



ENVIRONMENTAL ASSESSMENT PROGRAM

Annual Report 2001-2002



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For further information, please contact:

Tara Frezza
Environmental Assessment Branch
Environmental Protection Service
Environment Canada
351 St. Joseph Blvd.
Gatineau, Québec K1A 0H3
Tel.: (819) 953-0554
Fax: (819) 953-4093
Email: Tara.Frezza@ec.gc.ca



ENVIRONMENTAL ASSESSMENT PROGRAM



**Annual Report
2001-2002**

TABLE OF CONTENTS

Executive Summary	1
Introduction	2
Canadian Environmental Assessment Act (CEAA)	4
Project Activity	5
National and Regional Highlights	7
Ensuring National Consistency and Application of the EA Program	7
Improving the Quality of EC's Contribution to EA to Promote Improved EA Advice	9
Integrating EA Advice, Based on Sound Science, into Decision Making	10
Partnering with Other Jurisdictions to Ensure Effective EA Program Delivery	14
Sharing Knowledge through Communication and Training	16
Understanding the Consequences of Legal Decisions	17
Meetings and Workshops	19
IAIA 2001 — Cartagena	19
Yukon Oil and Gas Activities	19
Oilsands Workshop	20
Northern Oil and Gas Workshop	21
Challenges and Proposed Direction	22
Acronyms and Abbreviations	24

EXECUTIVE SUMMARY

This Annual Report provides an overview of Environment Canada's (EC) National Environmental Assessment (EA) Program and its activities and challenges of the 2001–2002 fiscal year. The report also demonstrates how regional and national activities contribute to the focus and direction of EC's National EA Program.

The National EA Program at EC is composed of a network of managers, practitioners, analysts, and scientists from the Environmental Protection Service, Environmental Conservation Service, and Meteorological Service of Canada, from all five regions and Headquarters.

The major responsibilities of the EA Program include promoting the consistent use of EA and ensuring compliance with the *Canadian Environmental Assessment Act* (CEAA) within EC, the 1990 Cabinet Directive requiring strategic assessment of policies, plans, and programs, and the *Department of the Environment Act*. The EA team, through the implementation of its mandate, contributes to EC's four business lines, the foundation of the Department's approach to management.

As the EA Program's responsibilities are strongly directed by CEAA, the EA team has been patiently awaiting the completion of the five-year review of CEAA. Bill C-19, *An Act to Amend the Canadian Environmental Assessment Act*, is scheduled for a clause-by-clause review in the fall of 2002.

Considerable time and effort are invested in the review and preparation of EAs, in the roles of both Responsible Authority (RA) and Federal Authority (FA). Although our role as RA is important, activities linked to our role as FA, providing expert scientific and technical advice, dominate our agenda and consume a large amount of time and resources.

The Cabinet Directive on the Environmental Assessment of Policy, Plan, and Program Proposals (June 1999) is the source of the EA Program's responsibility to provide advice and participate in Strategic Environmental Assessments (SEAs). This year, the Environmental Assessment Branch provided three EC regional SEA training workshops, participated in 16 SEAs, and reviewed and commented on many memorandums to Cabinet, aide-mémoires, and presentation decks.

In the coming year, EC will be facing the challenge of dealing with major issues, such as climate change and the expected decision to ratify the Kyoto Protocol. Government decisions that are directly related to environmental issues will certainly pose challenges to the EA Program, but will also reaffirm the importance of EA in Canada.

INTRODUCTION



Environment Canada's (EC) National Environmental Assessment (EA) Program is a national network of managers, practitioners, analysts, and scientists who work together to deliver coherent EA services in order to protect and conserve sensitive ecosystems. This includes promoting the consistent use of EA and ensuring compliance with the *Canadian Environmental Assessment Act* (CEAA) within EC, the 1990 Cabinet Directive requiring strategic assessment of policies, plans, and programs, and the *Department of the Environment Act*. The National EA Program operates under the mandate to integrate EA advice, based on sound science, into decision making with respect to federal government policies, plans, programs, and projects; to promote exemplary departmental compliance with CEAA and national consistency in its application; to facilitate departmental implementation of the Cabinet Directive relating to the EA of proposed policies, plans, and programs; and to coordinate and develop departmental

positions and provide scientific and technical information as requested.

Through this national approach and implementation of its mandate, EC's EA team contributes to EC's four business lines, the foundation of the Department's approach to management. Clean Environment, Nature, Weather and Environmental Predictions, and Management, Administration and Policy are the four business lines that provide national direction for strategic resource decision making.

Within the **Clean Environment Business Line**, expected results of EC's activities are the reduction of adverse human impacts on the atmosphere and on air quality, as well as the reduction and prevention of the environmental and human health threats posed by toxic substances and other substances of concern.

All activities linked to the **Nature Business Line** work towards conserving biodiversity and priority ecosystems (e.g., wetlands, forests, migratory bird habitat) and understanding and reducing human impacts on the health of ecosystems.

Adaptation to influences and impacts of atmospheric and related environmental conditions on human health and safety, economic prosperity, and environmental quality is the outcome of activities covered in the **Weather and Environmental Predictions Business Line**.

EC administration and management activities are covered under the **Management, Administration and Policy Business Line**, where strategic and integrated policy priorities and plans are key results. This business line also supports the idea that a well-performing organization is supported by efficient and innovative services.

The EA Program contributes considerably to the Clean Environment Business Line. Through sound decision making and the advocacy of sustainable use of resources, results of EA activities are directly aligned with those in the Clean Environment Business Line. EA activities and results, however, are also aligned with EC's three other business lines. In addition to pollution prevention and toxics management, expert advice is provided, through the practice of EA, on migratory birds, wetlands, water issues, and the impacts of weather on projects. The national coordination of these activities is done through sound management, planning, and policy development, key factors in the Management, Administration and Policy Business Line.

This Annual Report, prepared through the cooperative efforts of members of the Regional Environmental Assessment Coordinating Committees (EACCs) and the Environmental Assessment Branch (EAB) of the Environmental Protection Service (EPS), demonstrates EC's commitment to be accountable for its actions and to share the successes and lessons learned in the field of EA. This report details activities of EC's National EA Program between April 1, 2001, and March 31, 2002, in compliance with CEAA and the 1999 Cabinet Directive on the EA of policies, plans, and programs.



CANADIAN ENVIRONMENTAL ASSESSMENT ACT (CEAA)

A major role of the EA Program is to ensure compliance with and uphold CEAA within EC. This is the primary piece of legislation that supports sustainable use of resources and provides an effective means of integrating environmental factors into the planning and decision-making process.

A five-year review of CEAA began in January 2000 as required in the legislation (section 72(1)). EC, both regions and Headquarters, was directly involved in developing the Department's position and recommendations for the revised version of CEAA. EC's recommendations were presented in a departmental position paper.

