

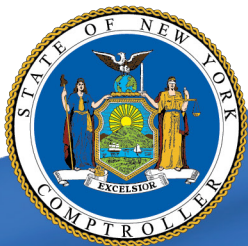
# Village of Mayfield

## Water and Sewer Operations

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APRIL 2017

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OFFICE OF THE NEW YORK STATE COMPTROLLER  
Thomas P. DiNapoli, State Comptroller

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# Report Highlights

## Village of Mayfield

### Audit Objective

Determine whether the Village accurately bills, collects and deposits water and sewer revenues, reconciles water produced to water billed and enacts long-term plans for future improvements to the water and sewer infrastructure.

### Key Findings

- Village officials calculated water and sewer bills using estimated meter readings when actual meter readings were unavailable or unreasonable.
- Village officials do not reconcile gallons of water produced to gallons billed.
- The Board has not adopted a long-term capital plan.

### Key Recommendations

- Approve all estimates of gallons consumed before the billing is prepared.
- Periodically reconcile water produced with amounts billed.
- Consider all possible sources of leaks and evaluate customer accounts that appear to have unreasonably high usage for potential leaks.
- Adopt a long-term capital plan to address the aging water and sewer infrastructure and a capital reserve to fund the improvements.

Village officials generally agreed with our recommendations and indicated they planned to initiate corrective action.

### Background

The Village of Mayfield (Village) is located in the Town of Mayfield in Fulton County.

The Village is governed by an elected four-member Board of Trustees (Board) and including an elected Mayor. The Board is responsible for the general management and control of the Village's finances and operations. The Clerk-Treasurer is the Village's chief fiscal officer and is responsible for billing, collecting and recording water and sewer user charges.

The water plant operator is responsible for the day-to-day water and sewer operations.

#### Quick Facts

Village Population	800
Water Customers	356
Sewer Customers	332
2016-17 Budgeted Water Appropriations	\$115,635
2016-17 Budgeted Sewer Appropriations	\$314,875

### Audit Period

June 1, 2015 through October 31, 2016

# Water and Sewer Operations

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## How Should a Village Manage Water and Sewer Operations?

To effectively manage water and sewer operations, Village officials are responsible for presenting accurate bills to residents based on water consumption and for collecting payments and depositing them intact<sup>1</sup> and in a timely manner. If any billings are based on estimates, the Board should review and approve the estimated billings. Additionally, Village officials are responsible for controlling the cost of operating the Village's water and sewer system and maintaining adequate infrastructure to provide for safe and reliable water and sewer services.

To fulfill this responsibility, Village officials should periodically reconcile water produced with water billed. This will help to determine if there is a large amount of unaccounted-for water, which could represent significant infrastructure problems such as broken meters or leaking infrastructure. Creating an effective long-term capital plan for maintaining the water and sewer systems' infrastructure can help the Village meet this significant financial responsibility without overburdening taxpayers or disrupting vital services. Furthermore, an effective plan enables Village officials to balance capital priorities with fiscal constraints and arrange for sufficient financing for the desired improvements.

## Water and Sewer Bills Were Not Always Calculated Using Accurate Meter Readings

The Village bills customers semiannually for water and sewer charges. Water bills are calculated based on gallons of water consumed. Sewer bills are calculated based on gallons of water consumed less gallons of water used to fill a pool as reported to the Village by its residents.<sup>2</sup> Village employees manually read customers' water meters in October and March and send bills to customers in November and April.

Village employees record the meter readings on a master listing provided to the Clerk-Treasurer, who inputs the readings into the billing software. The billing software calculates the gallons of water consumed based on prior readings and calculates customer bills. The Clerk-Treasurer estimates water consumption based on past usage in instances where the meter is broken, the Village has not been given access to read the meter, no meter has been installed or the gallons consumed are in excess of what is reasonably expected.

We judgmentally selected 65 water and sewer accounts<sup>3</sup> to determine whether the bills were accurately prepared based on actual consumption or

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1 Intact means in the same amount and form (cash or check) as collected.

2 In instances where residents notified the Village that they filled a pool but did not provide the Village with the number of gallons, the Clerk-Treasurer estimated 13,000 gallons for an above-ground pool and 22,000 gallons for an in-ground pool.

