

Department of
Environment and Conservation

Annual Report 2004-05



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

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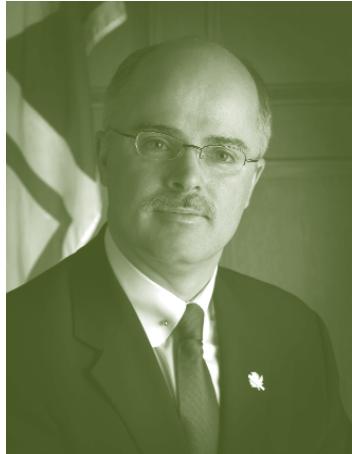
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Letter of Transmittal



In accordance with Government's commitment to accountability, I hereby submit the 2004-2005 annual performance report for the Department of Environment and Conservation. This report was prepared under my direction, and addresses the Department's activities and outcomes from April 1, 2004 to March 31, 2005.

I am pleased with the work of my Department during its first full year following integration of environment, wildlife, parks, lands and natural heritage as the Department of Environment and Conservation. I would like to take the opportunity to highlight a few key achievements. In the area of air quality, the *Air Pollution Control Regulations* were revised and strengthened after extensive consultations with industry stakeholders. In partnership with the Multi-Material Stewardship Board (MMSB) and municipalities, progress is being made towards the 50% waste diversion goal of the Provincial Waste Management Strategy. The Department also played a key role in the creation of a new National Park Reserve in the Torngat Mountains.

We face many challenges in the coming year including implementation of a climate change action plan; creation of an Act on sustainable development; new pesticide regulation; and new halocarbon regulation. I look forward to the exciting challenges of coming year.

A handwritten signature in black ink, appearing to read "Tom Osborne".

Hon. Tom Osborne
MINISTER

Departmental Overview

The Department of Environment and Conservation was created in February 2003 with the mandate of the protection and enhancement of the environment and the management of the Province's wildlife, parks, water and land resources. The Department's functions include:

- controlling air, water and soil pollution;
- developing and implementing appropriate water resource and land management policies;
- coordinating environmental impact assessments of proposed development projects;
- addressing industrial/domestic waste disposal issues;
- regulating and controlling hazardous material storage, use, transportation and disposal;
- providing regulatory protection of wildlife and inland fish;
- establishing and maintaining provincial parks, ecological and wilderness reserves, natural areas and Canadian Heritage rivers;
- providing map and air photo services;
- managing Crown lands; and
- maintaining the Provincial Crown Lands Registry.

The Department of Environment and Conservation consists of three branches: Environment, Lands and Natural Heritage. These are further subdivided into divisions and sections. The Department also has a Policy and Planning

Mandate

Environment

Ensures safety of drinking water; ensures adequate water supplies for human, agricultural, industrial and commercial purposes; regulates industrial emissions; regulates pesticide use; monitors air quality; develops policies for management of waste materials; and ensures an effective environmental assessment process.

Lands

Administers and manages the Province's Crown lands; investigates and determines land claims against the Crown; develops geomatic products and services; and distributes land-related information.

Natural Heritage

Operates a system of provincial parks, wilderness and ecological reserves and ensures the responsible management of natural resources for the protection and conservation of our natural heritage and wildlife.

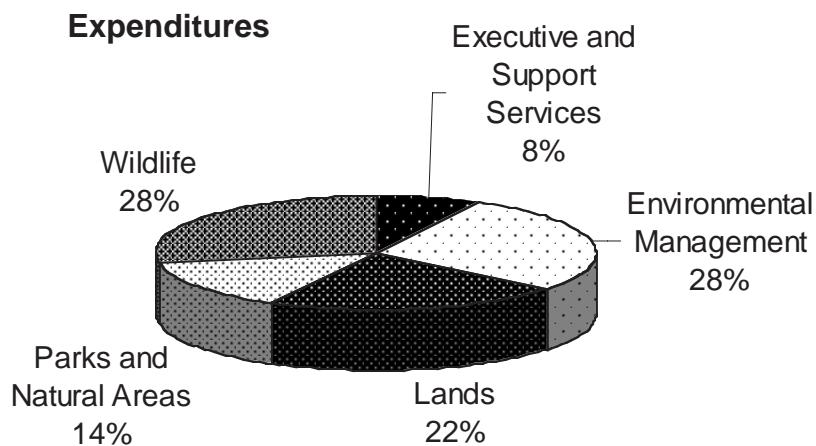
Division, a Communications Unit and a Sustainable Development and Strategic Science Unit, which was officially created in January 2005 as part of the proposed restructuring of the Wildlife Division. The Corporate Services Unit (Human Resources and Finance and General Operations) is shared with the Department of Tourism, Culture and Recreation. Information technology (IT) services in 2004-05 were provided through Treasury Board Secretariat.

The Department of Environment and Conservation's main offices are located at Confederation Building in St. John's and at Deer Lake and Corner Brook. The Department has satellite offices in other locations in St. John's, Grand Falls-Windsor, Clarenville, Gander, and Goose Bay. The Department is also responsible for Salmonier Nature Park and numerous provincial parks and ecological reserves around the Province: 31 provincial camping parks and park reserves, 18 wilderness and ecological reserves, and five wildlife reserves and special management areas. The Department has a staff complement of 348 employees.

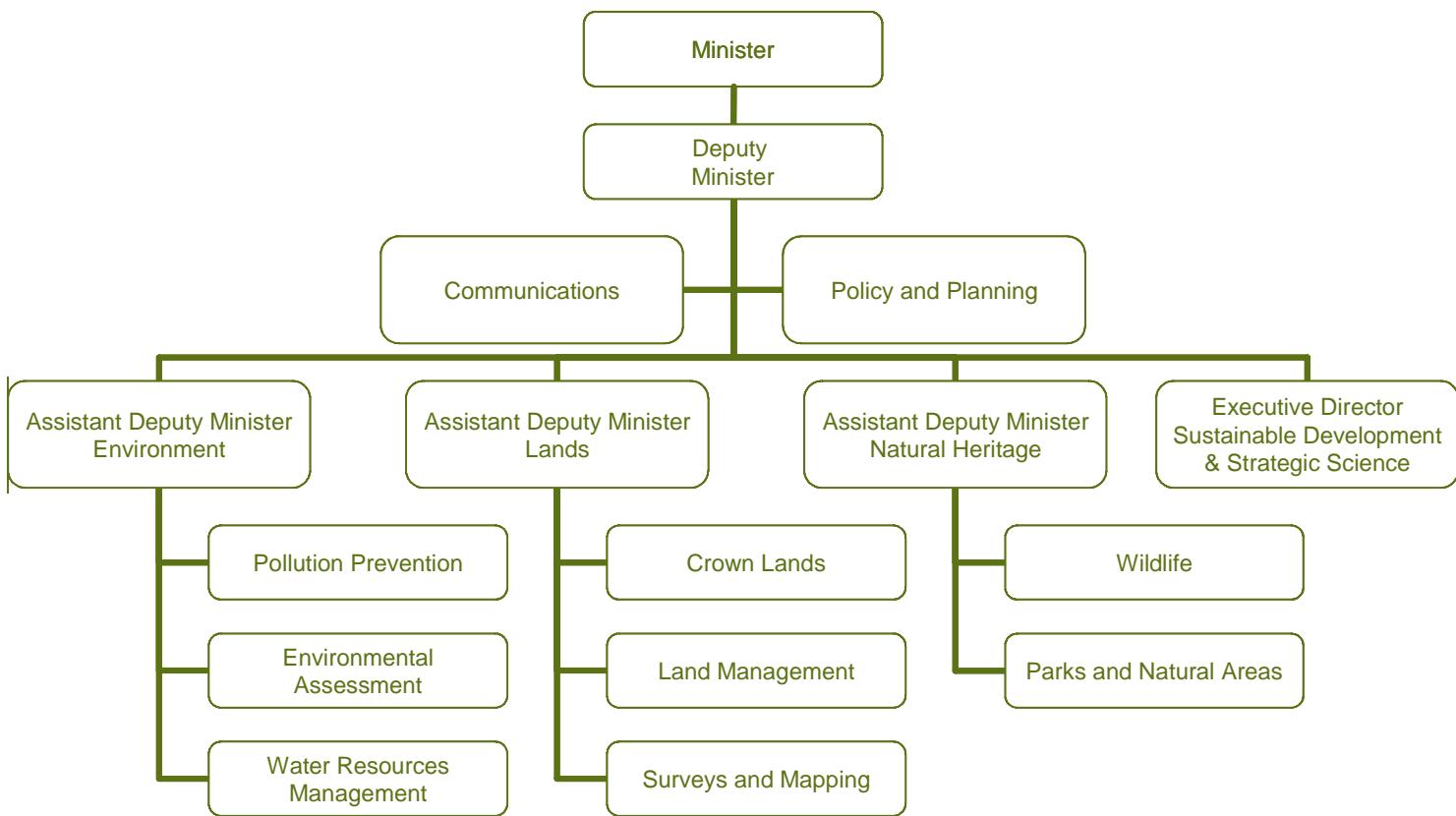
The Department of Environment and Conservation administers the following Acts and their associated Regulations:

