

ANNUAL REPORT 2001-2002

**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 2001-2002.

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

Canada

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

Dear Mr. Bélisle:

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 2001-2002.

In conformity with the requirements of the Act, these copies are for tabling in the Senate.

Yours truly,

Geoff Regan

Attachments

Canada

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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 1986 *Policy for the Management of Fish Habitat*¹ (Habitat Policy) provides guidance in the application of the habitat protection and pollution prevention provisions of the *Fisheries Act* through implementation strategies that support the conservation and protection as well as its restoration and development.

Within DFO, day-to-day delivery of the responsibility for the administration and enforcement of the habitat protection provisions of the *Fisheries Act* is shared between Oceans Sector's Habitat Management and Fisheries Management Sector's Conservation and Protection (C&P), supported by the Science Sector.

Section 42.1 of the *Fisheries Act* requires the Minister of Fisheries and Oceans to table a report in Parliament on the Administration and Enforcement of the Fish Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act* (Annual Report to Parliament), as soon as possible after the end of each fiscal year. This report provides an opportunity to communicate the achievements of DFO, EC and its partners in the conservation and protection of fish habitat as well as in its restoration and development. It is through this report that Parliamentarians and the public can witness how various partners work together to contribute to healthy and productive fish habitats and sustain fisheries in Canadian waters. This is the 11th Annual Report tabled in Parliament.

The content of the Annual Report to Parliament has evolved over the years and will continue to do so as we develop and establish measures that align with the government-wide effort to improve its reporting to Canadians on the performance of its programs.

This report provides a summary of key activities for fiscal year 2001-2002 (April 1, 2001, to March 31, 2002). The introductory section provides the following:

- background on the legal basis for the conservation and protection 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/canwaters-eauxcan/infocentre/legislation-lois/policies/fhm-policy/index_e.asp.

- a summary of DFO's Habitat Policy; and
- an overview of the mandate and operations of DFO's Habitat Management Program and the Pollution Prevention Program of EC.

The rest of the report provides highlights of results achieved in DFO's National Habitat Management Program and in EC's Pollution Prevention Program under the Key Activities of the Habitat Policy.

Further details on national and regional activities of the two programs are provided in the Supporting Documents, available on DFO's website:

http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/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 *Fisheries Act*. The Act contains provisions allowing the federal government to make decisions for the conservation and protection of fish habitat, mainly section 35, essential to sustaining freshwater and marine fisheries resources that provide Canadians with significant economic, social and environmental benefits. Other provisions of the *Fisheries Act* provide for the protection of fish (e.g., sections 20, 21, 22, 32); authorize the Minister to appoint inspectors and analysts; describe inspectors' powers (including entry, search, and direction of preventive, corrective or cleanup measures); describe offences and punishment; and determine liability when a deleterious substance has been deposited.

Under the *Fisheries Act* (subsection 34.1), fish habitat is defined 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."

The *Fisheries Act* is considered to be one of the strongest pieces of Canadian legislation that can be applied for the conservation and protection of aquatic ecosystems. The habitat protection and pollution prevention provisions of the *Fisheries Act* are listed in Annex 1.

Section 35, the key habitat protection provision of the 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 Fisheries and Oceans 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.

The administration and enforcement of the pollution prevention provisions of the *Fisheries Act* is the responsibility of Environment Canada. Section 36 provides the authority to designate substances as “deleterious”, to set limits for their discharge, to create regulations, and to designate those who can make site-specific authorizations and the conditions under which these authorizations may be granted. Regulations to authorize certain deposits have been established pursuant to section 36 (e.g., pulp and paper and metal mining effluents).

“Subject to subsection 36(4) of the *Fisheries Act*, no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.”

1.2 Policy for the Management of Fish Habitat

The *Fisheries Act* provides broad powers to conserve and protect fish habitat. In administering the habitat protection provisions of the Act, DFO is guided by the Habitat Policy. Established in 1986, the Policy provides a mix of regulatory and proactive strategies that, together, support the concepts of sustainable development and ecosystem approach. The Habitat Policy also applies to the pollution prevention provisions of the Act administered and enforced by EC.

The overall objective of the Habitat Policy is to “increase the natural productive capacity of habitat for the nation’s fisheries resources” (i.e., 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 first and foremost habitat objectives must be linked and integrated with fish production objectives. It also recognizes other sectors of the economy make legitimate demands on water resources. The Habitat Policy promotes 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” that supports the conservation goal and is applied when proposed “works or undertakings” result in a HADD of fish habitat. Prior to the issuance of 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 restored and/or newly created or enhanced 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, compensation² is not an option.

1.3 The National Habitat Management Program

The mandate of the National Habitat Management Program is to ensure the conservation and protection of fish habitat that sustain fresh and marine fisheries resources that Canadians value. As a result of the enactment of the *Canadian Environmental Assessment Act*³ (CEAA) in 1995, the Program was assigned responsibilities to conduct environmental assessments of development proposals requiring certain regulatory decisions under the Acts administered by the Department.

The Program’s activities are organized as follows:

- Regulatory;
- Freshwater and Oceans Planning;
- Habitat Enhancement;
- Community Outreach and Stewardship;
- Scientific Support;
- Information Management; and
- Program Management.

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

Delivery of activities associated with compliance and enforcement of the habitat protection provisions of the *Fisheries Act* is undertaken by Fishery Officers from DFO’s C&P Program. Scientific support, including research, scientific advice and monitoring, is provided by scientists of the department’s Science Sector. The remaining activities are the responsibility of the Ocean Sector’s Habitat Management Program.

The major focus of the Program is on regulatory activities. These include: the review of development proposals (referrals); compliance monitoring and enforcement of the habitat protection provisions of the *Fisheries Act*; and conducting environmental assessments under CEAA prior to making decisions under section 35 of the *Fisheries Act*, or prior to issuing

² See Glossary in the *Policy for the Management of Fish Habitat* for definition of compensation <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/legislation-lois/policies/fhm-policy/gloss_e.asp>.

³For more details, see <<http://laws.justice.gc.ca/en/C-15.2/index.html>>.

certain approvals under the *Navigable Waters Protection Act* (NWPA) or the *National Energy Board Act* (NEBA).

National Headquarters staff are responsible for the overall coordination of the delivery of the program. They provide national policy direction, strategic advice and liaison with other departmental sectors, federal departments and national industry 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: 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 (covering British Columbia and the Yukon). See Map 1 at the end of this report.

On June 18, 2001, the Minister announced the creation of the Gulf Region, which meant that specific departmental programs in the Maritimes Region would be realigned under the Gulf Region, including programs in the Oceans Sector.

Although the actual financial transfer occurred as of April 1st, 2002, Gulf Region assumed responsibility for *Fisheries Act* and CEAA reviews of aquaculture sites and applications in Prince Edward Island, as well as the environmental assessment related to the Petitcodiac Causeway, as of August 1, 2001.

To ensure consistent reporting for fiscal year 2001-2002, Maritimes Region took the lead in preparing this Report, with contributions from the Gulf Region pertaining to Gulf activities.