3 See Appendix B – Audit Methodology and Standards for additional information on our selection process.

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reasonable estimates. We found 49 accounts were billed correctly or had minor discrepancies, such as the water incorrectly being billed based on the gallon consumption figure used for sewer billing (water consumption less any gallons of water used to fill a pool). The remaining 16 accounts were billed based on estimates as follows:

- Ten accounts were billed based on an estimation of gallon consumption because the Village was unable to obtain a meter reading due to broken meters, no meters being installed or Village employees being unable to physically read the meter. For example, three accounts had broken meters which were not operational for either the November 2015 or April 2016 billing period, and two accounts were estimated because Village officials were not able access the meter to read it. One of these meters has not been read since April 2015 and the other meter has not been read since November 2013.
- Six accounts had gallon consumptions that did not appear reasonable based on meter readings, and the Clerk-Treasurer reduced the billed consumption to an estimate based on past usage. The original meter readings for these six residential water accounts indicated total consumption of 1.1 million gallons. Based on prior usage estimates, the Clerk reduced the gallons consumed to 131,400 gallons (a 986,650 gallon reduction – approximately 88 percent, with a value of \$6,364).

The Board did not review or approve the Clerk-Treasurer's calculated estimates. In addition, the meter readings that appeared excessive were not reviewed to determine the cause. While it is not uncommon for a Village to bill customers based on estimated readings, Village officials should review excessive usage, take steps to correct leaks and broken meters and contact residents to ensure they are accessible for meter readings, as applicable. When customers are repeatedly billed based on estimates and an accurate meter reading is not obtained, there is a risk that customers will not be billed in an equitable manner.

### **The Village Accurately Collected Water and Sewer Revenues and Deposited Them Intact and in a Timely Manner**

The Clerk-Treasurer is responsible for ensuring water and sewer collections are deposited intact and in a timely manner. The Board approves the water and sewer billings and approves any waivers of penalties for bills not paid by the due date. After the payment due date has passed for the fall billing, the Clerk-Treasurer prepares a listing of all unpaid accounts from the spring and fall billings, which the Mayor reviews and approves. This listing is then provided to the County so the unpaid bills, including penalties, can be relieved on the customers' tax bills. The Village allows customers to make partial payments, and late payment penalties are assessed on the portion of the bill not paid by the due date. The Board waives penalties on a case-by-case basis after discussing the circumstances causing a

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customer to not be able to pay their bill on time (e.g., the resident did not receive the bill in a timely manner).

We judgmentally selected the sewer and water collections made in January, March, July and August 2016<sup>4</sup> to determine whether the collections were deposited intact and timely. Except for a minor discrepancy which was discussed with the Clerk-Treasurer, the collections were deposited intact and timely.

We also judgmentally selected 10 collections from these same months for which late payment penalties were due but not paid.<sup>5</sup> In these instances, we found that the late payment penalties were included on the relevy or authorized by the Board to be waived.

### **Water Infrastructure is in Disrepair and the Board Has Not Adopted a Long-Term Capital Plan**

The Board has not adopted any long-term plans to address replacement of the water and sewer operations' aging infrastructure. The Clerk-Treasurer stated there is an urgent need for the water tower's (tower's) replacement. The current tower was installed in 1922 and experiences frequent, severe leaks and often requires emergency repairs.

Village officials do not prepare a reconciliation of water gallons produced to water gallons billed to customers. The water plant operator prepares monthly water system operating reports showing the amount of water produced and provides copies to the Clerk-Treasurer. However, these reports are not compared to the billing reports. During our audit period, the Village produced 35.8 million gallons of water and billed 16.4 million gallons, resulting in an excess of 19.4 million gallons (54 percent) produced but not billed (Figure 1). This far exceeds the United States Environmental Protection Agency industry standard of 10 to 15 percent variance between the gallons of water produced and billed to customers.

Village officials believe the excess gallons produced over gallons billed is primarily the result of the tower's frequent and severe leaks. However, until the tower is repaired and water produced is reconciled with water billed, the Village lacks assurance that the tower's leaks are the predominant leaks in the infrastructure. The cost of producing the excess gallons of water during our audit period was approximately \$9,600.<sup>6</sup>

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4 See Appendix B – Audit Methodology and Standards for additional information on our selection process.

5 The Clerk-Treasurer accepts payments made after the due date for amounts that do not include the penalty.

6 This includes the per gallon cost of the variable expenditures including supplies, repairs and maintenance, propane, chemicals and electricity. This does not include any fixed costs such as payroll, employee benefits and lab tests.