- *Environmental Protection Act*
- *Water Resources Act*
- *Wildlife 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*

The Department budget for 2004-05 was approximately \$24 million. The Department budgeted approximately \$6 million in related revenue, such as license fees and sales of Crown land and geomatic products.



Department of Environment and Conservation Organizational Chart



Shared Commitments

Many of the initiatives undertaken by the Department of Environment and Conservation in the process of fulfilling its mandate are done so in collaboration with partners.

Federal Government

The federal government is a key partner on many of the Department's initiatives across all the Branches and units.

The Water Resources Management Division of the Environment Branch administers cost-shared agreements with **Environment Canada** on water resources management. The Environment Branch and Natural Heritage Branch are also working in partnership with Environment Canada to develop an inventory of wetlands in the Province using satellite imagery and ground reconnaissance. This project will be implemented through partnerships with local communities. This mapping based inventory will be used to protect and conserve wetlands in the Province.

The Department also shares several initiatives with Environment Canada on air pollution. The Department partners with Environment Canada on the National Air Pollution Surveillance (NAPS) Network to monitor ambient air pollutants. Environment Canada provides the monitoring equipment and our Department operates the sites. Environment Canada then uses the data generated from NAPS for its Air Quality Prediction Program to predict smog episodes.

The Department also worked closely with Environment Canada to address issues related to the Pulp and Paper, Mining and Oil Refining industries. This included consultation and joint inspections of these operations to ensure compliance with environmental legislation.

In terms of Natural Heritage programs, Environment Canada provides funding for habitat stewardship, species at risk, and other wildlife-related activities. **Justice Canada** helps to ensure successful delivery of firearms safety training initiatives in the Province. **Parks Canada** partners on research in the national parks. Parks Canada is also a partner in planning new national parks and marine conservation areas.

The Environment Branch is working in partnership with **Fisheries and Oceans Canada** to identify and document sewage outfalls in the Province. This information is being captured in a database and will be made available to the public as a Geographic Information System (GIS) layer.

The Environment Branch and the Lands Branch are working in partnership with **Natural Resources Canada** to create a National Hydro Network (NHN) GIS layer. This will be used to manage and analyze water resources in the Province.

Provincial Government Departments / Agencies

The Department has a Memorandum of Understanding (MOU) with the **Department of Natural Resources** to share and produce joint reports on topics of mutual interest.

In the past year, the Department's Pollution Prevention Division worked closely with the Department of Natural Resources to address environmental issues related to nine abandoned mines, five operating mines and four proposed mine developments. Activities included site inspections, review of reclamation plans and the drafting of approvals for operating mine sites.

In order to protect and conserve the Province's natural heritage and wildlife, the Department also partners with the Department of Natural Resources. Natural Resources supplies the Conservation Officers who provide field and logistic support to the Department of Environment and Conservation's wildlife programs.

The Pollution Prevention Division also has an MOU with the **Department of Government Services** to act as the Department of Environment and Conservation's delivery agent on various permits and inspections.

The Sustainable Development and Strategic Science Unit works in partnership with the **Department of Education** on the development of new curriculum resources for the environmental science education program for secondary school students.

For several years, the Crown Lands Division of the Lands Branch has provided a key support role to the **Department of Labrador and Aboriginal Affairs** in Aboriginal land claim negotiations involving the Labrador Inuit Association, the Innu Nation and the federal government. The Crown Lands Division is involved in the provision of land ownership mapping data to the Nunatsiavut government, settling existing private adverse claims, consultation with Inuit communities on private claims and administration of survey contracts.

The Department of Environment and Conservation partners with the **Department of Municipal and Provincial Affairs** and the **Multi-Material Stewardship Board** (MMSB) on the implementation of the Provincial Waste Management Strategy. The MMSB, a Crown agency reporting to the Minister of Environment and Conservation, was established in 1996 to develop, implement and manage a variety of waste diversion programs in accordance with Government priorities.

Academia

The Sustainable Development and Strategic Science Unit manages the Institute for Biodiversity and Ecosystem Science (IBES), which was created in partnership with **Memorial University of Newfoundland** to facilitate local applied graduate research.

The Natural Heritage Branch regularly partners with the academic institutions in the Province on



Natural settings



research projects. A number of students from Memorial University are working with the Wildlife Division on their masters research. The Branch also partners with the **College of the North Atlantic** to involve students from the Fish and Wildlife Technicians course in research and wildlife management activities.

The **Western Newfoundland Model Forest** and staff of the Natural Heritage Branch partner on funded research initiatives and education and outreach programs that advance the mandate of the Branch in the context of sustainable forest management.

Aerial shot of forest



Forest harvesting

Other Stakeholders

The Surveys and Mapping Division provides geomatic services including: the geodetic reference system; topographic mapping; aerial photography; and the official geographical names. In addition to various federal, provincial, and municipal partners, the Division also partners with utilities and industries in data collection and the creation of its products and services.

On research or stewardship initiatives in Labrador, the Natural Heritage Branch often works closely with the **Innu Nation** and the **Labrador Inuit Association**.

The Natural Heritage Branch works collaboratively with local industry on industrial impacts on wildlife. The forestry industry, for example, often provides human and financial resources to support the work of the Wildlife Division and to ensure that wildlife concerns are incorporated into the forestry planning process. One of the goals of the Division's Habitat Management Program is to analyze impacts that proposed harvesting techniques would have on the ecological processes in the area.



IBES student with coyote -
conducting research for
masters study.

Key Achievements

ENVIRONMENT BRANCH

Water Resources Division

The Department of Environment and Conservation is designated as the contact point and lead Government agency for all public inquiries on drinking water safety. Water quality is protected primarily through watershed management, permitting for undertakings that affect water bodies, water quality management and monitoring and training of operators. The Department must also properly manage water in its natural state to protect ecosystems and ensure the availability of water for all beneficial uses. The Department ensures the sustainable use of water primarily through water use allocations and associated monitoring and enforcement.

The Division continued to implement the Department's responsibilities under the Multi-Barrier Strategic Action Plan for drinking water safety. Drinking water source protection is strengthened through issuance of regulatory permits for land use control within water supply areas, establishment of watershed management committees; and development of watershed management plans. A total of 101 permits were issued under the *Water Resources Act*.

