

ANNUAL REPORT 2002-2003

**ADMINISTRATION AND ENFORCEMENT
OF THE FISH HABITAT
PROTECTION AND POLLUTION PREVENTION PROVISIONS
OF THE *FISHERIES ACT***

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Minister of
Fisheries and Oceans



Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

Mr. William Corbett
Clerk of the House of Commons
Room 228-N, Centre Block
House of Commons
Ottawa, Ontario
K1A 0A6

Dear Mr. Corbett:

In accordance with the provisions of section 42.1 of the *Fisheries Act*, I have the honour to present, in both official languages, the Annual Report on the Administration and Enforcement of the Fish Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act* for the fiscal year 2002-2003.

In conformity with the requirements of the Act, these copies are for tabling in the House of Commons and for referral to the Standing Committee on Fisheries and Oceans.

Yours truly,

Geoff Regan

Attachments

Minister of
Fisheries and Oceans



Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

Mr. Paul Bélisle
Clerk of the Senate
Room 183-S, Centre Block
The Senate
Ottawa, Ontario
K1A 0A4

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1.0 Introduction

The *Fisheries Act* contains provisions for the conservation and protection of fish habitat. These include provisions that prohibit harmful changes to fish habitat (habitat protection provisions) and others prohibiting the discharge of deleterious substances into fisheries water (pollution prevention provisions). Fisheries and Oceans Canada (DFO) is responsible for the administration and enforcement of the habitat protection provisions of the *Fisheries Act*, while responsibility for the administration and enforcement of the pollution prevention provisions has been assigned to Environment Canada (EC). The *Policy for the Management of Fish Habitat*¹ provides a comprehensive framework for the administration and enforcement of the habitat protection and pollution prevention provisions consistent with the goals of sustainable development.

Within DFO, administration and enforcement of the habitat protection provisions of the *Fisheries Act* is shared between the Habitat Management Program (HMP) within the Oceans Sector and the Fisheries Management Sector's Conservation and Protection (C&P) Program with scientific support from the Science Sector.

Section 42.1 of the *Fisheries Act* requires the Minister of Fisheries and Oceans to table an annual report to Parliament on the administration and enforcement of the fish habitat protection and pollution prevention provisions.

This report provides a summary of key activities undertaken by DFO, EC and other organizations in conserving and protecting fish habitat during fiscal year 2002-2003 (April 1, 2002, to March 31, 2003). The introductory section presents:

- background on the legal basis for the conservation and protection of fish habitat;
- a summary of DFO's *Policy for the Management of Fish Habitat*; and
- an overview of the mandate and operations of DFO and EC programs dedicated to the administration and enforcement of the fish habitat protection and pollution prevention provisions, respectively.

Section 2.0 of the report provides highlights of results achieved by DFO and EC programs through regulatory activities and sections 3.0 to 8.0 summarizes the results of non-regulatory activities contributing to the management of fish habitat.

¹ The full text of the *Policy for the Habitat Management of Fish Habitat* can be found at:
<http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/operating-operation/fhm-policy/index_e.asp>.

Regional details on DFO and EC programs are provided in supporting documents, available on DFO's website:

<http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp>.

1.1 Legislative Basis for the Conservation and Protection of Fish Habitat

The federal government fulfils its constitutional responsibilities for seacoast and inland fisheries through the administration and enforcement of the *Fisheries Act*, one of the strongest pieces of Canadian legislation that can be applied for the conservation and protection of aquatic ecosystems. The Act provides the federal government powers to make decisions in respect of the conservation and protection of fish habitat² essential to sustaining freshwater and marine fisheries resources that provide Canadians with significant economic, social and environmental benefits.

Section 35, the key habitat protection provision of the *Fisheries Act*, prohibits any work or undertaking that would cause the harmful alteration, disruption or destruction (HADD) of fish habitat, unless authorized by the Minister of DFO or through regulations under the Act.

- (1) "No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."
 - (2) "No person contravenes subsection (1) by causing the alteration, disruption or destruction of fish habitat by any means or under any conditions authorized by the Minister or under regulations made by the Governor in Council under this Act."
- Section 35, *Fisheries Act*.

Section 36, the key pollution prevention provision, prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized by regulation under the *Fisheries Act* or other federal legislation. Regulations to authorize certain deposits have been established pursuant to section 36 (e.g., pulp and paper and metal mining effluents). The responsibility for the administration and enforcement of the pollution prevention provisions of the *Fisheries Act* is assigned to EC.

Sections 20, 21, 22, 26, 28, 30 and 32 provide further protection for fish and fish habitat from harmful effects. The Act also contains provisions that support the administration and enforcement of the habitat protection and pollution prevention provisions. These include:

² Fish habitat is defined under subsection 34(1) of the *Fisheries Act* as "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes".

- powers for the Minister to request plans and specification for works and undertakings that might affect fish or fish habitat (section 37);
- authorize the Minister to appoint inspectors and analysts (section 38.1);
- describe inspectors' powers (including entry, search, and direction of preventive, corrective or cleanup measures) (section 37.3);
- describe offences and punishment (section 40); and
- determine liability when a deleterious substance has been deposited (section 42).

The habitat protection and pollution prevention provisions of the *Fisheries Act* are listed in Annex 1.

1.2 Policy for the Management of Fish Habitat

In administering and enforcing the habitat protection and pollution prevention provisions of the *Fisheries Act*, DFO and EC are guided by the *Policy for the Management of Fish Habitat* (the Habitat Policy). The Habitat Policy, tabled in Parliament in 1986, provides an objective, three goals, a principle of no net loss and eight implementation strategies that together support the concepts of sustainable development and ecosystem approach.

The overall objective of the Habitat Policy is to “increase the natural productive capacity of habitat for the nation’s fisheries resources” – that is, to achieve a “net gain” in fish habitat – through the three goals of conservation, restoration and development of fish habitat.

The Habitat Policy recognizes that habitat objectives must be linked and integrated with fish production objectives and with other sectors of the economy that make legitimate demands on water resources. As a result, the Habitat Policy identifies the need for integrated planning for habitat management as an approach to ensuring the conservation and protection of fish habitat that sustain fish production while providing for other uses.

A key element of the Habitat Policy is the guiding principle of “no net loss of the productive capacity of fish habitat”. This principle supports the conservation goal and is applied when proposed works and undertakings may result in a HADD of fish habitat. Prior to issuing an authorization under subsection 35(2) of the *Fisheries Act*, DFO applies the “no net loss” guiding principle, so that unavoidable habitat losses as a result of development projects are balanced by newly created and/or restored fish habitat. If unacceptable losses of fish habitat cannot be prevented by these measures, the Habitat Policy calls for an authorization not to be issued. Furthermore, where deleterious substances result in harm to fish or damage to fish habitat, compensation³ is not an option.

³ See Glossary in the *Policy for the Management of Fish Habitat* for definition of compensation
<http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/operating-operation/fhm-policy/page08_e.asp>.

1.3 National Habitat Management Program

Various sectors of DFO, namely Oceans Sector's HMP, Fisheries Management and Science contribute to the conservation and protection of fish habitat through seven key activities. The program contributes primarily through resources directed at four of these key activities:

1. Regulatory;
2. Freshwater and Oceans Planning;
3. Habitat Enhancement; and
4. Community Outreach and Stewardship.

These are supported through:

5. Scientific Support;
6. Information Management; and
7. Program Management.

The HMP plays a major role in delivery of the Department's responsibilities for fish habitat management. National Headquarters' (NHQ) staff is responsible for the overall coordination of the delivery of the HMP, providing national policy direction, strategic advice and liaison with other departmental sectors, federal departments and national industries and non-governmental organizations. Day-to-day delivery of the program is carried out by staff located in more than 60 departmental offices in six regions. These regions are (see Map 1):

- Newfoundland and Labrador;
- Maritimes (parts of New Brunswick and Nova Scotia);
- Gulf (parts of New Brunswick and Nova Scotia, as well as all of Prince Edward Island);
- Quebec;
- Central and Arctic (Alberta, Saskatchewan, Manitoba, Ontario, the Northwest Territories and Nunavut); and
- Pacific (British Columbia and the Yukon Territory).

Scientific support, including research, scientific advice and monitoring, is provided by the department's Science Sector while the C&P program of the Fisheries Management Sector provides enforcement of the habitat protection provisions of the *Fisheries Act* through its fishery officers.

Program activities are implemented in collaboration with other federal departments, provincial governments, Aboriginal People, non-governmental organizations and industry.

In fiscal year 2002-2003, the HMP continued its on-going efforts to strengthen its organizational effectiveness. Priorities included:

- streamlining the development referral review and approval process;
- establishing greater national consistency in the delivery of the Program;
- achieving a more balanced approach between regulatory and proactive activities in implementing the Habitat Policy; and
- enhancing collaboration and accountability in the delivery of the Program through partnerships.

2.0 Regulatory Activities

This section highlights regulatory activities of the HMP, C&P and EC in fiscal year 2002-2003, at NHQ and in the regions. Regulatory activities include:

- the review of development proposals (referrals) that may affect fish habitat;
- compliance monitoring and enforcement of the habitat protection and pollution prevention provisions of the *Fisheries Act*;
- conducting environmental assessments under the *Canadian Environmental Assessment Act* (CEAA) prior to making decisions under section 35 of the *Fisheries Act* or prior to issuing certain approvals under the *Navigable Waters Protection Act* (NWPA) or the *National Energy Board Act* (NEBA); and
- developing regulations, policies and guidelines related to the habitat protection and pollution prevention provisions of the *Fisheries Act*.

Details on regional activities are available in supporting documents available electronically at: http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp.

2.1 Review of Development Proposals (Referrals)

With respect to reviews and assessment activities, staff of the HMP review information about development proposals (referrals) submitted to the Department to assess their potential impacts on fish habitat. As a result of these reviews, HMP staff provides advice and requirements for the conservation and protection of fish habitat that allows proponents to be in compliance with the *Fisheries Act*, mainly with respect to avoiding the HADD of fish habitat (section 35). These requirements are in the form of either a “Letter of Advice” or as an Authorization pursuant to subsection 35(2) of the Act.

It is important to note that the habitat protection provisions, including section 35, of the *Fisheries Act* do not create a mandatory obligation for proponents of development proposals to seek a “Letter of Advice” or an Authorization from DFO, as there is no such authority in

the section. However, to ensure that they are not in violation of the *Fisheries Act*, proponents voluntarily refer information about their projects to determine if proposed development projects are in compliance with the habitat protection provisions of the *Fisheries Act*. As part of these reviews, HMP staff must also ensure that habitat protection requirements under the *Species at Risk Act* (SARA) are complied with and prior to issuing an authorization that an environmental assessment under CEAA is completed. For development projects requiring such decisions, DFO becomes a responsible authority under CEAA and HMP staff must conduct environmental assessments that consider broader environmental issues than those directly associated with fish habitat.

Table 1 summarizes the number of referrals (by work category) submitted to DFO regions for review.