In an effort to strengthen the National Habitat Management Program, a Blueprint Initiative was launched in fiscal year 1999-2000 as a direct response to DFO's Strategic Plan to restore confidence and credibility, renew mandates and improve organizational effectiveness. In fiscal year 2001-2002, the Habitat Management Program continued its efforts to address the four priorities that resulted from the Habitat Blueprint Initiative. These 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.

The Minister of DFO has the legislative responsibility for the administration and enforcement of the *Fisheries Act*. In 1978, the Prime Minister gave to EC, the administration and

enforcement responsibilities of those aspects of the Act that prevent pollution of Canadian fishery waters (section 34 and sections 36 to 42 inclusively). In this context, EC works to: advance pollution prevention technologies; promote the development of preventative solutions; and work with the provinces, territories, industry, other government departments and the public on issues relating to the pollution provisions of the *Fisheries Act*.

The central pollution prevention provision is found in subsection 36(3) of the Act, and is commonly referred to as the “general prohibition”. This subsection prohibits the deposit, into fish-bearing waters, of substances that are deleterious to fish. The “general prohibition” provision can include harmful plant effluents and runoff of pesticides or fertilizers from land or individual substances deposited to water. Subsection 36(4) of the *Fisheries Act* provides for authorization to discharge deleterious substances by means of regulations under subsection 36(5) of the *Fisheries Act* or under other legislation. Environment Canada regularly consults with DFO on the development of regulations under subsection 36(5) as it is the Minister of DFO that has the responsibility to bring before Cabinet all proposed regulations under the Act.

Environment Canada, in collaboration with DFO, has regulated six sectors under subsection 36(5) of the *Fisheries Act*: pulp and paper; metal mining; meat/poultry processing; potato processing; chlor-alkali mercury plants; and petroleum refineries. There is also one site-specific regulation governing the effluent from a pulp and paper mill at Port Alberni in British Columbia⁴. These regulations define deleterious substances and set discharge limits. Discharges that exceed those limits are in violation of subsection 36(3) and charges can be laid by EC’s Fishery Inspectors /Officers under those regulations. In addition, where no regulations exist, all discharges must comply with the general prohibition in subsection 36(3).

Over the years, EC has developed several programs to complement the six regulated sectors. The accomplishments and results of these programs are detailed in EC’s Supporting Document available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Environment Canada’s regional enforcement activities related to the *Fisheries Act* are administered through five regional offices located across Canada: Atlantic (New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador); Quebec; Ontario; Prairie and Northern (Alberta, Saskatchewan, Manitoba, Nunavut and Northwest Territories; Pacific and Yukon (British Columbia and Yukon). **See Map 2.**

⁴ Stricter limits were required for the effluent from the Port Alberni Pulp and Paper mill because of environmental conditions at the site.

2.0 Regulatory Activities

Regulatory activities of DFO's National Habitat Management Program include:

- reviewing proposed works or undertakings ("referrals") that may affect fish habitat;
- monitoring compliance and applying enforcement in cases of non-compliance with the habitat protection provisions of the *Fisheries Act*;
- conducting environmental assessments; and
- developing regulations, policies and guidelines related to the habitat protection provisions of the *Fisheries Act*.

2.1 Review of Development Proposals (Referrals)

Regional Highlights

Examples of regional activities during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Table 1 summarizes the number of referrals (by work category) submitted to DFO for review. Table 2 summarizes the number of authorizations issued and letters of advice provided by regions.

REGION	Work Categories										
	Aqua-culture	Forestry	Instream Works	Land Use	Mining	Oil & Gas	Roads	Shoreline Works	Water Mgmt	Other*	Total
Newfoundland	62	44	217	479	10	8	305	258	12	54	1449
Maritimes	94	47	427	56	3	16	378	436	18	73	1548
Quebec	12	0	26	11	2	4	87	104	75	30	351
Central & Arctic	1	21	963	190	185	552	928	1123	183	290	4436
Pacific	111	726	775	700	646	27	502	780	127	249	4643
TOTAL	280	838	2408	1436	846	607	2200	2701	415	696	12427

*Note: "Other" includes referrals identified with Work Categories of Deleterious Substances, Hazardous Materials, Research, Ocean Management, Ocean Dumping, Power Projects, Railway, Seismic Activities and Class Screenings of Habitat Restoration projects.

Table 2			
Authorizations and Advice Reported: FY 2001-2002			
REGION	Authorizations	Advice Provided to Proponent or Others	TOTAL
Newfoundland	1	872	873
Maritimes	7	1008	1015
Quebec	28	113	141
Central & Arctic	330	3311	3641
Pacific	72	1618	1690
TOTAL	438	6922	7360

Note: Table 2 is a summary of all “decisions” as recorded in the Habitat Referral Tracking System. Advice provided to proponents or others include advice provided in writing to: federal agencies, provincial/territorial/other agencies, letters of advice to proponents, letters of approval 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.

Newfoundland

- Of the 1,449 referrals received by the Region, approximately 72% were related to land use, roads and shoreline works. Another 22% were related to instream works, forestry and aquaculture.
- Staff provided advice in 872 cases and issued one authorization.

Maritimes

- Instream, road and shoreline works comprised 80% of the 1,548 referrals received by the Region. Staff provided advice in 1,008 cases, and issued seven authorizations.

Quebec

- Road and shoreline works comprised 54% of the 351 referrals received by the Region; referrals related to aquaculture, water management or instream works accounted for 32% of the total.
- Staff provided advice in 113 cases and issued 28 authorizations. Other referrals dealt with forestry, land use and oil & gas.

Central and Arctic

- The majority of the 4,436 referrals received by the Region were for projects involving shoreline works and instream works (47% combined); road-related projects were the third most common, with 21%, followed by oil and gas projects with 12%. Other referrals dealt with aquaculture, forestry, land use, mining and water management.

- Staff issued authorizations in 330 of the cases, and provided advice in another 3,311, a 72% increase from the previous year.

Pacific

- The four most common work categories of the 4,643 projects referred were shoreline works, in-stream works, forestry and general land use which represented 64% of referrals. Mining and road work accounted for 25%.
- The region issued 72 authorizations (for about 2% of referrals) and 1,618 letters of advice (for about 96% of referrals). These proportions are approximate as any single referral may generate one or more authorizations or letters of advice or both.

2.2 Compliance and Enforcement

National Highlights

National Headquarters' C&P Program is responsible for monitoring compliance with legislation and regulations regarding the conservation of fisheries resources and fish habitat. The Minister of DFO appoints Fishery Officers to enforce fisheries regulations and management plans as well as the habitat provisions of the *Fisheries Act*. In addition to protecting fish habitat, Fishery Officers conduct at-sea patrols in coastal and inshore areas, monitor catches, conduct forensic investigations and audits, conduct inland patrols and provide information to fishermen regarding government policies and regulations. The enforcement and compliance monitoring activities of Fishery Officers are vital to the Habitat Management Program and are key to protecting Canada's fish and fish habitat.