The Department undertakes an inventory of the quality of the Province's water resources on a regular basis for the proper management, conservation and allocation of water resources. The staff shares its water quality expertise with a number of national and international agencies. The real-time water quality network, a digital monitoring system, has been an innovative development in ambient water quality monitoring and is being expanded slowly and gradually. The Division has been recognized nationally for its work in the area of water quality index and its application in reporting water quality data.

Strategic Objective
Protecting Water
Quality

Real -Time Water Quality Data Available

A web page was developed to provide the public with access to real-time water quality data on temperature, pH, turbidity, dissolved oxygen and conductivity from the provincial real-time water quality monitoring network. The network consists of six stations including three stations set up in partnership with Voisey's Bay Nickel Company (VBNC) and Environment Canada to monitor the environmental impact of construction activities in Voisey's Bay. A real-time weather station was installed in Pippy Park and the Division is developing a web page to provide the public with access to the data collected by this station. Real-time water quality is available at <http://www.env.gov.nl.ca/wrmd/RTWQ/>

In the area of community water and wastewater, 67 permits were issued for water and wastewater infrastructure upgrade under the *Water Resources Act*. The reference document, *Guidelines for the Design, Construction, and Operation of Water and Sewage Systems*, was revised in consultation with stakeholders. The Division is involved in the development of a national municipal wastewater effluent management strategy. The Division also provides technical input for the management of the municipal capital works program.

In the area of operator training, two workshops on “Small Systems Operation, Maintenance and Treatment” and “Municipal Wastewater Management - Theory and Practices” were held in September 2004 and March 2005. These are attended by 285 and 80 participants, respectively. The Department also held 47 classroom training seminars which were attended by 603 people. In addition, the mobile training units were used to provide on-site training to operators on a regular basis.



Example of a corroded water distribution pipe

The Division monitored river flows, ice conditions and weather data using hydrometric network, satellite images, and weather stations and collaborated with the communities to provide up to date information on flood risk throughout the winter and spring while there is a likelihood of flooding on the Exploits and Humber Rivers.

The Division has initiated a new inventory of dams that will be used to monitor the safety of dams. The inventory will be used to develop a GIS layer depicting dam locations.

The drinking water quality database, which stores all available information on the chemical quality of public water supplies, was enhanced to generate two new value added quarterly and annual data reports: the *Drinking Water Quality Index Report* and the *Langelier Index Report*. The *Drinking Water Quality Index Report* is the first in Canada to incorporate the Canadian Council of Ministers of the Environment (CCME) Water Quality Index. This report is helping communities to better understand their water quality results. The *Corrosion Index Report* is helping communities to adjust and optimize pH levels in order to enhance drinking water quality and prolong the life of distribution systems.

To increase efficiency in identifying and responding to drinking water quality issues, direct access to the drinking water quality database and all public water supplies was provided to all government departments through the innovative web-based departmental GIS. The departmental GIS system was enhanced to incorporate the latest boil water advisories on a daily basis. Hands on training was provided to various departments on how to use the web-based GIS application.

All public water supply data was made available to Government, industry, the private sector and communities as a digital GIS layer format on the Department’s web page. This GIS layer is critical for stakeholders involved in watershed management and protection. A comprehensive map of protected water supplies in Newfoundland and Labrador was also made available through the web page. Protocols and procedures which incorporated remote sensing techniques were developed to monitor land use activities in protected water supply areas.

A sampling survey of groundwater in the Province for perchlorate was completed at the request of Health Canada. Perchlorate is a chemical that interferes with iodine take up in the thyroid gland

thereby disrupting thyroid functions. Wells deemed at risk and background locations were sampled. All results were negative.

The Division issues permits for alteration to bodies of water for projects ranging from small culvert crossings to major hydroelectric projects. In 2004-2005, the Division issued 350 permits under the *Water Resources Act* with an additional 30 permits issued jointly with other divisions. The Division is now using the new “Application and Inspection Tracking System”, which is a computer program designed to help speed up the permitting process.

The Division responds to public complaints about water-related problems such as flooding, erosion, poor drainage, poor water quality or water shortages generally caused by others. Inadvertent changes, illegal or non-approved projects involving water, also fall into this category. The response is generally to investigate the problem and if there is a dispute, recommendations for action are made that are fair to both parties. In other cases, legal action may be initiated to correct problems and to prevent further violations of the legislation. In 2004-2005, 60 complaints were received and about one quarter of these required further investigation by field inspection.

The Division provides related technical services to other divisions in the Department and to other agencies and government departments. In 2004-2005, 240 referrals from Crown Lands were reviewed, and recommendations were made on 50 referrals from municipalities. Also, 60 projects registered under the environmental assessment process were reviewed and recommendations provided.

In 2004-05, the Division evaluated 67 water use allocation proposals and issued 153 water use licenses. These licenses include reissued licenses as required under the *Water Resources Act*. The proposals and licenses were for a variety of water uses, including agricultural, aquaculture, water bottling, water power generation, mining and other commercial and industrial uses.

The Division completed its work on the implementation plan for the Inuit land claims agreement. Also, the Division is continuing its work on water management and water rights related to Labrador Innu and Conne River Reserve land claims agreements.

With respect to the allocation of water for power generation, in 2004-05 the Division collected water power rentals in the amount of \$203,133. Also in this area, the Division has been actively involved in the work and studies with the CCME Water Conservation and Economics Task Group.

Pollution Prevention Division

The Department continues to carry out and improve monitoring of environmental effects and industry compliance. Environmental monitoring indicates how emissions and effluents from human activities affect the environment and points to needed improvements in technology and remediation. The Pollution Prevention Division monitors outdoor air quality by collecting information on the types, quantities and impacts of major emissions in the Province. The Division also develops plans for achievement of national standards. Monitoring of outdoor air for Criteria Air Contaminants (CACs) takes place at St. John's, Mount Pearl and Corner Brook. Ozone is



Real-time water monitoring equipment

Strategic Objective
Strengthening Air Quality Monitoring

Air Pollution Control Regulations Revised

Changes to the *Air Pollution Control Regulations* were announced in May 2004. The new regulations were strengthened to include a two per cent annual limit on sulphur content in heavy fuel used in the Province. The regulations also set a provincial sulphur dioxide (SO₂) emissions cap of 60,000 tonnes per year and require that companies releasing more than 20 tonnes of SO₂ per year submit an annual report.

Installation of liner at Argentia demonstration hydrometallurgical plant.

monitored at Grand Falls and at Ferrolle Point. The second site was established in May 2004.

Industry is required to conduct air monitoring through their Certificates of Approval for operations. Departmental staff audit industry monitoring to ensure compliance with the regulations. Twelve new monitors were installed at Newfoundland and Labrador Hydro's six monitoring stations. Six of these monitors are for particulate matter, five monitor for nitrous oxides (NO_x) and one monitors for sulphur dioxide (SO₂).

The Division continues to work closely with industry. Major activities of the industrial compliance program include:

- inspection of existing industrial sites;
- development of environmental monitoring programs in collaboration with industry;
- analysis of the results of monitoring programs, computer modeling, site assessments, and risk assessments;
- investigation of complaints from the public;
- assessment of applications for establishing new industrial operations or modifying existing operations;
- preparation, issuance, and enforcement of Certificates of Approval for industrial operations;
- auditing air and effluent monitoring equipment, analyzers and data; and
- regulatory interpretation and technical advice to industry and the public.

Twenty-six Certificates of Approval were issued in this past fiscal year. The objective of these approvals is to mitigate potential adverse environmental impacts of industrial and institutional facilities.

