

**National Report for Canada  
for the 7<sup>th</sup> Meeting of the  
Conference of the Contracting Parties  
to the Convention on Wetlands  
San José, Costa Rica, 10-18 May 1999**

**September 1998**

**Compiled by C.D.A. Rubec**

**Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario K1A 0H3**

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**Preface**

From the first meeting of the Ramsar Conference of the Contracting Parties in 1980, countries have submitted National Reports on their implementation of the Convention. These reports are submitted eight months in advance of the meeting to allow synthesis of the national information into Ramsar Regional Overview Reports by the staff of the Ramsar Bureau. National Reports constitute a vital source of information on the implementation of the Convention at the country, regional, and global levels. The present format for National Reports was considered by the Ramsar Standing Committee at its meeting in October 1997. It approved the new format “in principle” and sought some improvements. These were introduced by the Bureau of the Convention and the revised form approved by the Chair of the Standing Committee in December 1997. The new format is based on the *Ramsar Strategic Plan 1997-2002* adopted by COP6.

This report format contains key questions related to each of the eight General Objectives of the *Ramsar Strategic Plan 1996-2002*. This report is a brief status report by Canada on its implementation of the Convention on Wetlands and its *Strategic Plan*. It has been prepared by Clayton Rubec of the Canadian Wildlife Service, Environment Canada with input from colleagues in non-government and regional partner agencies to our national wetland initiatives. These include Ducks Unlimited Canada, Wetlands International — The Americas, Wildlife Habitat Canada, and regional offices of Environment Canada.

Robert McLean  
Acting Director  
Wildlife Conservation  
Environment Canada

*Implementation of the Ramsar Convention and  
the Ramsar Strategic Plan  
for the April 1996 to September 1998 period*

**Contracting Party:**

Canada

**Designated Ramsar Administrative Authority:**

Canadian Wildlife Service, Environment Canada

**Full name of the institution:**

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**Ramsar Strategic Plan - General Objective 1**  
**To progress towards universal membership of the Convention.**

**1.1 Describe any actions your government has taken (such as hosting regional or subregional meetings/consultations, working cooperatively with neighbouring countries on transfrontier wetland sites) to encourage others to join the Convention.**

Canada has participated in the Trilateral Canada-USA-Mexico Committee on Wildlife Conservation and Ecosystem Management since its establishment in 1996. Two meetings in February 1997 and March 1998 have identified the need for and creation of a Continental Wetlands Table under this structure. Meetings of this Table have directly involved consultations on continental Ramsar issues.

Canada provided funding to facilitate the organization of the joint meeting of Neotropical and North American Ramsar Parties held in Panama in June 1995. Canada was represented at this meeting as well acting as Co-Chair of as the PanAmerica Ramsar Contracting Parties Meeting in Costa Rica in June 1998.

At the national level, meetings of the North American Wetlands Conservation Council (Canada) in 1997 and 1998 have included discussion of a proposal to establish a National Ramsar Subcommittee and the Council's mandate to facilitate Canada's international actions with regard to wetland conservation.

**Ramsar Strategic Plan - General Objective 2**  
**To achieve the wise use of wetlands by implementing and further developing the Ramsar Wise Use Guidelines.**

**2.1 Has a National Wetland Policy/Strategy/Action Plan been developed, or is one being developed or planned for the near future?**

The Government of Canada announced and has implemented *The Federal Policy on Wetland Conservation* since March 1992. The Federal Government in partnership with the North American Wetlands Conservation Council (Canada) has developed a Federal Land Managers Implementation Guide and Training Course. Four Canadian provinces also now have implemented provincial wetland management policies. The Province of Ontario has established a Wetland Management Course also.

The North American Waterfowl Management Plan (NAWMP) continues to be a flagship initiative involving the provincial, territorial and federal governments as well as national, regional and local non-government conservation organizations and the private sector in Canada. It has delivered extensive wetland habitat and waterfowl population objectives since 1986 in cooperation with the United States and Mexico.

**a. What are/will be its main features?**

The Federal Policy is presented through a set of guiding principles and commitments as well as seven implementation strategies with regard to public awareness, federal lands management, special conservation lands, science, wetland sites conservation, intergovernmental cooperation, and international programs. The full details of the Policy are now available on several Web Sites including those of the Ramsar Bureau (<http://ramsar.org/>) and Wetlands International - The Americas (<http://www.wetlands.ca/wia/>).

**b. Was it, or is it, intended that the Policy/Strategy/Action Plan be adopted by the whole of Government, the Minister responsible for Ramsar matters or through some other process.**

The *Federal Policy on Wetland Conservation* was adopted by the full Federal Cabinet and thus applies to all federal departments, agencies, Crown corporations, programs, departmental or other federal policies and expenditures related to federal projects subject to federal environmental assessment. The Provincial Wetland Policies of Alberta, Saskatchewan, Manitoba and Ontario have also been adopted at the Cabinet level.

**c. How does it relate/will it relate to other national environmental/ conservation planning initiatives (e.g., National Environmental Action Plans, National Biodiversity Action Plans, National Conservation Strategies)?**

Wetlands are specifically noted as key elements in the national biodiversity strategy and federal water strategy. Wetlands are the primary focus of the North American Waterfowl Management Plan in Canada and wetlands are a key element in the delivery national

waterbird, shorebird and important bird areas conservation projects involving many partners. These in particular include Wetlands International — The Americas and Wildlife Habitat Canada.

Wetlands are also a key strategic focus of national soil and water and regional strategies such as the Prairie Conservation Action Plan, the Great Lakes Action Plan, the Fraser River Action Plan, and Plan 2000 for the St. Lawrence River. Each of these involve many government and non-government cooperators and partners. Responses to the national and provincial/territorial biodiversity strategies incorporate wetland conservation in a series of actions related to agriculture and forest conservation as well as sustainable development initiatives.

**2.2 If a policy is in place, how much progress has been made in its implementation, and what are the major difficulties being encountered in doing so?**

Environment Canada is providing communication and educational training materials to agencies on request. This Department however provides no regulatory oversight function to the Policy and has no enforcement power over other agencies. Their implementation of the Policy is required by Cabinet but it must be conducted by them through their own agency resources and staff. The Government of Canada has had success in bringing wetlands issues to the forefront in major federal land development projects. A Federal Land Managers Wetland Training Course has been presented several times to individual departments. Many case studies have been documented of where referral to the Policy and its commitments have led to wetlands on federal lands being protected or compensation and mitigation being implemented.

**2.3 If a Policy/Strategy/Action Plan is in place, is the responsibility for implementing it with (a) a single Government Ministry; (b) a committee drawn from several Ministries; or (c) a cross-sectoral committee?**

There is no federal wetland interdepartmental committee. The Canadian Wildlife Service (CWS) acts as an expert science and advisory agency; each department has responsibility for interpreting and implementing the Policy. The CWS provides general guidance and advice. Nationally, a variety of wetland initiatives are considered through the programs and meetings of organizations such as the North American Wetlands Conservation Council (Canada) and Wildlife habitat Canada.