REGION	Work Categories										Total
	Aqua-culture	Forestry	Instream Works	Land Use	Mining	Oil & Gas	Roads	Shoreline Works	Water Mgmt	Other*	
Newfoundland & Labrador	39	26	167	289	3	5	291	322	5	70	1,217
Maritimes	73	83	259	38	5	21	195	350	11	68	1,103
Gulf	62	10	193	17	3	4	125	190	8	24	636
Quebec	6	0	40	8	1	15	25	107	83	26	311
Central & Arctic	14	31	1,197	250	190	809	1,314	1,498	332	278	5,913
Pacific	49	648	629	614	385	25	412	782	122	243	3,909
TOTAL	243	798	2,485	1,216	587	879	2,362	3,249	561	709	13,089

* "Other" includes referrals identified with work categories of deleterious substances, hazardous materials, research, ocean management, ocean dumping, power projects, railways, seismic activities, and class screenings of habitat restoration projects.

Table 2 summarizes the number of letters of advice provided and the number of authorizations issued by each region. Advice provided to proponents or others may be delivered through several mechanisms, including:

- advice provided in writing to federal agencies, provincial/territorial/other agencies;
- letters of advice to proponents;
- mitigation measures provided to permitting agencies;
- specialist advice to federal agencies; and
- advice provided to the Canadian Coast Guard for the issuance of approvals under the NWPA.

Table 2: Authorizations and Advice Reported Fiscal Year 2002-2003		
REGION	Authorizations	Advice Provided to Proponent or Others
Newfoundland & Labrador	2	723
Maritimes	20	786
Gulf	7	317
Quebec	34	155
Central & Arctic	388	4,387
Pacific	81	1,666
TOTAL	532	8,034

Newfoundland and Labrador

- Of the 1,217 referrals received, approximately 74% were related to land-use, roads and shoreline works. Another 19% were related to instream works, forestry and aquaculture.
- Staff provided advice in 723 cases and issued two authorizations.

Maritimes

- Instream works, roads and shoreline works comprised 73% of the 1,103 referrals received, while 14% were related to forestry and aquaculture.
- Staff provided advice in 786 cases and issued 20 authorizations.

Gulf

- Instream works, road and shoreline works comprised 80% of the 636 referrals received, while aquaculture referrals consisted of 62 or 10% of the total referrals.
- Staff provided advice on 317 of the cases and issued seven authorizations during the fiscal year.

Quebec

- Shoreline works and water management works, including dredging and water treatment, represented 61% of the 311 referrals received, while roads and instream works accounted for 20%.
- Staff provided advice in 155 cases, and issued 34 authorizations.

Central and Arctic

- 68% of the 5,913 referrals received by the region involved shoreline works, instream works and roads.

- Staff provided advice in 4,387 cases and issued 388 authorizations.

Pacific

- Four work categories – shoreline works, instream works, forestry and land-use accounted for 68% of the 3,909 referrals received by the region.
- Staff provided advice in 1,666 cases and issued 81 authorizations.

2.2 Compliance and Enforcement

National Highlights

DFO's C&P Program is responsible for monitoring compliance with and for enforcement of the *Fisheries Act*, including the habitat protection programs. Six "Guiding Principles" govern the application of the *Fisheries Act* in this regard and are identified in the *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act*.⁴

⁴ For more information on the Compliance and Enforcement policy, see:
<http://www.ec.gc.ca/ele-ale/policies/c_and_e_fisheries_act/main_e.asp>.

Regional Highlights

Table 3 presents a summary of the enforcement activities of DFO in fiscal year 2002-2003.

Table 3: Summary of DFO Enforcement Activities Fiscal Year 2002-2003			
REGION	Warnings Issued	Charges Laid*	Charges Pending
Newfoundland and Labrador	3	3	0
Maritimes	9	6	14
Gulf	20	2	9
Quebec	1	0	0
Quebec (FAPAQ**)	0	27	11
Central & Arctic	114	32	61
Pacific	110	10	108
TOTAL	224	71	189

* "Charges Laid" represents the number of charges laid in fiscal year 2002-2003 for all violations detected before March 31, 2003; "Charges Pending" includes only those pending from violations detected in fiscal year 2002-2003.

** Société de la faune et des parcs du Québec

Table 4 presents a regional summary of the 25 convictions under the habitat provisions of the *Fisheries Act* reported during fiscal year 2002-2003.

Table 4: Convictions Reported under the <i>Fisheries Act</i> Fiscal Year 2002-2003				
REGION	Subsections of the <i>Fisheries Act</i>			
	35(1)	36(3)	38(6)	TOTAL
Newfoundland and Labrador	0	0	0	0
Maritimes	0	0	0	0
Gulf	4	0	0	4
Quebec	0	0	0	0
Quebec (FAPAQ*)	3	0	0	3
Central & Arctic	4	0	0	4
Pacific	8	6	0	14
Environment Canada	0	4	0	4
TOTAL	19	10	0	29

* Société de la faune et des parcs du Québec

Newfoundland and Labrador

Habitat Management staff provided technical advice and support with regard to potential habitat violations and related enforcement actions, and assisted C&P staff in the investigation of several potential habitat violations under the *Fisheries Act*. Staff also provided liaison among C&P, EC and provincial government agencies with respect to several oil spill incidents within the province. There were no court cases concluded in the region within the fiscal period, but there were several ongoing prosecutions for violations detected in other years.

Maritimes

In July 2002, a long section of the Little Sackville River (Halifax Regional Municipality) saw all fish species killed between the outfall of a holding pond behind a shopping centre. This portion of the stream had been the subject of dedicated effort on the part of the Sackville River Association (SRA) in stream restoration over the past five years. The SRA collected more than 5,000 dead fish as a result of a discharge from the holding pond. DFO worked with the Nova Scotia Department of Environment and Labour to stabilize the situation, investigate the incident and proceed with violation charges. It is expected that the violation investigation and any possible work to restore the habitat will not be completed until fiscal year 2003-2004.

Gulf

Four investigations initiated during fiscal year 2001-2002 were concluded during 2002-2003 with convictions under subsection 35(1) of the *Fisheries Act*. One of five investigations initiated prior to fiscal year 2001-2002 was concluded during 2002-2003.

There were 31 occurrences investigated under subsection 35(1) of the *Fisheries Act*. Of these, 20 warnings were issued, nine charges are pending or under review, and two charges were laid. These cases have not yet reached the courts.

Quebec

No legal cases relating to the protection of fish habitat were initiated in fiscal year 2002-2003 by DFO. All cases initiated by DFO during previous years had been settled prior to the start of the fiscal year, so there were no charges pending at the end of the fiscal year. Resources of the region's C&P Program are used primarily for the control of commercial fishing and poaching activities.

In the Quebec region, designated wildlife officers of the provincial government's *Société de la faune et des parcs du Québec* (FAPAQ) are authorized to enforce the *Fisheries Act* in Quebec's inland waters. In fiscal year 2002-2003, 11 files were under investigation by the Quebec Government prosecutor related to violations of subsection 35(1) of the *Fisheries Act*. Enforcement action undertaken by FAPAQ resulted in three convictions for fines totalling \$2,000.

Central and Arctic

A total of 50 investigations were initiated in fiscal year 2002-2003 and all remain ongoing. A total of 100 investigations initiated in fiscal year 2001-2002 and another 22 investigations initiated in earlier years were completed and closed during fiscal year 2002-2003.

Enforcement staff conducted 1,273 site visits within fiscal year in the Ontario Great Lakes Area (OGLA) to ensure compliance with habitat mitigation and/or compensation requirements of *Fisheries Act* reviews. A total of 715 occurrences were reported, and 452 files were closed. C&P issued 58 warning letters and 24 Inspector's Directions. Another 133 files were resolved through mediation or restoration.

Sixty prosecutions were initiated and of this total, 26 charges were laid, with an additional 34 charges pending. There were three convictions under subsection 35(1) of the *Fisheries Act*. Two penalties of \$150,000 each were issued.

Pacific

A total of 14 convictions were made in fiscal year 2002-2003. The region issued 110 warnings, and laid 10 charges. Charges are still pending on 108 cases.

2.3 Pollution Prevention Provisions

The Minister of the Environment is responsible for the enforcement of section 34 and sections 36 to 42 of the *Fisheries Act*, commonly referred to as the pollution prevention provisions of the Act.

This section provides an overview of the activities of two major EC programs that fulfill this mandate, an update on the status on several bilateral agreements that involve the pollution prevention provisions of the *Fisheries Act*, and a brief review of major developments in fiscal year 2002-2003.

For more details please refer to Environment Canada's Supporting Document, available electronically at:

http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp.


The Environmental Emergencies Program

Environmental Emergencies personnel reviews reports of “deposits out of the normal course of events” including, spills, leaks, and other like incidents, and notifies EC's Enforcement Program and other relevant agencies of the details surrounding the incident. In fiscal year 2002-2003, the Environmental Emergencies Program received 4,644 reports of deleterious deposits, and conducted 165 on-site spill inspections. Program personnel also were involved in the analysis of proposed regulations to define specific requirements for the deposit of deleterious substances out of the normal course of events. EC will continue to review this issue and may pursue the development of such a regulation at a later time.

The Enforcement Program

EC's Enforcement Program works to secure compliance with all Acts and regulations administered by EC, by carrying out inspections and taking measures to respond to alleged violations. Enforcement Program staff use the National Enforcement Management Information System and Intelligence System database (NEMISIS) to record and track enforcement activities. Table 5 summarizes key enforcement data for fiscal year 2002-2003.

**Table 5: Enforcement Activities carried out under the *Fisheries Act*⁵
Fiscal Year 2002-2003**

	Total Inspections	On-site Inspections	Off-site Inspections	Investigations*	Prosecutions	Charges	Convictions	Directives	Written Warnings
<i>Fisheries Act</i>	3,967	978	2,989	88	19	22	4	39	110
Chlor-Alkali Mercury Liquid Effluent and Guidelines	10	1	9	0	0	0	0	0	0
General Prohibition	1,341	826	515	83	26	20	4	28	60
Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments	3	3	0	0	0	0	0	0	0
Meat and Poultry Products Plant Liquid Effluent and Guidelines	65	7	58	0	0	0	0	0	0
Metal Mining Effluent Regulations	88	5	83	2	0	0	0	1	5
Metal Mining Liquid Effluent and Guidelines	420	21	399	0	0	0	0	0	0
Petroleum Refinery Liquid Effluent and Guidelines	179	10	169	0	0	0	0	0	2
Port Alberni Pulp and Paper Effluent	1	0	1	0	0	0	0	0	0
Potato Processing Plant Liquid Effluent and Guidelines	67	8	59	2	0	0	0	0	0
Pulp and Paper Effluent Regulations	1,793	97	1,696	3	1	2	0	10	43
Total	7,934	1,956	5,978	178	46	44	8	78	220

⁵ Notes on the Enforcement Statistics:

- The number of inspections relates to the number of regulatees inspected for compliance under each of the applicable regulations.
- Investigations are tabulated by number of investigations files. An investigation file may include activities relating to more than one piece of legislation or regulation. Therefore, the total number of investigations at the regulatory level does not equal the total at the legislation level.
- All measures (except for prosecutions) are tabulated at the section level of a regulation. For example, if the outcome of an inspection is the issuance of a written warning which relates to 3 sections of a given regulation, the number of written warnings is 3. The number of prosecutions is represented by the number of regulatees that were prosecuted regardless of the number of regulations involved.
- Data from enforcement activities involving the Metal Mining Effluent Regulation and Metal Mining Liquid Effluent Regulation have been combined to reflect the coming into force of the Metal Mining Effluent Regulation on December 6, 2002. The Metal Mining Liquid Effluent regulation has been repealed.

