Nova Scotia Environment

Annual Accountability Report for the Fiscal Year 2011-2012
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Appendix A – Annual Report under Section 18 of the *Public Interest Disclosure of Wrongdoing Act*
Accountability Statement

The Accountability Report of Nova Scotia Environment for the year ended March 31, 2012 is prepared pursuant to the Finance Act and government policies and guidelines. These authorities require the reporting of outcomes against Nova Scotia Environment's Statement of Mandate for the fiscal year 2011-2012. The reporting of the Department's outcomes necessarily includes estimates, judgments and opinions by Nova Scotia Environment management.

We acknowledge that this Accountability Report is the responsibility of Department management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the Nova Scotia Environment’s 2011-2012 Statement of Mandate.

Original document signed by:

Honourable Sterling Belliveau
Minister of Environment

Sara Jane Snook
Deputy Minister of Environment
Message from Minister

I am pleased to provide you with our Accountability Report for the fiscal year 2011-2012. This report measures our success in meeting the goals set out in the 2011-2012 Statement of Mandate.

In 2011-2012, Nova Scotia Environment made great strides towards meeting our goals. We worked with Nova Scotians to make important amendments to the Environment Act that will allow us to match our use of resources to the environmental and health risks of the activities we regulate.

New regulations were also released guiding the management of contaminated sites in the province. These regulations will work to encourage the cleanup and redevelopment of contaminated sites.

We continued to make progress in meeting our goal to legally protect 12 per cent of our lands by 2015 with the addition of more than 20,000 acres of land to the protected areas system.

And, we continued our efforts to ensure that our water resources are protected and valued with the completion of a number of action items in Nova Scotia’s water resource management strategy.

Nova Scotia Environment continues to build on our successes and work toward meeting our environmental targets to create a healthy and safe environment for all Nova Scotians.

Sincerely,

Honourable Sterling Belliveau
Minister of Environment
# Financial Results

<table>
<thead>
<tr>
<th>Program and Service Area</th>
<th>2011/12 Estimate ($ thousands)</th>
<th>2011/12 Actual ($ thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary Revenues, Fees and Recoveries</td>
<td>$ 5,982</td>
<td>$ 5,986</td>
</tr>
<tr>
<td>TCA Purchase Requirements</td>
<td>$ 1,500</td>
<td>$ 1,180</td>
</tr>
<tr>
<td>Administration</td>
<td>$ 1,046</td>
<td>$ 876</td>
</tr>
<tr>
<td>Policy and Corporate Services</td>
<td>$ 4,376</td>
<td>$ 5,016</td>
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<tr>
<td>Environmental Monitoring and Compliance</td>
<td>$12,270</td>
<td>$11,746</td>
</tr>
<tr>
<td>Environmental Science and Program Management</td>
<td>$ 7,477</td>
<td>$ 6,888</td>
</tr>
<tr>
<td>Environment and Sustainable Prosperity Partnerships</td>
<td>$ 726</td>
<td>$ 555</td>
</tr>
<tr>
<td>Climate Change Directorate</td>
<td>$ 1,687</td>
<td>$ 1,571</td>
</tr>
<tr>
<td><strong>Total Gross Program Expenses</strong></td>
<td><strong>$27,582</strong></td>
<td><strong>$26,652</strong></td>
</tr>
<tr>
<td>Funded Staff (FTEs)</td>
<td>276</td>
<td>238</td>
</tr>
</tbody>
</table>

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1Nova Scotia Environment's total gross program expenses were $930,000 less than budget. The majority of this variance was due to savings from unfilled positions.
2. Performance Measures

Mandate: *Environment Act – Clean Air.*

**MEASURE:**

Annual total sulphur dioxide (SO₂) air emissions (tonnes) in the province.

**Outcome Description:**

The target is to maintain total provincial SO₂ emissions below the 2005 cap of 141,750 tonnes, and achieve a 25% reduction in SO₂ emissions from 2001 levels, from facilities emitting greater than 90 tonnes per year, by 2010. The purpose of the target is to reduce smog and acid precipitation.