Of the 26 approvals issued in 2004-05, 11 were issued for Voisey's Bay Nickel Company for components of the mine and mill at Voisey's Bay. Two were for the construction of residue storage ponds and the hydrometallurgical demonstration plant at Argentia.

Pollution Prevention Division continues to support Government Services Centres by providing regional offices with information and guidance documents and by assisting with drafting Certificates of Approval for waste management systems. An inspection frequency guidance document was completed this year.

A guidance document for the management of impacted sites was completed in December 2004. This and other documents are available on the departmental website.



Lethbridge - Demonstration composting operation using in fish and sawmill wastes

New Recycling Programs

New fibre waste recycling programs in several municipalities were announced by the Department in early 2005 as part of Government's efforts to achieve its 50% waste diversion goal as outlined under the Provincial Waste Management Strategy. The Department of Environment and Conservation participates in these initiatives in partnership with the Multi-Materials Stewardship Board (MMSB), the municipalities and others.

St. John's, Mount Pearl, Paradise and Conception Bay South will introduce a mandatory office paper recycling program that will apply to industrial, commercial and institutional facilities.

A residential paper and cardboard waste diversion program was announced for Lewisporte.

Residential curbside recycling programs were announced for Corner Brook and Mount Pearl. Under these programs, household paper, cardboard and other fibre will be collected for residents as part of regular garbage collection.

The Pollution Prevention Division participated in an Oil Spill Waste Management workshop sponsored by the Newfoundland and Labrador Environmental Industries Association (NEIA) in March 2005 and has since initiated the development of an oil spill waste management plan.

The Department continued its involvement in the remediation of contaminated sites. In March 2004, Government announced \$1.5 million to fund Phase I of site remediation of the former United States Air Force Pinetree site near St. Anthony and this phase of the clean-up activities was completed in December 2004. In early 2005 Government announced \$1 million to fund Phase II of the site remediation, which is expected to be completed by Fall 2005.

The Pollution Prevention Division obtained two convictions under the *Environmental Protection Act* related to pesticide companies operating without valid licenses.

The Division continues to work as part of the Atlantic Working Group on Pesticide Education, Certification and Training (AWGPETC). Work continued within the framework of this group on the drafting of pesticide applicator manuals for the core, landscape and biting fly categories.

In May 2004, amendments to the *Storage and Handling of Gasoline and Associated Products Regulations* were introduced. The primary change in these regulations was to convert from an approval requirement to a registration requirement. All existing systems are required to be registered.

In order to monitor implementation of the *Used Oil Control Regulations*, a mail-out survey was initiated toward the end of the year to obtain data on sales of lubricating oil and the rate of returns of used oil or disposal to licensed transporters. Replies continue to come in and it is expected that

Strategic Objective

Improving Waste Management



Constructed wetlands sewage treatment lagoon in the community of Breton.

results will be available for next year's report. Any concerns with respect to specific regulatory requirements are also being noted.

Implementation of the *Heating Oil Storage Tank System Regulations* (HOST) continued this year. By year end, there were 147 licensed inspectors in the Province. A new edition of the reference code for installation of oil burning equipment was published. During this year, an additional 9300 HOST registration tags were distributed to these licensed inspectors to use in the identification of registered systems. Presentations on these regulations and associated topics were made to a variety of interested parties throughout the year.

Environmental Assessment Division

Strategic Objective **Ensuring Effective Legislation**

Environmental assessments and associated surveillance are the Department's primary tools for ensuring that development projects proceed in an environmentally-acceptable manner. From both an environmental and an economic perspective, it is critical that the process be effective and efficient. During 2004-05, 61 projects were registered and reviewed in accordance with the environmental assessment process. Projects reviewed included 15 recreational trails; nine forest harvest projects; several mink farms; sewage treatment facilities; transmission lines and roads; wind power projects; and wharves and breakwater developments. Only one environmental preview report was required, ie. the Pasadena / Deer Lake Resort. In addition, environmental protection plans were accepted for the Trans Labrador Highway (Cartwright Junction to Happy Valley-Goose Bay) and Duck Pond Copper Zinc Mine.

LANDS BRANCH

Crown Lands Division

The Crown Lands Division has five principal lines of business: 1) allocation of Crown land; 2) Crown title preparation mapping, and GIS; 3) registration of Crown lands and records; 4) defending the Crown's interest in Crown land; and 5) sale of air photos, maps and related products.

Throughout 2004-05 considerable staff time and resources were devoted to completing tasks associated with the Labrador Inuit Land Claims Agreement including provision of land ownership mapping and data to the Nunatsiavut Government, settling existing private adverse claims, consultation with Inuit communities on private claims, and administration of survey contracts.

Some improvements were made to the Division's electronic Application Management and Tracking System (TRACTS) in 2004-05. Improvements were made to the TRACTS search screen for use by internal and external users. Work continued on developing an interface between TRACTS, Crown Lands GIS and the document imaging program. This interface is expected to allow these systems to operate concurrently in a bi-directional manner, thus facilitating access and retrieval of information.

During 2004-05, a new application layer was created for the Crown Lands GIS to replace hard copy mapping. The conversion of the Crown Issued Titles layer from CARIS software to ARC GIS is

now complete. The target 'go live' date has been set for October 2005 starting at the head office and then rolling out across the Province on a region by region basis.

Approximately 21,000 images supporting 3,000 documents were added to the digital library with to allow system access at head office and all regional lands offices. Electronic access to scanned images will improve searching and copying capabilities. There remain about 66,000 documents to be scanned.

Lands Management Division

The Land Management Division is responsible for the development of provincial land use policies, plans and strategies which guide the use and allocation of Crown land. The Lands Branch Policy Manual is available to Lands Branch users via intranet and is updated and expanded as required.

According to the divisional responsibility of determining market value for Crown land, in 2004-05 the Division assessed approximately 700 parcels of Crown land with a value of \$7.8 million and a total area of 1700 ha.

In 2004-05, the Division developed 49 cottage lots with a total value of \$306,000. A remote cottage plan for the Cook's Pond area on the west coast of the Province was also developed. The Division has drafted a proposal for the development of additional float plane hanger lots at Paddy's Pond in the City of St. John's. The project is pending rezoning approval by the City.

Surveys and Mapping Division

The Surveys and Mapping Division provides and maintains the official geo-reference system, topographic maps and other geomatic products and services that are the foundation of all Geographic Information Systems (GIS). The Division is the lead provincial agency under the Canadian Geomatics Accord and contributes to the building of the Canadian Geospatial Data Infrastructure. The Division partners with federal agencies, provincial departments, municipal governments, utilities and industry in data collection and the creation of products and services. In 2004-05, the Division partnered on a variety of projects, including shoreline mapping in northern Labrador, revision of roads data, new base mapping in central Newfoundland, mapping for new highway design in Labrador and new community mapping. In 2004-05, the Division also continued to work towards implementation of the Provincial Geomatics Strategy and integrated web mapping services.

NATURAL HERITAGE BRANCH

Wildlife Division

The Wildlife Division has eight main program areas. The Biodiversity and Endangered Species program protects species from extinction and ensures recovery of species at risk. The Conservation Services program ensures that consumptive wildlife users perform their activities in a safe, knowledgeable, responsible and humane manner. The Salmonier Nature Park educates the public in the need to protect and conserve our wildlife populations and habitat. The Park also rehabilitates



Surveying in Labrador



Scenic shot of Labrador

Strategic Objective
Protecting and conserving biodiversity

injured wildlife for release back into the wild. The Game Species Management program ensures that wildlife populations are managed on sound biological principles and on a sustainable basis. The Habitat Management program evaluates the potential impacts of human development and land use on wildlife populations and habitat. The Enhancement, Stewardship and Partnership program develops cooperative agreements with various partners on the delivery of stewardship initiatives. The Inland Fish program ensures that inland fish resources are managed based on sound biological principles. Finally, the Division also has a Administration and Licensing program which is responsible for the licensing processes for the licenses issued under the Division's jurisdiction.