Out of 88 investigations initiated in fiscal year 2002-2003, 22 were concluded and 66 remained active at the end of the fiscal year. In addition, 50 investigations started prior to fiscal year 2002-2003, were completed in the reporting period; another 76 are ongoing.

Bilateral Agreements

EC maintained and operated bilateral agreements with the provinces of Alberta and Saskatchewan during fiscal year 2002-2003, to facilitate the cooperative administration of section 36 of the *Fisheries Act*.

Under the Canada-Alberta agreement, Alberta Environment reported 127 incidents in the fiscal year 2002-2003 related to the *Fisheries Act*, resulting in 24 inspections, eight joint inspections and 13 investigations.

Thirty-two *Fisheries Act* related spills were reported to Saskatchewan Environment and Resource Management. Saskatchewan Environment responded independently to 23 of these incidents, participated in a joint response with EC on six incidents; EC responded independently to three incidents.

The Canada-Quebec bilateral agreement expired on March 31, 2000; however, despite the expiry of the accord, EC and the Quebec Ministry of Environment agreed to continue to work collaboratively during the period of negotiations for a new bilateral agreement. On July 27, 2002, the proposed, revised Canada-Quebec bilateral agreement was published in Part I of the *Canada Gazette* for a 60-day public comment period. The renewed accord covers the Pulp and Paper Effluent Regulations and two regulations made under the *Canadian Environmental Protection Act, 1999* (CEPA 1999) to address dioxins and furans in the effluent of pulp mills using chlorine bleaching in their process and the use of wood chips and defoamers by the industry. On March 1, 2003, the Minister of Environment published a report in Part 1 of the *Canada Gazette* of the comments received and how they were addressed.

In keeping with the Canada-Quebec cooperative arrangement, EC examined 740 monthly compliance reports produced by pulp and paper mills. EC fishery officers and fishery inspectors conducted 17 mill inspections, issued eight written warnings and led two investigations related to alleged violations to the *Fisheries Act*.

Municipal Wastewater

Through scientific analysis, inspections, and sampling, EC has recognized the deleterious nature of substances within municipal wastewater effluent. During the fiscal year 2001-2002, Environment Canada conducted a risk management analysis of three of those substances, ammonia dissolved in water, inorganic chloramines, and chlorinated wastewater effluents. These substances were found to be toxic under CEPA 1999. Although it would have been possible to regulate the three substances as deleterious under subsection 36(5) of

the *Fisheries Act*, Environment Canada proposed the use of CEPA 1999 pollution prevention plans as one management tool for municipal wastewater effluents. These plans are set in motion by a notice issued by the Minister of the Environment. This process takes less time than the development of a comprehensive regulation under subsection 36(5), and was therefore recommended as an effective first step in an overall strategy to managing municipal wastewater effluent in Canada. The Minister of Environment intends to publish a proposal for a pollution prevention plan notice under CEPA 1999 during fiscal year 2003-2004.

Pulp and Paper Mills and Environmental Effects Monitoring

In fiscal year 2002-2003, EC contributed to two amendments to the Pulp and Paper Effluent Regulations. The first amendment helps facilitate the signing of the proposed Canada-Quebec bilateral administrative agreement, which is related to the pulp and paper industry. The amendment was published in Part II of the *Canada Gazette*, on January 1, 2003, and came into force upon its registration on December 12, 2002. The second amendment is a general update of the regulations, including a proposal to merge the regulations and the *Port Alberni Pulp and Paper Effluent Regulations*. The proposed general amendment is scheduled to be published in Part I of the *Canada Gazette* for public review and comments in fiscal year 2003-2004.


Under the *Pulp and Paper Effluent Regulations*, pulp and paper mills are required to implement an environmental effects monitoring program. EC continued to monitor the progress of the monitoring programs throughout 2002-2003. Such programs are site-specific and require scientific evaluations of effects of mill effluent on fish, fish habitat, and the use of fisheries resources. The programs are structured in three- or four-year sequences of monitoring and interpretation phases known as “cycles”. Cycle 3 reports are due early in fiscal year 2004-2005.

Metal Mining

On June 19, 2002, the new *Metal Mining Effluent Regulations* were published in Part II of the *Canada Gazette*. The new regulations came into force on December 6, 2002, and impose limits on the release of cyanide, metals, suspended solids, and prohibit the discharge of any effluent that is acutely lethal to fish. The regulations also require metal mines to implement environmental effects monitoring programs to identify any adverse effects of their effluent on fish, fish habitat, and the use of fisheries resources.

Shellfish Water Quality Protection

EC, DFO and the Canadian Food Inspection Agency are responsible for the Canadian Shellfish Sanitation Program (CSSP). EC assesses the water quality of shellfish harvesting areas. DFO classifies areas as approved, conditionally approved, or closed on the basis of EC's evaluation. In fiscal year 2002-2003, the total area assessed increased from 19,470 kilometres square (km²) to 20,260 km², the total area approved for harvest increased

from 14,019 km² to 14,795 km², the total area conditionally approved increased from 399 km² to 462 km², the total area sed for harvest decreased from 5,052 km² to 5,003 km². It is important to note that the increase in the total area assessed accounts for all of the change in approved, conditionally approved, and closed areas.

2.4 Environmental Assessments

Decisions under certain provisions of the *Fisheries Act*, in particular, subsection 35(2), trigger the need for an environmental assessment under CEAA. For projects for which DFO is required to make a decision under those provisions of the *Fisheries Act*, DFO becomes a responsible authority and is required to conduct an environmental assessment in accordance with CEAA. In these environmental assessments, DFO must also consider broader environmental issues than those associated with the habitat protection provisions of the *Fisheries Act*.

In addition to the environmental assessments arising from CEAA triggers under the *Fisheries Act*, the HMP is responsible for environmental assessments required as a result of certain regulatory decisions under the NWPA and the NEBA, administered by DFO's Canadian Coast Guard.

Regional Highlights

Table 6 summarizes the number of environmental assessments initiated, ongoing and completed in each region in fiscal year 2002-2003. As indicated, 954 environmental assessments were initiated in the period as a result of *Fisheries Act* triggers, the NWPA or the NEBA. By the end of the fiscal year, 913 environmental assessments had been concluded, and another 666 remained active.

Table 6: Environmental Assessments by DFO Regions (where Habitat Management is a Responsible Authority) Fiscal Year 2002-2003			
REGION	Started in 2002-2003	Ongoing*	Concluded or Cancelled in 2002-2003
Newfoundland & Labrador	45	31	40
Maritimes	37	38	50
Gulf	74	19	81
Quebec	63	82	61
Central & Arctic	529	226	480
Pacific	206	270	201
TOTAL	954	666	913

* Includes environmental assessments started in 2002-2003 and previous years.


Newfoundland and Labrador

The region initiated 45 new environmental assessments in fiscal year 2002-2003. Forty assessments were concluded or cancelled within the period, and 31 remained active at the end of the fiscal year. Major environmental assessment activities included:

- continuation of the environmental assessment of the Luce Pit mining project in Labrador City;
- continuation of the environmental assessment of the proposed Duck Pond Copper-Zinc Mining Project;
- completion of an environmental assessment of proposed exploration drilling in Annieopsquotch, Bonnavinkie, and Gambo leases;
- initiation and completion of environmental assessments of proposed exploratory drilling programs in the Jeanne d'Arc Basin, Lewis Hill and Flemish Pass leases; and
- completion of environmental assessment of the proposed Trans Labrador Highway (Phase III), a proposed 250 km gravel surface highway between Happy Valley-Goose Bay and Cartwright Junction.

Maritimes

The region initiated 37 environmental assessments in fiscal year 2002-2003. Fifty assessments were concluded or cancelled, and 38 remained active at the end of the fiscal year, including a number of energy and infrastructure projects. Major environmental assessments included:

-  Environmental assessments of major 100 series (four-lane) highway projects (*Phase 3 Highway 101 Twinning - Ellershouse to Avonport; Phase 2 Highway 101 Twinning -*

Mt. Uniacke to Ellershouse; Highway 113 – Highway 102/103 Connector; Highway 125 - Sydney By-Pass; Highway 101 - Digby to Weymouth; Highway 103 – Twinning between Exit 3 and Exit 5

- Various Oil and Gas proposals such as the Deep Panuke Project. The proposed project includes the development of three offshore platforms to recover natural gas and a sub-sea pipeline to transport it to Goldboro where it will tie into the existing Maritimes and Northeast pipeline.
- Proposed construction of a ferry terminal and wharf construction, in Wallace Cove, Black's Harbour in New Brunswick.

Gulf

The region initiated 74 environmental assessments in fiscal year 2002-2003. Eighty-one were concluded or cancelled, and 19 remained active at the end of the fiscal year. These included environmental assessments of:

- shellfish aquaculture projects related to oysters culture lines, accounting for 53 of the new environmental assessments initiated;
- shoreline works related to infilling and harbour dredging;
- oil and gas exploration related to seismic surveys; and
- instream works.

Quebec

The region initiated 63 environmental assessments in fiscal year 2002-2003. Sixty-one environmental assessments were concluded or cancelled, while 82 files remained active at the end of the fiscal year. Projects undergoing an environmental assessment included:

- many hydroelectric projects, including the construction of power plants on Eastmain and Péribonka Rivers, as well as the diversion of three rivers on the North shore in order to supply power to the Bersimis complex;
- works to control waters in the Lake Kénogami watershed to the Saguenay;
- Rebuilding of Road 175 between Quebec and Saguenay, a distance of 174 kilometres (km);
- gas and oil seismic prospecting in the Gulf and the St. Lawrence estuary; and
- the scuttling of the Nipigon cruiser near Sainte-Luce in the estuary of the St. Lawrence for the purpose of creating a diving site.

Central and Arctic

The region initiated 529 environmental assessments in fiscal year 2002-2003. There were 480 assessments concluded or cancelled, and 226 remained active at the end of the fiscal year. Some examples of major EA's included:

- initiation of the environmental assessment of the proposed Bathurst Inlet Port & Road Project in the Eastern Arctic Area, involving construction of a port facility on the west shore of Bathurst Inlet and a 211 km one-lane all-weather road running southwest to Contwoyto Lake and a winter-only crossing on Contwoyto Lake;
- continuation of the environmental assessment of the Otonabee Hydro proposal in the Ontario-Great Lakes Area, involving the alteration of fish habitat above and below existing dams associated with a dam expansion, and the creation of the diversion channel; and
- initiation of an environmental assessment, in cooperation with the Province of Manitoba, of a proposed expansion of the Red River Floodway designed to improve Winnipeg's flood protection facilities.

Pacific

The region initiated 206 environmental assessments in fiscal year 2002-2003. There were 201 assessments concluded or cancelled, and 270 remained active at the end of the fiscal year. Environmental assessments included:

- aquaculture renewals and relocations;
- hydro-electric operations, such as the Brilliant powerplant expansion, the Coursier dam decommissioning, and the Walden dam breach and reconstruction;
- linear developments and crossings, such as the Nisga'a highway, the Georgia Strait pipeline crossing, and the Fraser River crossing; and
- wind farms, marinas, and bridges.