The review and revision of CEAA (now known as Bill C-19, *An Act to Amend the Canadian Environmental Assessment Act*) have continued through this past year (2001–2002). The House of Commons Standing Committee on Environment and Sustainable Development, chaired by Mr. Charles Caccia, began a parliamentary review in December 2001. Numerous stakeholders and concerned citizens made presentations to the committee. The committee closed its process with an address from the Minister of the Environment on May 29, 2002. The clause-by-clause review is scheduled to begin in the fall of 2002.



PROJECT ACTIVITY

As a Responsible Authority (RA), EC registered **585 new projects** between April 1, 2001, and March 31, 2002, a small increase from last year's 531 projects.

The Atlantic Region, followed by the Prairie and Northern Region, conducted the largest number of screenings, accounting for 34% and 28%, respectively, of EC's RA activities (Figure 1). The Ontario Region had a large increase in the number of projects, accounting for approximately 26% of EC's RA activities, up from 9% last year. In the Quebec Region, the number of screenings accounted for 3.6% of the total number, compared with 9% last year. The proportion of screenings in the Pacific and Yukon Region, at 8% this year, was also down from last year's 13%.

When all RA activities are separated by CEAA triggers (Figure 2), it is evident that over half the screenings (63%) were the result of EC as a proponent. This is a change from 31% last year. The proportion of screenings that dealt with regulatory approvals this year, 28%, is down from 46% last year.

In the distribution of regulatory approvals across all regions (Figure 3), remediation of contaminated land in Canada accounted for 41% of the permits issued. Last year, ocean dumping permits accounted for approximately half of the permits issued.

The majority of EC's involvement in EA activities is in the role of Federal Authority (FA). EC provides expert information to support EAs of projects that are the responsibility of other departments/agencies. A large amount of time and resources are spent responding to requests received for EC to act in the role of FA.