The North American Wetlands Conservation Council (Canada) is an Advisory Body established under the *Canada Wildlife Act* and reports to the federal Minister of the Environment. It provides a facilitating and coordination roles to the North American Waterfowl Management Plan and promotes wetland policies and public awareness of

wetland issues. Its members include federal, provincial and non-government wetland agency partners including Wildlife Habitat Canada and Ducks Unlimited Canada. Wildlife Habitat Canada is a national non-government organization that promotes wetland conservation through an active research, conservation project and policy program active in all the provinces and territories. Funding for these initiatives is derived to a significant extent from the sale of a mandatory migratory bird conservation stamp required on federal permits by all hunters of these species.

**2.4 For countries with Federal systems of Government, are there Wetland Policies/Strategies/Plans in place, being developed or planned for the provincial/state or regional levels of Government?**

Yes, four of ten provinces have provincial wetland policies. The 10 provinces all have provincial wetland conservation programs linked nationally through the North American Waterfowl Management Plan.

**2.5 Has a review of legislation and practices which impact on wetlands been carried out, and if so, has this resulted in any changes which assist with implementation of the Ramsar Convention?**

A review of major federal and provincial/legislation that can serve the interests of wetland conservation was completed in July 1998 in cooperation with the North American Wetlands Conservation Council (Canada). We have not reviewed legislation with inherent disincentives to wetland conservation as yet although two non-government surveys have been published. This includes a review of legislation in Western Canada published in 1993 by the Environmental Law Institute at the University of Alberta and a comprehensive report on legislation supporting biodiversity conservation in Canada published by the Canadian Institute for Environmental Law and Policy in 1996. The NAWCC (Canada) 1998 report will be published later this year. It was funded by Environment Canada and conducted through the North American Wetlands Conservation Council (Canada). A separate, short paper by C. Rubec and P. Lynch Stewart drawing upon this review of legislation, policy and voluntary stewardship initiatives in Canada was presented to the Ramsar-IUCN Workshop on Law and the Ramsar Convention in Switzerland in July also.

Wetlands International — The Americas organized the International Workshop on Partnerships for Integrating Wetlands and Water Resources management in September 1997 in conjunction with Global Biodiversity Forum and Biodiversity Convention meetings in Montreal, Québec. Numerous partners including Environment Canada assisted in the organization of this meeting. A report on this meeting was published.

There have also been numerous papers focused on aspects of conservation policy, tax legislation, sustainable agricultural and forestry programs and land stewardship. Compilations of these references and copies of reports are generally available from organizations such as Wildlife Habitat Canada, Ducks Unlimited Canada and the North American Wetlands Conservation Council (Canada).

- 2.6 Describe the efforts made in your country to have wetlands considered in integrated land/water and coastal zone planning and management processes at the following levels:**
- a. national**
  - b. provincial**
  - c. local**

Wetlands are recognized in the Government of Canada's 1998 report *Canada and Freshwater* (Sustainable Development in Canada Monograph Series, No. 6) and water issues are examined in Canada's summary reports in 1995 and 1996 to the Commission on Sustainable Development. Wetlands and their relationship to water are key components in national freshwater strategies as well as Canada's first national report to the Convention on Biological Diversity (*Caring for Canada's Biodiversity*, 1998).

Wildlife Habitat Canada, Ducks Unlimited Canada and numerous other cooperating non-government organizations particularly in the agricultural and forestry sectors, as well as provincial agencies all actively promote and facilitate provincial and national soil and water conservation programs and policies. There are many publications and project examples available but no national synthesis of this literature is available.

- 2.7 Have there been any publications produced, or practices documented, which could assist other countries to promote and improve the application of the Ramsar Wise Use of Wetlands Guidelines?**

A compilation of such publications has not been produced in Canada for the 1996-1998 period. There are numerous reports that are relevant but none would be considered to have been produced specifically under the Ramsar Convention's wise use banner or to particular Ramsar sites.

The National Hydrology Research Institute of Environment Canada published the *Atlas of Russian Wetlands. Biogeography and Metal Concentrations* in 1997 in

cooperation with the Canada-Russia Science and Technology Bilateral Program and the Kajima Foundation of Japan.

**2.8 Noting COP6 Recommendation 6.14 relating to toxic chemicals and pollution, please advise of the actions taken since then "to remedy and to prevent pollution impacts affecting Ramsar sites and other wetlands" (Operative paragraph 9).**

This has not arisen as a management issue on Canadian Ramsar sites to date. However, there are numerous reports that could be considered relevant but none have been specifically directed at management of particular Ramsar sites.

**2.9 Describe what steps have been taken to incorporate wetland economic valuation techniques into natural resource planning and assessment actions.**

Environment Canada continues to be a contributor to IUCN, Ramsar and other international networks focused on developing methods for valuing wetlands from an economic perspective. This includes the OECD Experts Working Group on Economic Valuation which held a working meeting in Paris, France in January 1998. This meeting focused on economic instruments for biodiversity conservation with a series of invited national case studies, two of which were developed by Canada.

Wildlife Habitat Canada, the North American Wetlands Conservation Council (Canada), the Saskatchewan Wetland Conservation Corporation, the Manitoba Habitat Heritage Corporation and Ducks Unlimited Canada have produced several policy and research papers as well as landowner program evaluation reports focused on the economic importance of wetlands in Canada and are all fostering tools for wetland evaluation.

**2.10 Is Environmental Impact Assessment for actions potentially impacting on wetlands required under legislation in your country?**

This is a matter of regulatory requirement under federal and provincial environmental impact assessment (EIA) legislation in Canada. EIA generally applies to most federal and provincial projects under federal or provincial legislation; and sometimes both for cost-shared projects. There are many project examples where wetland impacts have been identified and subject to EIA requirements at both the federal and provincial level in Canada.

Environment Canada is currently publishing a general guidance paper entitled *Wetland Environmental Assessment Guideline* (Milko 1998) on factors to consider about wetlands in the EIA process. A separate initiative is also seeing the development national of guidelines for wetlands and impact assessment under the North American Waterfowl

Management Plan that may be affected by development proposals.

**2.11 Is wetland restoration and rehabilitation considered a priority in your country?**

Nationally, a new focus on proper application of compensation and mitigation concepts to impacted wetland sites in EIA sequencing is underway. A National Workshop on this theme was held in April 1997; proceedings of this meeting were published in June 1998; and guidelines are under development for EIA projects.