Six Guiding Principles govern the application of the *Fisheries Act* in this regard and are identified in the new *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act*. The Policy was co-developed by DFO and EC and published in November 2001. <http://www.ec.gc.ca/ele-ale/policies/c_and_e_fisheries_act/main_e.asp>.

The Guiding Principles are as follows:

- Compliance with the habitat protection and pollution prevention provisions and their accompanying regulations is mandatory.
- Compliance will be encouraged through communication with parties affected by the habitat protection and pollution prevention provisions.

- Enforcement personnel will administer the provisions and regulations in a manner that is fair, predictable, and consistent. Rules, sanctions and processes securely founded in law will be used.
- Enforcement personnel will administer the provisions and accompanying regulations with an emphasis on preventing harm to fish, fish habitat or human use of fish caused by physical alteration of fish habitat or pollution of waters frequented by fish. Priority for action to deal with suspected violations will be guided by:
 - ⇒ the degree of harm to fish, fish habitat or human use of fish caused by physical alteration of fish habitat or pollution of waters frequented by fish, or the risk of that harm; and/or
 - ⇒ whether or not the alleged offence is a repeat occurrence.
- Enforcement personnel will take action consistent with this *Compliance and Enforcement Policy*.
- The public will be encouraged to report suspected violations of the habitat protection and pollution prevention provisions of the *Fisheries Act*.

Enforcement Activities and Convictions for the Gulf Region are presented separately in this section.

Table 3 summarizes the range of enforcement activities of DFO and EC in fiscal year 2001-2002.

Table 4 presents a regional summary of 29 convictions under the habitat provisions of the *Fisheries Act* reported during fiscal year 2001-2002. Details are provided in regional Supporting Documents available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Table 3			
Summary of DFO Enforcement Activities			
FY 2001-2002			
REGION	Warnings Issued	Charges Laid	Charges Pending
Newfoundland	16	0	4
Maritimes	4	0	11
Gulf	28	3	15
Quebec*	7	2	0
Central & Arctic	52	9	33
Pacific	135	40	107
Environment Canada			
	47	0	0
TOTAL	289	54	170

*Since the methods for compiling statistical data agreed upon by the Quebec Wildlife and Parks Corporation differ slightly from those of DFO, they are not reported in this table. For more details, please refer to the Supporting Document of the Quebec Region.

Table 4				
Convictions Reported under the <i>Fisheries Act</i>				
FY 2001-2002				
REGION	Sections of the <i>Fisheries Act</i>			
	35(1)	36(3)	38(6)	TOTAL
Newfoundland	0	0	0	0
Maritimes	4	0	0	4
Gulf	3	0	0	3
Quebec	2	0	0	2
Central & Arctic	0	0	0	0
Pacific	4	10	4	18
PROVINCES				
Quebec	1	1	0	2
British Columbia	0	0	0	0
Environment Canada				
	0	0	0	0
TOTAL	14	11	4	29

Note: The number of convictions from Environment Canada reported in the Annual Report for fiscal year 2000-2001 should be two (2) and not 12.

Regional Highlights

Newfoundland

There were no convictions in the Newfoundland Region under the habitat protection provisions of the *Fisheries Act* in fiscal year 2001-2002. Four charges are pending and C&P staff issued 16 warnings under subsection 35(1) of the *Fisheries Act*. As well, one prosecution against a forestry company under subsection 35(1) is underway as a result of a siltation incident.

Maritimes

Ten incidents developed into violations of the *Fisheries Act* (two of these were multiple violations) while several investigations of cases that began in previous years carried over into this fiscal year for a total of 19 violations (4 warnings; 11 charges pending; 4 convictions). The majority of violations dealt with rural and urban developments and many waterfront developments by commerce, industry and the general public.

Gulf

There were three convictions made in the Gulf Region under subsection 35(1) of the *Fisheries Act* in fiscal year 2001-2002. Convictions involved forestry operations as well as dam construction. Conservation & Protection staff have 15 charges pending and issued 28 warnings under subsection 35(1).

Quebec

Due to pressures on C&P to monitor and control commercial fishery and poaching activities, no regular monitoring was carried out by the Fishery Officers to ensure compliance with the fish habitat protection provisions of the *Fisheries Act*.

During fiscal year 2001-2002, there was an increase in cases concerning fish habitat that needed to be investigated by Fishery Officers. C&P has very little surveillance capacity and cannot insure a minimal follow-up of cases involving fish habitat because of a lack of personnel.

DFO Fishery Officers conducted nine investigations in fiscal year 2001-2002, resulting in seven warnings and two violations. The main cases brought to court during fiscal year 2001-2002 are summarized in the Supporting Document for the Quebec Region.

Central and Arctic

No convictions were given under the habitat provisions of the *Fisheries Act* in fiscal year 2001-2002. A total of 52 warnings were issued, nine charges laid while 33 are still pending.

Pacific

A total of 18 convictions resulted in this fiscal year. The region issued 135 warnings, laid 40 charges while 107 are still pending.

2.3 Pollution Prevention Provisions

This section provides highlights of the enforcement program activities of Environment Canada (EC) for the *Fisheries Act* in fiscal year 2001-2002. Details are provided in EC's Supporting Document available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Municipal Sector

During fiscal year 2001-2002, EC focused on the development of a risk management strategy addressing ammonia, inorganic chloramines and chlorinated wastewater effluents. These substances meet the definition of a "toxic substance" under the *Canadian Environmental Protection Act* 1999 and are also considered harmful to fish under section 34 of the *Fisheries Act*.

Pulp and Paper Mills

In fiscal year 2001-2002, EC worked on amendments to the *Pulp and Paper Effluent Regulations* (PPER). The amendment necessary for the signing of the proposed Canada-Quebec administrative agreement is to be pre-published in the *Canada Gazette* Part I in June, 2002 for public review and comments. A general amendment to the PPER is underway to streamline and improve the regulations without altering the values of the discharge limits that currently exist. Both amendments are expected to be published in the *Canada Gazette* Part II in late fiscal year 2002-2003.

⇒ **Environmental Effects Monitoring (EEM).** The EEM program falls under the PPER of the *Fisheries Act*. During the reporting period, the PPER required 121 pulp and paper mills to conduct regular EEM studies on their receiving environments in order to assess and monitor effects that may be caused by the mills' effluent.

Metal Mines

As part of its compliance promotion program, EC developed a status report on the prevention and control of water pollution in the Canadian metal mining industry. The report was provided to stakeholders and the public in July 2001. A performance report covering the period of 1999-2000 is expected to be published in the summer of 2002.

Shellfish Water Quality Protection

Environment Canada, Fisheries and Oceans Canada and the Canadian Food Inspection Agency are responsible for the Canadian Shellfish Sanitation Program. As of April 2001, over 11,500 square kilometres of shellfish areas were classified as approved for harvesting. Approximately 3,300 square kilometres were classified as closed.