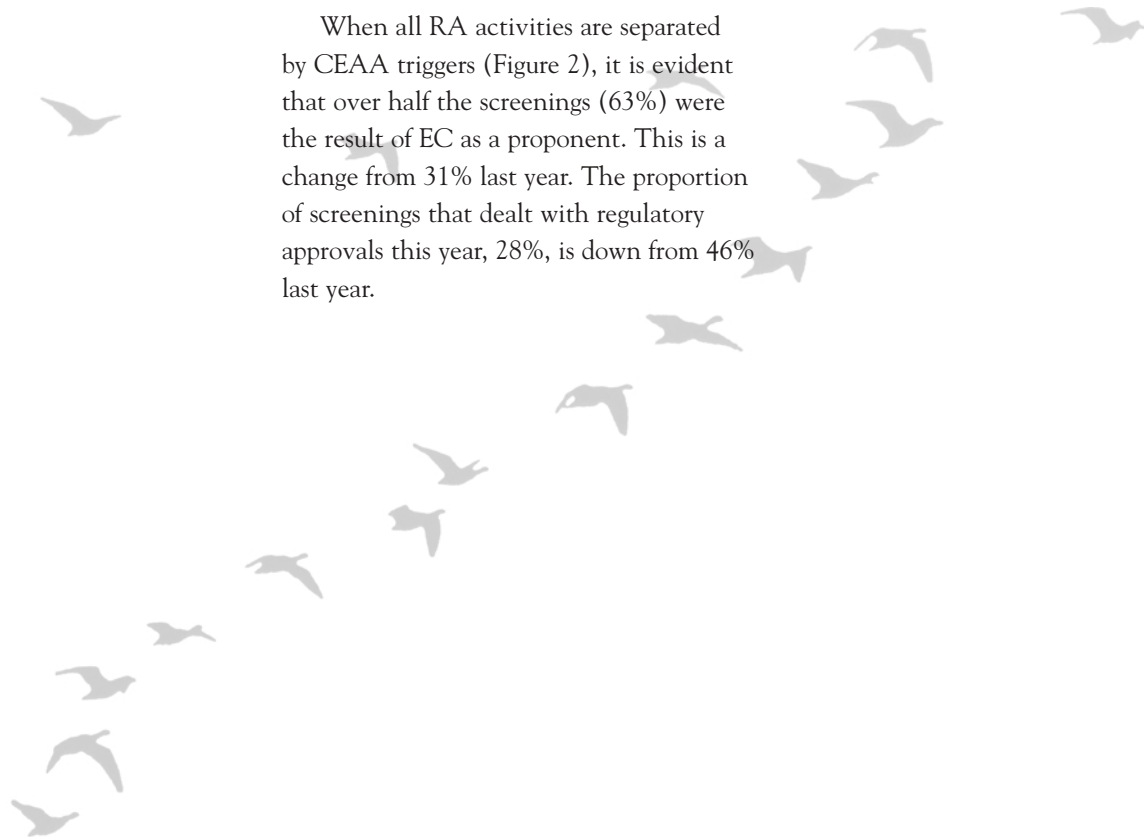


Figure 1 RA Activity by Region

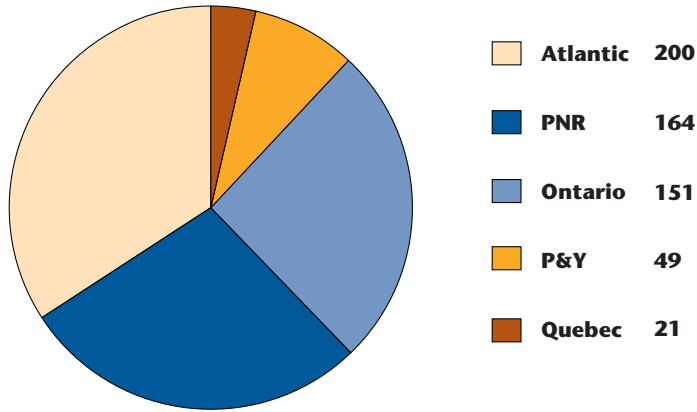


Figure 2 RA Activity by Trigger

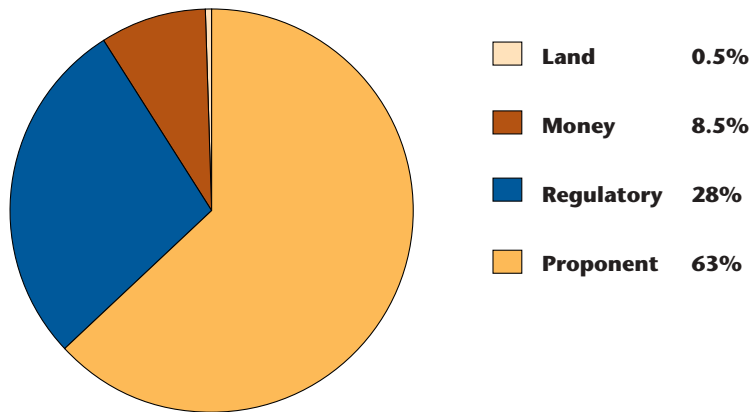
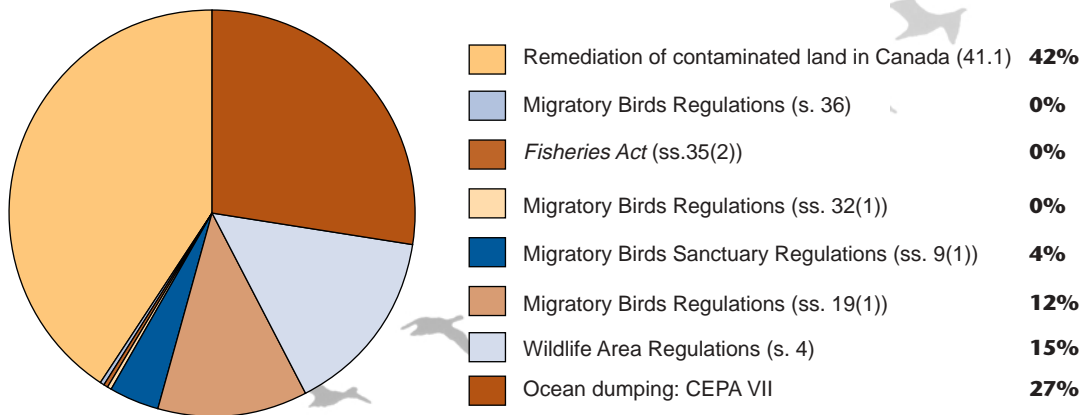


Figure 3 Permits Issued Under Specific Regulations



NATIONAL AND REGIONAL HIGHLIGHTS

Across the country, those working in EC's EA Program examine projects and proposals, perform EAs, and provide advice to other departments and senior management within EC.

EC has five regional offices: Pacific and Yukon Region, Prairie and Northern Region, Quebec Region, Ontario Region, and Atlantic Region. There are representatives of the EA Program in each region. National coordination of EA Program activities is done from EAB within EPS at EC's Headquarters.

This section includes highlights of EA activities across the country, demonstrating the focus and direction of the EA Program.

ENSURING NATIONAL CONSISTENCY AND APPLICATION OF THE EA PROGRAM

National consistency in the delivery of the EA Program is an important focus of EA activities. A collaborative effort from all the regions has led to improved consistency in the delivery of the EA Program and improved applications of federal policies, programs, and plans. Several examples demonstrate how expertise and knowledge sharing have led to an improved consistency in the delivery of the EA Program over the past year.

Model Class Screening Report for Small-scale Water Quality and Habitat Improvement Projects

Over the past year, the Ontario Region initiated the development of a model class

screening report (MCSR) under CEAA for assessing small-scale projects typically funded by EC through programs such as EcoAction, the Habitat Stewardship Program, and the Great Lakes Sustainability Fund.

EC's funding programs each year review large numbers of funding applications for small-scale environmental improvement projects that are similar in function and have predictable and relatively benign environmental effects. Although they are intended as environmentally beneficial, many of the proposed undertakings require a screening level of assessment on the basis of their dimensions, function, and/or proximity to a water body. These screening reports generally contain information that is very similar, if not identical, to that in other screenings of the same kinds of projects and thus are logical candidates for a class screening approach.

At the National EA Practitioners' Workshop in Toronto in October 2001, the Ontario Region presented a proposal to develop an MCSR to assist funding programs within the region to deliver on their programs while meeting the requirements of CEAA. Most of the other regions recognized many similarities with their own funding initiatives and program issues and subsequently indicated their interest in having the MCSR developed as a national tool. A working group was established, composed of representatives of the EACCs for the Ontario, Atlantic, Prairie and Northern, and Pacific and Yukon regions,

as well as Headquarters offices of the Canadian Wildlife Service and EAB, with Ontario as the lead. Terms of reference for the project were prepared, and a consultant was hired to carry out the work. Funding for the project was provided by the Ontario Region's EA Project Fund and the Great Lakes Sustainability Fund. A draft MCSR was prepared by the end of March 2002.

During the next fiscal year, the draft MCSR will be applied on a test basis by select funding programs in the participating regions. Once evaluated and completed, the MCSR will be presented to the Canadian Environmental Assessment Agency (Agency) for formal declaration under CEAA.

Aquaculture

In the Atlantic Region, the aquaculture industry has continued to expand its reach. Almost 100 proposals to construct or modify individual aquaculture operations were reviewed by EC, many of these projects involving the developmental grow-out of Atlantic cod in Newfoundland and Labrador coastal waters, an emerging aquaculture sector.

The continued operation of approximately 130 existing mussel and oyster growing operations in Prince Edward Island also required assessment, given the need for federal authorizations. A strategic approach to undertake this task was applied by Public Works and Government Services Canada and the Department of Fisheries and Oceans (DFO) with the support of EC. This approach entailed considering the shellfish operations in the context of 15 bay systems or regions. Environmental protection measures were targeted to each bay system, and adaptive management regimes were initiated.

As an expert FA, EC contributed specialist information and advice related to its mandated responsibilities, including waterfowl management and water quality monitoring under the Canadian Shellfish Sanitation Program. Guidelines for the consideration of EC expertise in the EA of aquaculture projects were published and distributed throughout the region and across the country. These guidelines were prepared with the input and assistance of EAB and other regional EC offices.

Offshore Energy Development

The Scotian Shelf off Nova Scotia and the Grand Banks off Newfoundland are the focus of hydrocarbon exploration and development activities. Industry demand for access to potential hydrocarbon resources in these regions continued to intensify over the year. In managing the associated assessment demands, the Atlantic Region continues to pursue strategic approaches to advancing the timely and effective consideration of EC information and expertise. Initiatives include development of guidance materials setting out the Department's expectations for EA of exploration activities and participation in reviews of the proposed leasing of offshore exploration rights.

EA Tools

Continuous efforts are given to maintain and improve EA tools at EAB. EA tools are developed to facilitate knowledge sharing and to strengthen partnerships. Application of these tools also contributes to national consistency of EA Program delivery. Tools include the National Environmental Assessment System, the National Referral Tracking System, the Cumulative Effects Assessment Working Group Forum, the Environmental Impact Assessment Follow-up Forum, and the EA Program site on EC's InfoLane, its internal website.



Offshore drilling, courtesy of Warren Fenton

IMPROVING THE QUALITY OF EC'S CONTRIBUTION TO EA TO PROMOTE IMPROVED EA ADVICE

EC provides EA advice, based on sound science, when acting in the role of both FA and RA. It is a continual effort, however, to improve the quality of advice by increasing and promoting the development of scientific knowledge. In addition, EA techniques and methodologies are developed and enhanced to improve and facilitate EA Program delivery.

