



Annual Report

2011-12





Message from the Minister

In accordance with requirements of a category one government entity under the *Transparency and Accountability Act*, I am pleased to submit the 2011-12 Annual Report for the Department of Environment and Conservation.

My mandate as Minister of Environment and Conservation includes the protection and enhancement of the environment, management of the province's wildlife, inland fish, water, parks, and Crown land resources, as well as sustainable development initiatives and the implementation of programs related to the Provincial Government's response to climate change.

It has been a productive year for the department, and I would like to take this opportunity to highlight some of our accomplishments. We have undertaken a number of initiatives to better understand our wildlife populations, including the continuation of the five-year caribou strategy in which we are seeking evidence-based reasoning for the decline of the province's caribou populations, as well as exploring the resilience of certain herds. In an effort to reduce the unnecessary use of pesticides in the province, we also instituted a restriction in 2011 on certain products for application on lawns in Newfoundland and Labrador. Furthermore, in March of 2012, the Lower Churchill Hydroelectric Generation Project was released from further environmental assessment by both the federal and provincial governments. This environmental assessment was carried out over five years and was subject to a co-operative federal and provincial review conducted by a jointly appointed independent review panel. The panel submitted its report on the outcome of the environmental assessment in August 2011. The project was subsequently released in March 2012, subject to a comprehensive list of terms and conditions.

This report covers the period from April 1, 2011 to March 31, 2012 and the reported outcomes affirm my department's commitment to fulfilling our government's strategic directions. My signature is indicative of my accountability for the preparation of this report and the achievement of the identified goals and objectives.

A handwritten signature in black ink that reads "Terry French". The signature is fluid and cursive.

TERRY FRENCH, MHA
Conception Bay South
Minister



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Departmental Overview

The Department of Environment and Conservation is a category one government entity under the *Transparency and Accountability Act* and is responsible for the protection and enhancement of the environment, management of the province's wildlife, inland fish, water, parks, and Crown land resources. The department is also the lead on government sustainable development initiatives and is responsible for implementing programs with respect to government's response to climate change. The department has three branches:

Environment Branch:

This branch is responsible for the divisions of Environmental Assessment, Pollution Prevention, and Water Resources Management.

Lands Branch:

This branch is responsible for the divisions of Crown Lands Administration, Land Management, and Surveys and Mapping.

Natural Heritage Branch:

This branch is responsible for the divisions of Parks and Natural Areas, and Wildlife.

In addition to the above branches, the department has a Policy and Planning Division, a Communications Unit and a Sustainable Development and Strategic Science Division.

Vision

The vision of the Department of Environment and Conservation is a clean, sustainable environment and healthy, resilient ecosystems in perpetuity for the social, physical, cultural, biological and economic well-being of the province.

Mission

By March 31, 2017, the Department of Environment and Conservation will have reduced the adverse impacts of human activities on the environment and improved the health of our ecosystems.

Mandate

The mandate of the Department of Environment and Conservation is derived from the *Department of Environment and Conservation Notice, 2008* under the *Executive Council Act* on matters related to:

- The protection, enhancement and conservation of the quality of the natural environment including water, air and soil quality; and the conservation, development, control, improvement and proper utilization of the water resource of the province;

- provincial lands;
- The management, preservation, control, protection and development of provincial parks as defined in the *Parks Act*; provincial interests in all national parks established in the province by the Government of Canada; and wilderness and ecological reserves as defined in the *Wilderness and Ecological Reserves Act*;
- matters related to the management, preservation, protection and development of wildlife and inland fisheries;
- The *Wildlife Act* on matters related to wildlife reserves and Salmonier Nature Park; and,
- The *Pippy Park Act* on matters related to Pippy Park.

*Please refer to Appendix A for the department's Lines of Business in full detail.

Legislation

The department's work is informed by the following Acts and their corresponding regulations:

Environmental Protection Act

Water Resources Act

Wild Life Act

Provincial Parks Act

Wilderness and Ecological Reserves Act

Endangered Species Act

Lands Act

Lands Surveyors Act

Geographical Names Board Act

National Parks Lands Act

Pippy Park Act

Service NL administers certain aspects of enforcement under the *Environmental Protection Act* and the *Water Resources Act*. The Department of Justice also administers select enforcement activities under the *Wild Life Act*, the *Wilderness and Ecological Reserves Act*, and the *Endangered Species Act*.

Physical Location

The department's main offices are in Corner Brook, Deer Lake and at Confederation Building in St. John's. The department has other offices located in Clarendville, Gander, Grand Falls-Windsor, Happy Valley-Goose Bay, and St. John's. The department is also responsible for Salmonier Nature Park and several other provincial parks and reserves located throughout the province. The Institute of Biodiversity, Ecosystem Science and Sustainability (IBES), located at Memorial University's Grenfell Campus in Corner Brook, is an integral component of the Sustainable Development and Strategic Science Division.



The Department of Environment and Conservation website is

www.env.gov.nl.ca/env/

Staffing

The department has a staff complement of 433 employees, which includes permanent (242), temporary (67), seasonal (107) and contractual (17) employees. 64% percent of employees are male and 36% percent are female. Division of staff according to region is indicated below:

Region	Staff
Avalon Peninsula	215
Central West	24
Central East	31
Labrador	17
West Coast/Northern Peninsula	131
Other/Undefined	15
Total Employees	433

Budget

The department's gross expenditure budget for 2011-12 is approximately **\$56,628,700** with planned related revenue of approximately **\$11,312,000** for a net expenditure of **\$45,316,700**.





Highlights and Accomplishments

Environmental Assessment

In 2011-12 the Environmental Assessment Division conducted approximately 70 screening reviews on projects submitted for environmental assessment. Most notable were undertakings such as forest management plans, agricultural development projects, mineral exploration, quarries, cottage subdivisions, public parks and trails proposed throughout many regions of the province. While the majority of projects were released subject to terms and conditions to further enhance environmental protection, 8 projects required further assessment through either the submission of an Environmental Preview Report or an Environmental Impact Statement or were withdrawn or rejected. Several key projects that are currently proceeding through further environmental assessment include the Labrador- Island Transmission Link, the Maritime Transmission Link and the Kami Iron Ore Project. In March of 2012, the Lower Churchill Hydroelectric Generation Project was released from further environmental assessment by both the federal and provincial governments. This environmental assessment was carried out over 5 years and was subject to a cooperative federal and provincial review conducted by a jointly appointed independent review panel. The panel submitted its report on the outcome of the environmental assessment in August 2011. The project was released in March 2012 subject to a comprehensive list of terms and conditions.