2.5 Regulations, Policies and Guidelines

National Highlights

DFO embarked on an initiative in fiscal year 2002-2003 to enhance national consistency within the HMP. As part of this initiative, the Practitioners Guide to Habitat Compensation was finalized and implemented by regions. Other policy documents were subject to extensive consultations with Habitat Management staff, and are scheduled to be released for implementation by regions in fiscal year 2003-2004. These documents include the:

- Practitioner's Guide for Writing Letters used in *Fisheries Act* reviews;
- Practitioner's Guide for Writing a *Fisheries Act* subsection 35(2) authorization; and

- Guidance on the determination of Harmful Alteration, Disruption or Destruction of Fish Habitat.

As part of a consolidated Operating Policy Manual, these documents will bring greater operational consistency for the most important aspects of HMP field decisions.

Other policy and support functions supporting national consistency included:

- a cross-delivery initiative with the Navigable Waters Protection Program to streamline the internal review of project referrals; DFO will continue to build upon similarities between the two programs in an attempt to implement a 'one-window' approach; and,
- the decision to phase out the Yukon Placer Authorization by the Minister of DFO. DFO will work with the Yukon Territorial Government, the Council of Yukon First Nations, and the mining industry to develop a new regime to be implemented by 2007.

Regional Highlights

Newfoundland and Labrador

- The region continued development of a classification system for both marine and riverine habitats designed to assist proponents and habitat managers in quantifying the harmful impacts on fish habitat resulting from various project developments.

Maritimes

- Work was initiated on a document to summarize regional experience in developing HADD compensation projects.

Gulf

- The region developed a *Protocol for Restricted Access to Water Courses by Livestock* for application in Prince Edward Island.

Central and Arctic

- The region developed a protocol pertaining to the withdrawal of water for oil and gas activities in the Northwest Territories in consultation with Indian and Northern Affairs Canada, the National Energy Board and industry.
- The region has been developing compliance and referral review protocols and a Freshwater Fish Habitat Primer to improve the delivery of the habitat management and conservation and protection programs in Ontario.

Pacific

- The region developed regional-specific guidance documents, including: Coastal Stewardship Guide, Estuarine and Freshwater Habitat Classification templates, and a Shoreline Structures Environmental Design guide.
- Staff worked with the Province of British Columbia in the development of a provincial Streamside Protection Regulation.
- The region continued to work with partners on ballast water discharge and vessel sewage concerns as they relate to fisheries resources and habitat concerns.

3.0 Freshwater and Oceans Planning

Freshwater and oceans planning activities involve the integration of fish habitat objectives with fish production objectives. Through participation in planning processes, habitat requirements can be factored into fisheries management plan and plans for other uses of land and water.

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland and Labrador

- Regional staff continued their collaboration with federal, provincial and municipal agencies, industry, aboriginal groups and other non-government organizations in the development of integrated forest ecosystem management plans for several forestry management districts in Newfoundland and Labrador, ensuring that fish habitat goals and mitigation measures are incorporated into the planning process.
- Staff worked to incorporate fish habitat protection measures in several urban and municipal plans, and in projects involving the provincial Department of Work Services and Transportation.
- Staff continued to participate in a number of local and regional freshwater and oceans planning initiatives, including the Corner Brook Stream Development Committee, St. John's Harbour Atlantic Canada Action Plan, and the Humber Arm Atlantic Canada Action Plan.
- Staff participated in an initiative led by the Oceans Programs Division of DFO in the development of Large Oceans Management Areas in the Newfoundland and Labrador Region.

Maritimes

- The region's Stewardship Unit initiated development of 15 integrated resource management working groups within the region.
- Staff facilitated the establishment of resource management working groups with First Nations across the region to better represent the issues and concerns of bands interested in developing integrated resource management plans.

Gulf

- Staff partnered with watershed groups through the New Brunswick Water Classification Program to help establish community water standards.
- The region held an Integrated Coastal Management Workshop in Gulf Nova Scotia in February 2003 in partnership with many groups, government and industry.
- Staff helped re-launch the Atlantic Team of Canada's National Program of Action for the Protection of the Marine Environment from Land-based Activities with the goal of developing a "common" action plan for addressing priority issues in the region such as nutrients, sewage and habitat destruction.

Quebec

- In fiscal year 2002-2003, the marine area of the region covered by integrated planning processes remained about 2,800 km², including the addition of about 28 km² coastal area of the city of Carleton-Saint-Omer.
- The Saguenay-St. Lawrence Marine Park now has an ecosystem conservation plan in place. The plan was developed in connection with several federal and Quebec departments and approved by the Saguenay-St. Lawrence Marine Park Coordinating Committee, which is composed primarily of local representatives. A zoning plan was developed in support of the conservation plan, and submitted to various federal and provincial departments for review. DFO is one of the key players in the implementation of this zoning plan.
- A new integrated management initiative of the coastal zone sector of the lagoon of Carleton, located in the city of Carleton-Saint-Omer in the Gaspé Peninsula, has obtained the support of DFO.
- In the Magdalen Islands, several committees worked on the history of the uses and resources of the lagoons and produced informative maps.
- Work on the Marine Protected Area in the Manicouagan Peninsula on the North shore of the St. Lawrence estuary progressed significantly in fiscal year 2002-2003. A management plan developed with the participation of local representatives was presented at a public consultation in December 2002.

Central and Arctic

- The region is a member of the recently initiated Great Bear Lake Working Group formed to develop a management plan for Great Bear Lake and its watershed.
- Regional staff have worked with aboriginal communities in developing valued ecosystem components for fish health, fish populations, fish habitat, and water quality and quantity, in response to the requirements under the *Mackenzie Valley Resource Management Act*⁶ and the Sahtu and Gwich'in land claims, to report on the health of the environment and the cumulative effects of land use on the environment.
- Staff in the Ontario-Great Lakes Area participated in several integrated resource planning exercises with provincial partners, such as the Renfrew County Fisheries Strategy, providing DFO with a comprehensive approach to managing aquatic resources at the District Office level.
- Staff in the Prairies Area participated in a number of land, water and resource planning processes to integrate fish and fish habitat objectives into development plans, including the Agriculture Policy Framework - Environmental Farm Planning process in all three Prairie Provinces.

Pacific

- Regional staff continued to work on various planning initiatives including watershed-based fish sustainability planning, British Columbia coastal management planning, and Yukon land use planning.
- The region continued to work with BC Hydro, provincial agencies and stakeholders to develop and implement water use plans that call for operating changes that should significantly improve fish habitat productive capacity both above and below the dams as a condition of existing provincial water use licenses for hydroelectric power.
- Staff participated in numerous other planning initiatives that included the Fraser River Estuary Management Plan, the Burrard Inlet Environmental Action Program, the Georgia Basin Ecosystem Initiative and the Columbia Operation Fisheries Advisory Committee.

4.0 Habitat Enhancement

DFO seeks to achieve its policy objective of “net gain” in the productive capacity of fish habitat by supporting conservation and other voluntary organizations as well as others interested in restoring and developing fish habitat. Examples include rehabilitating streams, eliminating or controlling exotic species, and removing human-made barriers.

⁶ For more information, see: <<http://laws.justice.gc.ca/en/M-0.2/index.html>>

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: <http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp>.

Maritimes

- Staff continued to work with other governments, industry and community groups on a proposal to neutralize the acidity of the Salmon River in Nova Scotia through the use of calcium kiln dust, a by-product of the cement-making process.
- Staff continued to work with the stewards of the River Denys and Georgia-Pacific to restore fish habitat of the Big Brook in Cape Breton.
- In partnership with the provincial government, industry and the community, the region's Stewardship Unit has planned habitat restoration and soil retention projects within the Irish Cove area of Cape Breton, Nova Scotia.

Gulf

- Staff provided advice to groups across the region on habitat enhancement and improvement planning and techniques for projects such as cattle fencing, installation of tree deflectors as silt capturing devices, and oyster habitat rehabilitation through creation of artificial reefs.
- The region participated in a beach sweep program funded by the New Brunswick Environmental Trust Fund, in partnership with the New Brunswick Department of Environment and Local Government, Atlantic Canada Action Plan Saint John and the *Partenariat pour la Gestion Intégrée du Bassin Versant de la Baie de Caraquet*.
- Staff worked to stabilize badly eroding sections of the Margaree River, in partnership with the Margaree Salmon Association, the Margaree Heritage River Association and the International Confederacy of Mi'kmaq.

Quebec

- The region continued its participation in the two components of the St. Lawrence Vision 2000 that deal directly with the enhancement of fish habitat: the "community involvement" and the "biodiversity" components, which are aimed at protecting and conserving aquatic habitats.⁷
- The region has supported the implementation of several projects put forward locally in order to integrate existing information and obtain new data on the estuary and the Gulf of the St. Lawrence River.
- The region participated in the mapping and the development of a cartography tool to extend the knowledge on habitats, resources and uses in the Bay of Cascadépédia. This

⁷ More information is available at: <http://www.slv2000.qc.ca/index_a.htm>.

initiative will provide basic information needed by the Integrated Management Local Board to promote a better management of the entire bay area.

- In the Saguenay, ongoing research to locate the principal rainbow smelt spawning area has encouraging results. A sector has been located and the work scheduled for fiscal year 2003-2004 is expected to confirm this information.
- In the Magdalen Islands, production of a lagoon atlas containing a dozen themes such as human activity, coastal infrastructures, habitats and resources, has contributed to the characterization of the coastal areas and the dissemination of information to the public.

Central and Arctic

- Regional staff worked with Ducks Unlimited Canada on a referral protocol, entitled “*Project Review Guidance Document for Wetland and Riparian Restoration, Enhancement, and Creation*”, which promotes restoration projects and facilitates the review of these projects under the *Fisheries Act*.
- The region’s Prairie Area entered into a partnership agreement with Alberta Sustainable Resource Development and the Alberta Conservation Association to study information on game fish habitat and habitat use within the Bow River Enhancement Project, to provide technical and financial support for various habitat enhancement projects in Alberta and Saskatchewan, and to provide expertise for several habitat restoration and enhancement initiatives in Jasper National Park.

Pacific

- The region finalized the five-year Habitat Restoration and Salmon Enhancement Program that supports more than 550 habitat restoration, stewardship and stock rebuilding projects operated and administered by a variety of community groups and agencies.
- Staff undertook various other habitat restoration projects throughout both British Columbia and the Yukon, working with partners such as provincial and territorial agencies, First Nations and community groups.

5.0 Community Outreach and Stewardship

This key activity focuses on *community outreach and stewardship*, which endeavours to involve whole communities in the conservation, protection and enhancement of fish habitat. These activities relate to three of the eight strategies found in the Habitat Policy (Public Information and Education; Cooperative Action; Public Consultations). A community may be comprised of individual citizens affiliated with a business or industry and/or a non-government or voluntary organization, an Aboriginal group or a government agency, including the education sector.

Activities are noted under three headings: stewardship; public information and education; and partnering.