Environmental Assessments

Many proposed projects that are required to undergo environmental assessments under the *Canadian Environmental Assessment Act* (CEAA) include a review of the potential impacts under the pollution prevention provisions of the *Fisheries Act*. In EC's Ontario Region, six sewage treatment proposals were reviewed in fiscal year 2001-2002 under the Canada Infrastructure Program. In EC's Prairie and Northern Region, over 500 projects were reviewed for potential water quality impacts and *Fisheries Act* implications.

Contaminated Sites

In EC's Yukon Region, in association with partners in the Georgia Basin Ecosystem Initiative, a Pesticide Return program was established so that local agricultural producers could return their pesticides at no cost. By the end of fiscal year 2001-2002, 55,000 kg of unwanted pesticide within the Georgia Basin, in British Columbia were collected and safely destroyed.

In EC's Pacific and Yukon Region, numerous site assessments and remediation projects were reviewed including abandoned mines. Compliance requirements were also negotiated with DFO and the Province of British Columbia.

Pollution Prevention

The Pollution Prevention (P2) and Non-Point Source Pollution are broad-based initiatives aimed in-part to use various instruments to avoid or minimise the creation of pollutants and waste, as opposed to strictly managing wastes after they have been created. As a result, stakeholders are better able to adopt pollution prevention attitudes and practices to meet the intent of the *Fisheries Act*. In fiscal year 2001-2002, a number of activities such as the development of manuals, presentations and meetings with key stakeholders took place.

Enforcement Program

In fiscal year 2001-2002, the total number of inspections across Canada increased approximately 5%, from 3,353 to 3,513. In addition to the planned inspections, EC's enforcement officers, who are designated as Fishery Inspectors, also responded to events such as on-scene spill inspections, tips, complaints and referrals.

Bilateral Agreements

During fiscal year 2001-2002, EC maintained and operated bilateral agreements with the provinces of Alberta, Saskatchewan and Quebec. The agreements provide for “a work-sharing arrangement for the cooperative administration of section 36 of the *Fisheries Act*.” Please refer to EC’s Supporting Document for more details.

2.4 Environmental Assessments

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

In addition to EAs arising from triggers under the *Fisheries Act*, the Habitat Management Program is also responsible for EAs required as a result of certain regulatory decisions under the *Navigable Waters Protection Act* (NWPA) and/or the *National Energy Board Act* (NEBA), administered by DFO’s Canadian Coast Guard.

National Highlights

In fiscal year 2001-2002, 828 EAs were started as a result of the *Fisheries Act*, the NWPA and/or the NEBA. Table 5 provides a summary of EAs initiated, completed and ongoing in each region in fiscal year 2001-2002.

Table 5 Environmental Assessments by DFO Regions (where Habitat Management is a Responsible Authority) Fiscal Year 2001-2002			
REGION	EAs Started (1)	EAs Ongoing (2)	EAs Concluded or Cancelled (3)
Newfoundland	50	29	47
Maritimes	87	76	62
Quebec	60	79	59
Central & Arctic	404	182	393
Pacific	227	272	147
TOTAL	828	638	708

(1) EAs started between April 1, 2001 and March 31, 2002

(2) EAs on-going as of March 31, 2002 (started at any time and not concluded or cancelled at March 31, 2002)

(3) EAs concluded or cancelled between April 1, 2001 and March 31, 2002 (regardless of when they were started)

Regional Highlights

Examples of regional activities during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Newfoundland

The region initiated 50 environmental assessments, concluded 47, and had 29 ongoing. Approximately 97% were pursuant to the *Fisheries Act* and all were at the screening level of assessment with the exception of one which was a comprehensive study. Projects included the following:

- Continuation of the Carole Mining Project - Luce Pit Development;
- Duck Pond Copper-Zinc Mining Project; and
- White Rose Offshore Oil Project.

Maritimes

This region initiated 87 environmental assessments, concluded 62, and had 76 ongoing projects. These included:

- Oil and natural gas exploration and development projects including the Deep Panuke Comprehensive Study Report;
- 100-Series highways in Nova Scotia and New Brunswick; and
- a number of shellfish and finfish aquaculture proposals throughout the region.

Quebec

This region initiated 60 environmental assessments, concluded 59, and had 79 ongoing. Projects included:

- construction of a dam and 526 MW hydroelectric power plant on the Toulnostouc River;
- Diversions of rivers Sault-aux-Cochons, Portneuf and Manouane towards the Bersimis hydroelectric plant;
- Construction of a golf course in the Leamy Lake Park – Hull;
- Building of marine infrastructures at Ivujivik and Kuujjuaq in Nunavut;
- Enlargement of the harbour of Grande-Entrée, Magdalen Islands; and
- Blue mussel farming project in Cascapédia Bay, in the Gaspé Peninsula.

Central and Arctic

This region initiated 404 environmental assessments, concluded 393, and had 182 ongoing. Projects included:

- BHPB Ekati Diamond Mine and the Cameron Hills Pipeline and gathering facility in the Arctic;
- the Manitoba Hydro Wuskwatim Generation Project in Manitoba, Fording Coal Mine and a number of new Oil Sands projects in Alberta; and
- The Port Hope Clean up Initiative, the Milton-Urban Development and Morningside Tributary Urban Development in Ontario.

Pacific

This region initiated 227 environmental assessments, concluded 147, and had 272 ongoing projects. More than 100 of the initiated projects were assessments of proposals for shellfish sites and finfish aquaculture tenure renewals and relocations. There was an increase of 155 ongoing projects from the previous fiscal year. Key projects included:

- Aishihik Hydroelectric Facility;
- Alcan - Tahtsa Narrows;
- Aquaculture Renewals and Relocations;
- Bella Coola Gravel Mine and Port (update);
- Brilliant Powerplant Expansion;
- Georgia Strait Pipeline Crossing;
- Nisga'a Highway;
- Seatech Float Fabrication Facility; and
- Tulsequah Chief Mine (update).

2.5 Regulations, Policies and Guidelines

National Highlights

The need for Standard Operating Policies to assist in achieving greater national consistency in decision making was identified as a high priority for fiscal year 2001-2002. Following national consultations with Habitat Management staff, the *Practitioners Guide to Habitat Compensation* is scheduled to be released for implementation by regions in fiscal year 2002-2003.

Three additional policy documents have also been identified to achieve greater national consistency:

- Practitioner's Guide for Writing Letters Used in *Fisheries Act* Reviews;
- Practitioner's Guide to Writing a *Fisheries Act* subsection 35(2) authorization; and
- Guidance on the determination of Harmful Alteration, Disruption or Destruction of Fish Habitat.

The next step will be to complete the above documents and consolidate them into a Standard Operating Policy document.

Five-Year Review of the Canadian Environmental Assessment Act

Many of DFO's recommendations to improve CEAA were included in the government's report and Bill C-19 to amend CEAA, both of which were tabled in Parliament on March 20, 2001. DFO's recommendations included having the Canadian Environmental Assessment Agency coordinate environmental assessments and having a greater involvement of other departments in the implementation of mitigation measures. The Standing Committee on Environment and Sustainable Development continues its review of Bill C-19. It is expected to take more than one year before the Bill becomes law.