Climate Change Adaptation

Throughout 2011-12, the department worked to raise awareness of climate change issues and related adaptation solutions with communities throughout the province. Climate change adaptation is identified as a component of the Department's Strategic Direction of Climate Change: The desired outcome is a reduction in greenhouse gas emissions through energy efficiency initiatives, and increased awareness and planning for climate change. To accomplish the Department's goals towards adaptation, Departmental officials initiated community outreach through the Professional Municipal Administrators (PMA) and Municipalities Newfoundland Labrador (MNL). Staff attended and presented at the PMA Symposium in early April and set-up a Climate Change information booth at the associated Trade show. Staff also attended and presented at the MNL Convention in early May and engaged convention participants with information on climate change. In October, staff traveled to Cape Breton where they presented at a conference on Climate Change with First Nation communities. In November, staff gave a webinar presentation for the Federation of Canadian Municipalities (FCM). Presentations were also held at regional community meetings in Trout River and Port aux Choix in November. In addition to raising awareness of climate change, the department worked to finalize a Community Vulnerability Assessment Workbook. This workbook is a step-by-step guide to assist small, rural communities in assessing their vulnerability to climate change and other weather related hazards. In February, staff presented the workbook at a Federation of Canadian Municipalities sustainable communities conference in Ottawa.

Newfoundland Marten Volunteer Hair Snag Project 2011-2012

The Newfoundland Marten is considered to be a genetically and geographically distinct population of the subspecies *Martes americana atrata*. In 2007, this population was down-listed from Endangered to Threatened under the provincial *Endangered Species Act* because of range expansion and population stabilization. Since then, there have been indications that the population is increasing, but the true distribution and size of the Island's marten population is currently unknown. A better understanding of these characteristics will help in the effective management of this species and will be used for future status assessments.

In September 2011, the Wildlife Division partnered with the Atlantic Canada Conservation Data Centre in an expanded marten hair snag project, which was partially funded by the federal Habitat Stewardship Program. The project makes use of "citizen science", by partnering with forest resource users in the non-invasive collection of marten hair samples. This project sparked a great deal of interest from the public, with a total of 57 groups participating. Volunteers came from a wide range of backgrounds including hunters, trappers, snarers, cabin owners, hikers, outfitters, adventurers, and families. Volunteers were recruited across the Island, with particular emphasis on areas adjacent to known marten population. Each volunteer was provided with around 10 hair snag traps, which attract marten with sardines and skunk lure and collect hair samples on sticky pads they brush by to access the bait.

Volunteers collected over 70 unique hair samples that will be processed using genetic microsatellite analysis to confirm species, and determine sex and unique identity. Two of the samples that have been tentatively identified as marten are from locations that had no previously confirmed record of marten, near Gander and Stephenville. Many of the other samples provide evidence of well-established marten populations. This project is important, not only to gain the knowledge required to successfully manage a species but also to involve the public in the process. Feedback from participants was uniformly positive, with great interest in discovering whether marten are found in their area, and a desire to know more about this charismatic species. News stories highlighted the project for the public and provided information on the importance of ongoing conservation measures for the Newfoundland Marten. A display and informational brochure were developed in cooperation with the Wildlife Division.



The enthusiasm of the volunteers and interest from both current and new volunteers in participating in the future marks a very successful year for the hair snag project.

Restrictions Announced on Pesticides for Lawn Care

In July 2011, the department announced a restriction on the sale and use of pesticides for lawn care purposes throughout the province. The following pesticides are no longer permitted for application on lawns in the province: carbaryl, 2,4-D (2,4-dichlorophenoxyacetic acid), mecoprop, dicamba, and MCPA (2-methyl-4-chlorophenoxyacetic acid). The aim was to reduce the unnecessary use of pesticides in the province. Homeowners were encouraged to explore alternative lawn care methods and products, including proper lawn installation, over seeding, and if necessary, the use of pesticides such as insecticidal soaps and iron-based weed control products. The department also continued to offer promotional and educational activities through partnerships with municipalities and local gardening groups to help educate homeowners on the alternative lawn care practices. The department also hosted an annual turf conference, participated in lawn and garden shows, and held information sessions throughout the province. Pesticides are federally regulated by the Pest Management Regulatory Agency, a branch of Health Canada, under the *Pest Control Products Act*, and are among the most stringently regulated substances in Canada. In Newfoundland and Labrador, pesticides are further regulated under the *Environmental Protection Act*.

Cottage Development Program

In May 2011, the department allocated 12 cottage lots at Gambo Pond in Central Newfoundland through public draw. A total of 647 applicants applied for the 12 lots and lot selection order was determined through a random public draw on July 29, 2011 at the Central Regional Lands Office in Gander. Applicants were then notified by registered mail of their ranking in the draw. This letter also provided the date and location of a second meeting, where successful applicants selected lots in the order of their draw ranking. Lots were sold as grants (outright ownership) and ranged in price from \$8,000 to \$11,500. Revenues from this cottage lot draw totalled \$110,100.



Salmonier Nature Park

Salmonier Nature Park experienced a very eventful year in 2011. Over 41,000 people visited the park from June through October. Included in this number were nearly 5,000 students who visited in conjunction with the park's formal school and community group programs. In addition, park education staff visited approximately 1,000 students throughout the province under the park's Outreach program.

The new Technical Services and Animal Care buildings were under construction in 2011. Both are targeted to open their doors on March 31, 2012. Planning continued for the new Visitor Centre with a targeted opening date during 2012-13. Approximately \$1,260,000 of the projected \$4,030,000 was spent in the construction of these two buildings. Construction of the new Discovery Centre will commence in summer 2012 with a projected budget of \$2,771,400.

Meanwhile, 61 injured/orphaned birds and 4 mammals were received in the park's rehabilitation program. Of these animals, 37% were fully rehabilitated for release back to the wild, including 8 birds of prey. Several of these animals received during 2011 remain in the park's rehabilitation program; it is hopeful they will make a full recovery for release in 2012. A point of interest during 2011 was the release of an adult bald eagle which had collided with and shattered a 2 metre double-paned window at the Arts and Culture Centre in St. John's. After rehabilitation to treat injuries, the female eagle was released wearing not only the required Canadian Wildlife Service band but also a GPS backpack. As a result, an Ecosystem Management Ecologist (Biodiversity) has the ability to track the movements of this bird for his research on eagles in the province.