National Highlights

Stewardship

In a relatively short period of time, the concept of stewardship has become widely accepted by industry, non-governmental organizations, governments and individual Canadians, to represent the responsibility for, and voluntary actions necessary to protect and enhance the environment. Nevertheless, current stewardship activities have been characterized by “thousands of random acts of stewardship” lacking mechanisms to identify priorities and communicate them to Canadians, monitor and communicate successes (and failures), or to determine what is needed as support for stewardship activities.

Stewardship activities in fiscal year 2002-2003 at the NHQ level focused on three areas: Canada’s Stewardship Agenda; the Voluntary Sector Initiative; and the Oceans Sector Stewardship Working Group.

DFO accumulated considerable stewardship knowledge through the initiatives described in the Regional Highlights sections that follow. NHQ coordinated the contribution of this knowledge to the completion of Canada’s Stewardship Agenda. The agenda was approved by federal, provincial and territorial Ministers of Fisheries and Aquaculture, Wildlife, Endangered Species and Forests at their September 2002 joint meeting, as one of the four pillars of the Canadian Biodiversity Strategy Implementation Plan.

Canada’s Stewardship Agenda is a plan for collaboration that proposes a national vision and operating principles for stewardship. It outlines four key goals and objectives for each goal, and identifies four priority actions or next steps. These priority actions are to:

- improve coordination among stewardship programs;
- establish a stewardship network;
- continue to develop the Stewardship Canada Portal; and
- explore developing a stewardship charter.

The agenda seeks to establish a broad, long-term course of action and foster collaboration among the many stewardship initiatives already underway in the forestry, fisheries, oceans, agriculture, wildlife and urban sectors. The agenda can be found at:

<<http://www.stewardshipcanada.ca>>.

The priority action that advanced the most in fiscal year 2002-2003 was the Stewardship Canada Portal found at: <<http://www.stewardshipcanada.ca>>. Inspired by the award-winning

British Columbia Stewardship Centre, and called for by the National Millennium Stewardship Conference, the Portal is designed as a national site comprised of linked provincial/territorial hubs that, in turn, link up community-based sites in the province or territory. It provides convenient access to valuable stewardship knowledge and products developed across the country.

Another important national level initiative in fiscal year 2002-2003 was the establishment of a cross-regional DFO Oceans Sector Stewardship Working Group. The working group was formed to provide a forum to exchange Oceans and Habitat Management stewardship experience across the country, to coordinate and harmonize stewardship activities within DFO's Oceans Sector, and to ensure that Oceans Management and Habitat Management activities are included in national and regional stewardship initiatives. One of the tasks undertaken by the working group was to coordinate DFO's contributions to the Second National Stewardship Conference "The Leading Edge," held in Victoria in July 2003.

Public Information and Education

DFO produces a variety of public awareness and education information products and materials, often in cooperation with stakeholders, to encourage participation in the conservation and protection of fish habitat. These products and materials are used by the public, project developers, schools, the media, and sponsors for conferences, seminars, workshops and symposia.

In fiscal year 2002-2003, NHQ contributed to a new DFO internet site called 'Canadian Waters' <http://www.dfo-mpo.gc.ca/oceans-habitat/index_e.asp> to make these materials more accessible.

Partnering

The Habitat Policy recognizes that fish habitat cannot be conserved, protected or restored without the active involvement of all Canadians and sectors of society. Therefore, DFO has identified the establishment of formal partnering agreements with key stakeholders as one of the four priorities for the renewal of the HMP. Indeed, partnering is a priority because it is a prerequisite to successfully addressing the other three priorities of streamlining the regulatory process, national consistency, and balanced implementation of the Habitat Policy.

The overall objective for Habitat Management partnering is *'to harmonize the activities of DFO's Habitat Management Program with those of key partners so that each strategically deploys their resources where they can do the most good for the conservation, protection and enhancement of fish habitat'*, in keeping with the Habitat Management Policy's objective of a balance of regulatory and proactive activities.

The National Partnering Strategy, developed in the previous fiscal year, identified the establishment of formal agreements with provinces and territories and key industry sectors as

the first priority, along with Aboriginal groups, the non-government/voluntary sector, municipalities and the education sector.

The strategy further clarified the partnering roles of DFO's national headquarters and regional offices. NHQ is responsible for developing national partnering frameworks and guidelines, tools such as common templates for formal agreements, and the establishment of agreements with priority national organizations, such as the Canadian Council of Fisheries and Aquaculture Ministers and national industry associations. Regional offices are responsible for the establishment of formal agreements with provinces and with industry, Aboriginal groups, the non-government/voluntary sector, municipalities and the education sector.

The following provides highlights of partnering outputs with various groups at the national level for fiscal year 2002-2003.

Provinces and Territories

At the national level, considerable progress was made in fiscal year 2002-2003 in advancing a common vision and cooperative framework for collaboration on fish habitat management with the provinces and territories. This progress is reflected in the 2002-2003 Implementation Plan for the Draft Freshwater Fisheries Strategy approved by the Canadian Council of Fisheries and Aquaculture Ministers at their September 2002 meeting. This plan calls for, among other things: 1) pursuing bilateral memoranda of understanding that establish priorities and governance, and accountability structures to achieve them and report on results; and 2) establishing multi-lateral protocols for each of the habitat management priorities identified in the memoranda that clarify roles and responsibilities, processes and procedures of each of the parties with responsibilities and interests in that activity. Interim Protocols were signed with Alberta and Ontario in 2002-2003 and a Regulatory Protocol was under development with Prince Edward Island.

Industry

Although the Habitat Management Partnering Framework and Strategy called for the development of formal agreements with priority industry sectors, it recognized that simply adapting the approach to partnering with provinces and territories was not practical, given the large number of companies. As an interim approach, the strategy called for the development of bilateral memoranda of understanding with key national industry associations, and multi-lateral protocols at the provincial/regional office level among DFO, major companies and provinces or territories.

At the national level, a memorandum of understanding with the Canadian Electricity Association was signed in July 2002 to enable DFO and the association to cooperate on protecting fish and fish habitat resources that could be impacted by activities associated with the generation of electricity in Canada. The agreement commits the parties to collaborate

under five themes: consultations and communications; compliance with the *Fisheries Act*; stewardship; education and training; and research and monitoring. It also commits the parties to provide an annual report to the Minister and the Association's Executive Committee. In fiscal year 2002-2003, priority was given to the development of the *Fisheries Act* Compliance Framework. The framework is intended to provide tools that will result in greater clarity, certainty, consistency and efficiency for hydro generating facilities to comply with the fish habitat protection provisions of the *Fisheries Act*.

NHQ also organized workshops and held preliminary meetings with other key industry sectors throughout the fiscal year, including the Forest Products Association of Canada, the Canadian Association of Petroleum Producers, and the Mining Association of Canada. However, it became clear that a series of bilateral agreements with each industry association could be duplicating responses to concerns and objectives that are common across a number of industry sectors. In response, the notion of a multi-lateral industry partnering model that could achieve the same level of results as bilateral memoranda of understanding was introduced into partnering discussions with industry.

Voluntary Sector

DFO has a long history of working with the non-government/voluntary sector, generally associated with stewardship, integrated planning, citizen science and monitoring activities, but also on regulatory projects. The discussion of stewardship activities above provides highlights on many of the collaborative activities with the non-government/voluntary sector in fiscal year 2002-2003. In addition to working together on stewardship activities, DFO is also working to include regulatory activities in formal arrangements with the non-government/voluntary sector conservation organizations to work together to more effectively and efficiently protect and conserve fish habitat.

DFO's strategic approach to partnering with conservation organizations is for NHQ to work with regional offices and the voluntary sector to establish a framework and identify priorities for collaboration with national organizations. This approach sets the stage for strengthened collaboration between DFO's regions and provincial/regional members of the organization. Furthermore, because of the considerable upfront work needed to identify joint objectives and develop formal agreements and approaches to achieve them, NHQ is focusing its efforts on a few national organizations (e.g. Wildlife Habitat Canada, the Atlantic Salmon Federation and Ducks Unlimited Canada), and using the results as a model to facilitate subsequent collaborative efforts with others.

Ducks Unlimited Canada and DFO officials have been working since early 2001 to develop approaches to more effectively and efficiently protect fish habitat associated with waterfowl habitat enhancement projects and to identify other areas for closer collaboration. The organization is involved in many waterfowl habitat enhancement projects that can result in barriers to fish migration and harm, alter, or disrupt or destroy fish habitat, and, as a result,

require DFO authorizations. A national workshop was held in April 2002 in Montreal and a regional workshop in July 2002 in Moncton. The workshops identified priority areas for strengthening collaboration and drafted work plans to address them. Priority was given to developing approved work practices for Ducks Unlimited Canada projects in the Maritimes and to develop a formal agreement that would define the roles and responsibilities and processes and procedures for their use.

NHQ also played a prominent role in fiscal year 2002-2003 in fostering involvement in the federal Voluntary Sector Initiative, including in the management of four projects supported by the initiative with DFO voluntary sector partners. The initiative, announced in June 2000, is a joint initiative between the voluntary sector and the Government of Canada. In the fall of 2002, the government announced the Canada Volunteerism Initiative and provided \$43 million to establish national and local networks to support volunteerism in Canada. Initiative funding of approximately \$470,000 was provided by the Government of Canada for fish and fish habitat related projects that began during fiscal year 2002-2003. The funding created opportunities for voluntary sector organizations to contribute to public policy development and provided communities, individuals and volunteer groups the opportunity to undertake fisheries-related activities and projects of interest to them.

Four projects supported by DFO were funded by the National Voluntary Sector Initiative:

- National Watershed Stewardship Network (\$98,000) – a project of the Langley Environmental Partners Society in British Columbia to work with Canadian watershed stewardship leaders to provide policy advice on the role and opportunities of watershed stewardship across Canada.
- Promoting Fisheries Renewal through Environmental Training and Stewardship (\$126,200) – The Saskatchewan Wildlife Federation and Saskatchewan Conservation Corporation worked together to increase the knowledge, capacity and participation of volunteer groups with the goal of improving the health and water quality of rivers in Saskatchewan.
- Stewardship Canada Web Portal and Citizen Science Project (\$200,000) - Ottawa-based Wildlife Habitat Canada developed an application on the Portal to enable community volunteers to provide and map their science data via the internet.
- Policy Internship and Fellowship Program (\$45,000) – Funding supported a staff member of Wildlife Habitat Canada to work for a period of 11 months in an internship position shared between DFO and Environment Canada in support of Canada's Stewardship Agenda.

Municipalities

Environmental matters are complex and often transcend jurisdictional boundaries, and require coordination and collaboration among all levels of government. Federal, provincial and local governments each have a role to play to help limit the adverse effects of human

activities on the environment, while fostering economic and social development. As a result, DFO has a number of agreements with municipalities, often in cooperation with the provincial government, to achieve common objectives.

At the national level, NHQ has been working with the Federation of Canadian Municipalities to develop an action plan to: improve communications and consultations; define mechanisms to streamline DFO's regulatory processes, such as the provision of one-window service consistent with the government's smart regulations agenda; and develop a template for memoranda of understanding that will formalize collaboration.