During our visit to the water plant, a Board member who was present told us the Village is setting aside money in a separate bank account for future capital improvements but has not established a capital reserve.<sup>7</sup> As of September 30, 2016, the water fund savings account had a balance of \$13,562 and the sewer fund savings account had a balance of \$48,703. The Village budgets for and replaces 20 broken meters each year at an annual cost of approximately \$3,200, placing priority on those properties that use in excess of the minimum billing use of

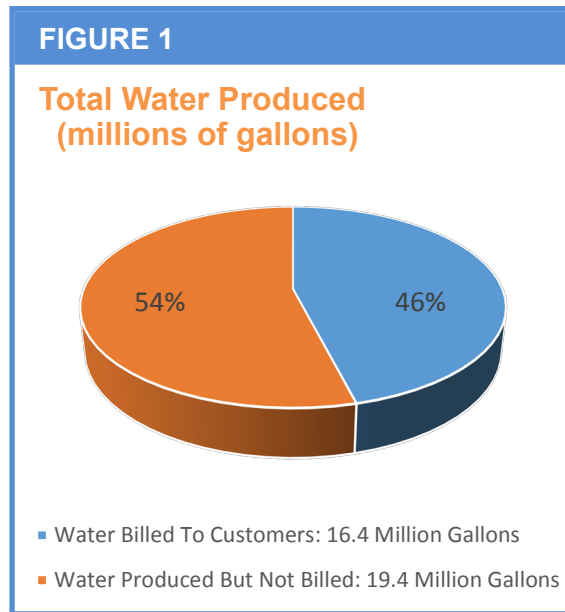
18,000 gallons. The Village replaces meters that are broken and does not replace meters based on the age or life of the meter. If the Village were to replace 20 meters per year, it would take approximately 18 years to replace the Village's 356 meters. The Village is currently in negotiations to obtain a new site and financing for a new tower. In May 2016, the Village received a \$1.4 million estimate for the tower replacement.

Because the Village did not reconcile water produced with water billed, the Board was not aware of the magnitude of the excess amount of water being produced. Furthermore, without a long-term capital plan, the Board has not formally developed a plan to establish a timeline for making water and sewer infrastructure repairs and improvements or the means to finance the cost of the improvements.

## What Do We Recommend?

Village officials should:

1. Periodically reconcile water produced with amounts billed and report the result of the reconciliations to the Board.
2. Consider all possible sources of leaks and evaluate customer accounts that appear to be unreasonably high usage for potential leaks.



<sup>7</sup> Reserve funds provide a mechanism for legally saving money to finance all or part of future infrastructure, equipment, and other requirements. Reserve funds can also provide a degree of financial stability by reducing reliance on indebtedness to finance capital projects and acquisitions.

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The Board should:

3. Approve all water consumption adjustments made to customer accounts by the Clerk-Treasurer.
4. Adopt a long-term capital plan to address the requirements of the aging water and sewer infrastructure.
5. Establish a capital reserve to fund the improvements outlined in the long-term capital plan if the Board intends to at least partially finance the cost of improvements with reserve fund moneys.

# Appendix A: Response From District Officials

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## VILLAGE OF MAYFIELD

Joseph “Jamie” Ward  
*Mayor*

P.O. Box 229  
Mayfield, NY 12117  
Telephone: (518) 661-5165  
Fax: (518) 661-5400

Emory Chase  
Pat Keane  
Joseph Garrigan  
Thomas Ruliffson  
*Board of Trustees*

April 11, 2017

Mr. Jeffrey P. Leonard, Chief Examiner  
Office of the State Comptroller  
One Broad Street Plaza  
Glens Falls, New York 12801-4396

Dear Mr. Leonard:

I have received and reviewed the draft audit report for the Village of Mayfield, report of examination 2017M-28.

The Board of Trustees and I agree with the findings and conclusions.

A written corrective action plan (CAP) that addresses the findings of the report have been included with the response letter.

The Village of Mayfield would like to thank your office for our recent audit of the water and sewer operations.

Sincerely,

Joseph Ward  
Mayor

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Thomas Ruliffson  
*Board of Trustees*

April 11, 2017

Unit Name: Village of Mayfield  
Audit Report Title: Water and Sewer Operations  
Audit Report Number: 2017M-28

For each recommendation included in the audit report, the following is our corrective action(s) taken or proposed. For recommendations where corrective action has not been taken or proposed, we have included the following explanations.

- **Audit Recommendation:**

Periodically reconcile water produced with amounts billed and report the result of the reconciliations to the Board.