**Rationale:**

Sulphur dioxide is a pollutant that contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. Nova Scotia’s Air Quality Regulations contain a provincial cap on sulphur dioxide emissions.

**Current Status:**

In 2010, the total provincial emissions was 91,033 tonnes, which is below the 2005 cap. The total in 2010 for facilities emitting greater than 90 tonnes per year but excluding Nova Scotia Power (i.e. the facilities required to submit emission reduction plans on how to reduce by 25%) was 5,357 tonnes, which is a 60.7% reduction from 2001 levels. The total emission levels, which are tracked through the National Pollutant Release Inventory, are expected in the fall of 2012.
**Ultimate Goal:**

Provincial sulphur dioxide emission caps have been established in the Air Quality Regulations for 2015 and 2020. The cap for 2015 is 119,070 tonnes and the cap for 2020 is 70,875 tonnes.
MEASURE:

Annual total sulphur dioxide (SO₂) emitted (tonnes) to the air by Nova Scotia Power Inc. (NSPI).

Outcome Description:

The target is for NSPI to achieve a 50% reduction in SO₂ emissions from their 1995 cap by 2010. The 1995 cap was 145,000 tonnes. To achieve the 50% reduction, the cap for NSPI starting in 2010 is 72,500 tonnes. The purpose of the target is to reduce smog and acid precipitation.

Rationale:

Sulphur dioxide is a pollutant that contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, most of the sulphur dioxide emissions come from thermal electrical generation. Nova Scotia’s Air Quality Regulations contain a cap on sulphur dioxide emissions that applies to NSPI.

Current Status:

The cap for NSPI starting in 2010 is 72,500 tonnes, which is half of the 1995 cap of 145,000 tonnes. In 2011, NSPI’s emissions were 64,812 tonnes, which is less than the emissions cap of 72,500.

Ultimate Goal:

Our target for this measure is to have NSPI continue to meet the targets in the Air Quality Regulations. In addition to the 2010 target, sulphur dioxide emission targets have been set in the regulations for NSPI for 2015 and 2020. The cap for 2015 is 60,900 tonnes and the cap for 2020 is 36,250 tonnes.
**MEASURE:**

Annual total mercury air emissions (kg) from Nova Scotia Power Inc.’s (NSPI) coal-fired electrical power stations.

**Outcome Description:**

The target is for NSPI to meet the mercury emission caps for coal-fired electrical power stations. The purpose of the target is to reduce the negative impacts of mercury on the environment and human health.

**Rationale:**

Mercury is a neurotoxin that persists in the environment and accumulates in the food chain. It can have negative effects on human health. Coal-fired power plants account for the vast majority of mercury emissions in Nova Scotia.

**Current Status:**

In 2011, NSPI’s mercury emissions were 94.6 kg, which is below the emissions cap of 100 kg for 2011.

**Ultimate Goal:**

Our target for this measure is for NSPI to continue to meet the mercury emissions caps set out in the Air Quality Regulations. There are declining emission caps until 2014, when the cap will be 65 kg. A cap of 35 kg for NSPI has been set for 2020.

**Changes in Measures:**

The measure has not been changed since the 2010-2011 report.
MEASURE:

Annual total nitrogen oxides (NOx) emitted (tonnes) to the air by Nova Scotia Power Inc. (NSPI).

Outcome Description:

Our target is for NSPI to meet their annual NOx emissions cap for 2009 of 21,365 tonnes, or 20% less than base year. The purpose of the target is to reduce smog and acid precipitation.

Rationale:

Nitrogen oxides contribute to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, nitrogen oxide emissions are produced by a variety of sources, including thermal electrical power generation. The nitrogen oxide target in Nova Scotia’s Air Quality Regulations applies only to NSPI. NSPI’s annual NOx emissions cap of 21,365 tonnes took effect in 2009.