During December 2011, College of the North Atlantic offered a two week training session in Wildlife Care and Rehabilitation. Park staff participated in this training, which provided staff with basic rehabilitation education and hands-on experience. This course also served as a preparatory session for those interested in pursuing more advanced training in wildlife rehabilitation.

The park's partnership with Friends of Salmonier Nature Park continued to flourish as they collaborated to introduce and offer the new "Let Nature" series, which is a series of workshops designed to promote self-awareness, the arts, and outdoor skills within the picturesque setting of Salmonier Nature Park. The first three workshops offered in September and October were well attended by an engaged public.



Shared Commitments

Department of Environment and Conservation (ENVC) and the Multi-Materials Stewardship Board (MMSB)

The Multi Materials Stewardship Board (MMSB) is a Crown agency of the Government of Newfoundland and Labrador, reporting to the Minister of Environment and Conservation. It was established in 1996 to develop, implement and manage waste diversion and recycling programs on a province-wide basis for specific waste streams designated by the government.

MMSB's mandate has expanded over time to include supporting the implementation of the provincial Waste Management Strategy through the administration of the Newfoundland and Labrador Waste Management Trust Fund. In addition, MMSB is also responsible for the development and implementation of province-wide public education initiatives to promote more progressive waste management practices in Newfoundland and Labrador, with a particular focus on waste reduction and recycling.

While MMSB has these noted responsibilities, the Department of Environment and Conservation is responsible for policy and planning with respect to solid waste management. Other partners include the Department of Municipal Affairs, which implements policies and plans through capital funding, and Service NL, which carries out the enforcement aspect of solid waste management in the province. These shared commitments are essential to the work of the Department and comprise the Strategic Directions of the implementation of the Provincial Solid Waste Management Strategy.

Department of Environment and Conservation and Department of Fisheries and Aquaculture

There is an on-going partnership with the Department of Fisheries and Aquaculture for the Coastal and Ocean Management Policy framework. Natural Areas set aside under the *Wilderness and Ecological Reserves Act*, sees that waste water is treated properly as per the *Water Resources Act*, and the environment is protected under the *Environmental Protection Act*. Coastal land use is regulated under the *Lands Act*. Coastal land use and the impact of land use activities on the coastal and ocean environment is best addressed through comprehensive coastal land use initiatives. A strategy for land use management for the province will be developed in the future and will provide guidance for the coordination of land use planning and should take into account the principles of sustainable development, climate change adaptation, and hazard preparedness.

Cooperation between provincial departments involved in land use planning in the province is essential in the establishment of coastal land use priorities and initiatives.

The department works with Fisheries and Aquaculture, and informs it on best environmental practices including initiatives on Education and Awareness; Healthy Marine Environments; Social, Cultural and Economic Sustainability; and coastal land use.

Caribou Resource Committee (CRC)

The Caribou Resource Committee functions as a mechanism for stakeholder input on the social, economic, and ecological aspects of the Caribou Strategy. The Caribou Strategy is a five-year (2008-2013) initiative to address the decline in the island woodland caribou population through research and adaptive management. Members of the committee assist and support the Senior Project Team by providing comment on biological, social, economic and operational considerations, and through forwarding inquiries, views and concerns from stakeholder groups through their Committee representative. This may include advice on proposed activities, and comment on the progress and success of the Strategy's ongoing efforts. The Committee also serves to assist and support in the dissemination of relevant information from the Senior Project Team to stakeholder groups. Members of the Committee include internal representation from the Department of Tourism, Culture and Recreation, Department of Natural Resources, and Executive Council - Rural Secretariat. External representatives are the Newfoundland and Labrador Outfitters Association, Newfoundland and Labrador Trapper's Association, Newfoundland and Labrador Wildlife Federation, general hunting public, and the academic community.

Climate Change Adaptation

The Climate Change Adaptation group (a Unit in Policy and Planning) is partnered with several groups and entities including municipal, inter-provincial, and professional associations and Memorial University to develop a Community Vulnerability Assessment Tool.

The Office of Climate Change, Energy Efficiency and Emissions Trading (OCCEEET) was created in 2009 and is now responsible for policy and strategy developments with regards to climate change and the department works collaboratively with OCCEEET to achieve this mandate. The department has been actively engaged in the development of a regional adaptation plan that is expected to yield very positive results in terms of increasing adaptive capacity in the province. Indeed, work has continued in 2011-12 on finalizing a community vulnerability assessment workbook. The title is *7 Steps to Assess Climate Change Vulnerability in Your Community*. The workbook is a step-by-step guide to assist small, rural communities in assessing their vulnerability to climate change and other weather related hazards."

Investing in Labrador

Investing in Labrador is one part of the on-going strategic directions of government. Work in this area is concentrated on the improvement in the social and economic conditions of the region. Key focus areas include: Climate change adaptation Remediation of contaminated sites; Protected areas; Environmental stewardship projects; Wildlife management; the Lower Churchill project and the provincial Solid Waste Management Strategy. Each of these components has been addressed in either the department's Strategic Plan 2011- 2014, operational plans or in divisional work-plans. The department shares this responsibility with the departments of Municipal Affairs, Justice, Health and Community Services, and Service NL, as well as the Labrador Affairs Office and the Intergovernmental and Aboriginal Affairs Secretariat.

Environmental Protection Activities - Government Services Centre

The Department of Environment and Conservation and Service NL have a Memorandum of Understanding to administer environmental protection activities through Government Service Centres. This work includes inspection of waste disposal sites, petroleum storage tank systems, dry cleaners, saw mills, quarries, used tire facilities, used oil facilities PCB storage facilities, farm waste management facilities, soil treatment facilities and illegal dumping.

The department works with Government Service Centres, the Department of Municipal Affairs, and the Multi-Materials Stewardship Board (MMSB) to administer the province's Solid Waste Management Strategy. The department works with Government Services Centre and Agriculture to issue approvals and enforce conditions in the approvals related to waste management issues on farms. Environmental health services are provided under an MOU with the Service NL relating to agricultural operations. Environmental protection services are provided under an MOU with Service NL while the MMSB administers the province's Solid Waste Management Strategy.

