water audit, intervention and evaluation. The water audit is an assessment of the distribution, metering, and accounting operations of the water utility and is used to identify potential causes of water loss and possible strategies for improvements in the delivery system. The intervention process implements the strategies for improving water accountability, while the evaluation function consists of assessing the effectiveness of the changes made as a result of the water audit. In effect, because the Town incurs costs in producing water, any loss is a production expense for which no revenue is generated.

Neither the Board nor the DPW Superintendent has taken adequate steps to identify and reduce the amount of water loss within the Town's system. Town officials failed to periodically compare the amount of water produced with the amount billed for, and were not aware of the extent of water loss until we brought it to their attention.

We compared water production reports with water billing registers for six consecutive quarters¹ and found that the Town's water loss over that period totaled approximately 63 percent of water produced. Water loss was more than 57 million gallons over the six quarters, or an average of 9.5 million gallons per quarter. The cost to produce this water for the period totaled approximately \$176,000.² The

¹ Starting with the March 31, 2012 billing quarter through the June 30, 2013 billing quarter

² Treatment costs for 2012 were \$189,090 for 61,529,950 gallons produced; treatment costs for the period January 1, 2012 to June 30, 2013 were estimated based on 2012 costs (57.2 /61.5 million gallons)*\$189,090.

DPW Superintendent believes this loss was caused by old water meters in need of calibration, unmetered usage (both authorized and unauthorized) and leaks in the reservoir. Town officials could not produce any documentation from which we could determine the amount of municipal water usage, such as the Fire Department's use of Town water to extinguish fires and flush fire hydrants. They also did not have any documentation to approximate the gallons of water that leaked from the reservoir on a daily basis.

Estimated readings and apparently low meter readings may be an indication that some meters are not functioning properly, and that the Town is under-billing for usage, resulting in less revenue. We reviewed reported water consumption for the quarter ending June 30, 2013 and found that 53 of the 585 billed accounts indicated no water usage, while 238 accounts reported usage (likely estimated) equal to or less than the Town's minimum billing amount of 7,480 gallons,³ indicating potentially inaccurate or inaccessible meters. Therefore, at least half of the Town's 585 water accounts may be generating no or inaccurate meter readings. The Supervisor agreed with our findings that about half of the meters needed to be replaced, and as of the completion of our fieldwork was seeking estimates for needed replacements.

Town officials should determine the causes for water loss and take steps to reduce the amount to improve the efficiency of their water distribution system, enhance the financial health of the Town's water fund, and preserve water resources.

- 1. Town officials should implement procedures to determine the causes of water loss and take steps to address the causes as they are identified.
 - 2. Town officials should periodically reconcile water produced to the amount of water billed and otherwise accounted for to determine if significant losses are occurring.
 - 3. Town officials should estimate consumption for municipal usage such as for hydrant flushing and firefighting.

Recommendations

⁶ According to the United States Geological Survey, per capita public supplied domestic water use is 97 gallons per day in New York State for 2005 or approximately 8,800 gallons per quarter.

APPENDIX A

RESPONSE FROM LOCAL OFFICIALS

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

DIVISION OF LOCAL GOVERNMENT AND SCHOOL ACCOUNTABILITY

TOWN OF FRIENDSHIP

AUDIT RESPONSE

Town of Friendship officials were not aware of the tremendous volume of water lost and cannot refute the numbers established by the NYS State Comptroller's auditors as the Town has had no procedures in place to measure actual water accountability. A review of Town records found documentation that the last time a water accountability study was done took place in the year 1978.

Town officials had not been made aware of the leak in the reservoir and upon notification by the auditors, questioned the DPW Superintendent and the Assistant DPW Superintendent about the leak. They advised that the leak was not that bad, that there are a lot of springs in the area of the reservoir and perhaps the auditors mistook the water running down the hillside as a leak in the reservoir. They also advised that the reservoir had been leaking for over 20 years. The DPW Superintendent undertook a review of water loss and identified the following: 1) When the reservoir is cleaned once a year, it is emptied down to two feet of water so the bottom can be cleaned. He estimates that 336,000 gallons of water are emptied from the reservoir; 2) When hydrants are flushed, they are opened for approximately 6-7 hours and this also accounts for loss of water and lack of accountability; 3) There is a blow-off on Moss Brook Road (November 1st through May 1st due to a shallow 4" water main), which accounts for a loss of approximately 10,000 gallons per day; 4) There are eleven locations that do not have water meters to account for usage; 5) There are 593 water meters in the Town, 36 which are currently not working.

The Town Supervisor had reviewed water revenues as soon as the 2012 year-end reports were received because revenues had been down and began looking into Department of Public Works procedures, which included meter readings, non-working meters, minimum charges, estimated water bills, hydrant flushing and accounting. New meters were ordered to replace non-working meters; minimum water charges were not consistent and thus, not fair, for all water users, and have been changed; some meter readers were not working and the DPW Superintendent was asked to look at them to see if they could be fixed or replaced. The water meters the Town is currently using are no longer being manufactured and the DPW Superintendent was asked to find out how many the company had in stock so that the Town could purchase enough of them to replace any broken water meters. The company located 19 meters and they were purchased in February, 2013. The DPW Superintendent was asked to research what

water meters were currently being used in the marketplace and to set up a presentation for the Town Board identifying types of meters available and costs associated with a program to initiate the changeover.

When the auditors reported that the Town was dealing with major water loss, not just due to lack of sufficient metering but due to a major leak in the Town's reservoir, Town officials realized they would have to amend their five year plan to address this situation.

It is unfortunate that a plan was never developed by the Town to address the maintenance and any required upgrades to the water /sewer infrastructure. The cost for the Town would have been far less if this issue had been addressed over time.

 $\frac{1 - 10 - 14}{Date}$

James B. Blouvet Town Supervisor

APPENDIX B

AUDIT METHODOLOGY AND STANDARDS

Our overall goal was to assess the adequacy of the 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 management, cash receipts and disbursements, purchasing, payroll and personal services, water operations and information technology systems.

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 potential fraud, theft, and/ or professional misconduct. We then decided upon the reported objective and scope by selecting for audit those areas most at risk. We selected water operations for further audit testing.

To accomplish our objective, we interviewed Town officials, reviewed policies and procedures, and reviewed reports of water treated, reservoir levels, and meter readings for the period January 1, 2012 through August 12, 2013.

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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