

# AUDITOR GENERAL

Halifax Regional Municipality



## Management of Solid Waste Operations Audit

February 2022

**February 14, 2022**

The following audit of ***Management of Solid Waste Operations***, completed under section 50(2) of the Halifax Regional Municipality Charter, is hereby submitted to the Audit and Finance Standing Committee of Regional Council.

Respectfully,

*Original signed by*

Evangeline Colman-Sadd, CPA, CA  
Auditor General  
Halifax Regional Municipality

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# Management of Solid Waste Operations Audit

HRM effectively manages certain aspects of solid waste operations

## Solid Waste Operations and Contract Management



**Many key aspects reasonably monitored, some areas need improvement**

- Regularly observe waste collection and actively track complaints
- Monitors contracts, including site visits, for most solid waste facilities
  - No similar monitoring of landfill contract worth \$170 million over 20 years
- Management needs to review and document follow up from environmental reports prepared by consultants

**Waste management operations generally consistent with legislated requirements**

- Facilities have operating permits and required reports are prepared for Nova Scotia Environment

## Waste Diversion



- Waste Diversion education programs and initiatives effectively planned and undertaken

## Solid Waste Contracts



- Vendor selection process fair, consistent with HRM Procurement Policy
- Contract terms protect public interest and provide value-for-money
  - HRM applied payment penalties, as appropriate

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## Audit Results

### Conclusion

HRM effectively manages certain aspects of its solid waste operations to help ensure it achieves value-for-money and protects the public interest. Waste management operations are generally consistent with applicable legislation and operating requirements. Management reasonably monitors many key aspects of solid waste contracts, but we found improvements are needed in Otter Lake contract management and in reviewing environmental reports provided by facility operators. We also found HRM effectively manages its waste diversion program activities. The solid waste vendor selection process was fair and consistent with HRM’s procurement policy; vendor contracts include terms that provide value-for-money and protect the public interest.

### Solid Waste Operations and Contracts Mostly Monitored

***Overall, management monitor contracts, some improvements needed***

Solid Waste management reasonably monitors many key aspects of contracts. We assessed the Solid Waste division’s contract management activities for a sample of six ongoing or recently expired waste collection and disposal facility contracts.

**Sampled Waste Collection and Disposal Contracts**

Type	Total Estimated Value or Awarded Report*	Agreement Period	Number of Years	Status
Otter Lake Landfill	\$ 170,000,000	Jan 1, 2016 to 2036	20	Ongoing
Recycling Facility	\$ 18,000,000	Apr 1, 2019 to Mar 31, 2024	5	Ongoing
Burnside Composting Facility	\$ 65,000,000	Oct 30, 1997 to Mar 31, 2021	24	Expired
Household Special Waste Services	\$ 4,436,852	Sep 1, 2019 to Aug 31, 2024	5	Ongoing
Collections	\$ 41,100,395	Jul 1, 2015 to June 30, 2021	6	Expired
	\$ 32,458,798	Jul 1, 2015 to June 30, 2021	6	Expired

\*Source: HRM SAP system

We examined two waste collection contracts and found Solid Waste staff tracks customer complaints and applies payment penalties when necessary. Solid Waste also observes roadside waste collection activity periodically.

Solid Waste monitors waste disposal facilities, including:

- daily and monthly tonnage tracking at the recycling, composting, and landfill facilities;
- residue audits at the recycling facility; and
- reviewing annual reports from the recycling and landfill facility operators.

Solid Waste management relies on expert consultants, engaged by facility operators, to assess the environmental impact of operations. These assessments are intended to satisfy the Nova Scotia Environment surface and groundwater requirements in the contracts. Management told us they review these reports to proactively address any issues with the operator. However, management could not provide evidence of review for the landfill and one of the two composting facilities. There was evidence the household special waste facility consultant reports were reviewed. We examined the environmental reports for three solid waste facilities and noted the consultants did not identify significant concerns.

#### **Recommendation 1**

Transportation and Public Works should review all consultant reports assessing the environmental impact of composting and landfill facilities. Results of this review should be documented, along with any action taken to address significant issues.

#### **Management Response**

*Solid Waste Resources staff review all consultant reports assessing the environmental impact of composting and landfill facilities. Staff acknowledge that improvements can be made to document the reviews of the reports. Staff will ensure future reviews are documented including identifying any action items.*

*Agree with Recommendation 1.*

Historically, Solid Waste performed video spot checks on traffic entering the Otter Lake facility, to help confirm the accuracy of the daily tonnage records. The process was discontinued for 16 months, between January 2020 and April 2021. Management told us this was a combination of technical issues and a vacant position. These reviews were reinstated in May 2021.