Research and Development Projects

During the past year, EC's Prairie and Northern Region provided \$75,000 of funding for five projects intended to improve regional effectiveness in the delivery of its role as FA, which involves providing special/expert information or knowledge. Specific priority was given to improving follow-up advice on pipeline compressor stations; effects of coal mine projects and selenium on migratory birds in the

Alberta foothills; cumulative effects of air pollution (fine particulate matter) in the Edmonton–Fort Saskatchewan region; effects of hydrocarbon exploration and development on tundra-nesting migratory birds and their habitat; and water quality and biodiversity of wetlands associated with reclaimed coal strip-mined landscapes.

International Power Line — Point Lepreau, New Brunswick, to Maine

In the Atlantic Region, several drafts of a comprehensive study report for a proposed 95-km international power line from Point Lepreau, New Brunswick, to the U.S. border at Maine were reviewed. Key concerns relating to migratory birds led to the design of a survey in consultation with EC. The resulting survey methods and a protocol for interpreting the results will serve as an important precedent for future interventions in linear developments.

Ontario Region Expert Federal Authority Workshop

The Ontario Region held a workshop on September 11–12, 2001, for Ontario Region staff involved in EA reviews in EC's role as an expert FA. The workshop was attended by about 30 regional staff from all branches. The objectives of the workshop were to achieve efficiency and consistency in our delivery of FA advice and to ensure that our recommendations are being understood and used; to review the expert FA requirements under CEAA and how they relate to EC's departmental interests; to understand the context of what happens to our advice (how our advice is being used in the EA process and client expectations regarding our advice); to provide guidance to Ontario Region's technical specialists for EA review comments, and to prioritize areas where development of issue guidance is required; to identify elements of a good EA and the information needed for the EC technical specialist conducting the review; to consider how EA follow-up can be utilized in our expert advice; and to be aware of proposed amendments to CEAA and how they would affect our role as an expert FA. The workshop was well received by those in attendance and will result in improved delivery of this important role of EC's EA Program.

National EACC Annual Meeting

Each year, the National EACC meets for a face-to-face meeting to discuss regional priorities and national initiatives. This year's meeting was held on February 27–28, 2002, in the National Capital Region. Representatives from all five regions, as well as Headquarters, were present. Among the topics and issues discussed were transboundary petitions, EA Program delivery of national policies, legal consequences of court decisions, and a policy on how EA addresses climate change.

Presentations also included updates on CEAA five-year review and the proposed Species at Risk Act.

National EA Practitioners' Workshop

The Ontario Region co-hosted, along with EAB, the 2001 Annual EA Practitioners' Workshop, held at the Ramada Hotel in downtown Toronto on October 10–12. This workshop provides an opportunity for EA staff across the country to share their experiences and information relating to EA issues. This year's theme was "Preparing for the New CEAA," with presentations outlining the new changes and the transition that will need to be made once the new CEAA is in place. Other topics discussed were regional highlights, recent legal decisions relating to EA, urban EA issues and sustainable development, and traditional ecological knowledge and EA. Included in the workshop was an afternoon bus tour to the Toronto waterfront to examine EA initiatives firsthand. The EA Practitioner of the Year Award was presented to Rob Dobos for his contribution to the national agenda and his demonstrated commitment, enthusiasm, and excellence. Gary McLean was also wished a happy retirement after 30 years with EC and over 10 years in EA.

INTEGRATING EA ADVICE, BASED ON SOUND SCIENCE, INTO DECISION MAKING

Providing and integrating EA advice into decision making with respect to federal government policies, plans, programs, and projects is the main role of the EA Program. Several highlights provided in this section demonstrate EC's role in providing EA advice. Energy development, in particular, has played an important role in much of the EA activities across the nation. This is reflected in the choice of examples of EA activities.

Renewable Energy Projects — Nai Kun Wind Farm

In the Pacific and Yukon Region, an increase in wind power projects is expected over the coming years, given the benefits of no fuel consumption, air emissions, or discharging effluent. Certain areas along the B.C. coast provide ideal wind conditions for power generation.

In early 2002, EC EA staff began work on an EA for the Nai Kun Wind Farm, a 700-MW power generation project proposed for the shallow waters of Hecate Strait (several kilometres off the northeast coast of Graham Island in Haida Gwaii). The project will include up to 350 turbines with a minimum capacity of 2 MW each and will cover 80 km². Nai Kun will be connected to the power grid by an underwater direct current and surface cable.

Currently in the pre-application stage, the project will trigger the provincial and federal EA processes. EC's main issues include migratory birds. Although there will be some impact on the environment, as with all large projects, wind power has the potential to provide a positive alternative to fossil-fuelled electric power generation.

Wolverine Coal Project

Located near Tumbler Ridge in central British Columbia, the Wolverine Coal Project is expected to produce 1.5–2.0 million tonnes of coal per year from an open pit and underground mine. A processing plant and load-out facility are also proposed. The finished product will be transported by rail. The project is being reviewed under the federal and provincial EA processes.

Pacific and Yukon Region staff reviewed the application and participated in the development of specifications for the upcoming Project Report. One of the

main issues raised by EC was the underlying rationale for the project. Another coal mine in the area was recently closed due to high mining costs and low coal prices. EC therefore questioned the value of opening another mine with the associated environmental impacts when market conditions are too unstable to guarantee long-term viability of the project. Specifically, the proponent was asked to provide information on the expected market conditions, main purchasers, and strip ratio and coal quality comparisons with recent mines. Assessment of this project is expected to continue through late 2002.

Georgia Strait Crossing Pipeline Project

EC participated as an intervenor, along with DFO, Parks Canada, and Natural Resources Canada, in the joint review process for the Georgia Strait Crossing (GSX) Canada Pipeline project, a proposed new international pipeline that will transport natural gas from Sumas, Washington, across the Strait of Georgia to Vancouver Island, British Columbia. It is a joint undertaking of B.C. Hydro and Williams (U.S.). The natural gas transported in the GSX pipeline will supply fuel to two new electricity generating plants on Vancouver Island, an existing island cogeneration project in Campbell River, and a proposed Vancouver Island generation project in Nanaimo. The pipeline will also provide natural gas for industrial, commercial, and residential use on Vancouver Island. The marine portion of the proposed route involves construction of approximately 67 km of 406-mm pipeline underwater, 44 km of which is in Canadian waters. From a shore landing on Vancouver Island, the pipeline will travel inland approximately 16 km to connect with the existing Centra Gas pipeline south of Duncan.

In September 2001, the Minister of the Environment and the Chairman of the National Energy Board (NEB) established a Joint Review Panel to review the project pursuant to the CEAA and the *National Energy Board Act*. The NEB is the lead RA pursuant to CEAA, with DFO and EC also having RA roles. EC's role as an RA arises from the requirement for an ocean disposal permit under the *Canadian Environmental Protection Act* related to horizontal directional drilling at the Vancouver Island landfill.