Safe Drinking Water

The department works closely with the Departments of Municipal Affairs, Service NL, Health and Community Services to achieve the goals of the Multi-Barrier Strategic Action Plan, and to enforce regulations and guidelines for drinking water safety. Their efforts are coordinated by an interdepartmental committee of deputy ministers, which is chaired by the Deputy Minister of the Department of Environment and Conservation. The committee's work is supported by the Interdepartmental Safe Drinking Water Technical Working Group. Medical Officers of Health and representatives from the Public Health Laboratory are also members of the working group. This work continued in 2011-12 when 11 communities accepted funding for the installation of small scale drinking water treatment systems called Potable Water Dispensing Units and also known as PWDUs. Communities include: Whiteway, Point May, Leading Tickles, Mary's Harbour, Postville, Rigolet, Isle aux Morts, Lawn, Fox Roost-Margaree, Seal Cove (FB), and Makkovik. PWDUs for these communities will be built and commissioned in 2012.

Moose Management Initiatives

Moose are important to our province, both culturally and economically. Recent concerns for moose-vehicle collisions have led to considerations for different moose management strategies. While citizens of the province are encouraged to be mindful and observant of moose when traveling on Newfoundland and Labrador's highways, the department shares responsibility with the Department of Transportation and Works to create increased driver awareness of moose on the highways. Specific responsibilities for the Department of Transportation and Works include fencing, detection systems, collision data management, brush clearing and vegetation control. Specific responsibilities for the Department of Environment and Conservation include issuing moose licenses, annual baseline monitoring of moose population, hunter trends and public opinion surveys.



Interdepartmental Land Use Committee (ILUC)

The Interdepartmental Land Use Committee (ILUC) was established in 1983. ILUC's mandate is to review all proposals involving Crown or Public lands. It provides a senior level forum for interdepartmental land use information exchange, reviewing legislation and policies affecting the use of Crown land, reviewing and approving designations that impact land use in the province. Examples include:

- Municipal or Regional Plans
- Community and regional watershed boundaries
- Waste disposal sites
- Municipal boundaries
- Agriculture, forestry, wildlife, park, mineral aggregate, ecological and wilderness reserves
- Major road, hydro and other service corridors
- Legislation, regulations or guidelines affecting the use of Crown or Public lands
- Sales of Crown (Provincial or Federal) assets

ILUC currently reviews 30 – 50 proposals each year and this number is increasing (50 in 2011) as the various government departments utilize the ILUC process.





Report on Performance 2011-12

The Department of Environment and Conservation identified three strategic issues that would guide the department's work for the three-year period from April 1, 2011 to March 31, 2014. These strategic issues are: Environmental Protection, Enhanced Management of Caribou and Moose Populations, and Climate Change Adaptation.

Environmental Protection

The Department of Environment and Conservation has the mandate to protect and improve the quality of land, air and water in the province both now and into the future. The department provides environmental stewardship for the province by initiating changes to current regimes and practices, adoption of the latest scientific, evidence-based approaches to managing the environment. A critical part of the department's success is in the relationships it builds and continues to have with its partners in communities, industries and the public. The department's commitment to environmental protection is carried out through funding that is directed towards projects such as site remediation and long term site monitoring, water resource management and air quality testing. The work requires technical expertise, facilitated by consultants and the deployment of staff in field operations. The department invests significant capital expenditures and human resources in an effort to protect, conserve and monitor the province's environment for present and future generations.

Goal

By March 31, 2014, the Department of Environment and Conservation will have implemented measures to improve the protection of land, air and water in Newfoundland and Labrador.

Objective for 2011-12:

By March 31, 2012, the Department of Environment and Conservation will have carried out environmental site assessment, remediation, and management of impacted sites.

Measure

- Environmental site assessments
- Remediation and management of sites completed

Indicator	Results
Hopedale Remediation – implemented year one of a five-year plan implemented (2011-2016)	The first year of the five year plan has been completed as indicated
New Harbour Landfill Closure plan – Environmental Assessment completed (2012)	New Harbour was not completed but work on the site progressed throughout 2011-12 and will continue into the next fiscal year.
Continued long-term monitoring program of hazardous waste in Come by Chance	The long term monitoring program of Come by Chance continued in 2011-12 and continue in perpetuity

Hopedale

The Department of Environment and Conservation has been involved in environmental clean-up work at the former US military site in Hopedale and is carrying out a multiyear plan to address environmental concerns. Extensive testing, including sampling of soil, sediment, groundwater, surface water, vegetation and small mammals, has been completed. A human health and ecological risk assessment was completed for the site, and site-specific clean-up numbers were developed which are protective of both human and ecological health. Based on the results of the environmental assessment work, a remedial action plan has been developed, and includes clean-up of areas impacted with PCBs, several metals (antimony, lead, chromium, and cadmium), and fuel oil. Clean-up efforts to date have focused on excavation and removal of PCB-impacted material from high-priority areas. The department has been completing sampling the marine environment. Additionally, in 2011-12 the Department of Environment and Conservation managed the clean-up of the old school site in Hopedale on behalf of the Department of Education. This involved the excavation of fuel-oil impacted soil and movement to a local biopile for treatment.

New Harbour

New Harbour was not completed but work on the site progressed throughout 2011-12 and will continue into the next fiscal year. Initial approvals were given for taking samples at the site and sampling has continued in 2012. However, due diligence was required in studying the design, plan and money allocated for the project prior to taking further steps in the completion of the environmental assessment and this delayed subsequent steps being taken in 2012. The assessment is on-going at the present time and will continue into the next fiscal year.

Come By Chance

Monitoring and maintenance of the closed hazardous waste landfill in Come by Chance continued throughout 2011-12 and will continue in perpetuity.

Other

The department is often tasked with managing contamination on other government properties. This has included former military sites in St. Anthony, Gerry's Nose, West Bay, North West Point and many others, as well as crown land sites such as the former Salmonier correctional facility. Work continued on these sites throughout 2011-12.