Current Status:

In 2011, NSPI emitted 18,013 tonnes of nitrogen oxides, which was 32.6% less than their 2000 emission levels.

Ultimate Goal:

Our target for this measure is to have NSPI continue to meet the targets in the Air Quality Regulations. In addition to the 2009 target, nitrogen oxide emission targets have been set in the regulations for NSPI for 2015 and 2020. The cap for 2015 is 19,228 tonnes and the cap for 2020 is 14,955 tonnes.
**Mandate: Environment Act – Clean Drinking Water.**

**MEASURE:**

Percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality, as stated in the Guidelines for Canadian Drinking Water Quality, at all times during the calendar year.

**Outcome Description:**

NSE is committed to sustainable management and protection of the environment. A desired outcome in meeting this commitment is clean and safe drinking water.

**Rationale:**

Approximately 60% of Nova Scotians obtain their drinking water from municipal water supplies. Health Canada, together with provincial health and environment ministries, has established the Guidelines for Canadian Drinking Water Quality. This document specifies the health-based criteria for a number of parameters, including maximum acceptable concentrations for total coliforms and E.coli bacteria. NSE tracks the proportion of people serviced by municipal water supplies who have access to drinking water meeting the health-based criteria for microbiological quality. This measure helps to provide an overall picture of access to quality drinking water. It also helps to gauge the effectiveness of NSE Guidelines for Monitoring Public Drinking Water Supplies and the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations.

**Current Status:**

NSE’s boil water advisory database provides a tracking system for municipal water quality based on the health-based criteria for coliform bacteria (in the Guidelines for Canadian Drinking Water Quality). In 2011, 99.0% of the population served by municipal water supplies received water meeting the health-based criteria for microbiological quality at all times during the calendar year. This slight decrease from 2010 of 99.9% is because more people are now serviced by the municipal systems while there was no change in the service level provided. The following graph shows the results since 2001.
**Ultimate Goal:**

Our ongoing target is to maximize the percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality. NSE is contributing to this outcome by implementing Nova Scotia's Water Resource Management Strategy, updating Nova Scotia’s drinking water treatment standards, supporting development of municipal water supply protection plans, and enforcing the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations, including NSE Guidelines for Monitoring Public Water Supplies.

MEASURE:

Number of environmental home assessments completed through the Environmental Home Assessment Program (EHAP) and number of septic repairs completed with funding from EHAP.

Outcome Description:

The purpose of the EHAP is to increase rural homeowner knowledge of operating/maintaining their septic system, water well and heating oil tank. Studies have shown that up to 30% of on-site septic systems in Nova Scotia have malfunctioned and approximately 40% of private wells test positive for coliform bacteria. Through information delivered at rural public events and direct meetings and assessments at individual’s homes, strategies are developed to improve water testing, improve maintenance of septic systems and reduce oil spills from heating oil tanks. Where septic systems have already failed and the homeowner does not have the financial means to make repairs, grants may be issued to assist in improvements.

Rationale:

Homeowner knowledge to protect their drinking water and to treat sewage provides better health and environmental protection for all rural residents. Septic repair grants provide financial assistance for low-income families and allow seniors to stay in their homes while increasing compliance with provincial regulations and standards.

Current Status:

The initial goal of this program was to provide individual assessments to 1000 home owners and repair 200 septic systems annually. Actual production is shown in the table below:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Home Assessments</th>
<th>Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>400</td>
<td>70</td>
</tr>
<tr>
<td>2007-2008</td>
<td>1000</td>
<td>200</td>
</tr>
<tr>
<td>2008-2009</td>
<td>1000</td>
<td>286</td>
</tr>
<tr>
<td>2009-2010</td>
<td>1000</td>
<td>237</td>
</tr>
<tr>
<td>2010-2011</td>
<td>625</td>
<td>127</td>
</tr>
<tr>
<td>2011-2012</td>
<td>662</td>
<td>111</td>
</tr>
</tbody>
</table>

In 2011-12, program changes were made which resulted in fewer grants being available. After consulting with our ENGO partners, we re-instated the septic pumping vouchers
back to $100 from $50 each but that also meant that fewer Home Assessments would be available through reduction in partner contracts as well as fewer septic repair grants available. While the initial goals of this program to provide 1000 home assessments and 200 septic systems annually remain unchanged, the results are less due to overall program changes. As stated below, our ongoing goal is to increase the rural homeowner knowledge of operating/maintaining their septic system, water well and heating oil tank.