Public and media interest in the project review was extremely high. A well-attended initial round of public consultation sessions dealing with scoping was held in January 2002. The federal departments jointly submitted a written summary of issues to the Panel during the consultations. EC's input included greenhouse gas (GHG) emissions, wildlife, water quality, and First Nations issues. The most widely expressed public concern was the implications of the project on GHG emissions both from the project itself and from the combustion of the transported gas. Other air quality factors such as coarse particulate matter (PM₁₀) were also frequently cited.

The public consultation sessions were followed by an oral hearing to determine whether environmental effects of the combustion of gas should be added to the List of Issues for the hearing. The federal departments involved advocated this inclusion under the cumulative effects provisions of CEAA. As a result of this hearing, the Panel ruled that the environmental effects of burning gas at the proposed new electric power generation facility on Vancouver Island should be considered in the hearing.



Meridian Dam Flood Plain, courtesy of Erin Groulx

Meridian Dam

In the Prairie and Northern Region, the Meridian Dam project was proposed to deal with water shortages in southern Alberta and southern Saskatchewan. EC provided scientific input to a pre-feasibility study, conducted by a contractor for Alberta Environment/Saskatchewan Water Corporation, and submitted a response to the proposal, stating the Department's concerns with migratory bird habitat destruction, water quality issues, and wildlife impacts. A key issue was the potential for inundation and fragmentation of portions of the proposed Suffield National Wildlife Area. EC's submission received positive feedback from the media and the public and ensured that critical ecological issues were considered in the pre-feasibility review. Due to environmental concerns and those of economic viability, the pre-feasibility study recommended that further work on the project not proceed.

Manouane River Diversion

The government-owned company Hydro-Québec plans to divert the Manouane River to an existing reservoir to improve the performance of an existing hydroelectric dam in Quebec. The project would significantly reduce water volume in the river, causing wetlands to dry up. On the other hand, increased water levels in the reservoir would flood land-based environments, which might eventually become wetlands. The promoter plans

certain changes to the riverbed in order to foster the establishment of new wetlands.

The Quebec Bureau des audiences publiques (BAPE) has been instructed to hold a public hearing as part of the provincial impact assessment. The BAPE's report recommends increasing the planned volume of water in the river.

DFO is the RA for an EA of this project, which is the focus of a "detailed study." Given the uncertainties surrounding the wetlands and the impact on nesting waterfowl, EC has recommended an extensive monitoring program designed to measure the actual impact on wetlands and the promoter's forecasts in this regard. EC has also recommended adaptive management based on results. These recommendations were approved by DFO.

Sainte-Luce — Submersion of a Decommissioned Military Frigate in the St. Lawrence River

A private promoter would like to sink a decommissioned military frigate in the St. Lawrence River, off the shore of Sainte-Luce-sur-Mer in Quebec, and use it as an underwater diving tourist attraction. The project would be partly funded by Economic Development Canada. DFO is the RA and is drafting the pre-feasibility study.

These kinds of projects are common, particularly in the Pacific and Yukon Region. Experts in this region have developed guides for cleaning the vessel prior to its submersion in order to minimize the risk of releasing contaminants during or after the operation. EC has recommended that DFO require the promoter to follow the procedures specified in these guides and hire a qualified specialist to develop cleaning specifications and to supervise the operation.

However, the public has expressed concern about the possibility of the release

of toxic substances, and DFO intends to hold a public consultation. According to DFO experts, river conditions at the site of the submersion will not enable colonization of this "artificial reef" by benthic fauna and flora or fish.

The project poses another problem that exceeds the scope of the EA. Given efforts made for many years to depollute and restore the river under St. Lawrence Vision 2000, this kind of project raises the question of whether such an activity is consistent with the goals of St. Lawrence Vision 2000.

Plans to Reopen the Gaspésia Pulp and Paper Mill

The Société en commandite Gaspésia would like to reopen the pulp and paper mill located in the Chandler area of Gaspésie, Quebec. The project involves enlarging the current mill by adding two new buildings and altering the existing paper machine to produce multi-ply paper from high-gloss, thermomechanical paste #4. The plant will run at a capacity of 207 000 mt of paper per year.

Given that the pulp and paper mill is the region's main employer, the federal and provincial governments have decided to invest almost \$400 million of the \$600 million required to reopen the mill. Economic Development Canada (Quebec Region) is the federal agency that will provide the funding and is responsible for application of CEEA.

The existing mill ceased operation in 1999, leaving behind a dark environmental past. The site contains soil contaminated by heavy metals and hydrocarbons and underground water contaminated with mercury. EC is the expert department and responsible for application of the Pulp and Paper Mill Effluent Regulations. EC has also recommended that the enlargement work be

used as an opportunity to remove all sources of contamination and to rehabilitate highly contaminated areas.

Deep Panuke

In the Atlantic Region, a comprehensive study of the proposed Deep Panuke natural gas field near the existing Sable Gas development off Sable Island was launched with the preparation and release of scoping documentation. EC is participating in the assessment as an expert FA and as an RA based on the possible requirement for a disposal at sea permit.

PARTNERING WITH OTHER JURISDICTIONS TO ENSURE EFFECTIVE EA PROGRAM DELIVERY

EC works in partnership with other jurisdictions in order to ensure effective EA Program delivery. Outlined are examples of EC's relationships with territorial, First Nations, and provincial governments.

Environmental Assessment Legislation in the Yukon

As a result of land claims agreements, a new EA regime that includes federal, territorial, and First Nations governments has been drafted as the Yukon Environmental and Socio-economic Assessment Act. However, the imminent devolution of federal responsibilities to the territorial government in April 2003 prompted the territorial government to initiate mirror legislation to CEAA to avoid a legislative gap. EC's Yukon Division provided input to the process and participated in the review of these Acts and associated regulations.

Energy Sector Projects

The Prairie and Northern Region has been occupied with multisectoral projects occurring across the region. Projects of significance include the expansions of the EPCOR Genesee and TransAlta Keephills

coal-fired power plants in Alberta. Through the bilateral agreement between the federal government and the Province of Alberta, EC had been involved in the Alberta Energy and Utilities Board assessment process of the above-mentioned projects and was consequently successful in advising the board of the need to improve monitoring of particulate matter and ozone at both the EPCOR and TransAlta facilities. The EPCOR approval was also subject to the assurance that Canada-wide Standards would be met for the particulate matter and ozone emissions through the use of best available technology. EC also had a hand in EPCOR's voluntary commitment to match the current U.S. Environmental Protection Agency standards for sulphur dioxide emissions.