Aboriginal groups

The Aboriginal Inland Habitat Program, announced in the February 2003 federal budget, will enable Aboriginal groups to become more involved in the processes used for fish habitat management by DFO. The program is intended to build capacity within Aboriginal communities in the area of fish habitat as well as assist in meeting DFO habitat management objectives relating to the protection, conservation, restoration and enhancement of fish habitat. Favourable consideration will be given to proposals which seek to build Aboriginal capacity, promote constructive relationships and the development of structures and processes relating to habitat management with DFO and others involved in habitat management (e.g., other federal government departments and agencies, provinces, municipalities, industry and stewardship groups).

The program will enhance the ability of Aboriginal communities to work together to participate in decision-making related to habitat management regulatory and non-regulatory activities. Through the establishment of the program, DFO will assist Aboriginal groups in inland areas to develop the necessary capacity to carry out fish habitat management activities through a collaborative and integrated approach. Greater coordination with Aboriginal groups in inland areas on habitat matters will allow for more effective delivery of DFO's habitat management responsibilities. Coordination also will help Aboriginal groups and DFO work more effectively to understand the implications and identify the impacts on First Nations of projects or proposals that affect fish habitat.

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: <http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp>.

Newfoundland and Labrador

- Habitat Management staff provided numerous educational presentations to local schools and industry groups to raise awareness and understanding of various aspects of fish habitat conservation and protection.

- Regional staff met with Newfoundland and Labrador Construction Safety Association staff during the fall of 2002 to discuss plans to develop and offer an environmental training program specifically tailored for the construction industry.
- The region published two issues of the *'Habitat Herald'*, a regional newsletter aimed at providing examples of various projects and initiatives currently taking place within the region, and, in partnership with the provincial government, a brochure entitled "Fish Habitat and All-Terrain Vehicles – Better Practices for Fish and Fish Habitat".
- Staff worked with various groups throughout the province in developing interpretative trail signage for a number of projects including the Appleton Waterfront Park and Cobb's Pond Rotary Park.
- Staff convened a series of meetings in communities adjacent to Harry's River in western Newfoundland to seek public input on possible reasons for the decline in salmon stock and to develop a stock recovery and conservation plan under a local stewardship initiative.
- Staff participated in the national and regional species at risk critical habitat working groups, and continued to seek new partnerships under the Habitat Stewardship Program for Species at Risk.

Maritimes

- Regional staff conducted public information and educational programs for a range of groups including forest companies, universities and livestock owners.
- The region published, and distributed a Canadian Technical Report of Fisheries and Aquatic Sciences entitled, "An Audit of Small Culvert Installations in Nova Scotia: Habitat Loss and Habitat Fragmentation".
- The region is an active participant in the Urban Stream Restoration Program of the Atlantic Canada Action Plan - Saint John, providing advice, technical support and field inspections for the habitat restoration initiatives the organization has undertaken in local streams.
- Staff worked with the Sackville Rivers Association in implementing the River Ranger Program throughout the region, an educational program for grades 4-6 focusing on the importance of local environments, fish habitat, fish species and water quality.
- In partnership with the Salmon River Salmon Association, regional staff developed a pilot project incorporating a classroom hatchery unit at a local high school.
- The region signed a memorandum of understanding with the Department of National Defence covering the Gagetown Department of National Defence Training Area in New Brunswick, providing DFO with on-site staff to provide input to planning activities in the early stages as well as assisting in environmentally sustainable activities in the field.

Gulf

- The region conducted several public information sessions for various groups during fiscal year 2002-2003, including presentations on DFO's mandate and legal obligations,

agriculture and its impacts on fish habitat, adopting a Code of Practice for shellfish aquaculture, trout and salmon habitat restoration, and challenges with assessing small craft harbours projects.

- Staff completed the development of a special educational unit, consisting of 11 oceanographic lesson plans and one field trip guide, to be introduced on a pilot scale in four schools in the region.
- Staff provided training to First Nations on the value of initiating stewardship projects in their communities.
- Regional staff held consultations with forestry companies, the Forestry Engineering Research Industry of Canada and provincial agencies to discuss the development of a new guideline for fish passage through culverts.
- The region partnered with the provinces of Prince Edward Island, New Brunswick and Nova Scotia on the development and implementation of memoranda of understanding on fish habitat management.

Quebec

- The region is pursuing its efforts to better inform its clients, partners and the general public of programs, policies and guidelines that lie within its jurisdiction. Beyond the regulatory aspect, new initiatives have been implemented to inform and raise public awareness on the importance of fish habitat protection.
- In keeping with the strengthening of the National Fish Management Program, the region deployed a work team focused on the protection of fish habitat. The mandate of the team is to increase education and awareness of the general public and the proponents on fish habitat protection.
- About 150 participants attended 10 information sessions on the provisions of the *Fisheries Act* pertaining to fish habitat protection and the processing of notices of application by DFO. Participants included the *Association des aménagistes régionaux du Québec*, the *Regroupement national des conseils régionaux en environnement du Québec*, and the *Agence de mise en valeur des forêts privées du Bas Saint-Laurent*.
- The region partnered with the priority intervention zones committee of the South of the Estuary to launch a pilot project consisting of an information tour to raise awareness of the importance of protecting fish habitat in municipalities and regional county municipalities. The *Société de la faune et des parcs du Québec* and the *Ministère de l'environnement du Québec* participated in the development of information kits for this client group. The tour, expected to be undertaken in April 2003, will target 10 regional county municipalities and about 140 municipalities in the Lower St. Lawrence.
- With its partners, the region developed various communication products, a game for elementary students and a publication on the marine species of the Manicouagan area. These initiatives seek to inform and create awareness in the regional population of the importance of conserving the maritime environment in anticipation of the creation of the Manicouagan Marine Protected Area.

- In cooperation with several partners, the region developed an educational program on fish habitat intended for high school students entitled, “Attention à l’habitat du poisson”. Research and writing of the program is expected to be completed in the summer of 2003. The program will be tested in approximately 10 Quebec high schools starting in the fall of 2003.

Central & Arctic

- Regional staff participated in the June 2002 Petroleum Show, in Inuvik Northwest Territories, as a forum for informing stakeholders of DFO’s role in the north.
- Staff developed a manual entitled, “Working Near Water: Considerations for Fish and Fish Habitat Reference and Workshop Manual – Northwest Territories”, to serve as a general reference document on fish habitat considerations that should be taken prior to doing work in or around water in the Northwest Territories.
- The region issued several educational materials, including a Drain Primer, an agricultural calendar entitled “Balancing and Harmonizing Fish Habitat”, and the EcoSavers Coupon Book, which is a fundraising tool for the Niagara Peninsula Conservation Authority.
- Staff initiated discussions with the Environmental Monitoring Advisory Board, made up of representatives from the five major aboriginal groups in the Western Arctic Area, to launch the development of a habitat compensation database, through which communities could bring forth habitat-related issues that could be addressed through enhancement or restoration activities.
- Staff is involved in public consultation initiatives underway on major oil sands projects in Alberta, including the Athabasca Oil Sands Regional Cumulative Effects Management Association.
- The region established a new working arrangement with the Trent-Severn Waterway (Parks Canada Agency) and EC to strengthen environmental assessments.
- The region established a joint effort with the City of Barrie to test a sediment and erosion control decision-making tool.

Pacific

- The region continued to support education coordinators, Salmonids in the Classroom, community liaison officers, StreamTalk Newsletter, and the Community Involvement website.
- Staff developed the Stream to Sea – Strategy for and Ecosystem Approach to Education, supported the British Columbia Stewardship Centre, and, in partnership with others, developed an online Guide to British Columbia Watershed Law and Planning document.
- Staff participated in numerous events throughout the region, including BC Rivers Day, Return of the Salmon Festivals, and the Fraser Basin Conference.
- The region completed the Habitat Conservation and Stewardship Program, a five-year initiative to establish partnerships to enhance habitat protection and expand community capacity to steward fish habitat resources.

- The region continued to support the work of the Pacific Salmon Foundation, which contributes significant resources to numerous community-based projects focused on the conservation, restoration and enhancement of Pacific Salmon.
- The region established the Pacific Salmon Endowment Fund to develop salmon recovery plans for specific watersheds.
- Regional staff developed and awarded the first HMP Industry Award to recognize developers who demonstrate excellence and innovation in the protection and conservation of fish habitat.
- The region supported and participated in numerous regional stewardship and community initiatives, such as agricultural stewardship initiatives in the Bulkley Valley, the National Program of Action, the Fraser Basin Council, the Puget Sound/Georgia Basin International Task Force, the Langley Environmental Partners Society, and the British Columbia Stewardship Centre.

6.0 Scientific Support

Timely, relevant science is a fundamental requirement for strengthening the foundation and credibility of the program in support of the objectives of DFO's *Policy for the Management of Fish Habitat*.

Scientific support is provided in two major ways:

- habitat monitoring is conducted to evaluate the effects of various project developments on the productivity of fish habitat and to determine the accuracy of assessments and prescribed mitigation measures; and
- research is conducted to address knowledge gaps related to priority areas for habitat conservation, restoration and development and synthesis and transfer of knowledge on key issues.

National Highlights

Environmental Science is coordinated through DFO Headquarters and delivered by the regional Environmental Science managers and scientists. The mandate of Environmental Science is to:

- generate knowledge through research;
- collect, assess, and interpret scientific information from diverse domestic and international sources; and
- integrate data, information and technology into useable services, products and advice, including risk management advice, for policy and program decision makers and in particular for Habitat Management and Oceans Management.

Environmental Science identifies scientific aspects of habitat issues, sets science priorities, manages science programs, leads the collection, analysis and integration of information from a variety of internal and external sources, and manages partnering initiatives with other sectors, agencies, universities, as well as national and international agencies. The results of Environmental Science research projects are transferred to Habitat Management staff through workshops, published reports, fact sheets, briefings, and personal consultations.

Research projects in fiscal year 2002-2003 conducted by Environmental Science staff in all regions, addressing questions of importance to habitat managers, included:

- developing empirical models for evaluating the productive capacity of fish habitat, linking fish biomass at specific habitats to total population production;
- determining the spatial utilization of benthic marine habitat by demersal fish;
- assessing the impacts of fishing gear on fish habitat;
- developing techniques to assess productive capacity and the value of specific habitats to fish, and to delineate 'critical habitat';
- developing the knowledge necessary to make decisions regarding stream flows and water allocations, with regard to maintaining sufficient water for fish; and
- assessing the impacts of land use practices on aquatic habitat, to help reduce the impacts of industries such as forestry, farming, and mining.

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp.

Newfoundland and Labrador

Habitat Monitoring

- Regional staff monitored construction of the Trans Labrador Highway (Red Bay to Cartwright) and the fish bypass system at the Grand Falls hydroelectric power canal designed to prevent entrainment of Atlantic salmon smolts.
- A habitat monitoring database was expanded as a pilot to evaluate the effectiveness of prescribed mitigative measures, to provide early warning of unforeseen effects, to improve knowledge and information with respect to mitigation, and to evaluate the accuracy of effects predictions.

Scientific Research and Advice

- Environmental Science staff undertook a research program aimed at evaluating the production characteristics of a compensation channel constructed within the White Rose Hydroelectric Project.

