



Buffalo Sewer Authority Industrial Waste Section

Report of Examination

Period Covered:

July 1, 2015 — November 7, 2016

2016M-434



Thomas P. DiNapoli

Table of Contents

	Page
AUTHORITY LETTER	1
INTRODUCTION	2
Background	2
Objective	2
Scope and Methodology	3
Comments of Authority Officials and Corrective Action	3
CONTROL PROGRAM FOR TRUCKED-IN WASTE	4
Hauler Entry Logs	4
Waste Discharge Verification	5
Waste Sample Testing	6
Recommendations	7
APPENDIX A Response From Authority Officials	8
APPENDIX B Audit Methodology and Standards	11
APPENDIX C How to Obtain Additional Copies of the Report	12
APPENDIX D Local Regional Office Listing	13

State of New York Office of the State Comptroller

Division of Local Government and School Accountability

April 2017

Dear Authority Officials:

A top priority of the Office of the State Comptroller is to help authority officials manage their authorities efficiently and effectively and, by so doing, provide accountability for dollars spent to support authority operations. The Comptroller oversees the fiscal affairs of authorities statewide, as well as authorities' 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 authority operations and Board governance. Audits also can identify strategies to reduce authority costs and to strengthen controls intended to safeguard authority assets.

Following is a report of our audit of the Buffalo Sewer Authority, entitled Industrial Waste Section. 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 X, Section 5 of the State Constitution.

This audit's results and recommendations are resources for authority officials to use in effectively managing operations and in meeting the expectations of taxpayers. 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 Buffalo Sewer Authority (Authority) is a public benefit corporation created under the New York State Public Authorities Law. The Authority Board (Board) is composed of five¹ members who are appointed by the Mayor of the City of Buffalo (City) and is responsible for the general management and control of the Authority's financial and operational affairs. The Authority primarily provides sewer services, including collecting, transporting and treating sewage, and fixing and collecting sewer rates and rentals for approximately 106,000 residential and commercial customers in the City and certain neighboring communities. Additionally, the Authority under the Industrial Waste Section (IWS) accepts trucked-in domestic and industrial waste for treatment, processing and disposal.

The Board appoints the General Manager who along with other administrative staff is responsible for daily operations. The IWS Administrator (Administrator) is responsible for the daily operations of the control program for trucked-in waste. The Administrative offices are located at City Hall and the treatment plant (Plant) is located along the Niagara River. The Authority's 2016-17 fiscal year budgeted appropriations totaled \$54 million, which were funded primarily by sewer rates and rentals. Revenues for trucked-in waste were \$936,000 for 2015-16 and were budgeted at \$855,000 for 2016-17.

Waste haulers (haulers) are required to apply for and obtain trucker's discharge permits from the Authority. Haulers must disclose the source and type of waste and the name and address of the business and must estimate the amount of waste that will be discharged per trip and the frequency of discharge. Haulers are required to provide an analytical data sample of the waste with the application and a chemical composition analysis that must be performed by a New York State Department of Health (NYSDOH) certified laboratory.

Objective

The objective of our audit was to evaluate the Authority's control program for trucked-in waste. Our audit addressed the following related question:

- Did Authority officials properly monitor trucked-in waste to ensure compliance with permit agreements and that billings are complete and accurate?

¹ The Board currently has four members; one member resigned in September 2012 and a replacement has not yet been appointed.

**Scope and
Methodology**

We examined the Authority’s control program for trucked-in waste for the period July 1, 2015 through November 7, 2016. We extended our scope period back to July 1, 2014 for waste sample testing.

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
Authority Officials
and Corrective Action**

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

Good management practices dictate that the Board has the responsibility to initiate corrective action. As such, the Board should prepare a plan of action that addresses the recommendations in this report and forward the plan to our office within 90 days.

Control Program for Trucked-In Waste

The Board is responsible for overseeing the Authority's control program for trucked-in waste and ensuring that processes and procedures are in place to safeguard its assets. The Board can fulfill this responsibility, in part, by establishing written policies and sound business practices. The General Manager implements Board policies and should periodically assess performance to ensure the program is operating as intended and periodically report on such to the Board. The Authority is responsible for controlling gate entry to the Plant. Also, the Board's written regulations provide guidelines for accepting and processing trucked-in waste. The Authority bills haulers monthly based on the amount and chemical composition of the waste they discharge. The regulations also provide for monitoring procedures such as periodically taking samples of waste discharge and testing to ensure compliance with the discharge permits and pollutant discharge limitations.