In August 2004, the Department released a recovery strategy for three boreal woodland caribou herds in Labrador, which are listed as threatened under the provincial *Endangered Species Act*. The caribou herds included are the Lac Joseph, Red Wine Mountain and Mealy Mountain herds. The recovery strategy outlines several steps in areas such as stewardship, education, identification and protection of critical habitat, research, management and protection of the herds.

Three new species were given special protection under the Province's *Endangered Species Act* in early 2005. The Red Crossbill was listed as endangered. This small bird is a unique subspecies on the Island. The Low Northern Rockcress, a perennial herbaceous plant in the mustard family, was also listed as endangered. This plant occurs at only one location in the Province. The Porsild's Byrum moss was listed as threatened. This moss occurs in only six known locations, all on the tip of the Northern Peninsula. The next step in the recovery process for these species is to establish recovery teams and plans.

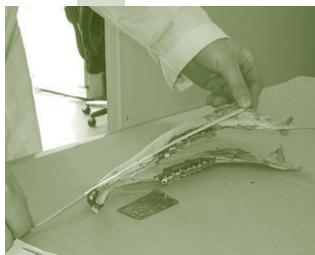
The Division collects moose and caribou jawbones and polar bear skulls from hunters for the purposes of research. In 2004-05, close to 200 moose and caribou jawbones and 5 polar bear skulls were received.

An analysis of morphometric data, including body and jawbone size for Newfoundland caribou, was completed in January 2005.

The Division is also involved in numerous other research initiatives. Staff was involved in a project to deploy satellite collars on caribou on Newfoundland's south coast and in the collection of biological samples of caribou on Merasheen Island. The Division also conducts research on small game and furbearers in areas where there are significant gaps in the knowledge base.

The Division administers, coordinates and develops the licensing processes for resident and non-resident hunting licenses for moose, caribou, black bear and small game. The Division also administers fishing licenses for trout and salmon. The Division is responsible for planning, developing, and implementing educating and public awareness programs directed at consumptive wildlife users.

In April 2004, the Department announced amendments to the *Wildlife Regulations* to introduce a coyote harvest for the Province. The coyote harvest addresses a number of concerns such as predation on livestock and wildlife. Coyotes were first reported in the Province near the Port au Port Peninsula and have since become permanently established on the Island.



Staff taking caribou jawbone measurements

Strategic Objective

Managing wildlife and inland fish resources

The Wildlife Division has taken steps to improve and professionalize the licensing of guides. Minimum standards became effective for all new guides January 1, 2005. The standards include proof of successful completion of a recognized firearm safety / hunter education course, a recognized boat safety course and a valid emergency first aid certificate.

Staff participated in multiple big game surveys across the Province. A review of Labrador caribou management zones was initiated in conjunction with the Woodland Caribou Recovery Team.

Over 4000 trapper applications were processed in 2004-05. Two new permanent snowshoe hare live-trapping grids were established – one near Bonne Bay and one in the Gambo area. The Gambo site will be monitored through a partnership created with the Corner Brook College of the North Atlantic Fish and Wildlife Technicians program.

The Inland Fish Section has developed an inland fisheries database which archives all fisheries information that has been collected by the Province.

Components of the provincial strategy on Moose Vehicle Collisions were implemented.

The 40th annual North American Moose Conference and Workshop was hosted by the Wildlife Division and held in Corner Brook, June 16-18, 2004. It was attended by 85 delegates from across Canada, the United States and Scandinavia. The conference was intended to facilitate communication between researchers and managers about the science of this species.

Salmonier Nature Park hosted a successful Becoming and Outdoors Woman program as well as a Project WILD workshop. The park continued its successful program for rehabilitation and release or transfer of injured or orphaned animals. New woodchuck and moose enclosures were constructed at the park.

New Park Reserve created in Labrador

On January 22, 2005, Minister Tom Osborne participated in the signing of a Memorandum of Understanding for a National Park Reserve of Canada in the Torngat Mountains. The agreement sets out the terms for the transfer of the administration and control of the land to Canada in order for the establishment of the national park.

Parks and Natural Areas Division

The Parks and Natural Areas Division is responsible for the planning, establishment, administration and management of Newfoundland and Labrador's provincial parks and wilderness and ecological reserves. The Division works with Parks Canada in planning new national parks and national marine conservation areas in the Province. The Division is also a member of the Canadian Heritage Rivers Board.



Caribou

Strategic Objective:
Preserving our natural heritage

Strategic Objective

Managing operations of provincial parks

Wilderness and Ecological Reserves play an important role in protecting the Province's natural heritage. These areas are meant to be sanctuaries and in many of these reserves there are few roads or services for the public. The Division is responsible for issuing the necessary permits for public access to these reserves. In 2004-05, the Division issued 552 permits to users of the Avalon and the Bay du Nord Wilderness Reserves. Twenty-four scientific research permits were issued on topics ranging from seabird population dynamics, caribou / coyote interactions to the vulnerability of endangered plants and wildlife species to the impacts of climate change. Six photography and educational tour permits for reserves were also issued. A management plan for Little Grand Lake Provisional Ecological Reserve was drafted.

Various upgrades to park infrastructure were undertaken in 2004-05. Eleven new campsites were developed in Butter Pot Provincial Park. Phase one of the electrification of LaManche Provincial Park was completed. Electricity poles have been installed and the next phase will see power lines being attached. Phase one of a parking lot expansion at Sandbanks Provincial Park was completed. An office and visitor facility was completed at the Pistolet Bay Provincial Park.

In terms of further planning for future infrastructure work, the Division developed a proposal for a capitalization plan for provincial parks. Partnerships were secured for improvements to the day-use facilities at Gooseberry Cove and Cataracts. These parks were leased to the Cape Shore and St. Mary's Bay North development associations to allow these groups access to external funding for improvement projects. The Division completed the analysis and draft scope of work for the bridge installation for the T'Railway at Red Rocks. The bridge was later installed by the T'Railway Council. The Division also worked in cooperation with the T'Railway Council to complete an upgrade of over 30 km of the T'Railway on the Southwest coast. This work included bridge repairs and decking, brush removal, culvert installation, safety barriers and surface improvements.

The Parks and Natural Areas Division is also responsible for public education in provincial parks and reserves. The Division implemented another successful summer interpretation program in six provincial parks and two ecological reserves. The fall "Nature's Classroom" school educational program took place at four parks and two ecological reserves.

The Division launched a user-friendly website with enhanced content and improved navigation.



Swimmers at Barachois Pond
Provincial Park



Gannets at Cape St. Mary's
Ecological Reserve



Dildo Run Provincial Park

EXECUTIVE SUPPORT

Policy and Planning Division

Throughout 2004-05, the Department continued its work on climate change issues in preparation for the release of a provincial climate change action plan. Meetings with stakeholders and other departments were held to finalize the plan, which was to be released later in 2005.

The Department worked to finalize a Memorandum of Understanding (MOU) on Climate Change between the Province and the federal government. The MOU was intended to help both governments build partnerships and take a coordinated approach on addressing climate change. The MOU was to be signed in the Spring of 2005.

The Department continued to support the Climate Change Education Centre (CCEC), housed at the Newfoundland and Labrador Conservation Corps, in its public education and outreach initiatives. In addition to its annual contribution to the CCEC, the Department contributed to a separate exhibition on climate change in partnership with the CCEC and the Newfoundland Science Centre.