**Implementation Plan of Action(s):**

The Clerk/Treasurer will provide the board after each semi-annual billing the amounts produced and the amounts billed.

**Implementation Date:**

May 2017

- **Person Responsible for Implementation:**

Mayor Joseph Ward

Signed:

\_\_\_\_\_

Joseph Ward, Mayor

4/13/17  
\_\_\_\_\_

Date

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April 11, 2017

Unit Name: Village of Mayfield  
Audit Report Title: Water and Sewer Operations  
Audit Report Number: 2017M-28

For each recommendation included in the audit report, the following is our corrective action(s) taken or proposed. For recommendations where corrective action has not been taken or proposed, we have included the following explanations.

- **Audit Recommendation:**

Consider all possible sources of leaks and evaluate customer accounts that appear to be unreasonable high usage for potential leaks.

**Implementation Plan of Action(s):**

Rural Water will be conducting a leak detection test throughout the village to determine if they can recognize any pipes that may be leaking. After meter readings have been entered for each billing cycle and unreasonable high readings are found, the clerk/treasurer will review accounts with Mayor. Department of Public Works will go to location and determine if there is a leak and re-read meter to ensure correct meter reading was obtained.

**Implementation Date:**

May 2017

- **Person Responsible for Implementation:**

Mayor Joseph Ward

Signed:

\_\_\_\_\_  
Joseph Ward, Mayor

\_\_\_\_\_  
Date

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April 11, 2017

Unit Name: Village of Mayfield  
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Audit Report Number: 2017M-28

For each recommendation included in the audit report, the following is our corrective action(s) taken or proposed. For recommendations where corrective action has not been taken or proposed, we have included the following explanations.

- **Audit Recommendation:**

Approve all water consumption adjustments made to customer accounts by Clerk/Treasurer.

**Implementation Plan of Action(s):**

The Clerk/Treasurer will provide Mayor a list of any water consumptions that may need adjusted due to an unusual high reading after a meter has been re-read by the Department of Public Works. The Mayor will review the list and approve any adjustments that may be needed.

**Implementation Date:**

May 2017

- **Person Responsible for Implementation:**

Mayor Joseph Ward

Signed:

\_\_\_\_\_  
Joseph Ward, Mayor

4/13/17

\_\_\_\_\_  
Date

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For each recommendation included in the audit report, the following is our corrective action(s) taken or proposed. For recommendations where corrective action has not been taken or proposed, we have included the following explanations.

- **Audit Recommendation:**

Adopt a long-term capital plan to address the requirements of the aging water and sewer infrastructure.

**Implementation Plan of Action(s):**

A representative from New York Rural Water Association, Mayor, Clerk/Treasurer, Village Sewer Commissioner, Wastewater treatment plant operators and (2) community members have been meeting monthly since December 2016 to develop a Sustainable Utility Management Plan for the sewer infrastructure. When the plan has been developed for the sewer infrastructure, the village will develop a long-term capital plan for the water infrastructure. The Village is currently working on replacing the water tower constructed in 1922.

**Implementation Date:**

May 2018

- **Person Responsible for Implementation:**

Mayor Joseph Ward

Signed:

\_\_\_\_\_

Joseph Ward, Mayor

\_\_\_\_\_  
Date 4/13/17

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*Board of Trustees*

April 11, 2017

Unit Name: Village of Mayfield  
Audit Report Title: Water and Sewer Operations  
Audit Report Number: 2017M-28

For each recommendation included in the audit report, the following is our corrective action(s) taken or proposed. For recommendations where corrective action has not been taken or proposed, we have included the following explanations.

- **Audit Recommendation:**

Establish a capital reserve to fund the improvements outlined in the long-term capital plan if the Board intends to at least partially finance the cost of the improvements with reserve fund moneys.

**Implementation Plan of Action(s):**

After discussion with the board, there are not any plans to establish a capital reserve fund in the near future.

