



# Atlantic



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## TOM MCMILLAN INITIATES PUBLIC CONSULTATION ON A NEW ENVIRONMENTAL PROTECTION ACT

The federal government will have broad new powers to protect the environment, will impose tough penalties on polluters and introduce life-cycle management of toxic chemicals, according to a draft Environmental Protection Act, recently released for public discussion.

The draft legislation, issued jointly on December 18 by Environment Minister Tom McMillan and National Health and Welfare Minister Jake Epp, will be reviewed by the provinces, as well as by industry, labour and environmental groups, before being presented to Parliament later this session, probably in the spring.

"The Act will be one of the strongest anywhere in the Western hemisphere," Mr. McMillan said. "The message is clear: the Government of Canada, on behalf of all Canadians, intends to act harshly against polluters. The protection of human health and of the natural environment is a top government-wide priority."

The new legislation would require industry to test and evaluate all new chemicals for environmental or human health hazards before they are introduced into the Canadian marketplace; it would give the government the power to regulate toxic substances throughout their entire life cycle or to ban them altogether.

Under the proposed Act, the ministers could order companies to recall toxic chemicals, at their own expense; order industry to clean up environmental spills and monitor compliance with such orders. As a last resort, the government could conduct its own clean-up and bill the offending company for the costs.

Under the Act, the federal government would have new powers to sample and measure chemicals in production and could temporarily shut down any activity they deemed a "dangerous occurrence."

Mr. McMillan said the proposed legislation should leave no one in doubt about the federal government's determination to act swiftly against what he described as the country's most serious white collar crime - pollution. "No longer will polluters in Canada be able to foul our water, our air and our soil with impunity", the Minister stated.

Under the new Act, exporters of toxic chemicals would have to notify other countries when they export products banned or severely restricted in Canada. The measure, the Minister said, "will help us meet our international obligations as a member of the Organization for Economic Co-operation and Development, the United Nations Environment Program and the World Health Organization."

The Act would authorize the federal government to develop national environmental quality guidelines and to establish regulations that protect federal lands and waters. The Minister of the Environment, in co-operation with other federal ministers, would also be empowered to develop regulations that cover currently unregulated federal works and undertakings.

Mr. McMillan said that a series of public information and consultation meetings will be held across Canada between January and March. After public comments have been analysed, the government will present the Environmental Protection Act to Parliament for First Reading.

For further information contact: Maritimes - Ed Norrena, Regional Director, Environmental Protection Service, Conservation and Protection, Environment Canada, Fifth Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-3593, Newfoundland - John H. Neate, District Director, Environmental Protection Service, Conservation and Protection, Environment Canada, P.O. Box 5037, St. John's, Newfoundland, A1C 5V3 or phone (709) 772-5488.

### **WILDLIFE 87: A SPECIAL YEAR OF WILDLIFE CONSERVATION**

Spearheaded by the Canadian Nature Federation, "**Wildlife 87**" will be a special year for recognizing the importance of wildlife conservation in Canada and it will be celebrated with activities throughout the year. The designation of 1987 as a special year for Canadian Wildlife Conservation has been endorsed in principle by provincial and territorial wildlife ministers and their agencies.

The year will mark a number of significant national anniversaries, notably the establishment, by Sir John A. MacDonalld on June 8, 1887, of the first migratory bird sanctuary in Canada at Last Mountain Lake, Saskatchewan. Other celebrations will include various planned events and a review of the accomplishments of government, non-government and private sector groups.

All participating organizations will include the theme "Wildlife 87: Gaining Momentum" in their 1987 programs. A special logo is also being developed. This concerted drive to emphasize wildlife accomplishments will further stimulate and reinforce the already strong support for wildlife conservation in Canada.

Several activities have been planned for the Atlantic Region at various times through the year including:

- The formal creation of Portobello Creek as a National Wildlife Area.
- The designation under the Ramsar Convention of Codroy Bay, Newfoundland and Shepody Bay, New Brunswick as Wetlands of International Importance, especially as Waterfowl Habitat (by May 1987).
- The designation of the upper Bay of Fundy as a "Hemispheric Sister Reserve" for shorebirds. This will be the only Canadian site out of eleven in the entire Western Hemisphere.
- The release of large numbers of Peregrine Falcons from the upper Bay of Fundy (starting in June 1987).
- The establishment of a regional plan for the recovery of Piping Plovers (by June 1987).