Regional Highlights

Examples of regional activities in this area during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents and are available electronically at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland

- A marine habitat classification system was under development in fiscal year 2001-2002 to assist proponents and habitat managers in quantifying the harmful impacts on fish habitat resulting from various project developments within the marine environment. A guideline to aid proponents develop proposals entitled '*Standard Methods Guide for the Classification/Quantification of Lacustrine Habitat in Newfoundland and Labrador*' was published.

Quebec

- The Quebec region did not develop new regulations, policies or guidelines during fiscal year 2001-2002, nor did it amend any such existing documents.

Central and Arctic

- Agricultural Drain Maintenance Guidelines are being developed through a federal-provincial Drainage committee in Manitoba. The Guidelines will streamline the drainage approval process through classifying drains according to their fish habitat value. The

region contributed financial resources to undertake the classification and inventory fieldwork.

Pacific

- Contributed to new national *Metal Mining Liquid Effluent Regulations* proposed by EC, to replace the existing regulations in place since 1977.
- The region completed a revision of its regional habitat prosecution procedures for staff, and implemented the new procedures in the fall of 2001.
- Developed regional policies and guidelines regarding aquaculture, ballast water management, bridge painting, stream crossings for logging roads, and seawall construction.

3.0 Freshwater and Oceans Planning

Freshwater and oceans planning activities involve the integration of fish habitat objectives with fish production objectives and the consideration of these in other uses of water. Through participation in planning processes, consensus can be achieved or denied, and habitat requirements can then be factored into other uses of land and water.

Regional Highlights

Examples of regional activities in this area during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland

- Collaborated 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;
- As a partner of the Western Newfoundland Model Forest, Habitat staff worked with 17 other groups to ensure the sustainable management of forest resources;
- Participated in urban and municipal planning exercises to incorporate appropriate habitat protection measures into their plans;
- Represented the Department on several Environmental Advisory Groups for projects such as Argentia Remediation and Davis Inlet Relocation; and

- Participated in a multitude of internal and external committees including oceans planning initiatives pertaining to the development of Large Oceans Management Areas in the Newfoundland Region.

Maritimes

- Partnered with the Department of National Defence at the Canadian Forces Base Gagetown, in New Brunswick, in development of a long-term strategy to restore habitat and achieve fish habitat objectives for the area; and
- Supported the work of the James River Watershed Planning Board in Nova Scotia. This Board is made up of partners from the Town of Antigonish, industry, the public and regulators. They manage the watershed area for the Town of Antigonish to maximize water quality and minimize the impact on the environment in the watershed area.

Quebec

- Continued to participate in the two components of the [Saint-Laurent Vision 2000](#) (SLV 2000) that deal directly with fish habitat enhancement: the “[Community Involvement](#)” component, and the “[Biodiversity](#)” component. These committees are composed of stakeholders from the resource and environmental management sectors of the federal and provincial governments.
- Participated in various interdepartmental committees, such as the Environmental Assessment Issues Table and the Interdepartmental Committee on Environmental Assessment, composed of various federal authorities involved in environmental assessment in Quebec.
- Participated in many integrated coastal zone management projects in the Magdalen Islands, in the Gaspé Peninsula and on the North Shore involving federal and provincial government departments, municipalities, industries, Aboriginal communities and various stakeholders.
- Participated in the development and the implementation of the Saguenay-St. Lawrence Marine Park Ecosystem Conservation Plan in which many stakeholders from the federal and Quebec government departments participate.

Central and Arctic

- Participated with aboriginal communities in the Western Arctic to develop valued ecosystem components for conservation and protection of fish and fish habitat. Cooperative effort is geared towards establishing long-term funding to manage cumulative effects of development in the Northwest Territories.
- Participated on the Cumulative Effects Management Association for the Oil Sands Region in Alberta.

- Contributed in-kind and financial support for four major watershed planning initiatives in Ontario. The integrated resource management plans will provide a comprehensive approach to managing aquatic resources.

Pacific

- Continued to collaborate with BC Hydro and stakeholders to develop Water Use Plans (WUPs) as a condition of existing provincial water use licences for hydroelectric power. WUPs have been completed for the Alouette, Stave, Bridge/Seton, Cheakamus, Seven Mile and Jordan facilities. All of these plans call for operating changes that should significantly improve fish habitat productive capacity.
- The Canada and British Columbia Agreement for the Management of Pacific Salmon Fishery Issues (1997) committed both governments to work jointly in watershed-based fish production planning processes. Pilot Watershed-based fish sustainability planning projects include the Skeena, Salmon, Nimpkish, Taku, Morice, and Bella Coola watersheds. Phase II of the plan awaits funding.

4.0 Habitat Enhancement

Fisheries and Oceans Canada seeks to achieve its policy objective of “net gain” in the productive capacity of fish habitat by supporting conservation and 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.

Regional Highlights

Examples of regional activities in habitat enhancement during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Maritimes

- Coordinated a partnership of governments, industry and community groups proposing 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.
- Partnered with the Petitcodiac Watershed Monitoring Group and the Sentinelles Petitcodiac Riverkeepers on the Halls Creek Watershed Rehabilitation Project in New Brunswick, providing technical advice on removing hazardous debris, conducting a habitat survey, identifying pollution sources, and preparing a restoration plan.

- Continued to work with community partners in the pilot project launched in 1997 to restore and manage the River Denys watershed on the Bras d'Or Lakes in Nova Scotia, where activities included habitat restoration in the upper watershed by a stewards group, water sampling, habitat mapping and shoreline surveying.

Quebec

- Through its involvement in the SLV 2000 Action Plan, DFO has provided technical, scientific and financial assistance which has made it possible to conduct various studies or to take measures to enhance fish habitat.
- Current data regarding the habitats, resources and uses of the Gaspé Bay were indexed and mapped in order to circulate information among the population and foster a more sound management of the bay as a whole.
- A follow-up campaign on the Bonaventure barachois focused on precise biophysical parameters in order to assess environmental modifications due to restoration measures implemented at the end of the 90s. A report on this subject will be produced during the winter of 2003.
- In Saguenay, research on locating the principal rainbow smelt spawning area continued in order to effectively protect this critical habitat. The results strongly suggest that the next steps carried in 2002 will lead to achieving the objective of this initiative.
- In the Magdalen Islands, various activities enabled the characterization and the improvement of the coastal areas of the lagoons. For example, the clean-up of the banks of the lagoon of Havre-aux-Basques and Grande-Entrée and the various steps taken to clean up Petite baie and Baie du Bassin.

Central and Arctic

- Administered approximately \$200K of a fish habitat compensation fund established as a condition of a subsection 35(2) authorization issued to BHP Billiton for the Ekati Diamond Mine in the Northwest Territories. The fund, initially established with \$1.5M, is to be used to fund habitat restoration and enhancement projects in the Northwest Territories, to offset habitat losses associated with the diamond project.
- Participated on the Brokenhead River Restoration Committee in Manitoba and the Bow River Fish Habitat Protection and Enhancement Project in Alberta. A fisheries enhancement evaluation for the Brokenhead River was conducted and the Committee determined the top five priority sites would be restored in the coming year. Important reaches within the Bow River were identified for enhancement.
- Involved in the review of the Oshawa Second Marsh restoration project proposed in Ontario. This project will result in a net gain of 5, 530 square metres of fish habitat that will be created by providing a more direct migration corridor for salmonids to access

headwater spawning habitats. The new channel will have added habitat features and a fishway constructed to facilitate access of other fish species.

