
5 Environment: Public Drinking Water Supply Program

Summary

The Department of Environment is not adequately monitoring public drinking water supplies to ensure public safety risks are appropriately addressed. Audits are an important component of the Department's oversight role. Audits of municipal facilities were generally conducted on schedule; however registered facilities are not audited every three years as required. We also identified instances in which required audit procedures were not completed or water samples were not obtained from facilities within 30 days after a boil water advisory was removed. These are important controls to ensure the safety of public drinking water supplies.

Guidance for staff is not adequate in many important areas, including conducting, reporting and following up on deficiencies identified during audits. This has resulted in inconsistencies in how audits are conducted, timing of audits of newly registered facilities, audit reports not issued in a timely manner, and inadequate follow up of deficiencies. Clear guidance is necessary to help ensure risk areas are addressed, the Department's resources are used efficiently and effectively, and all facilities receive equitable treatment.

Management does not use the Department's information system to its fullest potential. Management needs to review its system to gain full advantage from the information it can provide. This will facilitate a greater ability to identify and manage risks.

We have made a number of recommendations to address the weaknesses identified during the audit which, if implemented, will strengthen the public drinking water supply program. These include the need for appropriate file review by management and a recommendation that the Department move forward with the planned review of its quality assurance process.

5 Environment: Public Drinking Water Supply Program

Background

- 5.1 Operators of public drinking water supplies are responsible for maintaining the safety of their supplies. The Nova Scotia Environment Act is the principal legislation governing public water systems. The Department of Environment is the lead agency responsible for monitoring drinking water safety in the Province. Two Divisions within the Department share this responsibility: the Environmental Science and Program Management Division, and the Compliance Division.
- 5.2 The Environmental Science and Program Management Division is responsible for developing standards, guidelines and policies for use by public drinking water supply operators. The Division also certifies operators of water treatment and water distribution systems, maintains a list of laboratories approved for testing water, and provides technical support to the Compliance Division.
- 5.3 The Compliance Division conducts the majority of field operations. It completes facility audits, inspections and enforcement activities. Other functions include issuing approvals, classifying water systems, processing applications, and responding to complaints.
- 5.4 For operational purposes, the Compliance Division is divided into four regions. There are a total of 73 inspectors, nine of whom work solely on the public drinking water supply program. Inspectors are supported by other staff such as engineers, and compliance and inspection coordinators.
- 5.5 The Water and Wastewater Facilities and Public Drinking Water Supplies Regulations define public drinking water supplies as water supply systems that provide water for public consumption with at least 15 service connections or serve 25 or more individuals per day for at least 60 days of the year. It also includes facilities that serve any of the following at least 60 days of the year.
 - *“A day care facility licensed in accordance with the Day Care Act,*
 - *a permanent food establishment licensed in accordance with the Health Protection Act,*
 - *a commercial property for the accommodation of the travelling or vacationing public comprising land used for camping or for overnight parking of recreational vehicles or containing a separate building or buildings containing at least one room to be used as an alternate form of accommodation in a campground,*



- *a commercial property for the accommodation of the travelling or vacationing public containing more than four rental units, including cottages and cabin.”*

5.6 Water supplies are divided into two groups. There are 84 municipal water supplies in the Province which provide drinking water to approximately 60 percent of Nova Scotians. These supplies tend to be larger, more complex operations. There are also approximately 1,600 registered water supplies which are owned and operated by private organizations, not-for-profits, and government. These supplies include facilities such as restaurants, apartments, campgrounds, schools and nursing homes.

Audit Objectives and Scope

5.7 In winter 2014, we completed a performance audit of the public drinking water supply program at the Department of Environment. We examined activities in the Central and Western Regions. The audit was conducted in accordance with Sections 18 and 21 of the Auditor General Act and auditing standards adopted by the Chartered Professional Accountants of Canada.

5.8 The purpose of the audit was to determine whether safety risks related to public drinking water supplies are adequately managed.

5.9 The objectives of the audit were to determine if the Department:

- is adequately monitoring and enforcing compliance with applicable legislation, guidelines, standards and policies related to its responsibilities for public drinking water safety; and
- has adequate management information and processes to ensure it is effectively managing its responsibilities under applicable legislation, guidelines, standards and policies that relate to the Department's public drinking water supply program.