- The signing of Waterfowl Management Agreements with each of the Atlantic Provinces, and the signing of general agreements on habitat protection between Prince Edward Island, Wildlife Habitat Canada and Ducks Unlimited.

For further information contact: Bill Prescott, Canadian Wildlife Service, Conservation and Protection, Atlantic Region, Environment Canada, P.O. Box 1590, Sackville, New Brunswick, E0A 3C0 or phone (506) 536-3025.

### REPORT ON ENVIRONMENTAL QUALITY IN THE ATLANTIC REGION

The news that air quality has improved in the Atlantic region, that water quality is better in some major rivers, and that the amounts of DDT and PCB in certain wildlife species have declined is all encouraging for residents in the Atlantic Region. It also indicates some of the successes of environmental management in the region. These facts, as well as some discouraging news about acid rain, groundwater contamination, hazardous wastes, and shellfish contamination are all explained in detail in a report recently published by the Atlantic region of the Environmental Protection Service (EPS) entitled "Environmental Quality in the Atlantic Region 1985". A brochure containing a summary of the highlights of the report is enclosed with this newsletter for those who receive it by mail.

The report is the result of efforts by the Environmental Quality Division of EPS to trace trends in environmental quality and to report significant findings to the general public. Their first Atlantic region environmental quality report, published in 1980, set the stage for this type of reporting and established a tradition that will be repeated every five years. It is important that scientists and the public know the state of health of the environment since it reflects so strongly on the well being of humans; their health, natural resources, food, air, water and enjoyment of nature. In addition, environmental management, the goal of which is to promote and maintain a suitable level of environmental quality, can be evaluated and guided by analysing the state of the environment and environmental trends.

Air quality in Atlantic Canada is improving in the major urban centers and in the vicinity of some industries. The report shows declining levels of lead, nitrogen oxide, sulphur dioxide and total suspended particulates in major cities, and a 75% decline in mercury emissions from the regions two chlor-alkali plants between 1978 and 1984. Chlor-alkali is a bleach used in the pulp and paper industry. A few problem areas remain such as Sydney and Saint John, where air pollution is still a problem. Also, acid rain is still one of the region's most serious concerns.

Water quality in some of the major rivers in New Brunswick and Nova Scotia has improved significantly over the past ten years through the efforts of government and industries in their implementation of pollution control measures and regulations. Particularly important has been the reduction of pollution from pulp mills. Nevertheless, water pollution problems still exist as a result of activities in agriculture, forestry, food processing, waste disposal and transportation. Also, groundwater contamination has recently become a major

concern, especially from leaking underground storage tanks. Marine waters offshore are considered "clean", however, there are pockets of contamination in coastal waters where shellfish and other resources are affected.

The report also deals with topics such as toxic chemicals, the effect of environmental pollution on human health, energy and the environment, conservation, environmental management, and environmental research. Emphasis is placed on the existing state of the environment and changes or trends in the environmental quality, as well as the way in which the environment is managed. There is also a comparison of the state of the environment in the Atlantic region with the rest of Canada, and with other countries.

For more information, or to obtain a copy of the full report, contact: Peter Eaton or Larry Hildebrand, Environmental Protection Service, Atlantic Region, Conservation and Protection, Environment Canada, 5th, Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-6141.

#### **NATIONAL PARKS ACT AMENDMENTS ANNOUNCED**

As part of the first major overhaul to Canada's National Parks Act, federal Environment Minister Tom McMillan has introduced the roughest anti-poaching measures anywhere in the world.

"The wildlife in our parks are highly vulnerable to well-organized and well-financed criminals who conduct campaigns of slaughter," the Minister said. "In a society where the head of a big horn sheep brings a black market price of \$50,000 and a falcon fetches \$20,000, the current maximum fines of \$500 are little more than a license to profiteer. We intend to send would-be offenders an unambivalent signal: we will not permit our Parks' wildlife, a vital part of our country's heritage, to be butchered to feed the vanity and greed of unscrupulous collectors."

Proposed penalties in the re-written Act, which has not been changed substantially since it was passed in 1930, include a maximum fine of \$150,000 and/or imprisonment of up to six months for poaching specific trophy and endangered species -- the stiffest fines anywhere in the world.

Using the threatened status of African rhinoceros as an example, Mr. McMillan described the damage poachers are inflicting on wildlife populations: a herd of black rhino, which numbered 15,000 only six years ago, is down to 4,500; on one game reserve alone, poachers have killed all but 100 of 3,000 animals.