Wetland restoration is a key element in many projects of the North American Waterfowl Management Plan with over 685 000 hectares restored or rehabilitated over the last decade, increasingly so in the last Triennium of the Ramsar Convention. Ducks Unlimited Canada notes in its fact sheet entitled *Ducks Unlimited's Conservation Activities on Ramsar Wetlands from March 1996 to February 1997* that through the NAWMP, it expended almost CA\$2 million in that period in Canada and over CA\$3 million on wetland restoration, enhancement and securement projects on Ramsar sites in North America overall. Restoration research and pilot projects have also been implemented through numerous other initiatives on other wetland sites in Canada.

Restoration is a key element in sites used for peat horticultural harvesting. Sites that are retired from active use are regulated by each Province and generally require restoration plans being established prior to any new lease holdings being opened for development. The Canadian peat industry has published nation-wide industry restoration policy and guidelines.

Several provincial governments organize annual meetings on restoration of wetlands. This includes the Ontario Ministry of Natural Resources. A meeting in June 1997 at the University of Laval in Québec drew an international audience focusing on peatland restoration. A peatland restoration handbook funded by federal, provincial and non-government partners was released at this meeting.

**2.12 Describe what actions have been taken to "encourage active and informed participation of local communities, including indigenous people, and in particular women, in the conservation and wise use of wetlands." (refer to Actions 2.7.1-4 in the Strategic Plan).**

Local citizens' organizations have been assisted in their efforts to conserve several of Canada's most recent Ramsar sites: Tabusintac Estuary and Lagoon in New Brunswick, Lac St. Pierre in Québec, and the Minesing Swamp in Ontario.

There have been many stewardship projects implemented through local and regional

organizations affecting wetlands, water courses and fish habitat across Canada. This has involved many national and regional organizations at all levels.

**2.13 Describe what actions have been taken to "encourage involvement of the private sector in the conservation and wise use of wetlands" (refer to Actions 2.8.1-4 in the Strategic Plan). Has this included a review of fiscal measures (taxation arrangements, etc.) to identify and remove disincentives and introduce incentives for wetlands conservation and wise use?**

The *Income Tax Act of Canada* and *Loi de l'impôt sur le revenu du Québec* were amended in 1996 and 1994 respectively to promote private and corporate land donations of ecologically sensitive lands to conservation trusts, conservancies, municipalities and Crown agencies. This has to date included many wetlands. Over 60 ecological gifts value at in excess of \$CA 20 million have been completed.

The North American Waterfowl Management Plan in Canada is strongly focused on private and corporate land stewardship of privately owned wetlands to enhance waterfowl and biodiversity conservation. Wildlife Habitat Canada and Ducks Unlimited Canada direct considerable effort and projects at working with corporate and private landowner interests to foster wise use and sustainability of wetland resources in Canada.

**Ramsar Strategic Plan - General Objective 3  
To raise awareness of wetland values and functions throughout the world and at all levels**

**3.1 Is there a government-run national programme for Education and Public Awareness in your country which focuses on, or includes, wetlands? Yes/No? If yes, what are the priority actions under this programme and who are the target groups? (Refer also to question 9.4)**

No. The federal government is providing assistance periodically to programs such the Ecoscope Project being offered nationally by the Demeter Foundation. Pilot wetland provincial programs in two provinces are using a wetland program developed through this Project at the senior high school level. Numerous other national habitat conservation and wetland conservation initiatives include public awareness, landowner contact and education elements.

Many local and regional wetland education programs have been established. Examples include education kits for teachers such as *A Teachers Guide to Burns Bog* published in

1997 by the Burns Bog Conservation Society and the *Wetlandkeepers Handbook* (Southam and Curran 1996) published by a government-nongovernment partnership in British Columbia. This book is part of a land stewardship series supported by federal and provincial government agencies in British Columbia. A course at Langara College is based on this publication.

Wildlife Habitat Canada in 1996 released a report entitled *Conservation Education in Canada: An Inventory of Current Programs*, recording habitat education initiatives underway across Canada.

**3.2 Describe the steps taken to have wetlands issues and Ramsar's Wise Use principles included as part of the curricula of educational institutions. Has this been at all levels of education (primary, secondary, tertiary and adult)?**

*Ecoscope* is evolving into a key tool at the high school level in several provinces. It is a wetland modular teaching program involving many partners, particularly Wetlands International — The Americas.

#### **Ramsar Strategic Plan - General Objective 4**

**To reinforce the capacity of institutions in each Contracting Party to achieve conservation and wise use of wetlands.**

**4.1 Describe the mechanisms in place, or being introduced, to increase cooperation between the various institutions responsible for actions which can have an impact on the conservation and wise use of wetlands. If one of the mechanisms is a National Ramsar/Wetlands Committee, please describe its composition, functions and operating procedures.**

The Wildlife Habitat Canada Foundation was established in 1984 to promote wetland and general habitat conservation nationally. It has an active national research and project-based program on wetlands and other key habitats.

The North American Wetlands Conservation Council (Canada) was established under the *Canada Wildlife Act* in 1991 as a national wetland advisory body. It has three mandates: to coordinate the national implementation of the North American Waterfowl Management Plan (NAWMP) in cooperation with the United States and Mexico; to promote wetland awareness and conservation policies; and to provide assistance to implementing wetland conservation internationally. The Council has federal, provincial and non-government representatives. It is supported by a National Secretariat in Ottawa

and reports to the Minister of the Environment federally. It publishes two major report series on wetland management, policy and science issues of national interest. It coordinates the "Canadian Ramsar Network" in cooperation with the Canadian Wildlife Service. This Network acts as a communication and contact mechanism for Ramsar site managers across Canada. The Canadian Wildlife Service also cooperates with Wetlands International —The Americas in the delivery of numerous wetland projects both nationally and internationally, such as the WetNet Web site, shorebird programs, training courses, and wetland data bases and publications.

The partnerships and structure of the Joint Ventures, Provincial Steering Committees and projects of the NAWMP have fostered numerous cooperative agreements between governments, the corporate sector and non-government organizations. These are implemented and facilitated by groups such as the Manitoba Habitat Heritage Corporation, Saskatchewan Wetlands Conservation Corporation, Wildlife Habitat Canada, and Ducks Unlimited Canada plus many other non-government organizations locally and provincially.

#### **4.2 Of the following, indicate which have been undertaken:**

##### **a. a review to identify the training needs of institutions and individuals concerned with the conservation and wise use of wetlands**

No such review has been initiated. Several national workshops have identified research priorities and developed helpful recommendations to assist aspects of science, policy and management programs relating to wetlands, particularly through academic institutions. These include wetland geochemistry, conservation policy, peatland restoration, and impacts on and role of wetlands in climate change.

##### **b. a review to identify training opportunities for these people both within your country and in other countries.**

No. Several Canadian wetland specialists have offered their time to wetland training courses offered in cooperation with groups such as Wetlands International and the Foundation for International Training. This has included training courses for wetland managers in Mexico, Romania, and elsewhere since 1996.