The Department also participated in Smart Taxis Encouraging Environmental Respect (STEER), in partnership with the taxi industry, the City of St. John's and the Conservation Corps to educate the taxi industry about climate change and reduction of greenhouse gases. Throughout the winter of 2005, the Department participated in the organization and delivery of workshops for the taxi industry.

Policy and Planning staff represents the Department as an ex-officio member of the Placentia Bay Integrated Management Interim Steering Committee. This Committee was established in March 2005 to further the concept of integrated management according to the federal *Oceans Act*. The Department's activity in this area stems from the Province's commitment to a recommendation of the Terra Nova Project Environmental Assessment Panel (1997) on the need for coastal zone planning to address the risks associated with oil and gas development.

Strategic Objective
Developing Climate Change Policy and Programs



Hobo climate station at Burnt Cape Ecological Reserve

Public Service Award of Excellence

The Department of Environment and Conservation is proud of its hardworking staff. Two employees were honoured for their dedicated service with the 2004 Public Service Award of Excellence. Keith Brown, Park Manager at Butterpot Provincial Park, was honoured for the passion to his work that he has shown in his 30 years of service in the provincial parks system. Shane Mahoney, Executive Director of the Sustainable Development and Strategic Science Unit, was honoured for his visionary work in support of the sustainable use and conservation of the Province's natural resources.

Other Activities

Green Committee

The Department has an active Green Committee whose mission it is to identify, advance and promote strategies, policies and practices within the Department's operations aimed at minimizing negative environmental impact and maximizing benefits to the environment. The Committee is made up of volunteers from various divisions of the Department. A representative of the Committee is also active on the Inter-Departmental Recycling Committee. The Green Committee is responsible for organizing the annual Environment Week programme for departmental employees. Environment Week 2004 took place from June 2 to 8 and included activities such as the presentation of environmental awards, a nature walk, an electronic scavenger hunt, and talks on the provincial waste management strategy, the departmental GIS for drinking water quality, and gardening.

Fifteenth Annual Environmental Awards

The annual Newfoundland and Labrador Environmental Awards Program is a partnership of the Department of Environment and Conservation, the Newfoundland and Labrador Women's Institutes and the Multi-Materials Stewardship Board. Over the past 15 years, the award has recognized those who have made an outstanding contribution to the conservation, protection and restoration of our environment. Nominations may be made in various categories including: individual, community group or organization, educator, youth or youth group, school, business and municipality.

The 2004 winners were:

Individual	Laura Jackson, St. John's
Community Group/Organization	Conservation Corps Newfoundland and Labrador
Youth	Gaia Environmental Youth Group, Bay Roberts
Municipality	NorPen Waste Management Inc. St. Anthony
School	Straits Elementary, Flower Cove
Business	Hospitality Newfoundland and Labrador



Recycling at work

Opportunities & Challenges

The consolidation of the Department of Environment and Conservation in early 2004 continues to present both an opportunity and a challenge. There has been some reorganization of the Department in the last year, which is intended to help the Department run more smoothly and to achieve its mandate more efficiently.

In cooperation with the MMSB, the Department is making progress on the Provincial Waste Management Strategy. The support and participation of municipalities in new waste diversion and recycling initiatives is key to achieving our goals. The momentum gained from the announcements of the new programs will likely lead to even more participation from municipalities.

The development of a federal / provincial MOU on climate change is a great opportunity to develop partnerships with the federal government on local initiatives for the reduction of greenhouse gases. The MOU will also serve as an impetus for the release and implementation of the provincial climate change action plan.

The fact that new species were given special protection under the *Endangered Species Act* presents us with a challenge to develop successful recovery plans for these species. The Department will be diligent in carrying out its responsibilities in protecting these species and others for which recovery plans have already been developed.

Addressing the upgrades needed to our park infrastructure presents another challenge for the Department. However, the Department is taking steps to deal with this issue. The proposal for a capitalization plan is a first step.

The Department was successful in the past year in introducing a Strategic Environmental Review Process for all government policies, plans and programs. This review process is an opportunity for the Department's concerns to be considered on all initiatives throughout Government. In addition to the plans underway for the development of a Sustainable Development Act for the Province, this review process assists in achieving Government's goal of sustainable development.

The Department is concerned about the impact of marine oil spills on our terrestrial resources. The Department has been working with federal counterparts to ensure that the response mechanisms are in place in the event of a major spill. The Department sees participation in integrated management initiatives in Placentia Bay as an opportunity to facilitate communication and planning in a key geographical area.

Financial Statement

Minister's Office	\$240,748
Executive Support	923,133
Administrative Support	346,769
Policy Development and Planning	383,232
Administrative Support (Capital)	285,446
Total Executive & Support Services	\$2,179,328
Environmental Management (Pollution Prevention)	\$2,358,344
Water Resources Management	1,867,002
Water Quality Agreement	126,487
Environmental Assessment	468,734
Voicey's Bay Environmental Management Board	32,749
Total Environmental Management & Control	\$4,853,316
Crown Land	\$2,712,578
Land Management & Development	(2,829,884)
Surveying & Mapping	570,704
Geomatics Agreements	250,625
Total Lands	\$704,023

Expenditure and revenue figures (cash-based) included in this document are based on draft information, as the Public Accounts have not yet been formally released. Readers are cautioned that these figures may be subject to adjustment.

Provincial & National Parks &
Natural Areas \$3,480,774

Park Development 193,758

Total Parks & Natural Areas \$3,674,532

Administration - Endangered Species
& Conservation Services \$1,717,578

Salmonier Nature Park 443,124

Management Planning 524,411

Wildlife & Natural Heritage Research 2,615,882

Wildlife Ecosystems Monitoring 292,836

Total Wildlife & Natural Heritage \$5,593,831

Total Net Expenditure \$17,005,030

Appendices

Statistics

POLLUTION PREVENTION DIVISION

Industrial Certificates of Approval issued	26
Industry Site Inspections	29
Hazardous waste generators registered	28
PCB storage sites	8
Tonnes (metric) of hazardous waste diverted	4,000
Review of consultant environmental reports	45
Licensed pesticide operators	66
Vehicles tested at vehicle emissions testing clinics	436
Heating oil storage tank inspectors licensed	156

WATER RESOURCES MANAGEMENT DIVISION

Water use authorization and licenses issued	153
Water use licenses reissued (transitional legislative requirement)	88
Permits for alteration to bodies of water	approx. 380
Investigations of complaints	15
Technical review of projects registered under EA	60
Review of referrals from Crown Lands	240
Review of referrals from municipalities	50
Review of referrals from municipalities (flood plain areas)	12
Training seminars for water supply system operators	47
Number of public drinking water quality tap water samples	823
Number of public drinking water quality source water samples	571
Water and wastewater operator certificates issued	167

ENVIRONMENTAL ASSESSMENT DIVISION

Referrals (presentation of project to the Department)	237
Registrations (initiation of review process)	61
Releases by Minister (after initial review, project may be cleared)	55
Environmental Preview Reports ordered (based on existing data)	1
Environmental Impact Statements ordered (additional studies, etc)	0
Withdrawn by proponent (decision not to continue with project)	3
Registered projects pending decision	2
Rejected	0

CROWN LANDS DIVISION

Crown land applications accepted	3,241
Crown titles issued	2,468
Hectares granted in Crown titles	2,416
Applications reviewed under the Quieting of Title Act	45
Transfers/ assignments of Crown titles	561
Legal surveys of Crown titles reviewed	1,069
Crown titles incorporated into Crown Lands digital mapping	3,140
Crown titles scanned and indexed	1,812
Customers served	23,296

LAND MANAGEMENT DIVISION

Number of parcels of Crown land assessed	700
Value of assessed land	\$7.8 million
Number of cottage lots developed	49