Simplot Potato Processing Plant and City of Portage la Prairie's Wastewater Treatment Plant Expansion

EC's Prairie and Northern Region participated in the provincial EA process for the Simplot potato processing plant and subsequent expansion of the City of Portage la Prairie's wastewater treatment plant (WWTP) in Manitoba. EC's two main concerns with the WWTP were high phosphorus and ammonia loadings to the Assiniboine River; phosphorus concentrations in the river already exceed provincial water quality criteria. Environmental Protection – Prairie and Northern Region made a verbal and written submission to the Manitoba Clean Environment Commission (CEC) at its public hearings. Dr. Patricia Chambers, one of the Department's experts on nutrient enrichment in aquatic ecosystems, also made a presentation to the CEC. EC's intervention was supported by environmental groups and was successful insofar as the CEC, in its report to the provincial Minister of Conservation, supported EC's recommendations for



phosphorus removal at the Portage la Prairie WWTP and for limiting ammonia discharges to the river. However, Manitoba Conservation rejected the recommendations for phosphorus removal in revising the City's licence, although it did limit the allowable ammonia discharges for certain months.

Ontario Power Generation's Installation of Selective Catalytic Reduction Units at Coal-fired Power Stations

In early 2001, Ontario Power Generation (OPG) announced its proposal to install selective catalytic reduction (SCR) pollution control units at its coal-fired Nanticoke and Lambton generating stations. In response, the Minister of the Environment received requests under section 47 of CEEA from the states of New York and Connecticut to trigger a panel review based on their concern for the potential international transboundary effects from the air emissions from these plants. The Agency requested input from EC in order to determine the potential for transboundary effects. At the same time, the Ontario Ministry of the Environment received requests to designate the project under the Ontario *Environmental Assessment Act* and requested input from EC in its decision making.

Through the spring and summer of 2001, EC undertook a detailed analysis of project information, involving staff from the Ontario Region's Environmental Protection Branch and the Meteorological Service of Canada, as well as EPS Headquarters, in conjunction with provincial staff and the proponent. EC's advice was provided to the Agency in early August. Central to the consideration was how the proposed initiative by OPG would contribute to Canada's commitments under the Ozone Annex of the Canada-U.S. Air Quality Agreement to reduce emissions of nitrogen



TransAlta Keephills, courtesy of Curtis Englot

oxides from the electricity generation sector. Public opponents to the proposal contended that OPG's emission controls for nitrogen oxides would not go far enough to meet these commitments and would not address other air pollutants of concern, despite a large capital expenditure for the equipment (\$250 million), and they continued to push Ontario to require conversion of the coal-fired plants to natural gas.

In late November, the Minister decided not to refer the OPG proposal to a CEEA panel, since it was concluded that the SCR installation in itself would not likely cause significant adverse transboundary environmental effects. However, he reiterated his concern that Ontario needs to do more to meet international commitments on reducing nitrogen oxide emissions and that EC would continue to work with the province on measures to achieve this and reduce other air pollutants from sources such as power plants. As a result of the transboundary request analysis, EC was able to obtain a commitment from OPG to meet regularly to discuss its ongoing plans and strategies to reduce emissions of contaminants of concern. This ongoing dialogue has thus far proven beneficial to parties as a forum to discuss air-related issues of mutual concern.

Coleson Cove Generating Station

In the Atlantic Region, the Coleson Cove Generating Station near Saint John, New

Brunswick, is proposing a conversion from Fuel Oil No. 6 to Orimulsion®, triggering a provincial EA. Along with reviewing air quality improvements predicted to result from the conversion, EC has paid close attention to a comparative ecological risk assessment of spills of Fuel Oil No. 6 and Orimulsion®. While it appears that the Orimulsion® poses less risk overall, EC intervention has resulted in the New Brunswick government seeking greater certainty from the proponent on the potential impacts on seabirds and their eggs and the predicted behaviour of the product in seawater.

SHARING KNOWLEDGE THROUGH COMMUNICATION AND TRAINING

EA-related issues and activities are communicated within the EA community through interdepartmental communication, public communication, and training. EC supports efforts of knowledge sharing to increase efficiency and promote cooperation.

Strategic Environmental Assessment (SEA)

This has been an active year for the SEA subgroup in EAB, with the delivery of three EC regional SEA training workshops in Dartmouth (September 2001), Yellowknife (November 2001), and Whitehorse (February 2002).

Contributing to EAB's international agenda, a formal presentation was delivered to EA representatives from Hong Kong and Beijing, describing work and progress made with SEA in Canada.

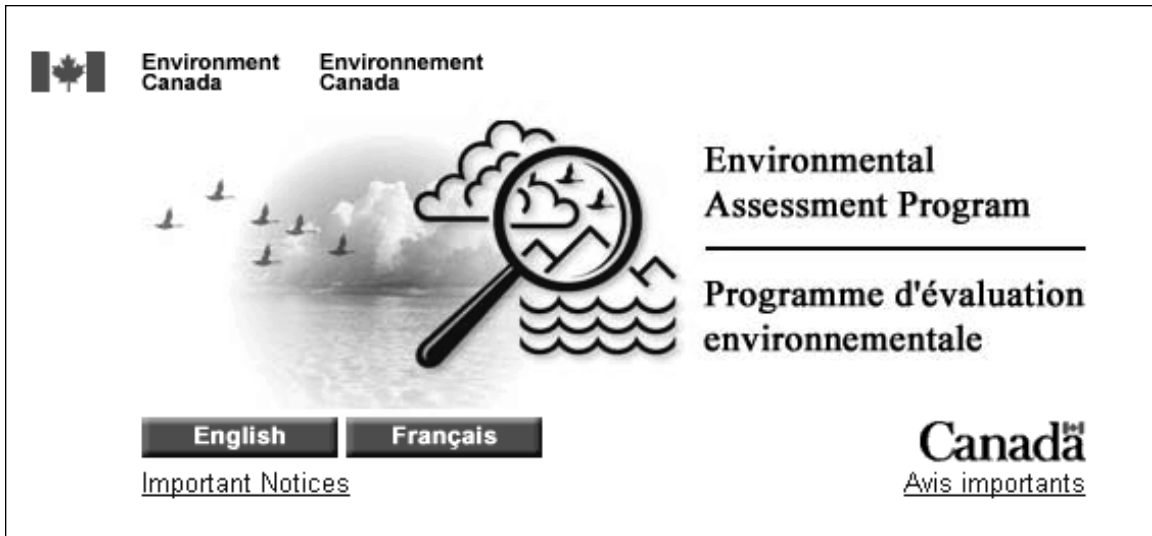
As part of our training strategy to provide ongoing SEA development support, EAB provided coaching to a number of departmental activity centres (e.g., Environmental Technology Advancement

Directorate, Strategic Planning Directorate, Sydney Tar Ponds Contaminated Sites) and to interdepartmental working groups, including Natural Resources Canada (Domestic Environment Policy Division), the Department of Indian Affairs and Northern Development (DIAND) (Northwest Territories Devolution), and Aquaculture (DFO–Coast Guard).