5.10 Audit criteria were developed specifically for this engagement and were discussed with, and accepted as appropriate by, senior management of the Department.

5.11 Our audit approach included interviews with Environmental Science and Program Management, and Compliance Division management and staff; documentation of systems and processes; examination of legislation, policies, guidelines, standards and other documentation; and testing compliance with legislation, policies, guidelines and standards. Our main audit period included activities conducted from April 1, 2012 to March 31, 2013. However, we examined activities outside of this period when necessary.



Significant Audit Observations

Monitoring and Enforcement

Conclusions and summary of observations

The Department is not adequately monitoring public drinking water supplies to ensure public safety risks are addressed. Audits of municipal facilities are generally conducted on schedule; however we identified instances of noncompliance with established policies and procedures, including audits of registered supplies not conducted every three years as required. We noted instances in which audits were partially completed, and inconsistencies among inspectors in how audits were conducted and when audit reports were issued. Inspectors did not always obtain water samples from facilities within 30 days after a boil water advisory was removed. We also found inadequate follow-up of deficiencies identified. We made a number of recommendations to address the weaknesses identified, including the need for clear guidance to inspectors regarding what is expected when conducting audits, when initial audits should be conducted on newly registered facilities, and when and how to follow up deficiencies.

- 5.12 *Audit frequency* – The Department conducts audits to determine if facilities are in compliance with legislation, and if municipal facilities are complying with their approval requirements. Department policy requires that inspectors audit municipal and registered facilities every three years. The Department has an activity tracking system which is used to schedule and document audits. Management told us that the system will automatically schedule the next audit three years from the completion of the previous audit.
- 5.13 We examined 20 municipal audits and found nine (45%) which were not audited within the three year frequency. However, the audits were only between three and a half months and six months late. We examined 38 registered facility audits and found 23 (61%) which were not completed within the three year frequency. Nine were between one month and six months late, three between six months and 12 months late, and 11 were between 23 months and seven years late. We also identified two facilities registered in 2002 which were not audited until ten years after registration.
- 5.14 Although municipal audits are generally conducted within the planned timeframe, audits of registered facilities are not. To ensure that water safety risks are identified, the Department needs to make sure it is meeting its planned facility audit frequency.

Recommendation 5.1

The Department of Environment should conduct registered facility audits at the required frequency.



Department of Environment Response:

The department agrees with and intends to implement this recommendation.

Targeted Implementation Date: June 30, 2014.

Note: All audits for registered facilities for the audit period will be completed by June 30, 2014.

5.15 *Audit scheduling* – We found the scheduled audit dates in the activity tracking system were not consistent with the required three year audit frequency. For example, we identified seven facilities for which the scheduled date of the next audit was between 22 months and 39 months later than it should have been. We also noted instances in which the scheduled date was earlier than required. Management was unable to explain why the scheduled dates were not meeting the three year frequency requirements. Inspectors rely on the activity tracking system to provide them with notification of when to perform their audits so it is important that these audits, are scheduled properly.

Recommendation 5.2

The Department of Environment should investigate why errors exist with scheduled audit dates in the activity tracking system and take the necessary action to address the problem.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. A review of the current (Activity Tracking System) ATS and the ATS business procedures will be conducted to determine why the error occurred.

Targeted Implementation Date: September 30, 2014.

The department will take appropriate corrective actions to address findings of the review.

Targeted Implementation Date: June 30, 2015.

5.16 *Semi-annual inspections of municipal facilities* – In addition to municipal audits, Department practice is to complete semi-annual inspections of municipal facilities. From a compliance perspective, these inspections consist primarily of inspectors conducting water tests for the existence of bacteria and chlorine residual. We examined twenty municipal facilities and found that one facility only had one semi-annual inspection during 2012-13. Management told us that the continued use of semi-annual inspections is currently under review.

5.17 *Audit checklists* – The Department uses an audit checklist to provide general guidance to inspectors when completing municipal and registered facility audits. Checklists serve as evidence an audit was completed and help to

ensure consistency and completeness of work conducted. Checklists were used in all facility audits we examined.