In addition to contract monitoring activities, such as daily or monthly tonnage tracking noted earlier, Solid Waste conducts site visits and has operational meetings with contractors at the composting, recycling, and household special waste facilities. Management does not conduct regular site visits or operational meetings for the Otter Lake landfill. Management told us they meet with the landfill operator to deal with specific issues identified by Nova Scotia Environment or the Otter Lake Community Monitoring Committee. HRM's contract with the landfill operator states that the operator must meet Nova Scotia Environment's operating permit requirements. However, both HRM and the operator are joint operating permit holders. This means both parties are responsible to meet permit requirements. We expected management to monitor all significant aspects of the Otter Lake facility contract, which may include site visits and additional monitoring of operations. This contract is valued at \$170 million over 20 years and covers operations which could have environmental risks.

### **Recommendation 2**

Transportation and Public Works should perform additional monitoring of the Otter Lake facility contract, including assessing the operator's compliance with key contract terms and operating permit obligations; and carrying out regular site visits. Monitoring results should be documented.

### **Management Response**

*Staff conducts comprehensive contract administration associated with Otter Lake. Additionally, HRM funds the Community Monitoring Committee \$90k/year to independently oversee the operation in accordance with HRM's agreement with Halifax Waste Resource Society.*

*While the contract provides that HRM and Operator (Mirror NS) are joint holders of the operating permit, the Operator alone is contractually responsible for ensuring the facility is operated in accordance with the permit and other applicable laws. Accordingly, staff were not formally conducting operational oversight (e.g., inspections of components of the operations).*

*Staff agrees with the Auditor's recommendation. Staff intends to initiate quarterly meetings and semi-annual inspections with the Operator to review facility operations with reference to contract terms. All operational oversight activities will be documented.*

Solid Waste management does not monitor whether the scales used to weigh waste brought to the various facilities are appropriately calibrated. The operators are required to calibrate the scales; this is generally done by a third party. Management told us they checked weigh scale calibrations in the past, but has no documentation to confirm this. We obtained evidence the scales were appropriately calibrated and suggested management include this confirmation in future site visits.

**Contract terms protect public interest and provide value-for-money**

We found solid waste contracts have reasonable terms and conditions to achieve value-for-money and protect the public interest. The contracts include sections relating to site management responsibilities, default and termination, environmental responsibilities, insurance policies, and other key terms and conditions. We also tested a sample of 30 invoices for the six contracts we examined, and found HRM made deductions for performance penalties, where applicable.

**Waste management operations generally consistent with applicable legislation and HRM policies**

We found HRM's waste management operations generally complied with provincial legislation and guidelines applicable to solid waste.

We reviewed four facility operating permits. Of the four permits, in one instance, HRM was a joint operator with the contractor, and both parties were named on the operating permit. For the remaining three permits, HRM was the sole permit holder.

For three permits, we found required reports were submitted by HRM to Nova Scotia Environment. For the fourth permit where HRM is a joint operator, the contracted operator prepared the reports for Nova Scotia Environment.

For three permits where HRM is the sole permit holder, we found Solid Waste staff performed periodic site inspections to ensure sites and operations complied with provincial operating permits. While site visit documentation did not always clearly state what was checked, we found management made sufficient improvements to documentation in 2021.

We also found Solid Waste has processes to comply with applicable requirements in the *Nova Scotia Otter Lake Landfill Act* and *Nova Scotia Solid Waste-Resource Management Regulations*.

Management is aware HRM's two composting facilities do not comply with the 2010 *Nova Scotia Composting Facility Guidelines* and would require significant improvements to achieve compliance. In 2020, HRM awarded a 25-year contract to design and operate a new composting facility which is expected to meet the guidelines.

We reviewed applicable HRM administrative orders and by-laws. We found that management monitored:

- the three privately-owned construction and demolition waste disposal sites to ensure compliance with applicable HRM policies; and
- solid waste collection and disposal operations to ensure they meet key requirements.



We also confirmed tonnage rates billed for recycling and organic facilities are consistent with rates in the applicable HRM policy.

## Waste Diversion and Education

### ***Solid Waste established, implemented, and monitored waste diversion plans***

HRM has a funding agreement with Divert NS. Under the agreement, HRM receives funding, which is mostly based on reaching targeted hours of education through waste diversion training programs offered to the public.

We reviewed the waste diversion education work plans for 2019-20 and 2020-21 and checked a sample of four programs to determine if the programs were implemented and monitored. We found Solid Waste implemented most of the programs, except for one which was delayed due to Covid 19. Management developed an action plan for 2021-22 for this program.