Authority officials control gate entry to the Plant but do not adequately monitor trucked-in waste and ensure that all waste discharged is properly billed and complies with discharge limitations. While the Board has established written regulations, it has not ensured that Authority officials implemented and complied with the regulations. IWS personnel do not measure or verify the amount of liquid or slush waste trucked in for treatment and disposal; instead, they allow haulers to self-report on the volume in their loads. As a result, the Authority could be losing out on as much as \$300,000 in annual revenues.

The Administrator has not periodically sampled and conducted all required analytical data tests to ensure waste discharge complies with discharge limitations. From July 2014 through November 2016, the Authority conducted 65 (32 percent) of the minimum 204 waste sample analysis tests. While the Authority paid \$15,800 for these 65 tests, the permits provide that the Authority could instead require the haulers to conduct these tests. This would reduce Authority costs. Further, because sampling activity is not in accordance with Authority requirements, there is an increased risk that haulers will not be charged enough to treat their waste and that their discharge could have an adverse effect on Authority personnel and equipment.

Hauler Entry Logs

The Authority is responsible for ensuring haulers enter the Plant premises through a controlled gate entry, where the security attendant logs in the arrival time, name of the business and purpose for the visit. Haulers should proceed to the IWS administration office to complete another log-in sheet, indicating the name of the business, source and

type of waste, time and amount of waste discharge. IWS personnel should sign the bill of lading and the haulers should proceed to the discharge station. Personnel compile this information monthly and subsequently bill each hauler for the amount of self-reported waste discharged at previously negotiated rates per each hauler.

For the period July 18 through July 30, 2016, we traced all gate security log entries to the IWS logs and found that all haulers logged in by security were correctly logged in or accounted for by IWS personnel. On July 26 and July 28, 2016, we observed and recorded haulers' activities in and out of the Plant. All observed haulers were logged in by gate security and IWS personnel. We compared the gallons billed for July 2016 to the haulers' bills of lading and found only minor billing/clerical errors that we discussed with the Administrator and Authority officials.

Waste Discharge Verification

Haulers submit a sample of waste for analysis when applying for a discharge permit and a billing rate is assigned to each based on the chemical composition of the waste, estimated amount of discharge per each load and frequency of loads per year. Authority officials are responsible for monitoring trucked-in waste to ensure billings are complete and accurate.

Initially the General Manager indicated to us that all haulers' waste discharge was weighed or measured and that monthly billing was based on the actual waste discharged and a predetermined rate for each hauler. However, when we visited the Plant with the General Manager, the Administrator indicated that the Authority did not measure or verify amounts of discharge for haulers that truck in liquid/slush waste. As a result, IWS personnel use an "honor system" whereby haulers self-report on the volume of waste in their loads of trucked-in waste. The self-reported numbers are used, without any verification, for monthly billing.

Of the 48 haulers that are permitted by the Authority, one hauler discharges solid waste that is measured and weighed on the Authority's weigh scale equipment and 47 haulers bring in liquid or slush waste that is not weighed or metered. The Administrator indicated that liquid/slush waste is not measured because the Authority does not have equipment that can separate solid from liquid and then measure both during discharge.

When haulers apply for a permit, they are required to indicate the amount of waste that will be in each load and the maximum capacity of the truck. Because the Authority uses an honor system for the liquid/slush waste, the Authority has no assurance that the haulers are billed for the actual waste that they discharge. We compared gallons

per load indicated by the haulers on their permit applications to the haulers' self-reported waste discharge for the period July 18 through July 30, 2016, and found that 22 haulers discharged 205 loads with a maximum load capacity of over 1 million gallons. However, the haulers reported discharging 737,000 gallons, or 295,000 gallons less than the maximum capacity on the permit applications. As a result, the Authority billed approximately \$11,800² less than what could have been expected. Because the Authority does not verify the actual amount of liquid/slush waste the haulers discharge, there is a risk the authority could be losing out on revenue. For perspective, if instead of the lower amounts self-reported, the haulers actually discharged waste at the load capacity as stated on their permit applications, the Authority could be losing out on as much as \$300,000 in annual revenues.