##### **c. the development of training modules or a training programme specifically for wetland managers.**

A wetland training course for federal land managers has been implemented. This is a

modular course adapted in each case to the client group but with some core modules used in each situation also. A modular course for foreign service officers is under consideration.

**d. people from your country have gained wetland-related training either within or outside the country.**

Several Canadian organizations have sent staff or supported participants from other nations to international wetland training courses over the 1996-1998 period.

**Ramsar Strategic Plan - General Objective 5  
To ensure the conservation of all sites included in the List of Wetlands of International Importance (Ramsar List).**

**5.1 Of the Ramsar sites in your country, how many have formal management plans:**

**a. being prepared or revised?**

11 Ramsar sites have management plans in draft form or under revision. Four additional Ramsar sites in the new Nunavut Territory (effective April 1, 1999) will be required to have management plans completed by 2004.

**b. fully prepared?**

It is believed that 21 Ramsar sites have fully prepared management plans in Canada.

**c. being implemented?**

These same 21 Ramsar sites are seeing these plans implemented.

**d. no plan yet being considered?**

It appears that management plans are not yet being considered at four Canadian Ramsar sites: Hay Zama Lakes in Alberta; the Southern James Bay Migratory Bird Sanctuaries in Ontario; Malpeque Bay in Prince Edward Island; and the Rasmussen Lowlands in the Northwest Territories.

**Management plans on Canadian Ramsar sites are listed below. A following table describes the status of management plans on each Canadian Ramsar site.**

**List of Management Plans for Canadian Ramsar Sites**  
**(Site Names are Underlined)**

- *Management Plan: Alaksen National Wildlife Area and George C. Reifel Migratory Bird Sanctuary.* April 1986. Canadian Wildlife Service, Environment Canada. Delta, British Columbia. 26 p. and appendices.
- *Revised Management Plan Alaksen National Wildlife Area.* May 1993. Canadian Wildlife Service, Environment Canada. Delta, British Columbia. K. Summers and G. Runka. Draft. 25 p. and appendices.
- *Alaksen National Wildlife Area: Agricultural Management Plan.* May 1993. Draft. Canadian Wildlife Service, Environment Canada. Delta, British Columbia. 20 p. and appendices.
- *Alaksen National Wildlife Area: Integrated Management Plan for Wildlife and Agriculture.* May 1993. Canadian Wildlife Service, Environment Canada. Delta, British Columbia. 56 p. and appendices.
- *Plan de gestion de la Réserve nationale de faune de la baie de L'Île-Verte.* May 1986. Y. Mercier, L-G. de Repentigny, and I. Ringuet. Canadian Wildlife Service, Environment Canada. Ste-Foy, Quebec. 37 p. and map.
- *Beaverhill Lake Integrated Resource Plan.* 1981. Alberta Department of Forests, Lands and Wildlife. Edmonton, Alberta.
- *Plan de gestion de la Réserve nationale de faune du Cap Tourmente.* 1986. Y. Mercier, L-G. de Repentigny, and I. Ringuet. Canadian Wildlife Service, Environment Canada. Ste-Foy, Quebec. 51 p., appendices and map.
- *Chignecto National Wildlife Area Management Plan.* August 1984. Canadian Wildlife Service, Environment Canada. Sackville, New Brunswick. P. Barkhouse. 41 p. and maps.
- *Creston Valley Wildlife Area, A Strategic Plan - the Next 25 Years.* October 1993. Draft Report. Creston Valley Wildlife Area Management Authority. Creston, British Columbia. 17 p.
- *Grand Codroy Estuary Wetlands Conservation Plan.* 1992. Eastern Habitat Joint Venture. North American Waterfowl Management Plan. Government of Newfoundland and Labrador. St. John's, Newfoundland.
- *Plan de gestion de la Réserve nationale de faune du lac Saint-François.* 1986. Y. Mercier, L-G. de Repentigny, and I. Ringuet. Canadian Wildlife Service, Environment Canada. Ste-Foy, Quebec. 53 p. and map.
- *A Draft Resource Management Plan for the Last Mountain Lake National Wildlife Area and Migratory Bird Sanctuary.* 1994. Environmental Conservation Branch, Environment Canada. Edmonton, Alberta.
- *Long Point National Wildlife Area Management Plan.* March 1983. G. McKeating. Canadian Wildlife Service, Environment Canada. London, Ontario. 73 p.
- *Matchedash Bay Provincial Wildlife Management Area: Management Plan.* Ontario Ministry of Natural Resources. Midhurst, Ontario. Document 3080-1. 38 p. and appendices.
- *Minesing Swamp Management Plan.* October 1995. G. Barrick. Nottawasaga Valley Conservation Authority, Ontario Ministry of Natural Resources and Minesing Swamp Steering Committee. 54 p.
- *Interpretive Plan for Oak Hammock Marsh Interpretive Centre and Wildlife Management Area.* August 1991.

- Ducks Unlimited Canada and Manitoba Department of Natural Resources. Winnipeg, Manitoba. 111 p.
- *Peace-Athabasca Ecosystem Management Plan*. January 1993. Project Plan for Three-Year Program of Technical Study. Parks Canada. Fort Smith, Northwest Territories.
  - *Point Pelee National Park Management Plan*. 1982. Canadian Parks Service, Environment Canada. Ottawa, Ontario.
  - *Polar Bear Pass National Wildlife Area Management Plan*. February 1990. Canadian Wildlife Service and Polar Bear Pass Advisory Committee. Environment Canada. Edmonton, Alberta. 24 p.
  - *Polar Bear Provincial Park Planning Proposal*. 1977. Ontario Ministry of Natural Resources. Cochrane, Ontario.
  - *Shepody Bay National Wildlife Area Management Plan*. August 1984. P. Barkhouse. Canadian Wildlife Service, Environment Canada. Sackville, New Brunswick. 30 p., maps and appendices.
  - *Protection Plan for the Western Hemispheric Shorebird Reserve and Ramsar Wetland of International Importance at the Grande Anse (Johnson's Mills) Section of the Shepody Bay Reserve, Bay of Fundy, New Brunswick, Canada*. 1994. Canadian Wildlife Service, Environment Canada and New Brunswick Department of Natural Resources and Energy. Sackville, New Brunswick. 14 p. and appendix.
  - *Management Plan St. Clair National Wildlife Area*. August 1982. G. McKeating and P. Madore. Canadian Wildlife Service, Environment Canada. London, Ontario. 46 p. and appendices.
  - *Southern Bight - Minas Basin Draft Management Plan*. 1994. Environment Canada and Nova Scotia Department of Natural Resources. Kentville, Nova Scotia
  - *Wood Buffalo National Park Ecosystem Conservation Plan*. August 1993. Parks Canada. Resource Management Report 93-06/WB. Draft. Fort Smith, Northwest Territories.
  - *Wood Buffalo National Park Draft Management Plan*. November 1993. Parks Canada. Fort Smith, Northwest Territories. 34 p.