**Ultimate Goal:**

Our ongoing goal is to increase the rural homeowner knowledge of operating/maintaining their septic system, water well and heating oil tank. The ability for homeowners to protect their drinking water and treat sewage provides better health and environmental protection for all rural residents.
Mandate: *Environment Act* – Making it easier for business to comply with our laws and reduce costs to improve competitiveness and compliance.

**MEASURE:**

Reduced time (percentage) spent by business on administrative requirements.

**Outcome Description:**

This was a measure created as part of the Better Regulations Initiative. NSE has continued to work on reducing time spent by businesses on administrative requirements.

**Rationale:**

By calculating the time it takes for businesses to comply with our policies, procedures and programs, we can get a better sense of the level of administrative burden involved in compliance with our laws.

**Current Status:**

This is no longer a valid measure as the four-year reporting period for this measure, under the Better Regulations Initiative, ended in December 2010.

**Ultimate Goal:**

As above, this is no longer a valid measure. However, NSE will continue to work on reducing the time spent by businesses on administrative requirements. For example, the *Environment Act* amendments allow for greater flexibility in our approval process, which could result in less administrative burden for businesses in the future.
Mandate: Wilderness Areas Protection Act and Special Places Protection Act – Protected Natural Areas.

MEASURE:

Total hectares of land protected through Nova Scotia Environment program options.

Outcome Description:

Our goal is to increase the hectares of land under various protection options.

Rationale:

This measure tells us how much land is legally protected as wilderness areas under the Wilderness Areas Protection Act, and as ecological sites (nature reserves) under the Special Places Protection Act.

Measuring the hectares of provincial land protected through department programs helps track the progress made in meeting provincial and national commitments to establish systems of protected areas. This measure also provides an indication of the state of biodiversity conservation in the province, as protected areas provide habitat for a wide range of species.

Current Status:

As of 2010-2011, Nova Scotia Environment has protected a total of 329,175 hectares throughout the province. This represents an increase of 42,147 hectares compared to the base year measure (2001-2002), and an increase of 8,642 hectares over 2010-11.

The increase this year comes from the protection of Five Bridge Lakes Wilderness Area and Mary Harper Nature Reserve.
In 2011-12, Government also announced the intent to protect 23 additions to nine existing wilderness areas, as well as Kelley River and Raven Head candidate wilderness areas in Cumberland County. These lands represent about 30,000 hectares. Government also announced an allocation of $6.5 million to purchase conservation lands in 2012-13, and purchased over 10,000 hectares of land for $23.7 million from Bowater Mersey Paper Co., the majority of which will be protected. In June 2011, Nova Scotians were invited to comment on more than 200,000 hectares of “12% review lands” distributed across Nova Scotia as more than 400 distinct “patches.”

**Ultimate Goal:**

The *Environmental Goals and Sustainable Prosperity Act* has established the goal to legally protect 12% (663,360 hectares) of the total land mass of the Province by 2015. In addition to wilderness areas and nature reserves, lands contributing to this goal also include those protected under the *National Parks Act*, *Conservation Easements Act*, and *Canada Wildlife Act*, as well as conservation-oriented lands protected under the *Provincial Parks Act*, and conservation lands held by non-government charitable land trusts.

While this measure only applies to Nova Scotia Environment, all these other lands contribute to reaching the 12% goal. Including other qualifying lands, about 484,800 hectares (21,354 acres) - 8.8% of Nova Scotia was legally protected as of 2011-12.