- Other research projects addressed the productive capacity of fish habitats within both marine and freshwater environments, instream flow models, forestry-fishery interactions, aquaculture, mercury, oil and gas, and toxicology.

Maritimes

Habitat Monitoring

- Regional staff developed a checklist, based on agreed-upon mitigation measures, to be used in monitoring and auditing aquaculture sites.

Scientific Research and Advice

- Regional staff participated in the development of a regional, volunteer-based, stream biomonitoring program to serve as an Atlantic Canada regional element of the Canadian Aquatic Biomonitoring Network, which uses the condition of the aquatic benthic invertebrate community to indicate the general health of freshwater ecosystems.
- The region participated in the collaborative Marine Invertebrates Diversity Initiative designed to increase information and awareness of marine invertebrates; the initiative includes web-based databases on species profiles, habitat description, references, photographs and geographic reference.
- Regional staff is participating in a working group established by the International Council for the Exploration of the Seas to look at methods and information for use in generating habitat maps.

Gulf

Habitat Monitoring

- DFO collaborated with many partners to conduct four main research projects to monitor and assess the effectiveness of mitigation and compensation measures implemented by habitat staff, including: monitoring of Artificial Reefs in Souris, Prince Edward Island; the Richibouctou peat moss project; the Brierly Brook restoration; and the Prince Edward Island shellfish aquaculture adaptive management process.

Scientific Research and Advice

- Environmental Science researchers investigated the effects of freshwater contaminants on the marine survival of Atlantic salmon.

Quebec

Habitat Monitoring

- In fiscal year 2002-2003, the region started exploratory discussions with provincial bodies responsible for the environment, wildlife and parks on improving federal and provincial regulatory processes.
- The partnership agreement between the region and the administrators of the Pointe-aux-Outardes Nature Park to jointly develop the Manicouagan Marine Protected Area project

continued in 2002-2003. The Regional County Municipality of Manicouagan and the Betsiamites Band Council joined the project to form a technical committee to develop a preliminary management plan for the proposed Area and to promote the initiative.

- The region is participating in the implementation of a Round Table bringing together various stakeholders who are interested in the common seal situation in the St. Lawrence estuary. The mandate of this group will be to develop an action plan, which will include specific measures to reach the objectives related to the protection of the common seal and its habitat.

Scientific Research and Advice

- The maintenance of the navigation channel of the St. Lawrence River requires a large number of dredging operations every year. However, little is known about the environmental risks associated with these operations. As a result, the region and its partners set about to study the impacts of the ocean disposal of dredged sediments on fish and fish habitat. From 1999 to 2001, the work was carried out at the Madame Island model site, located about 75 km downstream from Quebec City. Results to-date have indicated a potentially significant past influence of major deposits following navigation channel dredging. On the other hand, annual deposits could have limited impacts on fish use and habitat quality.
- Activities linked with mussel culture produce vast quantities of organic and inorganic matter. This matter deposits on the sea floor and can affect the environment and the composition of its communities. A study was undertaken in the Cascapédia Bay in the Gaspé Peninsula to improve the knowledge on the effects of mussel culture on the marine environment. A comparison was made of two sites using different culture methods and a control site. Preliminary reports reveal that these activities significantly decrease biological diversity at the sites where culture is done. The analysis of the results and in-field work will continue in fiscal year 2003-2004.
- The region has undertaken a study of the impacts of hydraulic gear on the clam harvest in the Havre-aux-Basques lagoon in order to verify if the intake of juvenile clams from a natural setting has impacts on the clam population, its habitat and related species.
- The region completed a research project to assess the risks involved in introducing non-native species in the estuary and the Gulf of the St. Lawrence River. Results show that ballast water exchanges are partially effective in reducing the risks associated with the introduction of plankton.
- Little is known on the impact of scallop fishing on the benthic environment of the St. Lawrence. To fill this knowledge gap, the region, in partnership with the Saguenay-St. Lawrence Marine Park, has conducted a scientific assessment of the impacts of the Iceland scallop fishery in the Île Rouge sector. After four years of commercial operation,

the results available as of this date are not conclusive in establishing that there is a definite impact on benthic communities.⁸

Central and Arctic

Habitat Monitoring

- The region undertook the fifth year of a ten-year monitoring program, initiated in 1998, on the effectiveness of stream habitat compensation efforts at the BHP Billiton Ekati Diamond Mine.
- Regional staff participated in the Regional Aquatic Monitoring Program in Alberta, which monitors climatic and hydrologic parameters, water and sediment quality, acid sensitive lakes, benthic invertebrates, fish populations, and wetlands vegetation.
- Regional staff participated in the cumulative effects monitoring program established to monitor possible cumulative effects arising from uranium mining activity in northern Saskatchewan.

Scientific Research and Advice

- Results of a DFO-led study on the effects of forest fire on pike spawning habitat in lakes were analyzed, with preliminary findings indicating that forest fires have effects on the spawning and rearing success for pike; these findings may have implications on forest fire and riparian zone management.
- In the Ontario-Great Lakes Area, DFO supported numerous initiatives designed to advance the understanding of impacts of development activities on fish habitat to assist DFO staff in the review of referrals. One initiative included an agreement with the Trent University and the Watershed Science Centre to study 10 regulated lakes and three non-regulated lakes in the Haliburton Highlands region of south-central Ontario.
- Research activities in the Prairies Area included: an evaluation of the usefulness of pigment data in studies of productive capacity of near-shore communities in boreal lakes; a collaborative study with the Alberta Conservation Association and Alberta Environment on the identification of fish barrier passage issues; and a study examining the interaction of climate change and land-use activity on the productivity and function of prairie lakes, conducted in collaboration with researchers at the University of Regina.

Pacific

Scientific Research and Advice

- The region continued to develop a scientifically defensible protocol for indicators of marine environmental quality to be used by volunteer stewards, and audited and published data from a three-year trial of the Shorekeepers protocol.

⁸ Arseneau, M.J., P. Archambault et P. Goudreau. 2003. *Évaluation des impacts de la pêche sur le gisement de pétoncles d'Islande de l'île Rouge*. A study completed by Fisheries and Oceans Canada for the Saguenay–St. Lawrence Marine Park.

- Regional staff provided formal advice on the impacts of scuttled vessels as artificial reefs.
- Staff completed ecosystem overviews for three Areas of Interest as candidate Marine Protected Areas, and supported the Central Coast Integrated Management initiative.
- Staff completed a research document on the ecological significance and productivity of flood plains as fish habitat, and undertook or participated in studies related to, among other issues, cadmium levels in farmed and wild oysters, lake fertilization, ecological values of the supra-littoral ecotone, Fraser River sockeye spawning conditions, and the monitoring of select exotic species.
- Staff continued research on: the impact on fish and fish habitat of both salmon net-pen farms and shrimp harvesting gear; the impact of placer mining on Yukon fish and fish habitat; the impact of forestry fish and fish habitat in both freshwater and marine waters; and contaminants in the Strait of Georgia.

7.0 Information Management

Providing timely, accessible and reliable information to the public and DFO staff is a key element to improving efficiency within the National Habitat Program, and to raising awareness and understanding among Canadians of the importance of fish habitat.

National Highlights

Habitat Systems – Habitat Referral Tracking System

During fiscal 2002-2003, the Habitat Referral Tracking System (HRTS) continued to be further developed as the daily national working system used by habitat biologists and administrators across the country.

The HRTS is used to record information and actions taken on requests (referrals) received by HMP either directly from a proponent or indirectly from a provincial or other agency with respect to proposed works or undertakings which may affect fish or fish habitat.

Activities related to the development and use of the HRTS includes:

- the addition of 138 new HMP users and another 74 users from other programs or sectors within the department, bringing the total number of system users at the end of the fiscal year to approximately 900.
- continued work on Phase 2 of the multi-year system modernization and re-development plan, with the implementation of Versions 4.2, 4.2a and 4.3 of the HRTS, which include features such as:

- web-based mapping, a new feature to provide staff the ability to build queries and display the results on a map using a web-based mapping tool developed especially for the HRTS;
 - a new module for tracking habitat training courses, sessions and participants;
 - initiating Phase 3 of the multi-year development plan, including moving the existing HRTS into new technology.
- continued work with focus groups and user sessions to determine additional changes and enhancements for continuation of Phase 3 of the re-development project in fiscal year 2003-2004.

Habitat Management Web Initiatives

The Habitat Management web initiatives were greatly expanded over the 2002-2003 fiscal year. This expansion responded to the need to provide accurate and timely information to DFO clients, and to support the federal goal of using information and communication technology to provide Canadians with enhanced access to information and services.

The former Fish HMP internet site was merged with the Oceans Canada site to form the sector-based Canadian Waters site. The Canadian Waters site was released to the public in December 2002, and includes information on Canada's oceans and fish habitat.

The Fish Habitat's Intranet site was redesigned into a client-oriented web site providing HMP staff from all regions with information they need to carry out their jobs in an efficient and effective manner. The site was expanded to include a detailed training module, a referral module, a bulletin board, and expanded services and administrative tools.

An Extranet site was jointly developed by the Canadian Electricity Association (CEA) and DFO to provide information to CEA and DFO staff implementing the CEA-DFO Memorandum of Understanding (for details refer to section 5.0 Community Outreach and Stewardship).

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp.

Newfoundland and Labrador

- Regional staff maintained and updated the Newfoundland and Labrador Freshwater Inventory, which includes key data for 365 river systems on the island portion of the province and 80 river systems in Labrador.

- Staff developed the Fish Habitat Compensation Inventory, which provides locations, descriptions, maps, pictures and diagrams of fish habitat compensation projects underway in the region.

Maritimes

- Regional staff worked to ensure that all referral files were shared in a timely fashion, under the Aquatic Works Proposal Review Consolidation initiative.

Quebec

- The region has continued to provide information to the Fish Habitat Management Information System. The system has greatly benefited from an agreement with the *Société de la faune et des parcs du Québec* to provide considerable information on freshwater fish habitat.
- The Interactive Atlas of coastal habitats and fisheries resources was developed in fiscal year 2002-2003 as a by-product of the information system. The atlas is expected to be made available on the internet in 2003.
- The region has developed a database of information related to the management of compensation projects implemented in Quebec for the loss of fish habitat. The database includes information on losses and gains of habitat, follow-up objectives, techniques used and final conclusions for each of the compensation projects. The database is expected to be fully operational in fiscal year 2003-2004, and will be updated on a continual basis.
- The region has developed an extranet site of the Environmental Assessment Issues Table, which includes 19 Quebec federal departments and agencies groups involved in environmental assessments. The extranet site will help increase and promote exchanges, including the sharing of documents developed by members of the Environmental Assessment Issues Table.

Central and Arctic

- The region continued to develop an internal web-site to provide information to DFO staff, in consultation with other DFO programs, including Science, the Canadian Hydrographic Service and the Canadian Coast Guard.
- Staff initiated a joint project with DFO's Great Lakes Laboratory for Fisheries and Aquatic Sciences to develop a fish species at risk mapping tool for Ontario.
- In partnership with the Conservation Authorities, DFO continued to develop a geographic information systems (GIS) map with information pertaining to municipal drains and fish habitat.