Pacific

- About 36,000 m² of riffle/pool and 20,000 m² of slough rearing habitat were restored by installing a culvert at Steinhoe Creek near Terrace to restore access for salmon for the first time in over 90 years. CN Rail paid for all project costs, an estimated \$350,000.
- Within the Kamloops City limits, three levels of government, First Nations, a Community Stewardship Group and private landowners cooperated to re-plant and fence over six kilometres of river bank on the North and South Thompson Rivers.

5.0 Community Outreach and Stewardship

The Community Outreach and Stewardship Key Activity focuses on involving whole communities in the conservation, protection and enhancement of fish habitat. Communities are typically comprised of business and industry, non-governmental and voluntary organizations, Aboriginal people, government agencies including the education sector, and individual citizens.

Stewardship of fish and fish habitat involves raising awareness and understanding, education, taking action to conserve and restore fish habitat, monitoring and reporting on both the status of fish and fish habitat and on the recognition of successes.

It is recognized in the Habitat Policy that fish habitat cannot be conserved and protected without the active involvement of all Canadians and sectors of society. Thus, DFO has identified the establishment of formal partnering agreements with key stakeholders as one of four priorities for the renewal of the Habitat Management Program (along with streamlining the regulatory process, national consistency and balanced implementation of the Habitat Policy).

A summary of DFO's partnering and stewardship activities for the management of fish habitat in Canada is provided in this section.

National Highlights

National Headquarters (NHQ) and Regional Community Outreach and Stewardship activities for 2001-2002 are organized below under three of the strategic directions found in the Habitat Policy, as well as under partnering.

In fiscal year 2001-2002, there were two areas of focus for NHQ community outreach and stewardship activities. The first was on the completion of the *National Fish Habitat Stewardship Action Plan* that arose from the Blueprint Initiative, assuring that it was aligned with the *Canada Wide Stewardship Action Plan* called for by the federal, provincial, territorial Ministers at their September 2001 meeting of Joint Resource Councils. The second was the completion of a partnering framework and strategy.

The purpose of the *National Fish Habitat Stewardship Action Plan* is to provide a framework to promote a consistent approach to fish habitat stewardship across Canada. It is meant to identify DFO's national and regional responsibilities in engaging and enabling Canadians to be responsible for conserving, restoring and developing Canada's fish habitat. It includes prototypes of national and provincial habitat stewardship web portals that enable the effective and efficient sharing of stewardship information and experience across Canada. The Plan is to be presented for approval at the next meeting of Ministers in September 2002.

5.1 Public Information and Education

In order to advance involvement in the conservation and protection of fish habitat, DFO produces a variety of public awareness and education information products and materials in cooperation with stakeholders for use by the media, the public, schools, and sponsors for conferences, seminars, workshops and symposia.

In 2001-2002, NHQ, in partnership with EC and others, supported the *Pan Canadian Network of Faculties of Education Supporting Stewardship for Sustainability Education*. This included the preparation of a business plan for the development and implementation of *The National Stewardship for Sustainability Schools Recognition Program* identified under the Blueprint Initiative. Work was also begun on the development of a Habitat Management and the *Fisheries Act* publication and on an information kit on DFO's Habitat Management and Navigable Waters Protection Programs.

5.2 Partnering

As reported in the 2000-2001 Annual Report, a key challenge for the Habitat Program is developing effective partnerships to get the most value added results, given budgetary constraints and the vast range of potential partners. As noted above, partnering was identified as one of the Program's priorities for 2001-2002 and beyond, with particular attention being given to the establishment of formal agreements in the form of Memoranda of Understanding (MOUs) and Protocols with provinces, territories and industry on the management of fish habitat.

MOUs identify priority areas for collaboration (e.g. regulatory compliance, integrated watershed planning, stewardship) and establish a governance structure to plan and report on their implementation. Separate Protocols are developed for each priority area identified in the MOU and define the roles and responsibilities as well as processes and procedures that the parties will undertake to implement the MOU. While federal, provincial and territorial MOUs are most often signed bilaterally on behalf of Canada and the province or territory, Protocols normally include all the key stakeholders with responsibilities for the particular activity.

National Headquarters coordinated the development of a national Partnering Strategy and Framework along with the development of “Guidelines for Federal-Provincial-Territorial (FPT) Agreements on Fish Habitat Management”. DFO and the provincial/territorial members of the Canadian Council of Fisheries and Aquaculture Ministers Freshwater Fisheries Task Group worked closely to develop a common vision and cooperative framework for collaboration on fish habitat management. A template for FPT MOUs to be included in the Guidelines document was discussed with provinces and territories. Even though the Guidelines document was not yet completed, the draft template for MOUs proved to be very useful to regions and provinces/territories beginning to negotiate MOUs.

Workshops and other preparatory work to establish MOUs on the management of fish habitat with key industry sectors also intensified in 2001-2002, with an MOU with the Canadian Electricity Association being the most advanced, closely followed by work with the Forest Products Association of Canada and Ducks Unlimited Canada.

Regional Highlights (Public Information and Education and Partnering)

Examples of regional activities in this area during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland

- Provided educational presentations to local schools and industry groups to build awareness and understanding of fish habitat conservation, restoration and development. Activities included the launch of the “Oceans as Habitat” exhibit and a poster & T-Shirt contest entitled “Habitat, Yours to Protect” for primary and elementary school children.
- Partnered with various groups to develop interpretative trail signage for a number of projects including: Discovery Trail, Grand Concourse Authority, Conne River and Main Brook.
- Held consultations with local angler associations on the development of a proposed bridge across the Lower Humber River.

Maritimes

- Conducted public information and educational programs for a range of groups including forest companies, universities and livestock owners.
- Supported the work of the Ministerial Special Advisor on consultations regarding fish passage at the Petitcodiac River Causeway in New Brunswick.
- Led public consultations on the City of Fredericton's proposal for the construction of water and sewer lines crossing of the Saint John River.

Quebec

- Deployed a new work team which focuses on the protection of fish habitat. The team's mandate is to increase education and awareness among the general public and the proponents on fish habitat, to establish relationships with industries and municipalities to improve compliance with the provisions of the *Fisheries Act* and to seek partners sharing similar interests.
- To celebrate Oceans Day, various public information activities were held to highlight the contribution of volunteer organizations in the conservation and enhancement of the marine environment. Approximately fifteen non-profit organizations from maritime areas of Quebec gained visibility in regional weekly newspapers as well as on radio and television.
- Over 1,125 young students from approximately twenty elementary schools in the maritime areas of Quebec took part in the activities conducted by Explos-Nature, a non-profit organization engaged in education about the marine environment conservation within the program *La mer en fugue*.
- Published a column on the marine environment and the marine protected area project (MPA) of Manicouagan by the Technical Committee for the establishment of the MPA. Twenty-three (23) articles were published in the weekly newspaper, *Objectif Plein-Jour*, to inform the local population on various aspects of the project.
- In partnership with the Quebec Wildlife and Parks Corporation, a brochure on the economic, social and ecological importance of fish habitat conservation was produced. Entitled "*Le poisson dans tous ses habitats*", it will be published in 2002.
- Consulted representatives of the various regions and communities involved with the preliminary management plan of the MPA of Manicouagan.