Buchans

The Department of Environment and Conservation is proceeding with the final phase of remedial action to address the health concerns stemming from the former Abitibi mine site. Studies commissioned by government in 2009 had identified widespread heavy metal impacts throughout the Town of Buchans. Areas of exposed concentrated mine tailings from the former Buchans Mine, known as the Tailings Spill Area, Mucky Ditch, and Tailings Ponds were the major contributors to the dispersion of heavy metal impacted tailings throughout the town.

Now that the source areas that were contributing to the soil impacts within the town are remediated, efforts will be focused on addressing the residential and public areas within the town. In the fall of 2011, efforts were focused on remediating the softball field, a public area where lead concentrations were the highest. Over the next two years, Government will spend an additional \$5 Million to manage the risks associated with lead impacted tailings on three additional public areas as well as over 200 residential properties. This mitigation will include the replacement of the top foot of soil as well as re-establishment of lawns and gardens.

Objective for 2012-13:

By March 31, 2013, the Department of Environment and Conservation, building on existing requirements, will have developed comprehensive strategies for monitoring and reporting on air quality in the province and increased public access to air quality information

Indicator

- Improved monitoring techniques for air quality
- Increased public access to air quality information



Enhanced Management of Caribou and Moose Populations

In 2011-12, the department continued to enhance understanding of caribou population dynamics. This information will be used to assist in the recovery and long-term sustainable management of this resource. To accomplish this, government committed in Budget 2011-12 to support research and monitoring efforts of the George River caribou (GRC) herd. Efforts are also in place to support cooperative management initiatives among all GRC user groups and to establish a harvest management plan, as demonstrated in the strategic direction of investing in Labrador and its corresponding focus area of wildlife management. Work has also been completed on the Caribou Strategy for Island caribou populations. In addition, the department announced on July 6, 2011, that it was launching a suite of initiatives to reduce the number of moose-vehicle collisions on Newfoundland and Labrador roadways. The department partnered with Transportation and Works, on several initiatives that included a wildlife fencing pilot project, a wildlife detection system pilot project, a Collision Data Management System (which will record the precise locations of all collisions, including those involving moose), an increased number of moose hunting licences, additional brush clearing, vegetation control and measures to improve driver awareness. The department will explore options to enable people receiving moose hunting licences to designate surrogates to hunt a moose for them. The department will work with the province's outfitters on ways to provide more moose-hunting opportunities for nonresident hunters.

Goal: By March 31, 2014, the Department of Environment and Conservation will have implemented measures to enhance the management of caribou and moose populations in Newfoundland and Labrador.

2011-2012 Objective:

By March 31, 2012, the Department of Environment and Conservation will have improved the understanding of island caribou ecology and predator-prey dynamics; the understanding of the George River herd dynamics; and the management plan for moose.

Measures

- Improved understanding of island caribou ecology and predator prey dynamics
- Improved understanding of George River heard dynamics
- Improved management plan for moose

Indicators	Results
Completed survey classifications & updated annual population estimates; and held workshops to disseminate information on caribou and predators to the public	<ul style="list-style-type: none"> • Preliminary estimates of predator density completed • 464 calf mortalities recorded and investigated • 11 multiple-herd (Approximately 90 individual herd) composition surveys (to assign age and sex class to animals, as well as to determine productivity, and recruitment rates) conducted • Mark-re-sight census conducted for 12 herds to determine population estimates • 700 sites visited to describe and classify habitat • Completed survey classifications; updated annual population estimates; acquired and deployed collars needed to assess population status and movement patterns; conducted fall classifications surveys; improved tracking of license and harvest data; developed human resource capacity in Labrador to support the George River Caribou program; and worked with interested stakeholders to gather input into future harvest management strategies and management models

	<p>Caribou Resource Committee (stakeholder information exchange) formally established</p> <ul style="list-style-type: none"> •3200 people participated in over 50 hunter and trapper seminars and workshops •Fact sheets, brochures, posters, displays, interpretive programs and web materials developed in support of enhanced public education •15 graduate student projects initiated (3 complete); 5 undergraduate student projects completed •Hunter and trapper education workshops are developed and continue to be delivered across the island.
<p>Acquired and deployed collars needed to assess population status and movement patterns; conducted fall classifications surveys; improved tracking of licence and harvest data; developed human resource capacity in Labrador to support the George River caribou program; and worked with interested stakeholders to gather input into future harvest management strategies and management models</p>	<ul style="list-style-type: none"> •1173 animals radio-collared and monitored (542 caribou calves, 434 adult caribou, 80 black bear, 98 coyote, 19 lynx •1300 caribou scat samples collected to analyze food habits •330 tissue samples submitted by hunters to assess caribou body condition and health •Approximately 2800 hair samples collected (mostly black bear) for DNA analysis to support population estimates and 2200 predator scat samples collected (black bear, coyote, and lynx) for DNA analysis to support population estimates and to analyze predator food habits



<p>Developed mechanisms to assess public opinion on moose</p>	<p>Incorporate broad spectrum of public opinion into moose management planning.</p> <p>Designed a long term management plan for moose that reflects public desires for the resource</p> <p>Improved annual baseline monitoring of moose population</p>
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Enhanced Management of Caribou and Moose Populations

Good wildlife management starts with quality research and monitoring efforts. By studying wildlife interactions, distributions, populations and habitat use, research biologists are able to make sound recommendations for wildlife management. In the area of caribou management there has been a concerted effort on the part of Sustainable Development and Strategic Science (SDSS) and Wildlife Division to understand the caribou populations of Labrador and the island. This has included developing a greater understanding of the complexities of Caribou ecology and predator-prey dynamics and the understanding the George River Caribou herd (GRCH). The use of population surveys and classification surveys to measure and report both on population decline and resilience has been conducted in extensive field research and data collection and analysis. The use of collars to measure adult mortality continued through the research phase, while information detailing black bear, coyote and interactions has been noted in several research projects, including work relating to caribou health and coyote hunting workshops. Public consultations have been initiated and are on going at this time, as are workshops, preparation for future tradeshow engagements, and the production of dvds, brochures, website information and newsletters to inform the public of the status of the caribou in the province. The management of wildlife comprises a line of business for the department and is a component of the departmental strategic direction of Investing in Labrador; is an improvement in the social and economic conditions of the region.