SURVEY AND MAPPING DIVISION

Topographic Mapping	
• Community mapping	49 sheets
• Drainage, contours and imagery - Central Newfoundland	5,242 km ²
• Shoreline and drainage mapping - Northern Labrador	6,555 km ²
Aerial Photography	
• Northern Labrador	383 frames
• Central Newfoundland	324 frames
• Community mapping	184 frames
• Highway mapping	201 frames
Geographical Names	
• Board meetings	3
• Ministerial approvals	454
Services	
• Air photo reproductions	22,500 prints
• Goemetrics consultations inquiries	500
• Digital map sales	1,554 map files

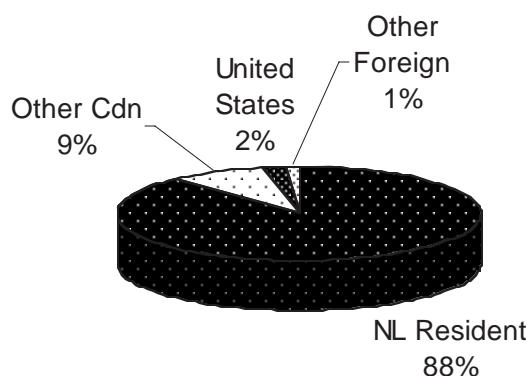
WILDLIFE DIVISION

Visitors at Salmonier Nature Park	>35,000
Participants in school and community groups	>5,000
Non-toxic shot workshops	3
EA registration documents evaluated	approx. 75
Caribou licenses available	6,590
Moose licenses available	26,020

PARKS AND NATURAL AREAS DIVISION

Park	Visitors
• Barachois Pond	33,201
• Blow Me Down	2,526
• Butter Pot	62,000
• J.T. Cheeseman	7,309
• Dildo Run	4,349
• Frenchman's Cove	9,312
• La Manche	19,250
• Lockston Path	12,305
• Notre Dame	23,133
• Pinware River	458
• Pistolet Bay	4,706
• Sandbanks	3,410
• Squires Memorial	5,911
Total	187,870
Reserve	
• Cape St. Mary's	16,236
• Burnt Cape	1,418
Other Statistics	
Number of provincial parks	31
Number of wilderness and ecological reserves	18
Wildlife reserves and special management areas	5
Total area of provincial protected areas	16,153 km ²
Percentage of the province protected	4%

Park Attendance



Committee Involvement

Employees of the Department of Environment and Conservation are active on a variety of issues on the provincial, national and even international stages. The following list outlines some of the many committees in which our employees participate on behalf of the Department.

Executive

- Environmental Planning and Priorities Committee of the Canadian Council of Ministers of the Environment (CCME)
- CCME Deputy Ministers Committee
- New England Governors / Eastern Canadian Premiers committees (various)
- Legacy Nature Trust
- Multi-Materials Stewardship Board (MMSB)

Environment Branch

- Air Quality Index (AQI) Management Committee
- Association of Professional Engineers Environment Committee
- Atlantic Partnership in RBCA (Risk-based corrective action) Implementation
- Atlantic Canada Water Works Association - Small Systems Committee
- Atlantic Water and Wastewater Operators Certification Board
- Aquaculture Inter-Agency Committee
- Buffer Zone Working Group
- CCME Development Committee for National Municipal Wastewater Management Strategy
- CCME Environment Hazardous Waste Task Group
- CCME National Task Force on Storage Tanks
- CCME Petroleum Hydrocarbons Committee
- CCME Task Team on Contaminated Sites Management
- CCME Water Quality Task Group
- Canada Standards Association Technical Committee on Installation Code for Oil-burning Equipment
- Canadian Environmental Protection Act (CEPA) National Advisory Committee Municipal Wastewater Subgroup
- Canadian Environmental Protection Act (CEPA) National Advisory Committee
- Canadian Water and Wastewater Associations Technical Committees
- Canadian Water Resources Association Committees (various)
- Classification Implementation Working Group
- Climate Change Education Centre Steering Committee
- Departmental GIS Working Committee
- Dioxins and Furans Canada Wide Standards Development Committee
- Federal Provincial Groundwater Working Group
- Federal Provincial Territorial Canada Food Inspection Agency - Task Team on Disposal
- Federal Provincial Territorial Committee on Drinking Water
- Federal Provincial Territorial Committee on Health and Environment
- Federal Provincial Territorial Committee on Pest Management and Pesticides
- Federal Provincial Territorial Committee on Recreational Water Quality Guidelines
- Federal Provincial Working Group for Controls Harmonization - Ozone Depleting Substances
- Government of Newfoundland and Labrador GIS Technical Committee
- Healthy Lawns Working Group
- Joint Initial Actions Coordinating Committee (JAICC)
- Labrador Contaminants Database Working Group

- Mealy Mountains National Park Feasibility Study Interdepartmental Committee
- Mercury Canada-wide Standards Development Committee
- National Air Issues Coordinating Committee
- National Air Pollution Surveillance (NAPS) Managers
- National Climate Change Impacts and Adaptation Committee
- National Environmental Assessment Directors Committee
- National Framework for Petroleum Refinery Emission Reductions Steering Committee (various subgroups)
- National Hydrometric Administrators
- National Research Council Guide Project
- National Water Survey of Canada Federal Provincial Web Task Group
- New England Governors / Eastern Canadian Premiers Acid Rain Task Force
- New England Governors / Eastern Canadian Premiers Environmental Sub-Committee on Climate Change
- New England Governors / Eastern Canadian Premiers Mercury Task Force
- Petroleum Hydrocarbons Canada-wide Standards Development Committee
- Provincial Territorial Committee on Climate Change
- Provincial Wellness Advisory Council
- Safe Drinking Water Technical Working Group
- TransLabrador Highway Consultative Committee
- Technical Committee for Climate and Deer Lake Power Agreements
- Technical Committee for Climate and DLP Agents
- TransLabrador Highway Environmental Management Committee
- Underwriters Laboratories of Canada Committees (various)
- Voisey's Bay Technical Environmental Review Committee
- Voisey's Bay Environmental Management Board

Lands Branch

- Advisory Committee on College of the North Atlantic - Geomatics Engineering
- Agricultural Land Tenure Review Committee
- Association of Newfoundland Land Surveyors
- Atlantic Coastal Zone Information Steering Committee
- Baie Verte Watershed Committee
- Canadian Council on Geomatics (CCOG)
- Canadian Institute of Geomatics
- Canadian Land Directors Committee
- Central Regional Council
- District 1 Five Year Forest Harvesting Planning Team
- Forest Resources Ecosystem Planning Committees (4)
- Gander Lake Watershed Committee and subcommittees
- Geographical Names Board of Canada
- Geomatics Working Group of the Newfoundland and Labrador Association of Technical Industries
- Geomatics Steering Committee
- Geomatics Technical Committee
- Inter-Departmental Land Use Committee
- Labrador Regional Council
- Labrador Training Initiatives Committee
- Lands Branch GIS Working Group
- Newfoundland and Labrador Geographical Names Board
- Northern Arm Lake Monitoring Committee
- Steady Brook Watershed Planning Committee
- Voisey's Bay Technical Environmental Review Committee
- Western Newfoundland Model Forest Management Team