EAB participated in the development of 16 SEAs, including the Sydney Tar Ponds Action Plan; Species at Risk Act — Compensation; Aquaculture Expansion Program; Strengthening Understanding of Ecosystem Effects of Genetically Modified Organisms; Clean Air (Memorandum to Cabinet and SEA); Persistent Organic Pollutants; and the General Agreement on Trade in Services Negotiating Mandate.

EAB reviewed and commented on many memoranda to Cabinet, aide-mémoires, and presentation decks (briefing packages) and, of these, provided input or comments to other departments on 36 documents.

In response to the release of the Department's Sustainable Development Strategy, EAB has begun the development of an expanded and revised SEA tool that will provide guidance on the development and assessment of more sustainable policy, plan, and program proposals. This revised manual and process will include sustainability principles, guidance on integrated assessment, the development and application of sustainability indicators, as well as a revised follow-up framework. There will also be guidance on how SEA can be used in sectoral and regional assessment, as well as on how to develop linkages and partnerships and strengthen public involvement in the process.



A series of presentations will be delivered to senior management and to EMB members, to inform them on the revisions, their roles and responsibilities, and the need to ensure the consistent and effective application of the 1999 Cabinet Directive.

Environmental Assessment Program on the Green Lane

Launched in January 2002, the EA Program site on the Green Lane is accessible to the public on the World Wide Web. The EA Program Internet site is a useful source of information on all subjects related to EA. The site can be accessed at the following URL: <http://www.ec.gc.ca/ea-ee>.

UNDERSTANDING THE CONSEQUENCES OF LEGAL DECISIONS

Decisions made by the government concerning EAs can often be challenged by the proponent in court. The subsequent court rulings affect the application of CEAA and future EAs. It will be increasingly important to understand the legal implications in providing EA advice under CEAA.

Red Hill Valley Expressway

On April 24, 2001, Justice Dawson of the Federal Court granted the application by the City of Hamilton for judicial review of CEAA panel review of its proposed Red Hill Valley Expressway in Hamilton, Ontario. Justice Dawson decided that CEAA did not apply to the expressway project, concluding that it was grandfathered under the transition clause, section 74(4) of CEAA, and that irrevocable decisions made by the proponent on the project precluded CEAA's application. The Court also ruled that the decision to refer the project to a panel was not supported by a valid head of federal jurisdiction. Other issues in the judicial review, such as validity of the panel's terms of reference and the environmental impact statement guidelines and conflict of interest concerns, were not addressed.

Subsequent to the Court decision, the federal government filed a limited appeal on August 29, on the grounds that Justice Dawson erred in concluding that CEAA did not apply to the project. The appeal hearing was held on November 13-14 by the Federal Court of Appeal, immediately followed by Chief Justice Richard's decision to dismiss

the appeal, upholding Justice Dawson's original decision. The federal government did not appeal this ruling. As a result, the Red Hill Valley Expressway project is no longer required to follow an assessment under CEAA. The Court's ruling did generate concerns over the application of CEAA to other projects, which is being handled through proposed amendments to the Act by the Agency.



MEETINGS AND WORKSHOPS



Oil and gas seismic activities in Eagle Plain

IAIA 2001 — CARTAGENA

The International Association for Impact Assessment (IAIA) held its 21st Annual Meeting and Conference in Cartagena, Colombia, from May 26 to June 2, 2001. The theme of this meeting was “Impact Assessment in the Urban Context.” The conference included a number of plenary and panel discussions, along with numerous workshops on key topics such as SEA, integrated assessment, public participation, biodiversity, follow-up, risk analysis, health impact assessment, and cumulative effects assessment. For the second year in a row, EC staff co-chaired, along with the Netherlands, the workshop sessions on follow-up, which were well attended and informative. This conference continues to be the only international forum that brings

together impact assessment practitioners from around the world in a setting that fosters an invaluable exchange of information, knowledge, and experiences.

YUKON OIL AND GAS ACTIVITIES

Renewed interest in natural gas in the North American market is increasing exploration activities and renewing talk of the Alaska natural gas route through the Yukon. EC’s Pacific and Yukon Region and Prairie and Northern Region are members of a multidepartment EA working group led by the Agency and the NEB. The working group met regularly to evaluate options for and implications of EA process matters related to the Foothills Alaska Highway Project Gas Pipeline via the Yukon, the



Renewed interest in oil and gas exploration in southeastern Yukon

Greenfields Gas Pipeline Project through the Yukon, and the gas pipeline project through the Northwest Territories via the Beaufort Sea.

OILSANDS WORKSHOP

A strategic planning workshop on EC's involvement in EA work in northeastern Alberta's oilsands was held in Edmonton in March to address issues of workload, priority setting, and improving EA program effectiveness in the oilsands sector. The agenda of the workshop addressed concerns such as science gaps, workload management, EC's role in the Cumulative Effects Management Association's Regional Sustainable Development Strategy, and the need for research and development funding

in the oilsands region. Participants included all branches in the Prairie and Northern Region, the National Water Research Institute, and Headquarters (Environmental Conservation Service [ECS], EPS, and Policy & Communication). The workshop was successful in developing a national EC network for oilsands and EA, developing a preliminary enhanced workload management strategy, setting priorities, and identifying action items for the participants. Participation in the Cumulative Effects Management Association's Regional Sustainable Development Strategy working group and up to six new major project-specific EAs is ongoing.

NORTHERN OIL AND GAS WORKSHOP

An EA planning workshop was held in Yellowknife in April 2002 to address the issue of imminent large-scale oil and gas development in Canada's North. The workshop was intended to bring key EC players together to ensure departmental consistency when addressing northern development proposals. Participants included representative from all branches in the Prairie and Northern Region, Pacific and Yukon Region, Atlantic Region, Headquarters (EPS, ECS), and DFO. Workload management was a topic of concern at the workshop, due to the timing and quantity of potential development. A briefing of development proposals and EC's potential key role as an RA were also discussed. The workshop was successful, and a list of action items was developed.



Mackenzie Delta, courtesy of Warren Fenton

A follow-up workshop has been proposed for 2002 to discuss the status of the action items as related to the progress on northern development proposals. As one result of the workshop, EC has been participating in an interdepartmental Federal Environmental Assessment Regulatory Working Group co-chaired by DIAND, the Agency, and the NEB. Through this forum, EC is able to ensure that the Department plays a role in the development of a cooperation plan for regulatory and EA agencies responsible for overseeing the EA and approval for potential pipelines from the Mackenzie Delta via the Mackenzie Valley and/or from the Alaskan North Slope via the Alaska highway route. The Prairie and Northern Region also continues to play a key role in the development of the Northwest Territories Cumulative Effects Assessment Management Framework.

CHALLENGES AND PROPOSED DIRECTION

This past year, EC's EA team has been patiently waiting for the new CEAA to come into effect. Implementation of the proposed changes to the Act will require some planning on behalf of the EA Program. As was anticipated last year, it may be difficult to meet the new requirements with current resource levels if the changes are substantive.