To achieve the 12% land protection goal, the Department is working to:
- Complete the designation of areas that are currently proposed or intended for protection.
- Advance private land protection in partnership with land trusts and land owners.
- Acquire and protect important natural lands.
- Identify proposed protected areas by:
  - working closely with Nova Scotia Mi’kmaq and government partners
  - reviewing the results of the public and stakeholder review of “12% lands”
  - conducting field visits to priority sites
  - mitigating impacts to other land uses.
- Develop and consult on a draft protected areas plan, which will include proposed designations and area boundaries.
- Finalize a protected areas plan, and legally designate lands by 2015.
Mandate:  *Environmental Goals and Sustainable Prosperity Act (EGSPA)*
– Responsible Waste Management.

**MEASURE:**
Annual solid waste disposal rate per capita (kg/person) compared with the regional and national disposal rates.

**Outcome Description:**
Responsible waste management.

**Rationale:**
The measure tells us how many kilograms per person of solid waste, on average, are disposed in Nova Scotia each year. A downward trend in the annual disposal rate could indicate an increase in waste reduction, reuse, recycling and composting.

**Current Status:**
A solid waste disposal rate target was set when amendments to the *Environment Act* were made in 2006 and included in *EGSPA* in 2007. The 2006 disposal rate in Nova Scotia was 488 kg/person/year and the target is to have a solid waste disposal rate of no greater than 300 kg/person/year by 2015. Nova Scotia’s 2011 disposal rate was 401 kg/person/year.

**Ultimate Goal:**
To meet the Province’s legislated target, an additional 25% reduction in disposal rate within three years is necessary. Nova Scotia Environment intends to achieve its solid waste disposal rate target through implementing actions in “Our Path Forward,” which is the renewed approach to solid waste management.

**Changes in Measure:**
In the past, Nova Scotia used Statistics Canada estimates to report its performance against the Canadian average and average disposal rate in Atlantic Canada. Statistics Canada estimates were for every second year, and were indicative for a period of time two years past. Nova Scotia collects annual data that are an actual measure of solid waste disposed.

Beginning with this current Accountability Report, Nova Scotia Environment will discontinue the reporting of Statistics Canada estimates (these are still accessible by the public at Statistic Canada) and begin reporting Nova Scotia’s annual average solid waste disposal rate per person based on data collected by Nova Scotia Environment. This measure has been changed accordingly in the 2012-2013 Statement of Mandate.
<table>
<thead>
<tr>
<th>Year</th>
<th>Kg/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>488</td>
</tr>
<tr>
<td>2007</td>
<td>477</td>
</tr>
<tr>
<td>2008</td>
<td>429</td>
</tr>
<tr>
<td>2009</td>
<td>417</td>
</tr>
<tr>
<td>2010</td>
<td>401</td>
</tr>
<tr>
<td>2011</td>
<td>401</td>
</tr>
</tbody>
</table>

**MEASURE:**

Annual provincial GHG emissions compared with 1990 emission levels.

**Outcome Description:**

The province has a legislated target to reduce greenhouse gas emissions to 10% below 1990 levels by 2020, or 17.1 Mts. There is an interim target to be at least half-way to our 2020 target by 2015 (19.7 Mts), and a long-term target of 80% below current levels by 2050 (approx. 5 Mts). See table below for a visual description.

**Rationale:**

The measure tells us whether our GHG output is decreasing sufficiently to meet the *EGSPA* target.