Under the amendments, Canada's national parks, which now cover 140,000 square kilometers and include parks in every province and territory, will be enlarged by the addition of Ellesmere Island National Park Reserve and by provisions for future proclamation of Grasslands National Park in Saskatchewan.

Other amendments will: regulate all aspects of pest control products and use of other toxic substances within national parks; clarify the powers of park wardens; and establish a market-flexible method of setting and amending fees for park use. The Act will protect soil, water, rocks, fossils, minerals, and air

quality in the way flora and fauna are now safeguarded. To foster compliance, while minimizing inconvenience to the public, voluntary payment of fines for minor infractions of the Parks Act will be allowed -- a system similar to that used for lesser traffic violations in most of Canada.

For further information contact: Colleen McCluskey, Communications Officer, Environment Canada, Parks, Historic Properties, Halifax, Nova Scotia, B3J 1S9 or phone (902) 426-3457.

#### **REPORT AVAILABLE ON THE LOW FLOW CHARACTERISTICS OF NOVA SCOTIA'S STREAMS**

Inland Waters Directorate's Atlantic region office recently published a 200 page report containing the low flow frequency analyses of 33 natural flow streams in Nova Scotia. This statistical information is of interest to various departments of the federal, provincial and municipal governments, as well as to engineering and environmental consultants who are involved in the design, planning and management of water related developments and in resolving problems regarding conflicting water uses.

For more information contact: Bill Brimley, Inland Waters Directorate, Conservation and Protection, Atlantic Region, Environment Canada, 4th Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-1717.

#### **SYDNEY TAR PONDS TO BE CLEANED UP**

An historic \$34.3 million federal-provincial agreement to clean up the Sydney Tar Ponds and create much needed jobs for Cape Bretoners was signed in Sydney by federal Environment Minister Tom McMillan, Nova Scotia Development Minister Roland Thornhill, and Nova Scotia Environment Minister Guy LeBlanc on November 7, 1986. The Sydney Tar Ponds are the largest chemical waste site in the country and one of the most hazardous. They contain known cancer-causing agents, polynuclear aromatic hydrocarbons or PAHs.

The ten-year toxic excavation project will be the first of its kind in Canada and the largest clean-up of a chemical waste site in Canadian history. The first five years of the clean-up will cost \$34.3 million and will create an average of 200 jobs a year in Nova Scotia, many of them in Cape Breton and most in the first three years. An expected 1400 person years of employment will be created during the entire 10 years the project will take to complete. The total cost will be split by the federal and provincial governments on a 70/30 per cent basis.

The clean-up agreement will eventually increase the industrial development and tourism potential of the Sydney area by making it healthier and more attractive. The project could also contribute to the re-opening of the local lobster fishery, closed in 1982 because of PAH contamination.

For further information contact: Ian Travers, Environmental Protection Service, Conservation and Protection, Atlantic Region, Environment Canada, 5th Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-6141.

**DO YOU KNOW WHAT CANADIANS TALK ABOUT MORE THAN ANYTHING ELSE?**

You're right, it's the weather! You can easily obtain today's weather forecast and dazzle your friends with your knowledge and expertise by taking advantage of the telephone call-in service provided by Environment Canada's weather people in your area. It's fast, convenient, FREE, and available 24 hours a day. Here are the telephone numbers:

**IN NEW BRUNSWICK**

Fredericton	-506-357-9802	English
	-506-357-2775	French
Moncton	-506-857-6191	French
	-506-857-6610	English
Saint John	-506-696-6644	English
	-506-696-6360	French

**IN PRINCE EDWARD ISLAND**

Charlottetown	-902-566-7041	English
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**IN NEWFOUNDLAND**

St. John's	-709-772-5534	English
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**IN NOVA SCOTIA**

Halifax-Dartmouth	-902-835-7277	English
Metro Area	-902-835-1804	French
Sydney	-902-564-7788	English

The Halifax-Dartmouth metro area is one of four sites across Canada that have been chosen to experiment with the concept of sponsorship to provide this public service. In anticipation of a high public demand, the weather people have increased the number of telephone lines to their Bedford office and encourage you to call frequently to obtain the most accurate and up-to-date weather information directly from the source.