- 5.18 We examined the checklists and found they generally cover the legislated requirements, with the exception of the need for registered facilities to have contingency plans. We found inspectors have not been checking that registered facilities have a contingency plan in place.

Recommendation 5.3

The Department of Environment should require inspectors to determine if appropriate contingency plans exist when auditing registered facilities.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department is already in the process of conducting a review of the Drinking Water Program and will incorporate any changes relative to this recommendation upon completion of that review.

Targeted Implementation Date: March 2016.

- 5.19 We also found there was minimal guidance available regarding which procedures inspectors should complete to address the areas identified in the audit checklists. In response to our audit questions, management were not able to provide clear expectations of how inspectors should address the areas identified in the checklists. We interviewed six inspectors and found there are inconsistencies in their approaches to conducting audits.

- Not all inspectors verify the operator's certificate to ensure the individual has the correct level of certification and the certificate has not expired.
- Some inspectors only review the annual report created and submitted by the facility to determine if proper water sampling was completed, while others examine the actual lab results, providing third party support that testing was done.
- Those inspectors who did review lab results during registered facility audits were not consistent in the extent of water testing they examined. Some examined 100% of the water testing completed, while others reviewed results on a sample basis.

- 5.20 *Water testing by inspectors* – Inspectors test water samples to help assess whether the facility's water is safe during the time of the audit. There is no documented policy concerning the nature and extent of the water testing which inspectors should complete at municipal and registered facilities. We found inconsistencies in practice at two regions we examined including when water testing is needed and when testing for the existence of bacteria and chlorine residual is required.



- 5.21 It is important to provide clear guidance to inspectors regarding which procedures to complete to appropriately address the various areas examined during facility audits. Such guidance should help ensure that audits are conducted as efficiently and effectively as possible.

Recommendation 5.4

The Department of Environment should develop and implement clear guidance supporting the areas covered during facility audits, including the nature and extent of water testing.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will review current guidance on auditing and water testing. The departmental Inspector Training Program (ITP) modules for Municipal Drinking Water program (Module 5) and Registered Water Supplies program (Module 6) associated with the departmental Development Accountability Model (DAM) document will be revised as needed.

Targeted Implementation Date: December 31, 2014.

The department will address the findings of the review and conduct refresher training for Inspectors and District Managers.

Targeted Implementation Date: March 31, 2015.

- 5.22 We asked management why inspectors are required to test the water for bacteria at 10% of registered facility audits. They told us the Department does not have the resources necessary to conduct additional tests. We examined 39 registered facility audits and found 19 (49%) identified deficiencies with water tests not completed as required. We believe the Department should evaluate whether additional water tests at these facilities may be warranted given the high rate of noncompliance identified during audits.

Recommendation 5.5

The Department of Environment should evaluate whether the current requirement for water testing by inspectors at registered facilities is appropriate and implement changes where required.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department is already in the process of conducting a review of the Drinking Water Program and will incorporate any changes relative to this recommendation upon completion of that review.

Targeted Implementation Date: March 31, 2016.

- 5.23 *Partially completed audits* – During our testing of registered facility audits, we noted five instances in which wells were not examined as required. It is important that the inspector examine the well to ensure there are no visible contaminants or other problems that could lead to water quality issues.

Recommendation 5.6

The Department of Environment should complete all required procedures when conducting registered facility audits.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will review current guidance on auditing and water testing. The departmental Inspector Training Program (ITP) modules for Municipal Drinking Water program (Module 5) and Registered Water Supplies program (Module 6) associated with the NSE Development Accountability Model (DAM) document will be reviewed and revised as needed.

Targeted Implementation Date: December 31, 2014.

The department will address the findings of the review and conduct refresher training for Inspectors and District Managers.

Targeted Implementation Date: March 31, 2015.