Wildlife Division has management authority for caribou. In that capacity the Wildlife Division have accomplished the following:

- Population surveys have been carried out on all island herds on schedule as outlined in the caribou strategy.
- Census results indicate that the population decline has slowed significantly on an island wide basis but concerns do exist for some individual herds.
- Population updates for all herds have been produced and incorporated into the annual game management planning process.
- Fall classification surveys have been completed on all herds and results indicate calf recruitment is variable among herds and years, but has improved over what was seen at the height of the population decline.

Public opinion surveys were determined to be a requirement of developing a new direction for moose management in the province. In 2010 a proposal was developed to initiate the required work.

Collision Data Management System

Moose are important to our province, both culturally and economically. Recent concerns for moose-vehicle collisions have led to considerations for different moose management strategies. Moose management initiatives under the five-year Moose Management Plan include mechanisms to identify public opinion on the value of moose. An annual baseline monitoring of the moose population is currently on going while a research proposal to address knowledge and data gaps is currently under review. The department announced on July 6, 2011, that it was launching a suite of initiatives to reduce the number of moose-vehicle collisions on Newfoundland and Labrador roadways.

While citizens of the province are encouraged to be mindful and observant of moose when traveling on Newfoundland and Labrador's highways, the department shares responsibility with the Department of Transportation and Works to create increased diver awareness of moose on the highways. Specific responsibilities for the Department of Transportation and Works include fencing, detection systems, collision data management, brush clearing and vegetation control. Brush clearing and vegetation control efforts are considered a best practice and since 2006, the government has implemented an annual program to clear and treat the highway rights-of-way in Newfoundland and Labrador.

During 2011-12, the department increased the number of hunting licences in the province by more than 5,000, with the majority focused along the Trans Canada Highway and major trunk roads. Investment of approximately \$2.5 million to install a 15-kilometre test section of wildlife fencing, which included the practice known as "bouldering" (the strategic placement of an area of rock boulders) at fence termination points to deter moose from entering the fenced roadway; and installation of wildlife detection systems at separate locations using sensor technology and flashing warning lights for motorists, through an investment of approximately \$600,000.

The Department of Transportation and Works also implemented the new Collision Data Management System which will help record motor vehicle collision data, including moose-vehicle collisions, using Global Positioning System (GPS) coordinates. This new system will capture the precise location of collisions on the province's highways, as opposed to the former system, which captured the location of collisions by sections of road. This system will be integral to providing accurate information that is essential to the evaluation of the pilot projects.

Developed mechanisms to assess public opinion on moose

Public opinion surveys were developed and will be launched in the next fiscal year. This will include public engagement sessions conducted in six locations throughout the province. In addition, an online survey will be developed the broad spectrum of opinion on the moose resource. Results from these efforts will be incorporated into the development of the 5-year Moose Management Plan.

Objective for 2012-13:

By March 31, 2013, the Department of Environment and Conservation will have implemented a caribou strategy monitoring program; continued to improve the understanding of the George River caribou heard; and produced a draft five-year moose management plan.



Indicators

- Continued select activities towards an improved understanding of island caribou ecology
- Continued support for research initiatives to improve the understanding of the George River caribou heard
- Continued select activities to improve the management plan for moose populations in the province

Climate Change Adaptation

The Department of Environment and Conservation is working with communities across the province to prepare for and limit the impacts of climate change through adaptation. Adaptation means identifying vulnerabilities to assess the risk to communities and its citizens, while planning to reduce risks. There is a wide range of adaptations that communities can implement, such as changing building permits, monitoring changes to infrastructure, expanding flood risk zones, cleaning out culverts more frequently. This is in line with Government’s strategic direction of enhancing Newfoundland and Labrador’s resiliency to climate change through strengthened understanding of the impacts of climate change and improved integration of climate change adaptation into decision-making processes.

Goal: By March 31, 2014, the Department of Environment and Conservation will have enhanced the capacity of municipalities to adapt to the impacts of climate change.

Objective for 2011-12

By March 31, 2012, the Department of Environment and Conservation will have completed the Community Vulnerability Assessment Tool and will have engaged communities in developing climate adaptation plans.

Measures

- Community Vulnerability Assessment Tool completed
- Communities engaged in the development of climate adaptation plans

Indicators

Indicators	Results
Developed the Community Vulnerability Assessment Tool to assist municipalities to recognize potential climate change impacts, and to identify vulnerabilities and adaptation options	The department has developed community vulnerability assessment workbook. The title is “7 Steps to Assess Climate Change Vulnerability in Your Community”. The workbook is a step-by-step guide to assist small, rural communities in assessing their vulnerability to climate change and other weather-related hazards. Communities are being consulted on implementing climate change adaptation into their planning processes.
Distributed the Community Vulnerability Assessment Tool to all communities	The department worked to finalize the assessment tool throughout 2011-12. While the department anticipated to distribute the assessment tool in 2011-12, this work will continue into the next fiscal year. The department continued to finalize the assessment tool through additional research, and community consultation. The timeline for final reporting is now December 2012, which is also in line with Natural Resources Canada (NRCan).
Assisted six communities assess their vulnerability	The department assisted six communities in 2011-12 to assess their vulnerabilities were: Ferryland, Logy Bay-Outer Cove-Middle Cove, Indian Bay, Corner Brook, Fortune, Irishtown-Summerside. These communities were involved in workshops to pilot and develop our Climate Change Vulnerability Assessment Workbook.

Climate Change Adaptation

The Department of Environment and Conservation is working to help communities adapt to climate change through the development of a climate change vulnerability assessment tool, *7 Steps to Assess Climate Change Vulnerability in Your Community*. This assessment tool was adapted from the National Oceanic and Atmospheric Administration's (NOAA) Community Vulnerability Assessment Tool by Memorial University of Newfoundland, in partnership with the Department of Environment and Conservation, Municipalities Newfoundland and Labrador and the Professional Municipal Administrators to provide communities with a tool for assessing climate change risks and vulnerabilities. The assessment tool has been adapted for smaller communities with limited resources and can be completed by community leaders or elected officials. The completed assessment can then serve as the community's plan for adapting to local climate change impacts, where the community can choose adaptation options best suited to the issues they face.

The department also successfully engaged and assisted six communities in 2011-12, as indicated, to participate in the assessment of their vulnerability and subsequently develop adaptation plan. The communities of Ferryland, Logy Bay-Outer Cove-Middle Cove, Indian Bay, Corner Brook, Fortune, Irishtown-Summerside were engaged by the department to conduct community consultations and workshops and develop final reports. Community feedback also constituted a vital component in the development of the assessment tool.