**Implementation Date:**

N/A

- **Person Responsible for Implementation:**

Mayor Joseph Ward

Signed:

\_\_\_\_\_  
Joseph Ward, Mayor

\_\_\_\_\_  
Date

4/13/17

## Appendix B: Audit Methodology and Standards

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We conducted this audit 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. To achieve the audit objective and obtain valid audit evidence, we performed the following audit procedures:

- We interviewed Village officials and employees to gain an understanding of water operations and whether appropriate actions were taken to address unaccounted-for water.
- We compared water production as entered on water system operation reports to total water billed to determine whether the Village properly accounted for water produced. We then compared the amount of unaccounted-for water to industry standards to determine whether the amount of the water loss was reasonable.
- We judgmentally selected four months and reviewed the collections received during those months for 35 accounts that should have incurred late payment penalties (January 2016, March 2016, July 2016 and August 2016) to determine whether they were deposited timely and intact. We also determined whether unpaid late penalties were either authorized or waived by the Board, or were relieved on the next tax roll.
- We recalculated 50 bills based on Board-approved rates and the gallons of water consumed by reviewing the manual master water meter reading sheets to determine whether these accounts were accurately billed based on water consumption. Thirty-five of the bills were for the 35 accounts included in our sample above. We judgmentally selected 15 bills based on the number of gallons consumed and billed varying from the number of gallons consumed according to meter readings.
- To determine the amount of water and sewer revenue that could have been received for the gallons of water that were produced but not included in billing, we divided the total excess gallons by 18,000 gallons (minimum charge for water and sewer accounts). We then multiplied the minimum gallons charged by minimum dollar amounts of \$124 for water and \$170 for sewer to determine the potential lost revenue.
- By inquiring of the Mayor, Clerk-Treasurer, water plant operator and a Board member, we determined that the Board has not adopted a long-term plan to address replacement of the water and sewer operations' aging infrastructure.

We conducted this performance audit in accordance with GAGAS, 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 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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Unless otherwise indicated in this report, samples for testing were selected based on professional judgment, as it was not the intent to project the results onto the entire population. Where applicable, information is presented concerning the value and/or size of the relevant population and the sample selected for examination.

A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and provided to our office within 90 days, pursuant to Section 35 of 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 the CAP available for public review in the Clerk-Treasurer's office.

## Appendix C: Resources and Services

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### **Regional Office Directory**

[www.osc.state.ny.us/localgov/regional\\_directory.pdf](http://www.osc.state.ny.us/localgov/regional_directory.pdf)

### **Cost-Saving Ideas** – Resources, advice and assistance on cost-saving ideas

[www.osc.state.ny.us/localgov/costsavings/index.htm](http://www.osc.state.ny.us/localgov/costsavings/index.htm)

### **Fiscal Stress Monitoring** – Resources for local government officials experiencing fiscal problems

[www.osc.state.ny.us/localgov/fiscalmonitoring/index.htm](http://www.osc.state.ny.us/localgov/fiscalmonitoring/index.htm)

### **Local Government Management Guides** – Series of publications that include technical information and suggested practices for local government management

[www.osc.state.ny.us/localgov/pubs/listacctg.htm#lmgm](http://www.osc.state.ny.us/localgov/pubs/listacctg.htm#lmgm)

### **Planning and Budgeting Guides** – Resources for developing multiyear financial, capital, strategic and other plans

[www.osc.state.ny.us/localgov/planbudget/index.htm](http://www.osc.state.ny.us/localgov/planbudget/index.htm)

### **Protecting Sensitive Data and Other Local Government Assets** – A non-technical cybersecurity guide for local government leaders

[www.osc.state.ny.us/localgov/lgli/pdf/cybersecurityguide.pdf](http://www.osc.state.ny.us/localgov/lgli/pdf/cybersecurityguide.pdf)

### **Required Reporting** – Information and resources for reports and forms that are filed with the Office of the State Comptroller

[www.osc.state.ny.us/localgov/finreporting/index.htm](http://www.osc.state.ny.us/localgov/finreporting/index.htm)

### **Research Reports / Publications** – Reports on major policy issues facing local governments and State policy-makers

[www.osc.state.ny.us/localgov/researchpubs/index.htm](http://www.osc.state.ny.us/localgov/researchpubs/index.htm)

### **Training** – Resources for local government officials on in-person and online training opportunities on a wide range of topics

[www.osc.state.ny.us/localgov/academy/index.htm](http://www.osc.state.ny.us/localgov/academy/index.htm)

## Contact

Office of the New York State Comptroller  
Division of Local Government and School Accountability  
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Tel: (518) 474-4037 • Fax: (518) 486-6479 • Email: [localgov@osc.state.ny.us](mailto:localgov@osc.state.ny.us)

[www.osc.state.ny.us/localgov](http://www.osc.state.ny.us/localgov)

Local Government and School Accountability Help Line: (866) 321-8503

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