- 5.24 *Deficiencies* – Violations of the Environment Act are noted as audit deficiencies. Audit reports are to include all deficiencies identified along with a date by when the facility must comply with the Act. These deficiencies and compliance dates are tracked in the Department’s activity tracking system to remind the inspector when to follow up. Some deficiencies may not require follow up. For example, a deficiency may be corrected before the audit is completed or before the audit report is written. In these cases, inspectors are still supposed to enter the deficiency into the system so it is included in the facility’s compliance history.
- 5.25 In the municipal audits we examined, we found 12 deficiencies which were not recorded in the activity tracking system as required. For the registered water supply audits we examined, we found five deficiencies that were not recorded. The facilities were required to take action in 14 of the 17 deficiencies noted in the reports, 13 of these were addressed. It is unknown whether the remaining deficiency was addressed because the inspector did not follow up. If deficiencies are not properly recorded and tracked in the activity tracking system there is a risk that these issues will not be followed up to ensure they have been properly addressed. Additionally, deficiencies will not be added to the compliance history of the facilities.



Recommendation 5.7

The Department of Environment should record all deficiencies in the activity tracking system as required.

Department of Environment Response:

The department agrees with this recommendation. The department will conduct refresher training for all inspectors on the current Divisional Operating Procedure (DOP) NSE Activity Tracking System - Deficiencies and Enforcement.

Targeted Implementation Date: September 30, 2014.

5.26 *Audit reports* – After an inspector performs an audit, an audit report is created. This report documents deficiencies identified, corrective actions required, and the due date for compliance. It also includes enforcement actions taken such as directives or warnings. The Department does not require inspectors to obtain confirmation from the facility that it has received the audit report. Having the facility acknowledge receipt of the audit report would provide evidence that the audit was completed and the facility received the report.

Recommendation 5.8

The Department of Environment should obtain documented acknowledgement from facilities that they have received the audit report.

Department of Environment Response:

The department intends to take this recommendation under advisement and will review the current Divisional Operating Procedure (DOP) NSE Activity Tracking System – Completing an Inspection and implement what is practical and feasible to the facility and the department given that documents are delivered in multiple ways.

Targeted Implementation Date: November 30, 2014.

5.27 There are no defined time frames to indicate when inspectors must send an audit report to a facility once an audit has been completed. Inspectors typically mail completed reports to facilities. Issuing reports in a timely manner helps promote facilities addressing deficiencies promptly.

5.28 For the 20 municipal audit files we examined, we were unable to determine when 12 audit reports were issued. For the remaining eight files, five reports were mailed between 20 days and three months after the audit was completed. These reports identified 33 deficiencies.

5.29 For the 39 registered facility audits we examined, we were unable to find evidence to support when 37 audit reports were issued. The inspectors told us they typically issue audit reports as soon as the inspector signs them. Seven of the 39 reports were signed between three and seven weeks after the audit was completed; five of these reports identified one or more deficiencies which needed to be addressed.



Recommendation 5.9

The Department of Environment should establish time frames indicating when inspectors should issue audit reports. The Department should monitor compliance with these time frames.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will conduct a review and revise the current Divisional Operating Procedure (DOP) NSE Activity Tracking System – Completing an Inspection.

Targeted Implementation Date: November 30, 2014.

The department will conduct refresher training for all inspectors on the current Divisional Operating Procedure (DOP) NSE Activity Tracking System – Completing an Inspection.

Targeted Implementation Date: January 31, 2015.

5.30 *Deficiency follow-up* – The Department’s Compliance Promotion and Enforcement Policy requires follow up of deficiencies identified. However, it does not provide guidance as to when inspectors should follow up deficiencies once a compliance date has been exceeded. There is also no guidance on the nature of follow-up required. Western Region management told us they require inspectors to initiate follow-up within ten days after the compliance date. The Central Region did not have a similar practice.

5.31 We examined a sample of registered facility audit files and found inconsistencies in the actions taken by inspectors to follow up water testing deficiencies.

- For five files, the facility was required to provide its next water test result.
- For seven files, the facility was not requested to provide any evidence of compliance with water testing requirements going forward.

5.32 A number of these facilities had water problems in 2012-13 which resulted in boil water advisories being issued. Since the requirement for facilities to test their water regularly is a key control in preventing the consumption of contaminated water, it is important to complete appropriate follow-up for instances of noncompliance.

Recommendation 5.10

The Department of Environment should develop and implement a policy regarding the timing and nature of deficiency follow-up required by inspectors.