Objective for 2012-13:

By March 31, 2013, the Department of Environment and Conservation will have continued to engage municipalities in the development of climate adaptation plans.

Indicators:

- Municipal staff attended training sessions on the climate change vulnerability assessment tool through a sustainable infrastructure workshop.
- The community vulnerability assessment tool promoted through conferences and other networking opportunities.
- The community vulnerability assessment tool and associated case studies made available in print and on the web.





Appendix A: Wilderness and Ecological Reserves Advisory Council

The Wilderness and Ecological Reserves Advisory Council (WERAC) advised Government through the Minister of Environment and Conservation on the establishment, management and termination of wilderness and ecological reserves within the province. The Council wrote and tabled its Annual Report in 2010-11, but is now inactive and has no further activity to report on for the 2011-2012 fiscal year.

Mandate

The *Wilderness and Ecological Reserves Act, 1980*, Under Section 7, provides for an Advisory Council to advise government on the establishment and termination of wilderness and ecological reserves within the province. The Council's duties include consultation proceedings with interested government department, municipal councils, industry stakeholders, the general public, and other bodies on the establishment of a reserve, and preparation of a report to the Lieutenant-Governor in Council on the advisability of the establishment of a reserve.



Appendix B: Lines of Business

The Department of Environment and Conservation provides the following lines of business:

Land resources

The Department of Environment and Conservation is responsible for the administration and management of the province's land resources. In particular, the department:

- maintains a map and air photo library services;
- maintains the Provincial Crown Lands Registry;
- investigates adverse land claims;
- reviews and inspects legal surveys;
- prepares legal documents of title for all dispositions of Crown Land;
- produces and distributes topographic base maps for provincial departments and agencies;
- provides the geodetic reference system for legal and engineering surveys and topographic mapping;
- provides new aerial photography; a repository/archive of provincial aerial photography; and scanning/printing services;
- facilitates the official naming of geographical features and place names and maintains the joint federal/provincial data base;
- provides the central data-store and on-line base layers for GIS applications;
- provides standards and consultation services in geomatics;
- facilitates federal/provincial collaboration in geomatics (Building the Canadian Geospatial Data Infrastructure (CGDI) under the Canadian Geomatics Accord);
- produces Crown title maps;
- develops land use management plans;
- maintains the Land Use Atlas;
- enforces lands legislation and addresses incidents of unauthorized occupation of Crown land;
- coordinates within government the inter-departmental review of crown land development through the interdepartmental land use committee (ILUC);
- develops land use policy; and
- administers the leasing, sales and transfers of Crown land.

Provincial parks, ecological and wilderness reserves, natural areas, and Canadian Heritage rivers

The department is responsible for:

- the management and administration of provincial parks (the Newfoundland T'Railway Provincial Park is jointly managed by a special T'Railway Council) under the *Provincial Parks Act*;
- designation and management of wilderness and ecological reserves under the *Wilderness and Ecological Reserves Act*;
- development and implementation of biodiversity monitoring programs and maintenance of ecological integrity in protected areas
- development and implementation of environmental education programs within select provincial parks and wilderness/ecological reserves;
- implementation of protection measures for Canadian Heritage Rivers in the province;
- negotiation of the land transfer to the federal government for National Parks; and
- issuance of various permits for provincial parks, ecological and wilderness reserves

Wildlife and inland fish

The department protects, manages and conserves the province's biodiversity, wildlife resources and wildlife habitat. This includes:

- determining the status of species in the province according to the National Accord for the Conservation of Species at Risk to which the province is a signatory;
- developing and implementing stewardship agreements to support the recovery of species at risk;
- identifying, designating and developing recovery strategies for species at risk according to the *Endangered Species Act*;
- developing and implementing strategies for the conservation of biodiversity;
- designating and managing wildlife areas;
- administering the Salmonier Nature Park - a wildlife rehabilitation, interpretation and research facility;
- developing management plans for consumptive species which are then published in the annual hunting and trapping guide;
- issuing hunting and trapping licenses;
- developing policies and guidelines regarding wildlife utilization;
- issuing Newfoundland and Labrador Guide licenses;
- providing education, awareness and training programs such as firearm safety, hunter and trapper education courses;
- implementing the North American Waterfowl Management Plan, including providing assistance in the development of agreements to support wetland and coastal stewardship initiatives;
- developing long term landscape level planning to minimize conflicts between wildlife and other land uses;
- permitting for the non-consumptive use, possession, importation and export of wildlife and parts thereof;
- collecting scientific information to provide input into the sustainable management of wildlife, including inland fish populations, and habitat; and,
- utilizing education, awareness and stewardship programs and initiatives to foster appropriate attitudes, respect, behavior and appreciation towards our wildlife and habitat.

Environmental assessments

The department coordinates the provincial environmental assessment process for new development, which includes:

- reviewing proposed undertakings;
- gathering background information concerning the environmental impacts of the proposals;
- analyzing information according to a well-defined set of environmental assessment procedures;
- providing recommendations to the minister as to whether a project can proceed in an environmentally-acceptable manner; and
- conducting select surveillance on projects released from the environmental assessment process

Air, soil and water pollution

The department is responsible for prevention of pollution of the province's air, water and soil ecosystems. Responsibilities include:

- preparing and issuing Certificates of Approval and licenses for:
 - industrial operations;
 - waste management systems (in collaboration with Service NL Centre);
 - waste dangerous goods transporters;
 - pesticide vendors, operators and applicators; and
 - heating oil storage tank inspectors;
- developing policies, guidelines, protocols, and regulations;
- developing training material and providing training;
- enforcing Certificates of Approval, license conditions and legislation through:
 - inspections, other than those done by Service NL Centre;
 - the development of environmental monitoring programs in collaboration with industry;
 - audits of the environmental monitoring programs;
 - audits of environmental laboratories; and,
 - the monitoring of criteria air contaminants;
- designating contaminated sites and auditing risk assessments based on environmental site assessments;
- providing technical advice and outreach;
- managing remediation of industrial and military contaminated sites that are the responsibility of government; and,
- maintaining a registry of contaminated sites.

Water resources

The department ensures that the province's water resources are protected, conserved and enhanced to provide the greatest possible sustainable benefits to the province.