**Status of Management Plans for Canadian Ramsar Sites**

<b>Site Name</b>	<b>Management Plan Yes/No, Year Created?</b>	<b>Management Plan or Revision in Preparation Yes/No, Year Initiated?</b>	<b>Management Plan Required Yes/No, By What Year?</b>	<b>Management Staff on Site?</b>
Alaksen BC	Yes, April 1986	Yes, January 1993	---	Yes
Creston Valley BC	Yes, November 1985	Yes, October 1993	---	Yes
Old Crow YK	No	Yes, Winter 1993-94	1999	No
Beaverhill Lake AB	Yes, 1981	---	---	Yes, Ducks Unlimited office nearby
Hay-Zama Lakes AB	No	No	No	No
Peace Athabasca Delta AB/NWT	No	Yes, area in park, August 1993	---	Yes, in Park
Whooping Crane Range AB/NWT	No	Yes, area in park, August 1993	---	Yes, in Park
Last Mountain Lake SK	No	Yes, November 1993	---	Yes
Quill Lakes SK	No	Yes	July 1995	Yes, Ducks Unlimited office nearby
Delta Marsh MB	Partly (Lake Francis)	No	No	Yes
Oak Hammock Marsh MB	Some (specific aspects)	No	No	Yes
Dewey Soper NWT	No	No	2004	No
McConnell River NWT	No	No	2004	No
Queen Maud Gulf NWT	No	No	2004	No
Polar Bear Pass NWT	Yes, February 1990	---	---	No
Rasmussen Lowland NWT	No	No, but proposed as a National Wildlife Area which if	No	No

Site Name	Management Plan Yes/No, Year Created?	Management Plan or Revision in Preparation Yes/No, Year Initiated?	Management Plan Required Yes/No, By What Year?	Management Staff on Site?
		created requires such a Plan.		
Long Point ON	Mostly - Long Point NWA 1983; Big Creek NWA 1984	---	---	Yes
Point Pelee ON	Yes, 1982	---	---	Yes
St. Clair ON	Yes, 1982	---	---	Yes
Polar Bear Park ON	Yes, Planning Proposal - 1977	Yes, 1994	---	No
Matchedash Bay ON	Yes. 1991. NAWMP Site since 1988	---	---	No, local conservation partnership in place.
Mer Bleue ON	No	Yes, since 1996	---	Yes, National Capital Commission site
Minesing Swamp ON	Yes. 1995.	---	---	Managed by local Watershed Conservation Authority
Southern James Bay ON/NWT	No	No	---	No
Baie de L'Îsle-Verte QB	Yes, April 1986	---	---	No, but local conservation partnership in place.
Lac St-Pierre QB	No	Portions only	---	Parts of site are managed under NAWMP projects and local conservation partnership in place.
Cap Tourmente QB	Yes, April 1986	---	---	Yes, and local conservation partnership in place.
Lac Saint- François QB	Yes, April 1986	---	---	No, but local conservation

Site Name	Management Plan Yes/No, Year Created?	Management Plan or Revision in Preparation Yes/No, Year Initiated?	Management Plan Required Yes/No, By What Year?	Management Staff on Site?
				partnership in place.
Mary's Point NB	Portion in Shepody NWA only, 1984	---	---	No
Shepody Bay NB	No	Yes, portion 1994	---	No
Tabusintac NB	No	Yes, June 1993	---	No
Chignecto NS	Yes, 1984	---	---	No
Musquodoboit NS	No	Yes, 1994	---	No
Southern Bight NS	No	Yes, 1994	---	No
Malpeque Bay PEI	No	No, proposed for 1999	---	No
Grand Codroy NF	No	Yes, EHJV Plan, 1993	---	No

**5.2 Of the management plans referred to above, which ones have included a monitoring scheme or programme to allow changes in ecological character to be detected?**

A review of this question has not yet been conducted.

**5.3 Has there been a change in the ecological character (either positive or negative) at any of your Ramsar sites or is this likely to occur in the near future?**

Several Ramsar sites have been heavily impacted by overgrazing by migratory geese including sites in the subarctic zone including the Queen Maud Gulf and McConnell River Migratory Bird Sanctuaries in the Northwest Territories. The extent of this is being surveyed this year and habitat recovery strategies as well as species control plans are under consideration.

The Creston Valley Wildlife Management Area site in southern British Columbia is the subject of discussions between Canadian and United States agencies. The site may be impacted by irregular water flows resulting from a new water regulatory regime established upstream on the Columbia River. The United States requirements for endangered species habitat protection are forcing establishment of new seasonal flows of water released from the Libby Dam in the USA, believed to be one of the causes of

increased dyke erosion and habitat impact on the downstream Creston Valley Wildlife Management Area, a Ramsar site.

**5.4 In the case of Montreux Record Ramsar sites where the Management Guidance Procedure has been applied, what is the status of the implementation of the MGP report recommendations? What is the expected time-frame for removing the site from the Montreux Record?**

No Montreux List sites are present in Canada.

**5.5 For those countries referred to in COP6 Recommendations 6.17.1-4, “Ramsar sites in the Territories of Specific Contracting Parties”, please provide advice on the actions that have been taken in response to the issues raised at that time.**

This question is not applicable to Canada.

**Ramsar Strategic Plan - General Objective 6**

**To designate for the Ramsar List those wetlands which meet the Convention’s criteria, especially wetland types still under-represented in the List and transfrontier wetlands.**

**6.1 Has a national inventory of wetlands been prepared for your country?**

No detailed national inventory exists but many regional data bases exist. Several provinces (Prince Edward Island, Nova Scotia and New Brunswick) have complete inventories. The many data sets have been integrated into a national data base of wetland and peatland inventories managed on behalf of the Geological Survey of Canada, Agriculture Canada and Environment Canada.

**If no, are there plans for this to be done?**

An evaluation of the feasibility of a comprehensive National Wetland Inventory in 1995-96 indicated such a project would require significant funding support by many partners in order to be successful. Under current economic restraint, the cost of such a national program is not likely to be considered for funding by government authorities.

**Where a national inventory exists please provide details of when it was finalised, where it is kept and what information it contains.**

The national data base tracks total occurrence of the five major classes of wetlands (bog, fen, marsh, swamp and shallow waters) by major landscape units linked to national soil survey and carbon data bases as well as environmental and socio-economic data sets. This data base is managed on behalf of the federal sponsoring agencies as a GIS data set by Pole Star Geomatics Ltd. in Ottawa, Ontario.

Numerous regional wetland inventories have been completed. This includes a federal-provincial program to map wetlands in the three Maritime provinces and a Ducks Unlimited program which has mapped wetlands across the Central Prairies of Canada's three Western Provinces.

