



Cortland County Public Water Supplies

Report of Examination

Period Covered:

January 1, 2015 – May 13, 2016

2016M-318



Thomas P. DiNapoli

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State of New York Office of the State Comptroller

Division of Local Government and School Accountability

January 2017

Dear County 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 County 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 Cortland County, entitled Public Water Supplies. 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 recommendation 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

Cortland County (County) is located in the southern tier of New York State and has a population of approximately 48,500. The County is governed by the County Legislature (Legislature), which is composed of 17 elected members who represent its one city, 15 towns and three villages. The Chair of the Legislature serves as the acting chief executive officer since the County Administrator position is currently vacant.

The County Environmental Health Division (Division) is part of the County's Public Health Department and is charged with overseeing certain aspects of the public's health. The Division's responsibilities include inspecting various businesses, such as campgrounds, hotels, and restaurants to ensure they are in compliance with State regulations; addressing complaints from taxpayers; inspecting newly installed wells and septic systems; and monitoring and controlling other health concerns, such as rabies and lead exposure. Part of their responsibilities include oversight of public water supplies (PWS). PWS are defined as water systems that have at least five service connections or regularly serve an average of at least 25 individuals daily for at least 60 days out of the year. These PWS provide water to the public for human consumption.

There are 87 regulated PWS in the County. Ten are operated by municipalities that provide water to residents and businesses in their districts, 17 are operated by housing developments (mobile home parks and apartment complexes) that provide water to other County residents, and the other 60 are operated by businesses or schools that provide water to their customers. The scope of the County's monitoring efforts over inspections and water sampling does not include individual water supplies (such as residential wells) or the water supplies of small businesses that do not serve at least 25 individuals.

The County's responsibility is also limited to ensuring PWS monitor the quality of water that they provide to various customers from the treatment facility to the customers' entry points and, therefore, the County does not monitor the quality of the water coming out of all the customers' taps.¹ Pipes located in homes, schools and businesses can corrode and allow certain unwanted contaminants into the water. This potential risk is not monitored by the County unless the school or business operates its own PWS.

¹ Municipal PWS sample water at various points in the distribution system on a risk-based approach, including taps at homes and businesses.

The Division Director (Director) is a public health engineer and is responsible for managing day-to-day operations and ensuring adequate oversight of PWS. The Division is staffed by four sanitarians, one supervising sanitarian and two administrative clerks.

Objective

The objective of our audit was to examine the County’s oversight of PWS. Our audit addressed the following related question:

- Did Division officials properly oversee the water quality testing performed by PWS and perform sanitary surveys as required?

Scope and Methodology

We examined the sanitary survey reports and water testing results of PWS in the County for the period January 1, 2015 through May 13, 2016.

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. 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.

Comments of Local Officials and Corrective Action

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

The Legislature 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 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 County to make this plan available for public review in the Clerk of the Legislature’s office.

Public Water Supplies

The United States Environmental Protection Agency established the public water system supervision program under the authority of the 1974 Safe Drinking Water Act. New York State Department of Health (NYS DOH) creates regulations in furtherance of this program. These regulations set limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. They also regulate how often PWS operators must monitor their water for contaminants. Generally, the larger the population served by a water supply, the more frequent the monitoring. Operators are required to notify users when contaminant levels are exceeded. The County is responsible for performing on-site sanitary surveys (survey) at each regulated PWS and reporting water test results to NYS DOH.

Officials properly oversaw the water testing performed by the PWS and generally performed surveys as required. They addressed water quality issues and properly reported water test results to NYS DOH; however, we identified opportunities for improvement. Officials did not issue notices of violations (NOV) to PWS in three of 13 instances when operators failed to comply with regulations. Furthermore, sanitarians did not consistently document that they performed analytical reviews of the operators' monthly operating reports (MOR). In addition, violations identified in completed surveys were not always reported to NYS DOH, officials did not provide documentation that all violations were corrected and one survey was not completed in a timely manner.

Water Testing

PWS operators test the water supply each day the facility is open and document the level of chlorine, which helps to disinfect the water from harmful bacteria in the system. The operators are also required to take water samples to test for various water contaminants and submit them for testing by a third-party laboratory as often as required by regulations.² Operators are required to submit MORs with the chlorine levels to the County by the 10th of each month. In addition, the water sample test results are sent to the County.

County officials are responsible for reviewing the MORs to ensure chlorine is detected in the water. Officials are also responsible for ensuring operators take water samples in compliance with NYS DOH regulations and for reviewing those test results. Officials should identify water quality issues and ensure operators comply with the regulations for notifying its users, when required. In addition, officials should report water sample test results to NYS DOH. If an operator

² The elements required to be tested and the frequency of that testing varies based on the population served by the PWS and the type of water system in place.

does not submit the MOR in a timely manner or does not carry out the required water sample testing, officials can issue an NOV with an associated fine to encourage compliance.

We reviewed all of the MORs submitted by 17 PWS operators during our audit period to determine if they were complete. Generally, operators fully completed the MORs. However, we found documented chlorine levels that led us to question the accuracy of the MORs. Officials did not maintain documentation to support that the sanitarians performed an adequate analytical review to identify these questionable MORs. For example, the chlorine levels typically changed from day to day on the MORs submitted by 10 operators, but remained the same each day of the month for the rest. Three operators are municipal PWS and, based on discussions with officials, municipalities take water samples from the entry point of the system, so it would be typical for documented chlorine levels to be the same each day. However, we question the accuracy of the MORs submitted by the four other operators. Two of those operators started reporting chlorine levels that varied from day to day after the County sanitarian performed the required survey. The other two operators submitted MORs that had the same chlorine levels every day, and officials did not provide documentation that they identified and questioned those MORs.