Responsibilities include:

- designation of protected water supply areas and protected wellheads;
- monitoring and analysis of chemical water quality of community water supplies;
- issuance of well driller licenses;
- inspection of water well structures in accordance with requirements of the *Well Drilling Regulations*;
- comprehensive training for municipal water operators of community water and wastewater systems;
- hydrologic modeling;

- investigation of water-related problems and complaints;
- overseeing inspections of dams;
- granting of water rights;
- maintenance of a water rights registry;
- issuance of permits for community water and sewage systems, extensions and alterations;
- monitoring and inspection of community water and wastewater systems;
- provision of technical assistance on community water and sewage, hydrology, hydraulics, and environmental design of water related structures;
- maintenance of various online water quality and quantity databases and GIS resources; and
- conducting studies on groundwater resources, flooding, water resource impacts and water use.

Horizontal Initiatives

The department is lead in two key government-wide initiatives: Government's response to climate change, and sustainable development. These are evolving files and therefore the programs and services offered by this department in these areas are also evolving. The programs and services that the public can expect from the department on these two initiatives are outlined below:

Climate Change

The department is responsible for:

- Implementation of the provincial Climate Change Action Plan; Atlantic Climate Adaptation Solutions (ACAS) Program
- Administration of the Newfoundland and Labrador Green Fund; and Administration of RAC
- Creation of stakeholder awareness on greenhouse gas reduction strategies and climate change impacts and adaptation.

Sustainable Development

The department is responsible for:

- Strategic research on wildlife species, notably the Caribou Strategy in support of the sustainable development initiative;
- Provision of support for the Sustainable Development Round Table;
- the development of indicators and a provincial sustainability report as directed by the *Sustainable Development Act*;
- Development of public education and outreach information related to sustainable development;
- Development and coordination of graduate research projects through the The Institute of Biodiversity, Ecosystem Science and Sustainability (IBES); and
- General promotion of sustainable development within Government and the larger community.

Financial Statements

Expenditure and Revenue figures included in this document are based on public information provided in the Report and the Program Expenditures and Revenues of the Consolidated Revenue Fund for Fiscal Year Ended 31 March, 2012.

	Estimates		
	Actual \$	Amended \$	Original \$
<i>Executive and Support Services</i>			
Minister's Office	285,312	304,100	290,500
<i>General Administration</i>			
Executive Support	1,102,632	1,108,500	1,105,500
Administrative Support	952,750	1,043,500	1,091,900
Revenue—Provincial	(34,025)	-	-
Policy Development and Planning	4,254,127	7,771,300	7,807,300
Revenue—Federal	-	(486,700)	(486,700)
Revenue—Provincial	(262,407)	7,771,300	7,807,300
Sustainable Development and Strategic Science	3,084,498	3,481,400	3,154,300
Institute for Biodiversity and Ecosystem Science	731,536	820,400	850,900
Administrative Support—Capital	2,219,613	5,018,000	5,018,000
Total: Executive and Support Services	12,630,528	19,547,200	19,318,400
<i>Environmental Management and Control</i>			
Pollution Prevention	4,455,556	5,857,000	5,931,500
Revenue—Federal	-	(27,500)	(27,500)
Revenue—Provincial	(124,223)	(273,500)	(273,500)
Water Resources Management	4,110,461	4,016,100	3,986,100
Revenue—Provincial	(346,834)	(576,600)	(576,600)
Water Quality Agreement	654,038	378,100	378,100
Revenue—Federal	(32,000)	(88,000)	(88,000)
Revenue—Provincial	(346,076)	(641,200)	(641,200)
Environmental Assessment	(285,855)	(14,200)	(14,200)
Revenue—Provincial	(1,02,196)	(1,685,000)	(1,685,000)
Total: Environmental Management and Control	8,934,200	10,237,000	10,954,800

	Estimates		
	Actual \$	Amended \$	Original \$
<i>Lands</i>			
Crown Land	3,986,570	3,933,600	4,078,800
Revenue—Provincial	(51,048)	(150,000)	(150,000)
Land Management and Development	(4,941,038)	(5,796,400)	(5,651,200)
Revenue—Provincial	(5,828,579)	(6,784,000)	(6,784,000)
Surveying and Mapping	777,355	787,100	897,100
Revenue—Provincial	(32,398)	(80,000)	(80,000)
Geomatics Agreement	68,615	300,000	300,000
Revenue—Federal	-	(115,000)	(115,000)
Revenue—Provincial	-	(85,000)	(85,000)
Total: Lands	(108,498)	(775,700)	(375,300)
<i>Wildlife, Parks and Natural Heritage</i>			
Parks and Natural Areas	5,346,229	5,643,800	4,823,500
Revenue—Federal	-	(2,500)	(2,500)
Revenue—Provincial	(949)	(5,000)	(5,000)
Park Development	230,083	238,800	288,800
Total: Parks and Natural Areas	5,576,312	5,882,600	5,112,300
<i>Wildlife</i>			
Administration, Licensing and Operations	1,559,963	1,630,100	1,615,800
Endangered Species and Biodiversity	493,975	522,300	594,100
Stewardship and Education	1,703,284	1,749,100	1,705,600
Habitat, Game and Fur Management	2,910,830	3,146,000	3,118,400
Revenue—Provincial	(35,000)	-	-
Research	2,683,817	2,893,000	2,787,500
Cooperative Wildlife Projects	438,316	485,100	485,100
Revenue—Federal	(275,831)	(279,000)	(279,000)
Total: Wildlife	9,790,185	10,425,600	10,306,500
Total: Wildlife Parks and Natural Heritage	15,366,497	16,308,200	15,418,800

	Estimates		
	Actual \$	Amended \$	Original \$
<i>Labour Relations Agency</i>			
Executive Support	346,408	427,100	428,400
Administration and Planning	706,297	724,300	723,300
Revenue—Provincial	-	(78,000)	(78,000)
Labour Relations and Standards	1,246,212	1,257,700	1,257,400
Revenue—Provincial	(80,483)	(70,000)	(70,000)
Standing Fish Price Setting Panel	143,328	224,700	244,700
Labour Standards Relation Board	743,309	920,400	920,400
Revenue—Provincial	(25)	-	-
Total: Labour Relations Agency	3,185,554	3,574,200	3,574,200
Total Department:	40,008,281	48,890,900	48,890,900