Department of Environment Response:

The department agrees with and intends to implement this recommendation. The timing of deficiency follow up depends on the risk and other factors associated with the deficiency and can vary substantially. NSE Inspectors are currently required to follow the Divisional Operating Procedure (DOP) on Compliance Promotion and Enforcement (Compliance Model). This Divisional Operating Procedure is scheduled for a review in 2014 and will incorporate this recommendation.

Targeted Implementation Date: March 31, 2015.

5.33 *Municipal facility annual reports* – Municipal facilities are required to submit an annual report by April 1st. The report must include a summary of sampling results for the year, a description of any emergency situations which occurred and action taken, and whether any complaints were received. Information on other operational areas is required as well. These annual reports can be an important source of information to the Department on the current status of municipal facilities.

5.34 Although all 20 municipal facilities we tested submitted annual reports, only seven had all required information or reasonable explanations for missing items. We also noted that the reports were not reviewed by Department staff in a timely manner. Ten reports were reviewed between two months and eight months after submission.

5.35 If annual reports are not reviewed in a timely manner and do not include required information, there is a risk that the Department may not be aware of and therefore unable to address potential problems in a timely manner.

Recommendation 5.11

The Department of Environment should ensure all annual reports are received and reviewed in a timely manner, and that they contain all required information.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will review the DOP on Completing an Inspection and incorporate appropriate timelines for conducting report reviews.

Targeted Implementation Date: December 31, 2014

5.36 *Boil water advisories* – Boil water advisories occur when an unacceptable level of bacteria is detected in a water sample. In order for a facility to be taken off the advisory, they must provide the Department with two clean water samples taken at least 24 hours apart. Department practice is that inspectors take water samples from the facility within 30 days after removing the boil water advisory to confirm that the water is still safe to drink.



- 5.37 We examined eight boil water advisories issued at municipal facilities and found both the facilities and the inspectors completed the required water testing.
- 5.38 We examined twenty boil water advisories issued at registered facilities.
- At one facility, no confirmatory sample was taken by the inspector after the boil water advisory was removed.
 - For nine facilities, a sample to confirm water safety was not completed within 30 days after the advisory was removed.
- 5.39 We noted three instances in which the inspector’s confirmatory sample identified unacceptable levels of bacteria requiring those facilities to again implement boil water advisories. This highlights the importance of ensuring inspectors take samples within the 30-day requirement.

Recommendation 5.12

The Department of Environment should conduct all boil water advisory confirmatory samples within the 30-day requirement.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will conduct refresher training on the Boil Advisory Procedure for all inspectors.

Targeted Implementation Date: October 31, 2014

- 5.40 Once a boil water advisory has been issued, we expected the Department would communicate with the facility to determine whether reasonable action is being taken to address the cause of the contamination. However, there is no guidance available to inspectors as to when and how facilities should be contacted. We noted four of the ten registered facility audit files we examined had some follow up, ranging from one day to 77 days after the advisory notification. There was no evidence of follow-up in the remaining six files.

Recommendation 5.13

The Department of Environment should develop and implement guidelines for contacting facilities when a boil water advisory is issued.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will revise and conduct refresher training for inspectors on the Boil Advisory Procedure.

Targeted Implementation Date: October 31, 2014



- 5.41 *Newly registered facilities* – Once a facility is registered, an initial audit is required. During the initial visit, inspectors provide information to the facility such as how and when to test their water and the need to use a qualified laboratory. Where applicable, inspectors will also look at the well for any obvious problems.
- 5.42 Current policies do not address when an initial audit should be completed. Of the ten newly registered facilities that we examined, five were audited within three months of registration. Four facilities were audited between four months and six and a half months after registration. For one facility, there was no evidence an audit was completed.
- 5.43 It is important that the Department audit these facilities in a timely manner. Operators are new to the process and need to understand their responsibilities as soon as possible to help ensure the facilities’ water is safe for consumption.

Recommendation 5.14

The Department of Environment should establish a policy clarifying the time frame in which newly registered facilities should have an initial audit.

Department of Environment Response:

The department agrees with and intends to implement this recommendation and will conduct a review and revise the Divisional Operating Procedure (DOP) NSE Activity Tracking System – Completing an Inspection.

Targeted Implementation Date: November 30, 2014.