Central and Arctic

- Continued to develop various brochures and series of fact sheet to provide educational and background information to proponents and the general public. More information is available in the region's Supporting Document.

- Participated in and supported numerous watershed stewardship programs in Ontario, Manitoba, Saskatchewan and Alberta.
- Developed various outreach products such as the Dock and Shore Primer, the Shore Calendar, websites and posters for mass distribution to promote the conservation and protection of fish habitat.

Pacific

- Produced two more issues of its popular Habitat Enforcement Bulletin on charges, convictions, and case law developments. This news bulletin has now been expanded to a national DFO publication.
- The first ever Horsefly River Salmon Festival was held in September 2001. Hosted by the community of Horsefly, the event was supported by many businesses and agencies, including DFO.
- The Habitat Auxiliary in Salmon Arm developed and distributed an information package for local realtors on the functions of streams and lakes as fish habitat, and the referral process DFO uses to review private land development proposals.
- Fiscal year 2001-2002 was the fourth year of the five-year regional \$35 million Habitat Conservation and Stewardship Program (HCSP), implemented in June 1998. Over one hundred “stewards” were hired by Community Partners using HCSP funds and deployed in communities across British Columbia and the Yukon. Most of the stewards are residents established within their community.
- Participated in a Recovery Team of technical experts focussing on recovery of White Sturgeon, and with an Action Planning Group of interested stakeholders, to seek solutions. White Sturgeon populations in the Nechako and Columbia rivers are likely to become extinct without substantial intervention.
- The region began meetings with the N'laka'pamux First Nation to develop a comprehensive fisheries agreement; and with the Stl'atl'imx First Nation and BC Hydro to develop a formal Technical Working Group to coordinate future fisheries planning and projects.

6.0 Scientific Support

Timely, relevant data, information and advice are essential to ensure that the activities of the Program are based on sound science.

National Highlights

Environmental Science is a Headquarters coordinated Program that is delivered by the regional Environmental Science managers and scientists.

The mandate of Environmental Science is to generate knowledge through research; to collect, assess, and interpret scientific information from diverse domestic and international sources; and, to integrate data, information and technology into useable services, products and advice, including risk management advice, for policy and program decision makers - foremost for Habitat Management and Oceans Management.

In the case of Habitat Management, Environmental Science is responsible for leading in all aspects of science management and science delivery in support of the habitat management program. 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.

Regional Highlights

Examples of regional activities in this area during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland

- Participated in a research program aimed at evaluating the production characteristics of a compensation channel constructed within the Rose Blanche Hydroelectric Project.
- Developed a Habitat Monitoring Database to among other things, evaluate the effectiveness of prescribed mitigative measures.
- 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.

- Conducted several projects aimed at improving DFO's understanding of the productive capacity of near shore habitats in the marine environment. A summary of individual projects is provided in the region's Supporting Document.

Maritimes

- Continued to work with industry to monitor the Maritimes & Northeast Pipeline Compensation Projects, as well as other habitat restoration projects in the region.
- Conducted various scientific research studies on:
 - ⇒ impacts of mobile fishing gear on fish habitat;
 - ⇒ environmental impacts of salmon sea-cage culture;
 - ⇒ fate, distribution and biological effects of contaminants in the coastal zone;
 - ⇒ offshore oil and gas impacts; and
 - ⇒ deepwater marine habitats of the Gully (located near Sable Island).
- Worked with the Marine Environmental Science Division to develop a Decision Support System for use in assessing aquaculture sites.

Quebec

- Continued to study the impact of disposal of dredged sediments on fish, fish habitat and benthic fauna. The objective of these studies is to develop reliable methods for assessing the loss of fish and benthic productivity associated with the impact of the disposal of dredged sediments.
- Analysed several design and installation trials of artificial lobster reefs carried out over the last 35 years. The goal was to highlight the important elements to be considered in the choice of site, design, implementation as well as follow-up of these facilities.
- Undertook a study in the Cascadepia Bay in the Gaspé Peninsula in order to understand the effects of mussel culture on the marine environment. Two sites using different culture methods will be compared to control sites to verify how these activities affect the environment and the composition of its communities.
- Conducted research to develop coastal marshes bioremediation methods in Sainte-Croix-de-Lotbinière in the fluvial portion of the St. Lawrence and in Conrod's Beach in Nova Scotia. These projects involve conducting field trials of shoreline bioremediation after an oil spill under controlled conditions.
- Continued work that assesses the impact of the Iceland scallop fishery on the benthic habitat of the St. Lawrence. A better understanding of the effects of this fishery will allow more effective management concerning environmental conservation.

Central and Arctic

- The Western Arctic Area supported bull trout habitat utilization research conducted by a Masters student from the University of Manitoba.
- A ten-year monitoring program, initiated in 1998, on the effectiveness of stream habitat compensation efforts at the BHPB Ekati Diamond Project saw its fourth year of monitoring during the summer of 2001.
- Habitat engineering staff, in partnership with Alberta Environment, is developing a scientifically defensible means of extrapolating Instream Flow Needs data from surveyed streams to un-surveyed streams.

Pacific

- Continued to develop a scientifically defensible protocol for indicators of marine environmental quality, to be used by volunteer Habitat Stewards. Data from a three-year trial of the Shorekeepers protocol was audited to determine scientific rigor. Data from a three-year “Reefkeepers” project was assessed and presented at an international workshop at the Institute of Ocean Sciences.
- Presented and published a Working Paper on the scientific defensibility of the Province of British Columbia Performance Based Standards for regulating aquaculture. The paper concluded that no single performance parameter would be adequate to measure the impact of waste from salmon net-pen farms.
- Reviewed population levels in marine mammals. Results indicate that unexpectedly high levels of persistent organic pollutants from certain Pacific Region waters are found in marine mammals. One conclusion is that marine mammals serve as excellent “early warning” species on marine ecosystem quality. Another conclusion is that certain populations of killer whales found in British Columbia waters are amongst the most contaminated marine mammals found anywhere.

7.0 Information Management

National Highlights

Habitat Systems - Habitat Referral Tracking System

Further development of the Habitat Referral Tracking System (HRTS) continued in fiscal year 2001-2002. The HRTS is used by Habitat biologists and administrators across the country to record information and actions taken on requests (referrals) received 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 habitat. The system is also used by Habitat Management to register information on the Federal Environmental Assessment Index, as required by CEAA, and is available to the public via the Internet.