For more information about the sponsored service contact: Richard Nelis, Regional Chief, General Weather Service, Atmospheric Environment Service, Atlantic Region, Environment Canada, 5th Floor, Bedford Tower, 1496 Bedford Highway, Bedford, Nova Scotia, B4A 1E5, or phone (902) 835-9372.

**MARITIMES BREEDING BIRD ATLAS' PRELIMINARY RESULTS**

The 1986 field season was the first of five such annual data collection periods for the inaugural Maritimes Breeding Bird Atlas. All things considered, it was a very good year.

Five hundred volunteer birdwatchers spent more than 7,000 hours looking for breeding evidence of all of the bird species in the Maritimes. Approximately three-quarters of the anticipated data cards have arrived at the Atlas office to date, with reports on 177 of the 196 Maritimes species. The 19 species which have not yet been reported are known rarities across the Maritimes, but they will probably be located in subsequent years. One of the highlights of our first year was the discovery of an active Glossy Ibis nest in New Brunswick, the first time this species has bred in Canada.

There were few surprises in the 10 species most commonly reported in the data received. In descending order of frequency, they were the American Robin, the Song Sparrow, the Barn Swallow, the American Crow, the Common Grackle, the Northern Flicker, the Tree Swallow, the White-throated Sparrow, the Black-capped Chickadee and the Red-winged Blackbird. Species of intermediate frequency often reveal the most interesting distribution patterns, as they have been little studied in the past. Producing maps from the 1986 data will be the first step towards revealing these secrets. The maps will also serve as a useful tool in planning fieldwork for the remaining four years.

During the winter months, volunteers will be studying the natural history of our birds to prepare for the second season. At the Atlas office, the 1986 data will be carefully reviewed for accuracy and integrity before they are used in producing the maps to ensure that the results are of the best quality possible.

If you would like to participate in the Maritimes Breeding Bird Atlas, please contact the project coordinator, Judith Kennedy at: Maritimes Breeding Bird Atlas, c/o Nova Scotia Museum, 1747 Summer Street, Halifax, N.S., B3H 3A6, (902) 429-4610, or Peter Pearce, Canadian Wildlife Service, Atlantic Region, Environment Canada, P.O. Box 400, Fredericton, N.B., E3B 4Z9, (506) 452-3086.

#### **PROFILES IN PREPARATION OF THE MOST IMPORTANT ESTUARIES IN THE ATLANTIC PROVINCES**

It has been well established that estuaries are among the most productive natural ecosystems in the world. In turn their high productivity supports a wide variety of plant and animal life, many species of which are the mainstay of important economic activities including commercial fisheries and aquaculture. Estuaries also provide crucial habitat for a wide range of resident and transient fish and waterfowl.

Estuaries and their surrounding lands often also have physical attributes such as access to marine transportation, proximity to fishing, flat fertile lands and recreational potential, which have encouraged industrial, commercial and residential development to be concentrated in these areas. In Atlantic Canada, many such developments have resulted in serious conflicts among users and significant environmental and resource deterioration.

In recognition of these conflicts, the Environmental Quality Division of the Environmental Protection Services (EPS) Atlantic Office initiated a project in 1986 aimed at improving the availability of information about selected estuaries in Atlantic Canada which require informed decision-making.



Information guides are now being compiled on several estuaries in the region which were identified as being the most important by various federal and provincial environmental and resource agencies with coastal area responsibilities. These guides will include brief annotated listings of the relevant information, data bases and key contact people for each estuary. The intent of these guides is to identify the existence, location and form of the relevant natural resources, resource uses and environmental impact information in a concise, readily available form. Information gaps and future research needs will also be identified during the preparation of the guides.

The knowledge collected about the most important estuaries in the Atlantic region will also assist EPS in fulfilling its environmental protection responsibilities regarding the marine environment, as well as assisting the efforts of other agencies with jurisdiction in these areas. It is expected that additional estuary profiles will be produced through the continuation of this work over the next year or two.

For more information contact: Larry Hildebrand or Peter Eaton, Environmental Protection Service, Atlantic Region, Conservation and Protection, Environment Canada, 5th Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-6141.

#### **NEW MAP OF CANADA'S FEDERAL LANDS AVAILABLE**

A recently produced national map of major federal land holdings, entitled Canada's Federal Lands, is the first of its kind ever produced in Canada. It is expected that the map will contribute to the improved management of use of federal assets by providing a composite picture of the nature and significance of major federal land holdings and their uses. Many of these holdings are very strategic parcels of land including airports, harbors, telecommunication towers, and national defence installations.