The department will conduct refresher training for all inspectors on the current Divisional Operating Procedure (DOP) NSE Activity Tracking System – Completing an Inspection.

Targeted Implementation Date: January 31, 2015.

- 5.44 *Laboratories* – The Department of Environment approves laboratories that perform water quality analysis for public drinking water systems. Labs must meet the qualifications noted in the Department’s Policy on Acceptable Certification of Laboratories.
- 5.45 The Department’s website notes 13 laboratories which are approved to conduct water quality analysis. We found that the water supply facilities we tested were using labs approved by the Department. We also examined evidence that four laboratories on the list had the qualifications necessary for Departmental approval.
- 5.46 *Qualified operators* – All municipal water supplies must be classified in accordance with the Water and Wastewater Facilities and Public Drinking



Water Supply Regulations. Registered supplies must meet certain criteria in order to require classification. Classification is based on a rating scale that considers factors such as the water supply source, population served, and treatment methods employed. A classified facility must have an operator with the same or greater classification as the facility. For example, a Class II facility would require a Class II or higher operator.

- 5.47 Individuals must apply to the Department for an operator certificate, and for a renewal when the certificate expires in four years. For a new certificate, individuals must meet certain qualifications concerning education and operating experience, and pass an examination. For certificate renewal, there are training requirements which must be met. Individuals are required to submit evidence with their application to support that they have met the requirements. We examined a sample of new certificates and renewals and found the individuals provided adequate support that they met the qualifications.
- 5.48 The Department maintains a list of qualified operators on their website. This is available to inspectors to determine whether an operator has a valid certificate and at what level.
- 5.49 We examined 23 classified facilities and found one registered facility which did not have a qualified operator. However, appropriate action was being taken by the Department to address the issue.

Management Information and Processes

Conclusions and summary of observations

The Compliance Division's activity tracking system can provide relevant and timely information to managers. However, management were not fully utilizing the system to generate information relevant to the public drinking water supply program. Management needs to review the system's functionality to take full advantage of the information it can provide. This will facilitate a greater ability to identify and manage risks. We also found management did not follow up, in a timely manner, known or possible water supply issues identified in activity tracking system reports. Additionally, improvements are required in the Department's quality assurance program.

- 5.50 *Activity tracking system* – The Compliance Division has a central database for use by staff and management to record audit details, inspections, and other activities. The system captures information such as the name of the facility, date of audit or inspection, deficiency and enforcement items noted, and compliance dates. Management receives periodic system reports to monitor Compliance Division activity by inspector, district and region.



- 5.51 We found the information system provides relevant and timely information. However, the data is not fully utilized. Suggestions of how the Department could make better use of the data are described below.
- 5.52 *Analysis of activity tracking system data* – The activity tracking system has important data from audits and other activities which could be used for various types of trend analyses. Examples of analysis that could be completed include: cause of boil water advisories by region; correlation, if any, between enforcement and compliance; and the most common types of deficiencies in the Province. Such analyses could highlight increased risks to public drinking water systems. The Department could then evaluate and take action as necessary to address those risks.

Recommendation 5.15

The Department of Environment should utilize information available in the activity tracking system for trend analyses and identification of risks.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will take action to scope out what analysis will be suitable to the department.

Targeted Implementation Date: March 31, 2015

- 5.53 *Time tracking for key activities* – The Division does not currently track the time inspectors spend on key activities. The activity tracking system or some other system or process should be used to track inspectors' time, including time to conduct municipal and registered facility audits, inspections, and deficiency follow-up. This information would help management to plan and utilize staff resources and assess whether those resources are used in the most efficient and effective way possible.

Recommendation 5.16

The Department of Environment should track time for key inspector activities for use by management in operational planning and monitoring.

Department of Environment Response:

The Department does not plan to implement time tracking of inspector activities in relation to prioritizing our work on the drinking water program. The Drinking water renewal project will identify program risks and align resources accordingly.

- 5.54 *Quality assurance process* – The Department created a quality assurance process in 2007-08. A sample of files is reviewed to determine compliance with operational and administrative responsibilities. A sample of activities to review by program is determined based on a risk assessment. The Compliance Division is responsible for 25 program areas. Each year, management selects two program areas to review based on the risk analysis.



