

## Chapter 45

### Environment – Landfills Regulation

#### 1.0 MAIN POINTS

Municipalities and private companies own and operate landfills throughout the province. These owners are ultimately responsible for the environmentally-sound operations of landfills. The Ministry of Environment (Environment) is responsible for regulating landfills.

By August 2015, Environment fully implemented two of nine recommendations we initially made in 2013 related to the regulation of landfills. It implemented processes:

- › To follow up outstanding groundwater monitoring reports from landfill owners
- › To review and approve landfill closure plans

However, it had not yet:

- › Finalized landfill guidance documents
- › Obtained evidence that landfills are constructed in compliance with approved design plans and confirmed landfill closures are done in accordance with approved closure plans
- › Inspected landfills consistent with its established frequency requirements
- › Amended operating permits for all high-risk landfills and assessed risks of closed landfills to ensure they undertake groundwater monitoring where required
- › Consistently followed guidance for addressing landfill owners' non-compliance with the law and permit requirements

Without proper regulation of landfills, there is an increased risk landfills will contaminate the air, groundwater, or surface water.

#### 2.0 INTRODUCTION

This chapter describes our follow-up of management's actions on the recommendations we initially made in 2013. Our *2013 Report – Volume 2*, Chapter 29 concluded that, for the period of September 1, 2012 to August 31, 2013, the Ministry of Environment did not have effective processes to regulate landfills. We made nine recommendations.

To conduct this review engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance*. To evaluate Environment's progress towards meeting our recommendations, we used the relevant criteria from the original audit. Environment agreed with the criteria in the original audit.



To do our follow-up, we discussed with management progress they made in meeting our recommendations, reviewed supporting reports, and tested a sample of items to verify the progress.

## 3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at August 31, 2015, and Environment's actions up to that date. We found that Environment has implemented two recommendations, made progress on four recommendations, and did not implement one recommendation. We were unable to assess the progress on two recommendations, as described in this chapter.

### 3.1 Approval Needed for Landfill Guidance Document

We recommended that the Ministry of Environment adopt guidance on landfills from the proposed Environmental Code as operating practice. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Partially Implemented

*The Environmental Management and Protection Act, 2010 (Act)* was proclaimed and came into effect June 1, 2015. The proclamation of this Act brought into effect the Environmental Code. At the time of our initial 2013 audit, Environment had expected to formalize its expectations for landfill site developments through the Landfill and Transfer Station chapter in the draft Environmental Code. However, the chapter was removed from the final Environmental Code because of concerns raised by municipalities.

As a result, Environment developed a comprehensive landfill guidance document. This document incorporates best practices and standards for the development, operation, and closure of landfills. At August 31, 2015, this guidance document was not formally approved, or available to landfill owners and the public.

Without consistent guidance for landfills, not all landfills may be built and operated to the same required environmental standard.

### 3.2 Construction or Expansion Requirements Need Verifying

We recommended that the Ministry of Environment obtain evidence, in a timely manner, that landfills are constructed in compliance with approved design plans. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Unable to Assess

Upon completion of construction or expansion of landfills, Environment requires the landfill owner to submit “as-constructed” drawings and a certificate from an authorized engineer that supports that the construction has been carried out per the approved plans. For new landfills, Environment issues a permit to operate after the receipt of this certificate.

Environment noted that none of the landfills that had been constructed or expanded since our 2013 audit had fully completed their construction work. As a result, we were unable to assess if Environment has made progress on this recommendation.

Proper construction of landfills is essential for storing waste in a manner that protects water resources. Proper oversight of the construction is critical so that owners comply with Environment’s approved construction/expansion design requirements.

### 3.3 Need to Assess Operating Compliance More Frequently for High-Risk Landfills

We recommended that the Ministry of Environment perform landfill inspections in accordance with its established frequency requirements. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Partially Implemented

Environment expects and plans for its Environmental Protection Officers (EPOs) to inspect landfills in accordance with predetermined frequency targets. Its targets, for annual inspections, landfills it has identified as high-risk (i.e., larger sites or sites with numerous violations in the past). At August 2015, Environment had classified 52 sites as high-risk.