**6.2 Does there exist a list or directory of "important" wetlands for your country or region?**

No comprehensive national list has been established. However, for many reasons and sectors, regional lists of key waterfowl, shorebird wetland habitat sites and high value wetlands of provincial significance are completed. These act as key elements in regional and national wetland initiatives.

**If yes, please provide details of when it was finalised, where it is kept, what criteria for "important" were used, and the types of information it contains.**

Each program has different criteria for establishing "importance" depending on the focus of the inventory or evaluation program. In Ontario, a combination of biological, uniqueness, hydrological and social value factors are equally ranked to score each wetland site. In New Brunswick, a biological scoring system based on suitability for waterfowl habitat was used in one program. Many sites are ranked for waterfowl habitat under the NAWMP. Estuaries on both Pacific and Atlantic coasts use regional ranking systems to assess their total value.

**6.3 If it is known, please provide an estimate of the area of wetlands in your country at present and any information on rates of loss or conversion to other activities.**

The latest compilation of inventory information indicates that at least 148 million ha of wetlands of all types exist in Canada. As no national detailed-scale inventory is available these estimates may not include many smaller sites, suggesting the total wetland area could be higher. There is no current national monitoring program or status and trends survey. The last national evaluation using regional case studies was published in 1985.

**If this information is available, please indicate what definition of "wetland" was**

used.

The National Wetlands Working Group definition published in the book *Wetlands of Canada* (1988) and in *The Canadian Wetland Classification System, Second Edition* (1997) was used. This same definition is the scientific foundation of the *Federal Policy on Wetland Conservation* (1991). It is fully consistent with a series of detailed provincial classification/inventory programs and generally matches definitions used in the United States and most of northern Europe.

**6.4 Have any actions been taken in response to the COP6 Resolutions and Recommendations that Contracting Parties should give priority to listing Wetlands of International Importance which:**

- a. meet the criteria for fish habitat (Resolution VI.2),**
- b. meet the 1% criterion for waterbird populations using data provided by the International Waterfowl Census (Resolution VI.4),**
- c. are subterranean karst or cave wetland systems (Resolution VI.5),**
- d. are peatland ecosystems (Recommendation 6.1)**
- e. are coral reefs and associated systems (Recommendation 6.7)**
- f. are under-represented wetland types (which apart from d. and e. above include mangroves and sea grass beds) (Strategic Plan Action 6.2.3)**

Canada has given some consideration to (d): *peatlands*. Peatlands are the dominant group of wetlands in Canada. Recent Canadian Ramsar site designations (Minesing Swamp, Lac St. Pierre and Mer Bleue for example) and many of Canada's estimated 15 million ha of protected wetlands are peatlands. Some of the existing Canadian Ramsar sites are dominated by peatlands but this does not appear to be well documented in the Ramsar Data Base managed by Wetlands International for the Convention. A ongoing review of the descriptive information on the wetland types identifying dominance for Canadian sites should clarify this information.

A national Ramsar Network report published in 1996 entitled *Strategic Overview of the Canadian Ramsar Program* recommends that future Canadian Ramsar sites focus on selection of more peatland systems, more sites managed by the non-government and non-federal sectors, more sites in under-represented wetland regions or ecozones of Canada and stronger involvement of local community groups.

**6.5 If your government indicated at COP6 that it would be proceeding to list further specific sites, please advise of the status of this action.**

Canada made no such commitment at COP6 and thus this question is not applicable to

Canada.

**6.6 Please advise which of the sites included in the Ramsar List from your country are transfrontier wetlands (Refer also to 7.1).**

None. Some are affected by waters shared with the United States: Creston Valley in British Columbia; St. Clair and Long Point in Ontario; and Lac St. François in Quebec.

**6.7 Describe any plans, or actions being taken for further transfrontier sites to be listed (Refer also to 7.1).**

None are currently envisaged between Canada and the United States of America.

**Ramsar Strategic Plan - General Objective 7**

To mobilise international cooperation and financial assistance for wetland conservation and wise use in collaboration with other conventions and agencies, both governmental and non-governmental.

**7.1 Briefly describe any bilateral or multilateral activities that have been taken, are under way, or are planned for the management of transfrontier wetlands or their watersheds/catchments (Refer also to 6.6 and 6.7).**

Canada works closely with the United States and Mexico to implement the continental North American Waterfowl Management Plan (NAWMP) and shared responsibilities under bilateral migratory bird treaties as well as shared watershed commissions along the international boundary with the United States.

The Prairie Habitat and the Pacific Coast Joint Ventures of NAWMP include direct participation by Wetlands International staff at the local project and Board levels.

**7.2 Do you have Ramsar sites that are "twinned" with others, either nationally or internationally?**

No Canadian Ramsar are officially twinned under that designation. However, several Canadian Ramsar sites are Western Hemisphere Shorebird Reserve Network (WHSRN) sites and are twinned on that basis with other WHSRN sites. This includes Quill Lakes in Canada twinned with Marismas in Mexico and the Bay of Fundy (Shepody Bay and Minas Basin Ramsar sites are included herein) in Canada with Bigi Pan in Suriname.

Several more WHSRN twinning projects are planned.

**7.3 Where your country is also a signatory of any of the following Conventions, describe what mechanism(s) exist to assist regular dialogue and cooperative actions between the personnel responsible for their implementation and the Ramsar Administrative Authority:**

**a. Convention on Biological Diversity:**

The Biodiversity Convention Office and Ramsar Convention desk are both units of the Canadian Wildlife Service, both report to the same Director General.

**b. Framework Convention on Climate Change:**

Federal agencies including the Canadian International Development Agency, Agriculture and Agri-Food Canada, and Environment Canada are currently developing more effective links with regard to wetland issues and have identified wetlands as a key element in Kyoto Protocol implementation and carbon sinks programs.

**c. Convention to Combat Desertification**

The Canadian Wildlife Service provides general advice to Environment Canada participation in national Secretariat functions for these two conventions.

**d. Convention on Migratory Species:**

Canada is not a signator to this Convention.

**e. World Heritage Convention**

Examples of wetland conservation mechanisms or initiatives under this Convention are not known to Canadian authorities.

**7.4 Is your country cooperating as part of any bilateral or multilateral activities directed at the conservation of migratory wetland species?**

Canada and the United States implement the Migratory Birds Convention, first established bilaterally in 1916 and amended in 1997. Canada also has bilateral agreements for migratory species with the Russian Federation, Ireland, Iceland, and the

United Kingdom. Bilateral projects and programs are in place with several countries in the Neotropical Region (Mexico, Costa Rica and Suriname for example).

Canada, the United States and Mexico implement joint programs through the continental North American Waterfowl Management Plan. The Environment Canada Latin America Program uses a series of bilateral agreements to support migratory species initiatives with several nations.

**7.5 Are there multilateral and/or bilateral donors supporting projects which contribute to implementation of the Ramsar Convention in your country?**

Many of the Ramsar sites in Canada coincide with target program areas for the North American Waterfowl Management Plan. Much of the NAWMP resources are derived from multi-party financial contributions from government and non-government sources.