In addition, one operator submitted an MOR where the chlorine levels were zero for two consecutive days. Per NYS DOH regulations, the operator of that PWS should have contacted the County immediately and issued a boil water advisory. There was no supporting documentation that the sanitarians identified this as an issue and followed up with the operator to see if they adhered to required procedures, including notifying users.

Furthermore, officials did not always issue an NOV when monitoring and reporting regulations were violated. We identified 13 instances where an NOV should have been issued because the operator did not submit the required reports. While officials issued 10 NOVs, we found three were not issued. Of the NOVs that were issued, eight were paid and two were voided without adequate supporting documentation. Therefore, we could not determine if the Director authorized the two voided NOVs.

Sanitary Surveys

Officials perform surveys in order to detect issues with the water system that could put PWS at risk. While NYS DOH guidance suggests officials perform these surveys at PWS every one, three or five years, based on the system design, officials told us their goal is to visit each PWS annually. Violations noted during surveys are categorized as either public health hazards or regulatory requirements. Public health hazards require more immediate corrective action and

officials must report these violations to NYS DOH and document that they verified it was corrected.³ Regulatory requirement violations and recommendations require less immediate corrective action than others and do not have to be reported to NYS DOH. Officials should have procedures in place to ensure these expectations for surveys are met.

Although officials generally monitored their goals, one of the three PWS that should have been surveyed on an annual basis in order to comply with NYS DOH guidelines was not surveyed in 2015. When assignments had to be reallocated due to a sanitarian resigning, officials did not ensure that this survey was considered a priority in the reassignments. Five additional PWS were not surveyed in 2015. Although the County complied with the NYS DOH guidelines for these five PWS, the surveys were not performed in accordance with the County's annual goal.

Furthermore, officials do not have a process in place to ensure violations are reported to NYS DOH or that the corrections of the violations are documented. We reviewed survey reports for 24 of the 87 regulated PWS and identified 18 violations recorded by the sanitarians. Of the eight public health hazard violations, officials did not provide us with documentation that immediate corrective action was taken on three of the violations which were for a faulty motor, a tank that needed spot painting and a well casing that was not secure. Moreover, seven of the eight violations were not reported to NYS DOH. Of the 10 regulatory requirement violations and recommendations, officials did not show us documentation to support that they ensured eight were corrected prior to the next survey.

Officials have generally maintained an annual presence at PWS which encourages the operators to comply with regulations. However, if officials do not perform timely surveys at the facilities, equipment issues could go undetected and cause water quality issues. Officials' ability to monitor water quality could also be limited because they did not consistently document that they analyzed trends in the MORs or insist operators' correct deficiencies. Finally, there is a risk that operators may not submit required reports if officials are not consistently issuing NOVs.

Recommendation

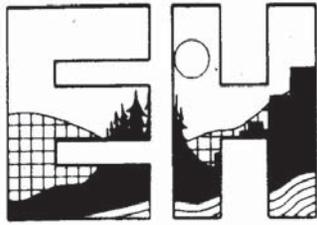
1. The Director should establish procedures to ensure:
 - NOVs are issued when warranted;
 - Voided NOVs have adequate supporting documentation;

³ NYS DOH does not always provide a specific time frame for when violations must be corrected but instead reviews them on a case-by-case basis.

- MORs are analyzed and corrected in a timely manner;
- Sanitary surveys are performed in compliance with NYS DOH guidelines for frequency;
- Sanitarians document that violations observed during surveys are corrected; and
- Public health hazard violations are reported to NYS DOH.

APPENDIX A
RESPONSE FROM LOCAL OFFICIALS

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



Cortland County Health Department Division of Environmental Health

60 Central Avenue, Cortland, New York 13045-2746

Telephone: 607-753-5035

Fax: 607-758-5578

December 21, 2016

██████████
██████████
Division of Local Government
and School Accountability

Dear ██████████:

We have received and reviewed your examination conducted for the period of January 1, 2015 – May 13, 2016 and concur with your findings and recommendations.

I want to personally thank ██████████ and you for spending all the time to go through all of our records in such a professional and thorough manner. It is good to have a fresh set of eyes on all of our practices with timely and useful recommendations. I feel it will help us better serve our Community and we will start the process of incorporating all of your suggestions into our daily work routines.

Sincerely,

Michael J. Ryan, P.E.
Director of Environmental Health
Cortland County, New York

Cc: Donnell Boyden, Mary Ann Discenza, Catherine Feuerherm, Mary Ann Haley

APPENDIX B

AUDIT METHODOLOGY AND STANDARDS

To achieve our audit objective and obtain valid evidence, we performed the following procedures:

- We examined the case files of 15 PWS, or 17 percent of the regulated PWS, to determine if they were performing the required water testing. We judgmentally selected all nine that served at least 1,000 people and selected an additional six with no known bias. We compared County schedules to the reports submitted by the operators. If operators were not in compliance, we determined whether an NOV was issued and the related fine was paid.
- For the same 15 PWS, we also reviewed reports for any water quality violations. If we identified violations, we determined whether officials followed up on the violations. We also reviewed the County computer system reports to ensure findings were properly reported to NYS DOH.
- We reviewed reports from the County's computer system to determine if all 87 regulated PWS were surveyed in accordance with NYS DOH guidance and the County's annual goal.
- We examined the survey results and electronic case files for 24 PWS, or 28 percent of the regulated PWS, to determine if violations found during the surveys were corrected and reported to NYS DOH (if applicable).
- We examined the MORs for 18 PWS to ensure they were completely filled out and had a detectable level of chlorine in the system. The 18 PWS include all of the sample of 15 noted above (where we reviewed case files for required testing) and three of the PWS selected in the sample of 24 (where we reviewed survey results).

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 C

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