The map shows the location of over 1,800 large land holdings either owned or managed by the federal government across Canada. It also features a brief history of Canadian Crown lands, an overview of the division of land management responsibilities among federal departments and agencies, and graphics related to the total federal land inventory.

Designed to inform government managers as well as the general public, the map is available free of charge from Environment Canada.

For further information or to obtain copies of the map, contact: Dave Wilson, Inland Waters/Lands Directorate, Conservation and Protection, Atlantic Region, Environment Canada, 4th Floor, Queen Square, 45 Alderney Drive, Dartmouth, Nova Scotia, B2Y 2N6 or phone (902) 426-4196.

#### **INNOVATIVE WASTE WATER TREATMENT PLANT IN P.E.I.**

Prince Edward Island, a leader in the application of alternate energy technology, will soon benefit from an innovative installation at Cavendish Farms

in New Annan. Located adjacent to a potato processing plant, the installation will considerably reduce waste water pollution while producing fuel-grade biogas and electricity.

In a cooperative venture between Northeast Energy Services, the Province of Prince Edward Island, the Government of Canada and Cavendish Farms, the new system will treat the waste water from the Cavendish Farms processing plant to reduce pollution and at the same time produce approximately 4 million kilowatt-hours of electricity annually for Cavendish Farms' use.

The new installation will utilize an anaerobic treatment process developed by a Maritime-based consulting engineering firm. While this will mark this process' first application in Canada, the firm has already designed similar systems which are in operation in France, England and the USA. However, this is believed to be the first time that potato peel waste along with potato waste water will be used to produce biogas which will in turn be used to produce electricity.

The heart of the process is the anaerobic reactor. Larger than a football field, it will utilize systems of mixers and special inlets and outlets to encourage the growth of anaerobic microorganisms. It is these microbes which will treat the waste, utilizing it for food and energy. As by-products, they also produce water, biogas, and a small volume of organic waste solids.

With the new installation, Prince Edward Island will continue its leadership in the production of alternate energy and also reduce the pollution of its streams and estuaries.

For further information contact: Arthur Hiscock, Environmental Protection Service, Conservation and Protection, Atlantic Region, Environment Canada, Room 320, 97 Queen Street, Charlottetown, P.E.I., C1A 4A9, or phone (902) 566-7042.

#### REPORT ON THE SECOND CASP ANALYSIS WORKSHOP

Recently 40 scientists from the federal government, universities and private industry met at the Bedford Institute of Oceanography to discuss preliminary results from the Canadian Atlantic Storm Program (CASP) which took place between January and March of 1986. The purpose of this field program and the long period of careful scientific analysis which will continue for several years is to study in detail intense Atlantic winter storms and how they generate severe weather such as heavy snowfall, freezing rain and strong winds and, in the ocean, large waves and tides. The ultimate purpose of the program is to find better ways of forecasting these phenomena and thereby increase public safety.

During the two-day workshop, forecasters from the Maritimes Weather Center in Bedford described their experiences with experimental weather analysis and forecasting techniques that they tried out during CASP. Further assessments of these techniques should result in improved weather forecasts.

Several scientists from the Atmospheric Environment Service and from various universities described their probing of the detailed structure of the storms using aircraft and sophisticated remote sensing devices. Certain common

characteristics may be found in intense storms which will be useful in forecasting them.

Oceanographers also used sophisticated sensors to study how the ocean responds to these storms. At the workshop, oceanographers presented results from current meters, tide gauges and a radar unit which estimates surface currents from the movement of wave crests. Also described were wind speed estimates from microphones on the ocean bottom which listened to the breaking of waves above. Sensitive wave buoys were used to measure wave height and travel direction. Since large waves are of great concern to mariners, computer models have been developed to predict surface waves. Scientists at the Bedford Institute of Oceanography, the Atmospheric Environment Service and private industry will use the high quality wave data from CASP to test and improve these models.

The workshop showed that the field phase of CASP was extremely successful in producing high quality data that will be very useful in improving our understanding of how the atmosphere and the ocean behave during winter storms. Future workshops, to be held at approximately six-month intervals, will focus on how scientists are using these data to improve our ability to forecast these unwelcome visitors to our region.

For further information contact: Roderick Shaw, Atmospheric Environment Service, Environment Canada, Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, Nova Scotia, B2Y 4A2 or phone (902) 426-9055.

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