**Current Status:**

Our current GHG output is 20.1 Mts. Nova Scotia tracks its annual GHG output using a combination of the National Inventory Report (NIR) issued annually by Environment Canada, and GHG emission reports from the electricity sector submitted under NSE’s Greenhouse Gas Emissions Regulations.
Table 1. Greenhouse Gas Emissions in Nova Scotia

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity Sector (Mt)</th>
<th>All of Nova Scotia (Mt)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>19.000</td>
<td></td>
<td>Base year for legislated target (Environmental Goals and Sustainable Prosperity Act)</td>
</tr>
<tr>
<td>2004</td>
<td>10.777</td>
<td>23.300*</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>10.640</td>
<td>23.700*</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>10.145</td>
<td>21.900*</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>9.782</td>
<td>20.500 *</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>9.251</td>
<td>20.150**</td>
<td>**Electricity sector figures from NSPI reports. All other from National Inventory Report (NIR)</td>
</tr>
<tr>
<td>2015</td>
<td>8.700</td>
<td>19.700</td>
<td>Interim target</td>
</tr>
<tr>
<td>2020</td>
<td>7.500</td>
<td>17.100</td>
<td>EGSPA Target 4(2)1 for Nova Scotia. GHG Regulation Target for Electricity.</td>
</tr>
<tr>
<td>2050</td>
<td>5.0 approx</td>
<td></td>
<td>Future targets</td>
</tr>
</tbody>
</table>

*Based on new methodology and revisions of previous data. In 2012 the National Inventory Report significantly adjusted the 2005-2009 GHG data for Nova Scotia.

**Ultimate Goal:**

The long-term target is 80% below current levels by 2050, or about 5 Mts of GHG output. Nova Scotia wants to transition its economy from high carbon intensity (4th highest in Canada per capita) to being less energy and carbon intense in resources, industry, transport, and households. The 2020 target and related actions are essential steps in that transformation. Nova Scotia is on the right track, demonstrated by the downward trend from 2005-2010 in GHG emissions (Table 1). In 2020, Nova Scotia will be a provincial leader in energy efficiency, clean energy, and technology, driven by our early actions. Our actions have helped prove we can have economic expansion alongside GHG reduction, the economy can expand sustainably, and thus we can be a contributor to the crucial global effort to reduce GHGs by 80%.

***Change in Measure:***

The measure has been revised to replace NIR’s electricity sector data with Nova Scotia Environment’s electricity sector data. Nova Scotia Environment collects GHG emissions...
data directly from the electricity sector, which is considered more accurate than the NIR information because it comes from the source and is independently verified. This data is important as this sector is responsible for almost half of all provincial GHG emissions. This information must be submitted annually by our electricity producers to NSE, and is available within three months of the end of a calendar year.
Mandate: Environmental Goals and Sustainable Prosperity Act (EGSPA) – Clean Air.

MEASURE:

Ambient fine particulate matter (PM$_{2.5}$ = less than 2.5 microns), measured annually and averaged over three consecutive years.

Outcome Description:

Our target for this measure is to meet the Canada-wide Standard for particulate matter, which is 30 mg/m$^3$ or less of PM$_{2.5}$, within a 24 hour-averaging time, by 2010. Achievement of the standard is based on the 98th percentile ambient measurement annually, averaged over three consecutive years. The purpose of the target is to reduce smog.

Rationale:

Fine particulate matter is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment. The concentrations of PM$_{2.5}$ as measured at monitoring stations in the two census metropolitan areas in Nova Scotia (HRM and CBRM) are compared to the Canada-wide Standard for PM$_{2.5}$.

Current Status:

For 2008-2010, the PM$_{2.5}$ measurement for Halifax Regional Municipality (HRM) is 16 mg/m$^3$, which is better than the Canada-wide Standard of 30 mg/m$^3$. For Cape Breton Regional Municipality (CBRM), there was insufficient data for this period, which means the measurement cannot be calculated. Finalized data for 2009-2011 should be available by the end of summer 2012.
**Ultimate Goal:**

Our target for this measure is to continue to meet the Canada-wide Standard for HRM and to have sufficient data to report for CBRM.
MEASURE:

Ambient ground level ozone, averaged over three years.

Outcome Description:

Our target for this measure is to meet the Canada-wide Standard for ozone, which is 65 parts per billion (ppb) or less of ground-level ozone, with an eight-hour averaging time, by 2010. Achievement of the standard is based on the fourth highest measurement annually, averaged over three consecutive years. The purpose of the target is to reduce smog.