Waste Sample Testing

Haulers are required to provide a sample of their waste discharge for chemical composition analysis prior to being granted a discharge permit. According to Authority guidelines, during the course of the year a minimum of three sample tests are to be taken and conducted for each hauler to ensure waste is consistent with the sample provided when the discharge permit was obtained. The Authority's discharge permit provides that the Authority may require the haulers to sample and analyze their waste discharge and that the Authority reserves the right, at its convenience, to also sample and analyze waste discharged by the haulers. All analysis is to be performed by a NYSDOH certified laboratory specified by the Authority. This analysis allows the Authority to determine the cost of treating the waste and to establish the billing rate for each hauler.

We reviewed the sample tests that were done for 2014-15 and 2015-16 and found that the Authority conducted only 65 tests (or 32 percent) of the minimum 204³ tests. As a result, approximately 17 million gallons, or more than 800 loads, were discharged by haulers and treated by the Authority without sample testing. The periodic testing allows the Administrator to determine whether the discharge could have an adverse effect on Plant personnel and equipment and whether the waste is hazardous or nonhazardous. Such testing also provides assurance that haulers are charged rates reflective of the actual cost to treat the waste they truck in and discharge.

In addition, we found that the Authority paid a third-party vendor \$15,800 to conduct these 65 tests. While the permit provides that

² 295,000 gallons at a billing rate of four cents per gallon

³ The Authority had 48 permits in each of the two years. However, 19 haulers in 2014-15 and nine haulers in 2015-16 did not use Authority services. As a result, the minimum number of tests totaled 204 (48 permits times two years times three tests minus 28 haulers times three tests).

the Authority may require haulers to sample and analyze their waste discharge, the Administrator did not request any of the haulers to conduct the sample testing nor were the haulers billed for the testing costs the Authority incurred. We estimate these costs would be over \$35,000 if the Authority conducted, at a minimum, the required three sample tests during the year for each hauler.

Because neither the General Manager nor the Administrator evaluated the control program for trucked-in waste periodically and reported the results to the Board, the Board could not ensure that Authority officials adhered to its regulations. As a result, the General Manager was unaware that IWS personnel did not weigh liquid/slush waste that was trucked in and the Authority may have also underbilled haulers who self-reported the gallons of their trucked-in waste. Lastly, because the Authority conducted only 32 percent of the minimum waste sample analysis tests, 17 million gallons of waste were discharged into the Plant for treatment with unknown origination and composition.

Recommendations

The Board should:

1. Ensure liquid/slush trucked-in waste is accurately measured and billed properly.
2. Evaluate the Authority's discharge permit procedures and ensure the Authority does not pay for periodic waste sampling that could be paid for by haulers.
3. Ensure that the General Manager and the Administrator periodically evaluate control program performance for trucked-in waste and report the results to the Board to ensure adherence to regulations.

The General Manager and Administrator should:

4. Ensure trucked-in waste for each hauler is sampled and analyzed at least three times per year.

APPENDIX A

RESPONSE FROM AUTHORITY OFFICIALS

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



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March 24, 2017

VIA Electronic Mail: Muni-Buffalo@osc.state.ny.us and US Postal Service First Class Mail



Mr. Jeffrey D. Mazula, Chief Examiner
Office of the State Comptroller
295 Main Street (Suite 1032)
Buffalo, New York 14203-2510

Re: Office of the State Comptroller Draft Report of Examination - March 2017 (2016M-434) (Draft Report)

Dear Mr. Mazula:

The Buffalo Sewer Authority (Authority) acknowledges receipt of the above referenced Draft Report, covering the period July 1, 2015 to November 7, 2016, and appreciates this opportunity to respond in connection with your examination of the Authority's Internal Control Procedures and its focus on the Industrial Waste Department's Waste Hauler activities as presented in the Draft Report.