SEAs have continued to play an important role in sustainable decision making. Through SEA guidance material and training, we provide support to policy, plan, and program developers and have reinforced the need for and importance of SEAs. This coming year, our role in promoting SEA will continue, as a revised version of the SEA guidance document is expected. In addition to providing tools for more sustainable decision making, which meets the requirements of the 1999 Cabinet Directive, the guidance document will provide information on how to develop a sustainable vision, identify issues, strengthen public participation, and develop and apply indicators and will include an enhanced follow-up and monitoring framework.

Given that all regions across Canada deliver the bulk of EC's EA Program, national consistency is an important issue. Canada is such a diverse and large nation that it is a continual challenge to keep up to date with EA activities across the country. Sharing of knowledge and information has proven to be a helpful tool in dealing with the large workload that comes with EA.

Regional leads, along with Headquarters, have worked hard at cultivating partnerships and developing a community of practice across the country. By developing networks within and outside of the EA community, we are sharing approaches and maintaining consistency in the application of national policies and guidelines. To continue with this practice, a challenge we are facing this coming year is to develop a National Strategic Plan for EC's National EA Program to ensure that all regions and services within EC are working towards common goals, principles, and action plans.

EC, as a department, has been dealing with the major issue of climate change and the expected decision to ratify the Kyoto Protocol. This has brought much attention to environmental issues, reaffirming the importance of EA. This is particularly important with projects involving Canada's non-renewable resources, given the high numbers of energy-related projects and the stresses that they inflict on the environment. EA must keep up with departmental initiatives to address the concerns of Canadians and uphold national initiatives. As a large part of EC's role in the EA process is to provide sound advice, we must continually work towards increasing our scientific knowledge to improve the quality of our advice.



EA activities contribute to all of EC's business lines, in particular the Clean Environment Business Line. It is important to ensure that EA continues to play a role in achieving EC's goals and objectives and to ensure that this role is recognized.

ENVIRONMENTAL ASSESSMENT MANAGEMENT TEAM

Paula Caldwell Saint-Onge,
Director General, National Programs
Directorate

National Environmental Assessment Coordinating Committee

Doug Tilden/Diane Campbell,
Environmental Assessment Branch

Ian Travers,
Atlantic Region

Claude Saint-Charles,
Quebec Region

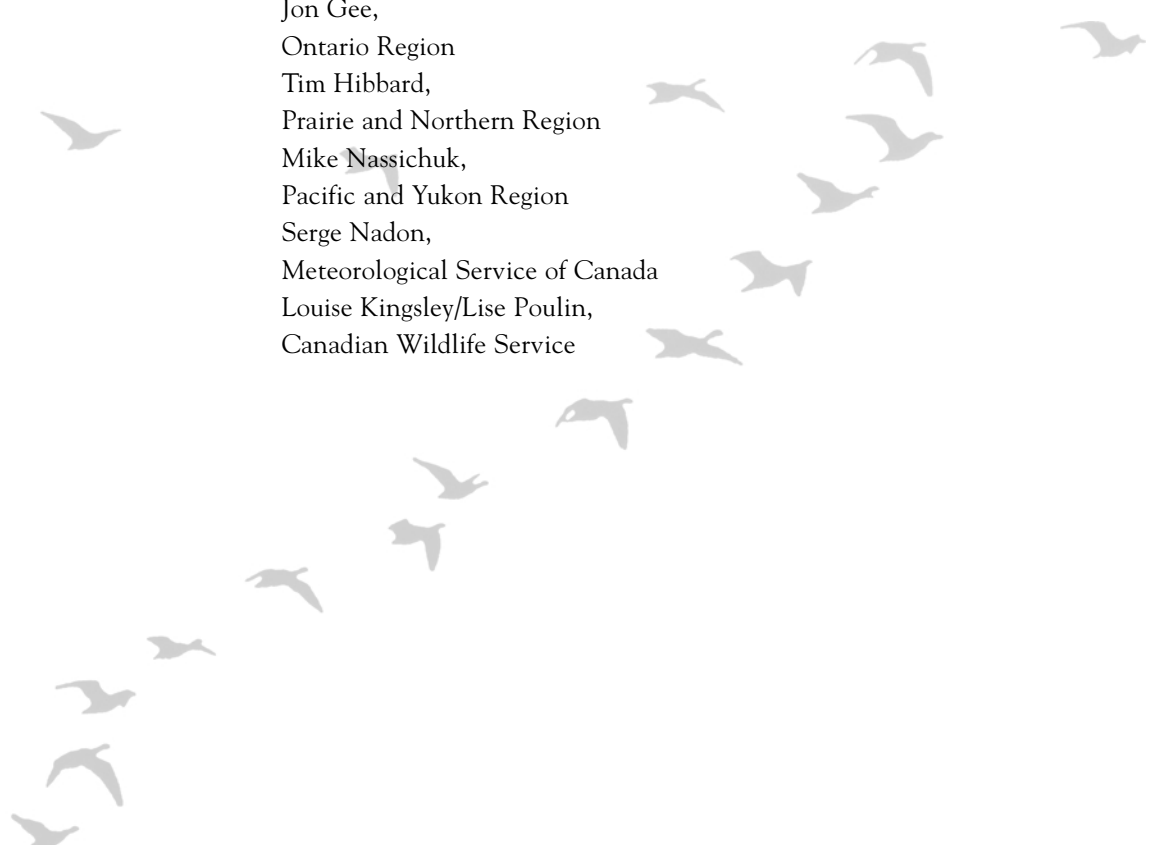
Jon Gee,
Ontario Region

Tim Hibbard,
Prairie and Northern Region

Mike Nassichuk,
Pacific and Yukon Region

Serge Nadon,
Meteorological Service of Canada

Louise Kingsley/Lise Poulin,
Canadian Wildlife Service



ACRONYMS AND ABBREVIATIONS

Agency	Canadian Environmental Assessment Agency
BAPE	Bureau des audiences publiques
CEAA	<i>Canadian Environmental Assessment Act</i>
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian Affairs and Northern Development
EA	Environmental Assessment
EAB	Environmental Assessment Branch
EACC	Environmental Assessment Coordinating Committee
EC	Environment Canada
ECS	Environmental Conservation Service
EPS	Environmental Protection Service
FA	Federal Authority
GHG	greenhouse gas
GSX	Georgia Strait Crossing
IAIA	International Association for Impact Assessment
MCSR	model class screening report
NEB	National Energy Board
OPG	Ontario Power Generation
PM ₁₀	Particulate matter less than or equal to 10 µm in diameter
RA	Responsible Authority
SCR	selective catalytic reduction
SEA	strategic environmental assessment
WWTP	wastewater treatment plant
VSL2002	Vision Saint-Laurent 2002