Rationale:

Ozone is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment. The concentrations of ozone as measured at monitoring stations in the two census metropolitan areas in Nova Scotia (HRM and CBRM) are compared to the Canada-wide Standard for ground-level ozone.

Current Status:

For 2009-2011, the ozone measurement for Halifax Regional Municipality (HRM) was 52 ppb and for Cape Breton Regional Municipality (CBRM) it was 50 ppb. Both measurements are better than the Canada-wide Standard of 65 ppb.

Ultimate Goal:

Our target for this measure is to continue to meet the Canada-wide Standard.
Mandate: Environmental Goals and Sustainable Prosperity Act (EGSPA) - Wastewater Treatment Facilities.

MEASURE:

Percent of wastewater treatment facilities that provide at least primary treatment.

Outcome Description:

NSE is committed to sustainable management and protection of the environment. A desired outcome in meeting this commitment is the protection of the water we consume, use for recreational activities, and rely on to support our shellfish harvesting industry.

Rationale:

In Nova Scotia, the discharge of untreated wastewater results in beaches closed to swimming, waters closed to shellfish harvesting, and the aesthetics associated with raw discharges affecting our ecotourism potential. Our streams, estuaries and coastal waters can be threatened by the substances found in inadequately treated wastewater and drinking water can become contaminated.

By ensuring that all facilities have at least primary treatment, we ensure a level of protection against the adverse effects of wastewater discharges.

Current Status:

Approximately 55% of Nova Scotians dispose of their wastewater into a central sewer collection system (remaining 45% utilize individual on-site septic systems). This represents a total of 141 municipal central sewer collection systems in total. Currently, 129 facilities (91%) have at least a primary level of treatment. This means that 93% of the population has at least primary treatment.

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>90</td>
<td>91</td>
<td>91</td>
</tr>
</tbody>
</table>

Ultimate Goal:

Our goal is to eliminate the discharge of untreated wastewater from central sewer collection systems. There are 12 facilities remaining in Nova Scotia with raw wastewater discharge. Three of these facilities are currently in the process of designing or constructing new treatment facilities.
On February 17, 2009, Nova Scotia endorsed a Canada-wide Strategy for Municipal Wastewater Effluent (MWWE). This strategy calls for a minimum of secondary treatment. Although this standard is more stringent than primary treatment, the timelines are longer than the 2017 date stated in *EGSPA*.

NSE is contributing to this outcome by developing an implementation plan for the MWWE Strategy. NSE will continue to consult with municipalities on the development of this plan.
Appendix A

Annual Report under Section 18 of the Public Interest Disclosure of Wrongdoing Act

The Public Interest Disclosure of Wrongdoing Act was proclaimed into law on December 20, 2011.

The Act provides for government employees to be able to come forward if they reasonably believe that a wrongdoing has been committed or is about to be committed and they are acting in good faith.

The Act also protects employees who do disclose from reprisals, by enabling them to lay a complaint of reprisal with the Labor Board.

A Wrongdoing for the purposes of the Act is:

a) a contravention of provincial or federal laws or regulations
b) a misuse or gross mismanagement of public funds or assets
c) an act or omission that creates an imminent risk of a substantial and specific danger to the life, health or safety of persons or the environment, or
d) directing or counselling someone to commit a wrongdoing.

Table A.1

The following is a summary of disclosures received by Nova Scotia Environment (NSE).

<table>
<thead>
<tr>
<th>Information Required under Section 18 of the Act</th>
<th>Fiscal Year 2011-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of disclosures received</td>
<td>Nil</td>
</tr>
<tr>
<td>The number of findings of wrongdoing</td>
<td>Nil</td>
</tr>
<tr>
<td>Details of each wrongdoing</td>
<td>Nil</td>
</tr>
<tr>
<td>Recommendations and actions taken on each wrongdoing</td>
<td>Nil</td>
</tr>
</tbody>
</table>