Management monitors waste diversion programs. We found these programs support Regional Council priorities, as documented in the HRM's annual business plans.

## Vendor Selection Process Was Fair

### ***Solid Waste vendor selection process fair and followed HRM procurement policy***

We reviewed the vendor selection process for three solid waste requests-for-proposals from 2019 to June 2021. We found the solid waste vendor selection process was fair and consistent with HRM procurement policy. We found the submissions were consistent with proposal requirements. Evaluators' comments supported the scores awarded to each proponent and all evaluators completed conflict of interest forms.

## Background

The Solid Waste Resources division of Transportation and Public Works is responsible for managing HRM's solid waste operations. According to the HRM 2021-22 business plan, this includes: *“source separated collection and diversion programs; facilities for processing, recycling, composting, marketing, and disposing of solid waste materials; delivery of education programs and administering the construction and demolition solid waste strategy.”*

Most of HRM's solid waste operations are delivered through contracted services. The Engineering and Contract Services department is responsible for managing contracts and operations. Solid Waste's expenses for contracted services in 2019-20 was \$36.6 million and in 2020-21 was \$36 million. Significant solid waste contracts include recycling, composting and Otter Lake Landfill facility operations; curbside collection; and household special waste services.

The Education and Promotion department is responsible for education and enforcement; day-to-day activities include leading public education sessions and proactive site visits.

HRM has several solid waste related Administrative Orders and By-Laws including:

- Administrative Order 27 and By-Law L-200 for construction and demolition materials disposal sites
- Administrative Order 16 regarding fees for the use of solid waste facilities
- By-Law S-600 for solid waste resource collection and disposal

## **About the Audit**

We completed a performance audit of the management of solid waste operations.

The purpose of the audit was to determine whether HRM effectively manages its solid waste operations. Our role is to express an independent audit opinion of this area.

The objective of the audit was to determine if HRM effectively manages solid waste operations to achieve value-for-money and protect the public interest.

We developed the criteria for this audit. These were discussed with, and accepted as appropriate by, Solid Waste Resources management.

1. Waste management activities should comply with HRM policies and applicable solid waste legislative requirements and guidelines.
2. Waste diversion plans should be established, implemented, and monitored.
3. Waste management activities and contracts should be monitored, and issues addressed in a timely manner.
4. Vendor selection processes should be fair and consistent with HRM procurement policy.
5. Contract terms should protect the public interest, including environmental considerations, and achieve value-for-money.

Our audit period covered January 2019 to August 2021. Information from outside the audit period was considered as necessary.

Our audit approach included: interviews with management and staff; review of legislation, by-laws, and guidelines; review of other internal policies and procedures; and review of contract agreements, project documents and all relevant documents from the vendor selection process.

This audit was conducted in accordance with the Canadian Standard on Assurance Engagements (CSAE) 3001 Direct Engagements published by the Chartered Professional Accountants of Canada.

We apply CPA Canada's Canadian Standard on Quality Control 1. Our staff comply with the independence and ethical requirements of the Chartered Professional Accountants of Nova Scotia Code of Conduct.

## Appendix 1 – Recommendations and Management Responses

### Recommendation 1

Transportation and Public Works should review all consultant reports assessing the environmental impact of composting and landfill facilities. Results of this review should be documented, along with any action taken to address significant issues.

### Management Response

*Solid Waste Resources staff review all consultant reports assessing the environmental impact of composting and landfill facilities. Staff acknowledge that improvements can be made to document the reviews of the reports. Staff will ensure future reviews are documented including identifying any action items.*

*Agree with Recommendation 1.*

### Recommendation 2

Transportation and Public Works should perform additional monitoring of the Otter Lake facility contract, including assessing the operator's compliance with key contract terms and operating permit obligations; and carrying out regular site visits. Monitoring results should be documented.

### Management Response

*Staff conducts comprehensive contract administration associated with Otter Lake. Additionally, HRM funds the Community Monitoring Committee \$90k/year to independently oversee the operation in accordance with HRM's agreement with Halifax Waste Resource Society.*

*While the contract provides that HRM and Operator (Mirror NS) are joint holders of the operating permit, the Operator alone is contractually responsible for ensuring the facility is operated in accordance with the permit and other applicable laws. Accordingly, staff were not formally conducting operational oversight (e.g., inspections of components of the operations).*

*Staff agrees with the Auditor's recommendation. Staff intends to initiate quarterly meetings and semi-annual inspections with the Operator to review facility operations with reference to contract terms. All operational oversight activities will be documented.*

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