- 5.55 Registered water activities were reviewed in 2007-08 as a pilot project when the quality assurance program was being developed. Once the quality assurance program was implemented in 2008-09, the municipal water program was reviewed. Neither the registered water or municipal water activities have been reviewed since. One issue identified in the municipal water program report has not been addressed. It relates to a lack of documentation to support that municipal water supply reports received by inspectors were reviewed. Our testing found that this is still an issue.
- 5.56 The current policy requires that a follow-up review be completed six months after recommendations are implemented to ensure the recommendations effectively address the issues identified. This is not taking place; management told us that this is not a realistic time period.
- 5.57 We noted a few areas for improvement in the quality assurance process. We found draft quality assurance reports are not completed in a timely manner. We identified one report in which the review was completed in January 2011 but management told us that the draft report was not provided to senior management until October 2011, nine months later. Similarly, for a March 2012 review, management told us that the draft report was not completed until January 2013, ten months after the review.
- 5.58 The current policy does not address the need to provide deadlines to staff to implement recommendations or the need to establish time frames to follow up on implementation. These requirements would help to ensure recommendations resulting from quality assurance reviews are addressed in a timely manner.
- 5.59 Management indicated that the quality assurance process is scheduled for review in 2014-15 and will address the issues noted above.

Recommendation 5.17

The Department of Environment should conduct its planned review of the quality assurance process and implement changes as required.

Department of Environment Response:

The department agrees with and intends to implement this recommendation. The department will conduct the planned review of the current Quality Assurance/Quality Control program and will address the findings of that review.

Targeted Implementation Date for the review completion: March 31, 2015,

Targeted Implementation Date for the necessary actions completion: October 30, 2015

- 5.60 *File reviews* – Department policy requires district managers to review a sample of closed files on a regular basis to ensure the files have been properly opened, maintained and closed. For example, have required forms been used, and are documents in chronological order and date stamped. This review



helps to ensure facility files have adequate documentation to support the activities completed. Management told us that these reviews are not taking place.

Recommendation 5.18

The Department of Environment should complete management file reviews as required.

Department of Environment Response:

The department agrees with and intends to implement this recommendation.

Targeted Implementation Date: June 30, 2014

- 5.61 *Management reports* – Department management receives periodic reports outlining inspections and audits completed to date; whether these were completed on time; deficiencies and directives past due; potential errors and omissions in the activity tracking system and other relevant information to provide for appropriate monitoring of staff and information. We found management is not following up matters in a timely manner. For example, we tested five reports for each of Western and Central Regions that summarize potential errors and omissions in the activity tracking system. In both regions, two of five reports had issues noted with no evidence of being addressed nine months following the original report. The potential errors and omissions included not attaching identification records to the file. This information is needed to allow for searches on history of noncompliance.
- 5.62 Management also receives a report which allows them to ensure audits are completed on schedule. We analyzed fiscal 2012-13 data from the activity tracking system to determine if audits were completed by their scheduled dates in the Central and Western Regions. For registered facilities, we found there were 407 audits conducted and 165 (41%) were not completed by the scheduled date.

Recommendation 5.19

The Department of Environment should review management reports from the activity tracking system in a timely manner and take appropriate action to address issues identified.

Department of Environment Response:

The department agrees with and intends to implement this recommendation.

Targeted Implementation Date: June 30, 2014



Department of Environment Additional Comments

Nova Scotia's drinking water meets Health Canada's Guidelines for Canadian Drinking Water Quality and is safe for Nova Scotians to consume.

In its latest report card (November 2011) on provincial and federal drinking water programs, Ecojustice cites the strong measures Nova Scotia has in place for treatment, standards and testing, and awards the province's program a second place finish nationally.

The Auditor General's recommendations, which focus on departmental processes and policies for the Nova Scotia program, will be implemented as part of or in tandem with the department's current review and update of the 2002 drinking water strategy. Provisions have also been made in the 2014-2015 budget that will enable the department to increase training and fill staff vacancies that have a direct role in achieving program deliverables.

Nova Scotia Environment thanks the Auditor General and his staff for their work as the recommendations serve to strengthen management of Nova Scotia's drinking water program.