Natural Heritage Branch

- Access and Benefit Sharing Working Group
- Atlantic Wildlife Directors Committee
- Atlantic Canada Habitat Species at Risk Stewardship Advisory Committee
- Atlantic Flyway Committee
- Atlantic Provinces Hunter Education Committee
- Atlantic Canada Conservation Data Centre Scientific Advisory Committee
- Atlantic Game Bird Technical Committee
- Biodiversity Assessment Project Group and Technical Sub-committee
- Burnt Cape Steering Committee
- Buffer Zone Working Group
- Canada's Stewardship Portal Working Group
- Canada's Stewardship Communities Network
- Canadian Fur Managers Committee
- Canadian Cooperative Wildlife Health Centre Board of Directors
- Canadian Council of Ecological Areas
- Canadian Heritage River Board
- Canadian Parks Council
- Canadian Wildlife Directors Committee
- Committee on the Status of Endangered Wildlife in Canada
- Connectivity Working Group
- Criteria and Indicators Working Group
- Eastern Habitat Joint Venture Board of Directors, Provincial Steering Committee, Working Group
- Endangered Species Recovery Teams and Working Groups (various)
- Environmental Education committee with Canadian Wildlife Federation
- Federal, Provincial, Territorial Stewardship Working Group
- Forestry and Wildlife Liaison Committee
- Fur Institute of Canada
- Hospitality Newfoundland and Labrador
- Innu Land Claims Negotiating Team (Wildlife and Protected Areas Chapters)
- Inter-Departmental Land Use Committee
- International Association of Fish and Wildlife Agencies
- International Hunter Education Association (Canadian VP)
- Interpretation Canada
- Labrador Trout working group
- Labrador Salmonid working group
- Limestone Barrens Stewardship Education Committee
- Main River Advisory Committee
- National Task Group on Freshwater Fisheries
- National General Status Working Group
- National Stewardship Conference 2006 Steering Committee
- National Task Group on Recreational Fishing
- National Biodiversity Working Group
- Newfoundland Marten Modelling Working Group and Technical Sub-committee
- Newfoundland and Labrador Forestry Research Advisory Committee
- Newfoundland Marten Research Committee
- Newfoundland Marten East Coast Working Group
- Newfoundland Marten Education Committee
- Newfoundland and Labrador Federal/Provincial Working Group (Species at Risk)
- Newfoundland Salmonid working group
- Newfoundland Trout working group
- Nordic Trail Association
- North American Bird Conservation Initiative Board of Directors
- North American Wetlands Conservation Council

- Northeast Fur Resource Technical Committee
- Partners in Adaptive Management
- Planning and Applied Science Committee of the Western Newfoundland Model Forest - Chair
- Provincial GIS Technical Committee
- Salmonid Council of Newfoundland and Labrador
- Scientific Advisor to the Convention on International Trade in Endangered Species of Wildlife Flora and Fauna (CITES)
- Sea Duck Joint Venture Board of Directors
- Seabird Ecological Reserves Advisory Committee (SERAC)
- Secretariat to the Species Status Advisory Committee
- Stewardship Association of Municipalities
- T'Railway Council and associated committees
- Vegetation Classification Working Group
- Western Newfoundland Model Forest Board of Directors and Management Group
- Wilderness and Ecological Reserves Advisory Committee (WERAC)
- Wood Supply Committee

Glossary of Terms

- Ambient Air Standards – Standards against which Criteria Air Contaminants are measured; standards are set based on risk to human health and/or environmental degradation.
- CCME Water Quality Index (WQI) - The CCME Water Quality Index (CCME WQI) is a means to provide consistent procedures for Canadian jurisdictions to report water quality information to both management and the public. There are three parts to the CCME WQI: 1) a technical report describing how the index was developed; 2) a user's manual outlining how to use the index and 3) a user-friendly program that calculates index values based on information input by the user.
- Certificate of Approval - An approval issued by the Department of Environment to industry outlining required environmental operating conditions.
- Climate Change - A change in the average weather; the rate and magnitude of global climate change may have many impacts on the Earth's ecosystems. It is thought that human activities are altering the chemical composition of the atmosphere through the build-up of greenhouse gases, which is resulting in changes to the global climate, including a rise in temperatures and more frequent extreme weather events.
- Conductivity - A measurement of how well water conducts an electrical current. Conductivity increases with an increase in the amount and mobility of ions.
- Criteria Air Contaminants - Air pollutants including Sulphur Dioxide (SO₂), Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Particulate Matter (PM) and Ozone (O₃). There are health concerns associated with these pollutants.
- Crown land - defined under the *Lands Act* as any land including land which is underwater that has not been lawfully alienated from the Crown.
- Ecosystem - A self-sustaining system formed by the dynamic and complex interactions of a community of organisms with their non-living environment.
- Emission - Pollution discharged into the atmosphere by any means.
- Environmental Assessment - A process by which the environmental effects of a project are predicted and evaluated before the project has begun.
- Environmental Impact Statement (EIS) - A report that presents the results of an environmental assessment.
- Environmental Preview Report (EPR) - a report presenting the results of an investigation based on readily available information that supplements the information provided by a proponent upon registration of a project. This report assists the minister in determining whether or not an environmental impact statement is required.
- Geographical Information System - Computer software that allows the user to analyse a combination of layers of geographical information.
- Greenhouse Gases (GHGs)- Gases that trap solar heat within the Earth's atmosphere. These are primarily Carbon Dioxide (CO₂), Methane, Nitrous Oxide (N₂O), and water vapour. These gases ensure that the Earth is warm enough to support life but an increase in these atmospheric gases is thought to be a primary cause of climate change.

- Groundwater - All water that exists beneath the surface in the zone of saturation and includes springs.
- Hazardous Material - Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive.
- Hunting Order - Order issued under the *Wild Life Act* which specifies bag limits, seasons, area closures and boundary descriptions.
- Mitigation - Actions that are intended to prevent or minimize harmful environmental effects associated with a proposed project or activity.
- Morphometric data - data on body measurements; there are several measurements taken when animals are collared or under other special circumstances.
- Multi-Barrier Strategic Action Plan - This plan for drinking water safety refers to the various levels of protection of drinking water. The primary goal is to ensure that adequate safeguards are in place at each stage of the water supply system to minimize the possibility of pathogens and other contaminants entering the water.
- Pesticide - A substance or mixture of substances used for the destruction or control of insects, birds, rodents, fungi or other pests and micro-organisms or for the destruction or control of vegetation.
- pH - A measurement of the acidity in water.
- Proponent - A person (individual, group or government) who carries out or proposes to carry out an undertaking (project), or is the owner or person having charge, control or management of an undertaking.
- Stakeholder - Any party that has an interest in the subject at hand or may be impacted by a policy, program, project or legislation.
- Smog - The mixture of air pollutants that can often be seen as a haze in the air. The mixture of pollutants is made up Ozone (O₃), fine particulates, Nitrogen Dioxide (NO₂), Sulphur Dioxide (SO₂), Carbon Monoxide (CO) and Ammonia.
- Stewardship - The process whereby individuals or organizations assume responsibility for the protection and enhancement of the environment or any of its constituent components.
- Sustainable Development - According to the Brundtland Commission report (1987), sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
- Reclamation Plan - A plan outlining the activities or process to improve or restore land or other material as close as is reasonably possible to its former use or condition.
- Remediation - Methods used to remove or contain a toxic spill or hazardous materials from a site.
- Topography - graphic delineation in detail usually on maps or charts of natural and man-made features of a place or region especially in a way to show their relative positions and elevations.
- Turbidity - Muddiness or cloudiness of water created by suspended particles; measurement of water quality.
- Undertaking - A project that must be registered for environmental assessment. An undertaking is defined in the Environmental Protection Act as “an enterprise, activity, project, structure, work or proposal and a modification, abandonment, demolition, decommissioning, rehabilitation and an extension of them that may, in the opinion of the minister, have a significant environmental effect.”

- Waste management - the collection, transportation, handling, storage, treatment, utilization, diversion, recycling, reuse, recovery, reduction and disposal of waste material.

Provincial Parks and Reserves