Environment had improved the frequency of inspections of sites since our 2013 audit. Environment did 138 landfill inspections in 2014-15 as compared to 58 landfill inspections in 2012-13 (time of 2013 audit). However, we found 10 out of 30 high-risk sites we tested were not inspected at least annually. In one instance, the length of time since the last inspection was approximately five years.

Timely inspections are a good monitoring tool to ensure that landfills are operating in accordance with best practices and permit requirements.

### 3.4 More Environmental Impact Monitoring Needed

We recommended that the Ministry of Environment amend operating permits for all high-risk landfills to ensure they require appropriate groundwater monitoring. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Not Implemented



We expected that Environment would amend the operating permits for all high-risk landfills requiring landfill owners or operators to submit groundwater monitoring to Environment at least annually.

We found five of the ten high-risk landfills we tested did not have their operating permits amended to require groundwater monitoring.

Not requiring ongoing groundwater monitoring in operating permits increases the risk that groundwater contamination may not be detected on a timely basis.

We recommended that the Ministry of Environment follow up on groundwater monitoring reports that are not received from landfill owners in a timely manner.

(2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Implemented

We found three landfills, of the five high-risk operating permits that contained groundwater monitoring requirements we tested, did not submit the required reports by the deadline outlined in their operating permit. In all three instances, the EPO assigned to the landfill actively took steps (e.g., phone calls or emails to landfill owners) to obtain these reports.

### 3.5 Environmental Impact Monitoring at Closed Landfills Needed

We recommended that the Ministry of Environment review and approve landfill closure plans. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Implemented

Environment's landfill guidance document requires landfill owners to submit pre-closure proposals to Environment for approval. The pre-closure proposal outlines the steps the owners are to take when closing the landfill. Seven landfills initiated closure between September 2013 and August 2015.

For two planned landfill closures we tested, we found Environment had reviewed and approved, or was in the process of reviewing and approving the pre-closure proposals supplied by the landfill owners.

We recommended that the Ministry of Environment confirm landfill closures are done in accordance with approved closure plans. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Unable to Assess

Environment noted that none of the landfills that had initiated closure since our 2013 audit had fully completed their closure work. As a result, we were unable to assess if Environment has made progress on this recommendation.

It is important that Environment knows that landfill owners have closed landfills properly to ensure the risk of environmental contamination is reduced.

We recommended that the Ministry of Environment perform a risk assessment of closed landfills and require landfill owners to undertake groundwater monitoring where required. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Partially Implemented

By August 2015, Environment had not completed rating the risk (i.e., high, moderate, low) for closed landfills. Environment has also not created a policy that set out where to perform continued groundwater monitoring.

Environment needs to determine whether any closed landfills need environmental monitoring, and require their owners to monitor and report findings to Environment regularly. Monitoring would allow for early detection of contamination and therefore may result in lower clean-up costs.

### 3.6 Addressing Non-Compliance Still Needs Improvement

We recommended that the Ministry of Environment establish guidance that will aid staff in consistently addressing landfill owners that do not comply with the law and permit requirements. (2013 Report – Volume 2; Public Accounts Committee agreement April 30, 2014)

**Status** – Partially Implemented

Environment has established a compliance framework. The compliance framework provides staff with possible alternatives for communicating and enforcing landfill owner non-compliance issues including documenting issues on inspection reports, issuing verbal warnings and notice of violations, and laying charges.

We found two of the ten items we tested had no escalated enforcement action taken but should have. For example, for one landfill that was disposing of unauthorized materials, the EPO had noted the non-compliance on the last two inspections but compliance did not occur and enforcement action was not escalated.

Inconsistent enforcement action increases the risk of landfills not operating to the same environmental standard.