**7.6 Does your government make an annual budgetary allocation to support the conservation and wise use of wetlands within your country?**

The Federal Government does not do so directly. These programs are implemented through a wide variety of programs. The Federal Government for example has supported the North American Waterfowl Management Plan (NAWMP) through direct Treasury Board allocations averaging about \$3 to 5 million annually since 1980.

All of the federal, territorial and provincial governments contribute to NAWMP and regional landscape or habitat conservation programs. Several provinces allocate some funding each year for sensitive habitat acquisition each year. All of these initiatives to some degree involve wetlands. Over 10% of all of Canada's wetlands lie in some form of protected areas ranging from federal or provincial/territorial parks, to wildlife sanctuaries and privately managed wildlife areas. Protected wetlands in Canada cover an estimated 15 million ha.

The North American Waterfowl Management Plan sees annual expenditures on wetland and associated upland habitat conservation in Canada in excess of CA\$50 million annually from many sources.

**a. Is this a specific allocation to a wetlands programme or as part of a larger environment or natural resource management budget?**

Each jurisdiction has specific allocations for wetland related projects and in some cases

wetland acquisition funds.

**7.7 If your country has a development assistance programme, does it include funds earmarked for wetland conservation and wise use in other countries?**

The Canadian International Development Agency has been involved in many wetland conservation actions through its development assistance programs for many years. This is strongly governed by CIDA's *Environmental Policy*.

This includes the IUCN Zambezi Basin Project in Africa, the Nile Delta Water and Wetlands Project in Egypt which includes assistance by Ducks Unlimited Canada, and projects in India in association with Wetlands International.

The International Development Research Centre of Canada also is indirectly contributing to several wetland sustainable development programs.

**7.8 Is there a formal process in place for consultation between the Ramsar Administrative Authority and the development assistance programme in your country, where one exists?**

The Canadian International Development Agency (CIDA) liaises closely with Environment Canada frequently on development assistance projects that may directly or indirectly affect wetlands in other nations, seeking the department's advice as an

expert agency. This is in line with CIDA environmental policies and the *Federal Policy on Wetland Conservation*.

#### Ramsar Strategic Plan - General Objective 8

To provide the Convention with the required institutional mechanisms and resources.

#### **8.1 Has your government made voluntary financial contributions, other than the invoiced contributions or to the Small Grants Fund, to further the work of the Convention globally?**

Canada has made several voluntary contributions to the Ramsar program, most recently in 1997. We have also supported several specific workshops and actions of the Ramsar program including supporting travel for North American STRP Members over the 1996-1999 period. Environment Canada has contributed directly to several Wetlands International projects leading to mapping of global wetlands with particular emphasis on Latin America.

#### **8.2 If your country is in arrears with the payment of its annual contributions to the Ramsar Convention, please indicate the reasons for this situation and the prospects for paying these arrears in the near future.**

Canada's dues are paid in full each year and are currently up to date.

#### Participation of non-government organizations in the implementation of the Convention

**At COP6 some 42 NGOs made the “Brisbane NGO pledge of support for the Ramsar Convention”. The Standing Committee agreed that for COP7 there should be an effort made to gauge the level and type of cooperation which is occurring between government Administrative Authorities and the national and international NGOs with an interest in wetlands issues. In this section of the National Report, the Bureau asked each Administrative Authority to describe the nature of the cooperation and relationship with international, regional, national and provincial NGOs operating within the country.**

#### **9.1 Approximately how many NGOs have wetlands as part of their regular “business” in your country? Please break this down between international, regional and**

**national/provincial organizations.**

No analysis of this issue has been attempted. There are several hundred NGOs ranging from national to local that could be surveyed. This includes Ducks Unlimited Canada, the Nature Conservancy of Canada, Wetlands International — The Americas, and Wildlife Habitat Canada.

**9.2 Is there a regular forum or mechanism through which these NGOs express their views on wetland conservation and Ramsar implementation:**

**a. to each other?**

No formal mechanism exists. However, every two years a National Habitat Workshop has been held starting in 1993. Wildlife Habitat Canada and Environment Canada in conjunction with provincial and regional agencies have been the lead partners in the organization of these workshops, three having been held to date. These national meetings bring together wetland and habitat practitioners in the government and non-government sectors. Wetland issues have been a component of the discussions in these meetings. The next meeting will be held in 1999.

**b. to the government?**

Yes. The North American Wetlands Conservation Council meetings and Secretariat serve the interests of Canada's wetland NGO initiatives directly but not fully. Wildlife Habitat Canada is a national foundation that works in partnership with government and other non-government partners across Canada to promote and fund wetland and other habitats conservation. It also provides key policy advice and research focused on wetland issues nationally.

**9.3 Does your government include one or more NGO representatives on its official delegation to Ramsar COPs?**

The Government of Canada is not able to fund the travel expenses beyond its own staff for Canadian Delegation members to the meetings of the Convention. However, Ducks Unlimited Canada and representatives on Canadian industry were included in Canada's COP6 Delegation at their own expense. Representatives of native organizations participated in the Canadian Delegation to COP4 through the support of several agencies. Canadians participating as representatives of international non-government organizations have generally not been included in Canada's listed Delegation.

**9.4 Do any of the NGOs run programmes aimed at Education and Public Awareness**

**about wetlands in your country? Yes/No. If yes, please give details (Refer also to question 3.1).**

Ducks Unlimited Canada has a major wetland education program and education facilities at several locations in Canada. Wetlands International is spearheading the Ecoscope Wetland Education Program through WetNet, directed at high school students across Canada. Wildlife Habitat Canada and the North American Waterfowl Management Plan have supported a variety of public awareness initiatives for wetlands.

**9.5 Where they exist, do Ramsar site management advisory committees include NGO representatives?**

Community and NGO interests are actively involved in providing input to management of several Ramsar sites in Canada including the Long Point, Lac St-Pierre, Cap Tourmente, Baie de L'Isle-Verte, Lac St. François and Alaksen National Wildlife Areas, and numerous other Canadian Ramsar sites including Delta, Quill Lakes, Oak Hammock Marsh, Creston Valley, Musquodoboit, and Grand Codroy sites.

**9.6 Describe the themes of the Convention (refer to General Objectives 1-8 of the Strategic Plan) where you perceive the national/provincial NGOs to be most active.**

Waterfowl programs implemented through the NAWMP partners are very dependent on national and local NGOs for participation and project delivery with private landowners in Canada.

## **Final comments**

**10.1 General comments on implementation of the Ramsar Strategic Plan.**

There continues to be a strong need for a national wetland steering committee to focus on wetland issues of the Ramsar Convention, particularly further evolution of Canada's Ramsar site network.