The Authority recognizes and appreciates the important role of the OSC's Division of Local Government and School Accountability, and the commitment made by the local audit team while conducting its work on the Authority's Waste Hauler activities. The Authority has carefully considered the findings and recommendations set forth in the Draft Report. In response, the Authority has commenced working on policies and procedures that will result in improved tracking, administration and testing of its Waste Hauler activities.

The Authority Board, management and staff are dedicated to improving the Authority's operations and regulatory control programs to gain the benefits of efficiency and effectiveness and to bring value to our customers.

The Authority annually collects over \$54 million to finance the operation of one of New York State's largest publicly owned wastewater treatment facilities that receives, treats and processes approximately 120 million gallons per day (MGD) of wastewater and other materials for the people of the City of Buffalo, and eleven (11) surrounding districts and municipalities. By comparison, accepting, treating and

processing waste from Waste Haulers is an ancillary service which generates just under 1.7% of our overall revenue base to offset costs of maintenance and improvement of our plant operations. We regularly review our processes and charges within this service sector to remain competitive in this unique but limited market. Our management and staff realize that approximately 50% of the Authority's permitted Waste Hauler customers do not use our service, as demonstrated in the Draft Report.

We agree with the Draft Report's observation that the Authority's current methodology to monitor Waste Hauler's waste can be more efficient, and may result in potential loss of revenue. We submit that the amount of such loss, as extrapolated by your sample selection and projected findings was impacted by our seasonal high volume period. Better procedures and techniques can and will be implemented to provide a more accurate determination of revenues that we currently generate from our Waste Haulers.

We agree with the Draft Report's observations that the numbers of sample tests taken were below the threshold levels stated in our guidelines. It should be noted, however, of the sampled loads tested, we concluded the sampled results to be satisfactory and within acceptable limits and composition. We recognize that we have the ability to strengthen our results, oversight and confidence levels by increasing the number of tests of our Waste Hauler deliveries. The Authority plans to conduct and bill for additional tests, and work to ensure the safety of waste the Authority accepts under this process.

The Authority acknowledges its obligation, to initiate corrective action and to report to your Office with our Corrective Action Plan that addresses the recommendations set forth in the Draft Report within the time you require.

The Authority Board and management thank the staff of the Office of the State Comptroller, who were professional and cordial throughout the audit process and for assisting the Authority to improve our operations.

Respectfully submitted,
BUFFALO SEWER AUTHORITY

Herbert L. Bellamy, Jr.
Chairman
Buffalo Sewer Authority Board

cc: Oluwole A. McFoy, P.E.
Ronald Brown

*Certified Mail 7006 3450 0001 8103 4363
Return Receipt Requested*

APPENDIX B

AUDIT METHODOLOGY AND STANDARDS

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

- We interviewed Authority officials and IWS personnel to gain an understanding of the control program for trucked-in waste, including the annual permit process, measurement of waste trucked in, periodic waste sampling activities and billing procedures.
- We reviewed Board minutes, policies, regulations and guidelines as they related to the control program for trucked-in waste.
- For the period July 18 through July 30, 2016, we compared the hauler sign-in sheets documented at the security gate to hauler sign-in sheets at the Plant and the haulers' bills of lading. We compared this information to the billing invoices and receipts of payment from the haulers. On July 26 and July 28, 2016, we observed haulers making deliveries for discharge at the Plant. Those dates were the first opportunities to conduct the observations and the period July 18 through July 30, 2016, was selected to incorporate the days selected for audit observation.
- We observed hauler entry and discharge activities at various times at the Plant during the period October 11 through October 14, 2016, which was the period during which our audit team was located at the Plant conducting fieldwork.
- We reviewed annual permit applications and supporting documentation for all 48 discharge permits granted to haulers for 2016-17.
- We compared gallons per load on permit applications to haulers' self-reported waste discharge for the period July 18 through July 30, 2016, and calculated the revenue that would have been expected for that period, and annually, if the haulers were to discharge waste at load capacity.
- We reviewed the periodic waste sample tests conducted in 2014-15 and 2015-16 to determine whether trucked-in waste was sampled and analyzed in accordance with Authority guidelines.
- We reviewed Authority financial records to determine whether the Authority or the haulers paid the costs for the periodic sampling. We summarized the cost of this activity for 2014-15 and 2015-16.

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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