Pacific

- The region continued the development and implementation of GIS products throughout the region, including an internet-based mapping application that provides internal and external user access to more than 135 layers of fish habitat and species spatial data.
- Staff continued to work with the Province of British Columbia in the development of standardized methods for data compilation, quality assurance and integration of data and information.

8.0 Program Management

Sound program management is critical to strengthening the HMP. Program management tasks include business and work planning, training, financial administration, human resources management, and performance measurement and reporting.

National Highlights

National Training Program

The habitat management training strategy and action plan, developed as part of the Habitat Blueprint Initiative to strengthen the National HMP, has guided the development and implementation of a new National Habitat Management Training Program (NHMTP).

Major training activities in fiscal year 2002-2003 included:

- The establishment of a program management structure and development of core training course modules that support consistent delivery of regulatory activities and services under the *Fisheries Act* and the *Canadian Environmental Assessment Act*. A Train-the-Trainer course was also developed and then delivered in March 2003. The target audience was Habitat Management subject matter experts who would like to develop their facilitation skills in order to provide training of professional and technical courses.
- A total of 165 Habitat Management staff received a special training course on the HRTS.
- The National Habitat Management Training Steering Committee was established to coordinate the development and delivery of a national, competency-based training program to support the effective, efficient and consistent implementation of the National HMP. The committee will be responsible for ensuring that a curriculum of nationally consistent training modules for all key activities of the Program is established and that the training program is responsive to program priorities.

DFO initiated the development of a Results-Based Management and Accountability Framework (RMAF) for the HMP that is inclusive of all its regulatory and non-regulatory

activities. However, it has proposed to use a phased approach to achieve this goal, beginning with the development of an RMAF that focuses on regulatory activities associated with the administration and enforcement of section 35 of the *Fisheries Act* - activities that consume much of the resources allocated to the program. The section 35 RMAF is being developed and implemented in parallel with the implementation of the five point action plan that evolved from the new strategic directions established through both the HMP Blueprint exercise and the Departmental Assessment and Alignment Project (DAAP). This five point action plan includes measures intended to streamline regulatory review activities to focus program resources on works and undertakings posing the highest risk to fish habitat and to enable re-investment of savings to higher priority regulatory and non-regulatory activities.

Regional Highlights

Details on regional activities are available in supporting documents available electronically at: http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/measuring-mesures/reports-rapports/index_e.asp.

Newfoundland and Labrador

- Regional staff delivered a comprehensive forestry training package to employees in the forestry sector, outlining regional DFO policies and programs concerning the conservation and protection of fish and fish habitat, as well as various mitigative techniques pertaining to forestry activities.
- Staff continued delivering the Forestry and Fish Habitat Protection training package, with particular focus on the modules relating to fish and fish habitat, siltation and forestry impacts.

Maritimes

- The region initiated a project to identify low-risk project practices for use in Nova Scotia to streamline the number of referral reviews, building on the 20-year experience in New-Brunswick where watercourse alteration guidelines allow the responsible provincial agency to review certain types of projects based on established guidelines.
- The region established a Habitat Area Regional Committee to promote a consistent team approach to habitat sector activities among the regional and area offices, by bringing together staff from across the region to discuss issues, identify priorities and to develop action items to address problems and issues.

Central and Arctic

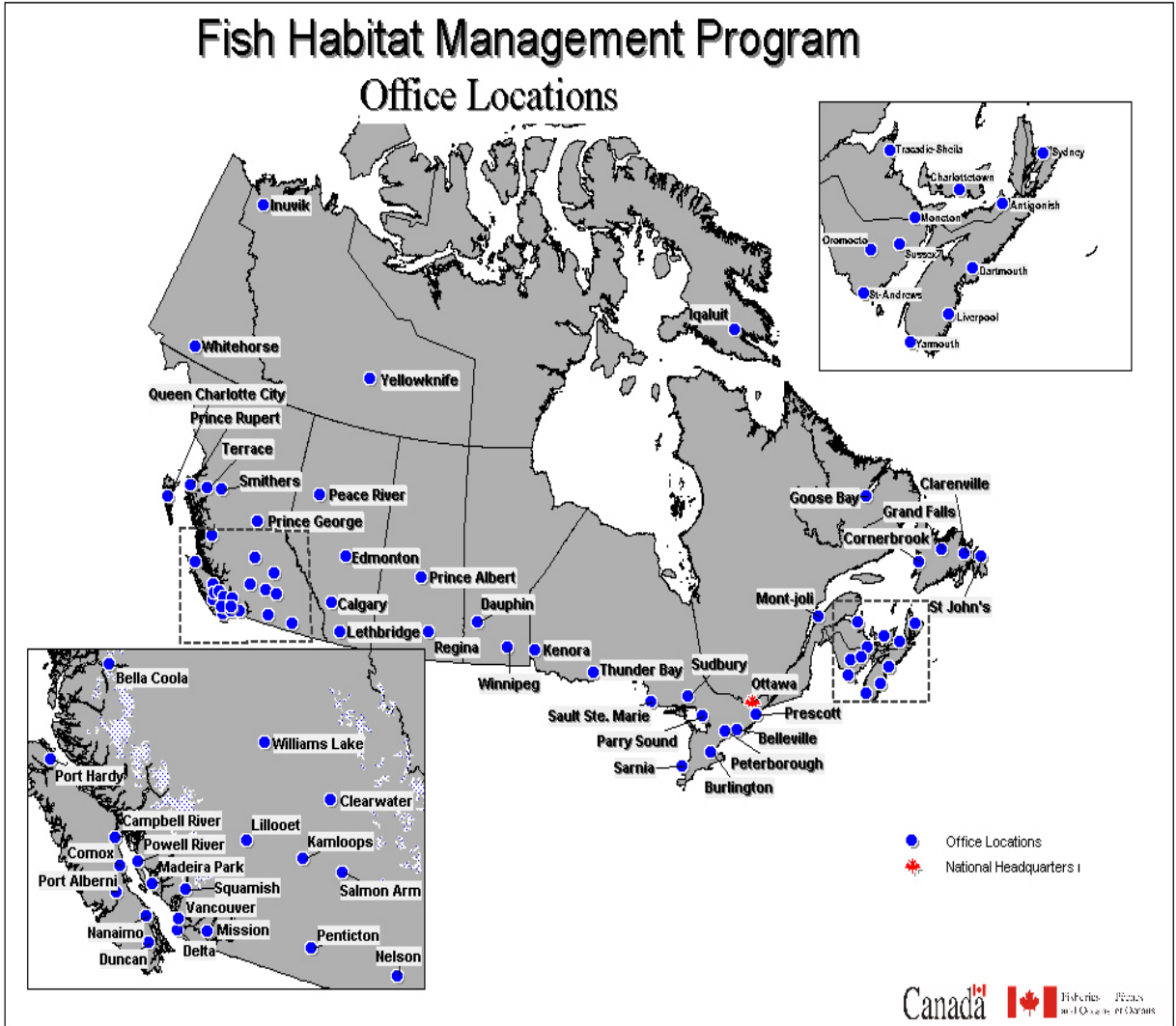
- The region's Prairies Area established an Area Habitat Team to provide advice, guidance and direction to area staff and to develop recommendations to senior management for improving the effectiveness, efficiency and regional consistency of the program.

- Staff was provided a training program on navigable waters protection to improve awareness of methods and procedures for the assessment of navigability and tracking of projects, and to provide an overview of the legislation and enforcement provisions of the NWPA.

Pacific

- The region undertook a strategic review to provide insight about the program's risk reduction opportunities, to improve the defensibility and transparency of decisions about program priorities, and to evaluate the costs and risk reduction benefits of alternative management programs.
- The region continued to examine and deal with the impacts of the British Columbia government's organizational and budget reductions that have resulted in program changes that impact its previous role in habitat management issues.
- Staff participated in a Habitat Management and Navigable Waters Protection cross-delivery pilot project to examine opportunities to improve the delivery of the two programs related to fish habitat matters.
- Staff provided habitat enforcement training courses to regional Habitat Management staff and fishery officers via the 'Regional Habitat Enforcement Course' and the 'Expert Witness Training Course'.

Map 1: Habitat Management Program's Regions and Offices



Annex 1: Habitat Protection and Pollution Prevention Provisions, *Fisheries Act*

Section	Intent
20	The Minister may require fishways to be constructed.
21	The Minister may authorize payment, order construction or removal or require fish stops or diverters for fishways.
22	The Minister may require sufficient flow of water for the safety of fish and flooding of spawning grounds as well as free passage of fish during construction.
26	Prohibits obstruction of fish passage through channels, rivers and streams. Also, the Minister may authorize devices to prevent the escape of fish.
27	Prohibits the damage or obstruction of fishways, the impediment of fish to fishways and nearby fishing.
28	Prohibits the use of explosives to hunt or kill fish.
30	The Minister may require fish guards or screens to prevent the entrainment of fish at any water diversion or intake.
32	Prohibits the destruction of fish by any means other than fishing.
34	Definitions used throughout sections 35 to 42.
35	Prohibits works or undertakings that may result in harmful alteration, disruption or destruction of fish habitat, unless authorized by the Minister or under regulations.
36	Prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized under regulations.
37	The Minister may request plans and specifications for works or undertakings that might affect fish or fish habitat. The Minister may, by regulations or with Governor-in-Council approval, make orders to restrict or close works or undertakings that may harmfully alter fish habitat or lead to the deposit of deleterious substances.
38	Gives the Minister the authority to appoint inspectors and analysts and describes inspectors' powers, including entry, search and the power to direct preventive, corrective or cleanup measures. Provides for regulations that require reporting of abnormal deposits of a deleterious substance or substances that occur in contravention of the general prohibition, regulations or site-specific authorizations.
40	Sets out penalties in case of a contravention of: sections 35 or 36; failing to provide information or to undertake a project in compliance with section 37; or failing to make a report or to otherwise comply with section 38.
42	Those causing the deposit of deleterious substances in waters frequented by fish are liable for costs incurred by Her Majesty. Also, the Minister shall prepare an annual report on administration and enforcement of the fish habitat protection and pollution prevention provisions of the <i>Fisheries Act</i> as well as a statistical summary of convictions under section 42.1.
43	The Governor in Council may make regulations for carrying out the purposes and provisions of the <i>Fisheries Act</i> , including habitat protection and pollution prevention.

List of Abbreviations

C&P	Conservation and Protection
CEA	Canadian Electricity Association
CEAA	Canadian Environmental Assessment Act
CEPA 1999	Canadian Environmental Protection Act, 1999
CSSP	Canadian Shellfish Sanitation Program
DAAP	Departmental Assessment and Alignment Project
DFO	Fisheries and Oceans Canada
EC	Environment Canada
FAPAQ	Société de la faune et des parcs du Québec
GIS	Geographic information systems
HADD	Harmful alteration, disruption or destruction
HMP	Habitat Management Program
HRTS	Habitat Referral Tracking System
km	kilometres
km ²	kilometres square
NEBA	National Energy Board Act
NEMISIS	National Enforcement Management Information System and Intelligence System
NHQ	National Headquarters
NWPA	Navigable Waters Protection Act
OGLA	Ontario Great Lakes Area
RMAF	Results-Based Management and Accountability Framework
SARA	Species at Risk Act
SRA	Sackville River Association