**10.2 Observations concerning the functioning of, relations with, and services provided by:**

- a. The Ramsar Standing Committee**
- b. The Ramsar Scientific and Technical Review Panel**
- c. The Ramsar Bureau**

#### **d. The Ramsar NGO partners**

Canada has made contributions of both staff time and financial resources to the activities of the Standing Committee and STRP of substantive nature during the last Triennium. Canada provided the STRP Representative for North America from 1996-1997 and has sat on Standing Committee for the 1996-1999 period as the Alternate Representative for North America. Canada has had direct involvement in various Subgroups of the Ramsar Standing Committee and is leading development of a report on *Guidelines for Development and Implementation of National Wetland Policies* for COP7. Canada is quite pleased the operations of the Ramsar Bureau and its evolving roles and staff complement.

#### **10.3 Any other general observations and/or recommendations for the future.**

Numerous Canadian and international partners will host the *Millennium Wetland Event* from 6-12 August 2000 at Québec, Québec. This will involve a series of cooperating conferences including the Sixth International Wetlands Conference of the International Association of Ecology (INTECOL VI); the 21st Annual Meeting of the Society of Wetland Scientists; a Symposium of Wetlands International; the 11th Global Congress of the International Peat Society; and specialized working meetings of groups such as the International Mire Conservation Group.

Canadian partners are leading a major national study on the role of wetlands in climate change and carbon sequestration as a tool for contributing to the implementation of the Kyoto Protocol.

Wetlands International — The Americas will host a *Wetlands and Development Hemispheric Conference* in Argentina in 2001.

#### **10.4 Selection of New Canadian Wetland Publications**

This list is a selection of literature potentially relevant to Ramsar interests. However, it is not meant to be comprehensive or to include the very extensive literature from all Canadian sources for the 1996-1998 period.

Agriculture and Agri-Food Canada and Ontario Ministry of Food and Rural Affairs. 1996. *Fish and Wildlife Habitat Management. Best Management Practices*. Toronto, Ontario.

Canadian Landbird Conservation Working Group. 1996. *Framework for Landbird Conservation in Canada*. Partners in Flight Program. Environment Canada. Ottawa, Ontario.

Cox, K.W. and A. Grose. 1998. *Wetland Mitigation and Compensation. Proceedings of a National Workshop*.

- Report 98-1. Environment Canada and North American Wetlands Conservation Council (Canada). Ottawa, Ontario.
- Ducks Unlimited. 1998. *Ducks Unlimited's Conservation Activities on Ramsar Wetlands from March 1996 to February 1997*. Memphis, Tennessee; Stonewall, Manitoba; and Monterrey, Mexico.
- Environment Canada. 1995. *Pacific Estuary Conservation Program Report*. Canadian Wildlife Service. Delta, British Columbia.
- Environment Canada. 1997. *Great Lakes Wetlands Conservation Action Plan 1994-2001. First Progress Report. October 1997*. Environment Canada, Ontario Ministry of Natural Resources, Federation of Ontario Naturalists, and the Nature Conservancy of Canada. Toronto, Ontario.
- Environment Canada and Ontario Ministry of Natural Resources. 1997. *Working Around Wetlands? What You Should Know*. Toronto, Ontario.
- Government of Canada. 1998. *Canada and Freshwater*. Sustainable Development in Canada, Monograph Series No. 6. Report to Commission on Sustainable Development. Ottawa, Ontario.
- Lynch-Stewart, P., P. Niece, C.D.A. Rubec, and I. Kessel-Taylor. 1996. *Federal Policy on Wetland Conservation. Implementation Guide for Federal Land Managers*. Environment Canada. Ottawa, Ontario.
- Milko, R. 1998. *Wetland Environmental Assessment Guideline*. Canadian Wildlife Service, Environment Canada. Ottawa, Ontario.
- North American Waterfowl Management Plan. 1996. *Taking Flight. 1986-1996. 10th Anniversary Report - Canada*. Ottawa, Ontario.
- North American Waterfowl Management Plan. 1998. *Status Report 1987-1997. Ten Years of Partnership in Québec for Waterfowl and Biodiversity*. Wildlife Habitat Canada, Environment Canada, Fondation de la faune du Québec, Québec Ministry of Environment and Wildlife, and Ducks Unlimited Canada. Ottawa, Ontario.
- North American Wetlands Conservation Council (Canada). 1998. *A Wetland Conservation Vision for Canada*. Ottawa, Ontario.
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- Rubec, C.D.A and M. Kerr-Upal. 1995. *Strategic Overview of the Canadian Ramsar Program*. Environment Canada and North American Wetlands Conservation Council (Canada). Ottawa, Ontario.
- Rubec, C.D.A. and G. O. Lee (editors). 1996. *Conserving Vitality and Diversity. Proceedings of the World Conservation Congress Workshop on Alien Invasive Species*. Montreal Quebec, October 20, 1996. Environment

Canada, IUCN, and Species Survival Commission. Ottawa, Ontario.

Rubec, C.D.A. and P. Lynch-Stewart. 1998. *Regulatory and Non-Regulatory Approaches for Conserving Wetlands in Canada*. Proceedings, IUCN-Ramsar Workshop on Wetlands and the Law. Gland, Switzerland. July 3-4, 1998.

Saskatchewan Wetland Conservation Corporation. *Annual Report 1997-1998*. Regina, Saskatchewan.

Southam, T. and E.A. Curran (editors). 1996. *Wetlandkeepers Handbook*. British Columbia Wildlife Federation, Surrey, British Columbia and Environment Canada. Delta, British Columbia.

Twolan-Strutt, L. 1995. *Wetlands and Woodlots*. Sustaining Wetlands Issues papers No. 1995-1. Canadian Forestry Association, Landowner Resource Centre, Ducks Unlimited Canada and North American Wetlands Conservation Council (Canada). Ottawa, Ontario.

Warner, B.G. and C.D.A. Rubec (editors). 1997. *The Canadian Wetlands Classification System*. Second Edition. National Wetlands Working Group. Wetlands Centre. University of Waterloo. Waterloo, Ontario.

Wildlife Habitat Canada. 1995. *Conservation Education in Canada: An Inventory of Current Programs*. Ottawa, Ontario.

Wildlife Habitat Canada. 1997. *Annual Report 1997*. Ottawa, Ontario.

Wildlife Habitat Canada. 1998. *Partnering for Success in Fish Habitat Management*. Report to Minister of Fisheries and Oceans Canada. Report of DFO/WHC 1994-1997 Cooperative Agreement. Ottawa, Ontario.

Zhulidov, A.V., J.V. Headley, R.D. Robarts, A.M. Nikanorov, and A.A. Ischenko. 1997. *Atlas of Russian Wetlands. Biogeography and Metal Concentrations*. Edited by M.J. Brannen. National Hydrology Research Institute, Environment Canada. Saskatoon, Saskatchewan.