The addition of 148 new Habitat users and an additional 74 users from other programs/sectors in DFO, brings the total number of system users at the end of fiscal year 2001-2002 to 809.

Activities related to the development of HRTS include:

- Implementation of Phase II of the three year system re-development plan of the HRTS. This version incorporated numerous user-defined changes and enhancements. Major new features include:
 - ⇒ Web-Based Mapping – a web-based mapping tool developed for the HRTS that provides users the ability to geo-reference referrals;
 - ⇒ Photo Module – a module that provides users the ability to add photographs to project files;
 - ⇒ Referral Calendar – a new module that links calendar items to specific project files;
 - ⇒ Creation of an electronic link to the Canadian Coast Guard's Navigable Waterways Database System; and
 - ⇒ Document Linking - a function that enables users to link electronic documents to project files.
- Continued work on focus groups and user sessions to determine additional changes and enhancements for completion of Phase II of the re-development project for fiscal year 2002-2003.
- Initial planning work on Phase III of the re-development project, which will include major system architecture and database changes, will continue with a first release and implementation in fiscal year 2003-2004.

Habitat's Intranet and Internet

Providing timely, accessible and reliable information to the public and Habitat Management staff are key elements to improving efficiency within the National Habitat Management Program. It is also important to help raise awareness and understanding of the importance of fish habitat to all Canadians. The National Habitat Management Program's Intranet and Internet sites were designed, developed and released in fiscal year 2001-2002 to help meet these objectives.

The Intranet Site provides information to national and regional Habitat Management staff. In addition to providing daily administrative and service tools (translation, postal, library, travel, financial information), the Intranet provides information on programs, committees and

activities to assist in keeping all staff informed of Habitat Management issues on a national level.

The Internet site provides the public with easily accessible information on Habitat Management issues, related legislation and regulations, guidelines and fact sheets, community involvement activities, and contacts for national and regional offices. The site also provides information to the public that will assist them in meeting the habitat provisions of the *Fisheries Act* when carrying out works in or around water.

Regional Highlights

Examples of regional activities in this area during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp.

Newfoundland

- Habitat staff participated in the Stream Crossing Inventory Project in partnership with other government departments and industry. The main objective of this project is to provide an inventory of stream crossings on resource access roads in order to assist Habitat staff with resource planning and environmental monitoring initiatives.
- Habitat staff maintained and updated the Newfoundland Freshwater Inventory, a Geographic Information System that delivers fish habitat-related information through a customized interface, and initiated a similar freshwater inventory for Labrador.
- Staff also updated and maintained the regional intranet site for use in promoting the Habitat Management Program through the inclusion of newsletters, fact sheets, publications, etc. from the Newfoundland Region. The digital photo database was also updated and maintained.

Maritimes

The region had a number of information management initiatives that related to the rollout of the Habitat Blueprint:

- A needs analysis was completed to identify the technical information management skills and abilities that would aid the Division in better using information technology in their day-to-day business.
- Ongoing work continued on a prototype internet site that would provide project proponents with detailed information on the application process for works in and around water, and on how to design projects in such a way to minimize the impacts of these projects on fish habitat. The Proposal Assistant for Nova Scotia attempts to provide a single-point-of-entry for people wishing to learn about the requirements from DFO and other Nova Scotia provincial departments.

Quebec

- Over one hundred requests for information were answered using the Fish Habitat Management Information System (FHMIS), a geomatics information system covering the coastal areas of the marine St. Lawrence and northern Quebec.
- The staff regularly updated the data provided by the FHMIS and also worked on the development of a possible partnership with the Quebec Wildlife and Parks Corporation for the mapping of critical habitats in the St. Lawrence. This project will extend our knowledge to fresh water habitats.

Central and Arctic

- A working protocol for data sharing with the Province of Manitoba is being developed. This will allow the sharing of data and the development of a Geographic Information System (GIS) to support decision-making by fisheries management staff. Provincial databases are currently being converted into a GIS compatible database.
- A guidance document was prepared to accompany the existing interactive web-based software program called the Habitat Alteration Assessment Tool. This tool was developed to assist in the quantification of fish habitat area losses associated with infilling projects in the Great Lakes and fish habitat gains associated with enhancement and creation.

Pacific

- Developed and deployed “Mapster”, an internet-based mapping application that provides internal and external user access to over 135 layers of fish habitat and species spatial data.
- A Habitat Steward (funded through the Habitat Conservation and Stewardship Program), working with the Victoria Capital Regional District, developed a web-based Sensitive Habitat Atlas. The atlas is available to municipal planners and the public, providing a “one stop” access point for land, water, and natural resource information.

8.0 Program Management

Sound program management is critical to strengthening the National Habitat Management Program. Program management tasks include business and work planning, training, managing financial and human resources and tracking and reporting on program performance.

National Highlights

8.1 National Training Program

Building upon the National Habitat Blueprint Initiative that began in 1999, the Habitat Programs Branch produced the following results:

- Outlined the structure and content of the Habitat Training Program and identified the need to increase its staff capacity.
- Coordinated cross-Canada training for approximately 230 staff on the core training modules. These consisted of an introduction to Habitat Management, an introduction to the *Canadian Environmental Assessment Act* (CEAA), and the legal framework in which Habitat Management Works. These courses were given and an evaluation process was put in place to assess the training delivery and content.
- Completed a guide entitled “CEAA GUIDE: Applying the *Canadian Environmental Assessment Act* for the Fish Habitat Management Program”. This guide was developed with the goal of providing a clear and concise document to explain the requirements of CEAA for Habitat Management staff. The Guide was completed and provided to staff in early 2001 and was subsequently placed on the Department’s internet site for easy access at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/guidelines-conseils/guides/ceaa/index_e.asp>. The unique features of the Guide include stand-alone appendices for key steps of CEAA. When the amendments to CEAA come into force, appropriate revisions will be required to this guide to render it up-to-date with those regulatory changes.

8.2 Performance Management Framework

Fisheries and Oceans Canada produced its first High-level Performance Report (November 2001). This report covers 19 high level performance indicators, and invites review of the performance measures in particular, and how to develop an effective performance management regime for DFO in general. Two performance measures are of particular interest within the Habitat Management Program enforcement activities and no net loss of habitat. The report anticipates that specific business lines will develop their own sector-level

indicators. Performance indicators are being developed for the Habitat Management Program to reflect its particular mandate. The National Habitat Management Training Program must be responsive by establishing indicators for habitat management training.

Regional Highlights

Examples of regional activities during fiscal year 2001-2002 are highlighted below. Details are provided in Supporting Documents available electronically at <http://www.dfo-mpo.gc.ca/canwaters-eauxcan/infocentre/publications/index_e.asp>.

Newfoundland

- A Training Module aimed at increasing awareness and understanding of fish habitat and explaining how CEAA relates to aquaculture projects was developed and presented to advanced aquaculture students at Memorial University's, Marine Institute.
- A comprehensive training program aimed at increasing awareness and understanding of fish habitat was developed by Habitat Management staff and presented to Fishery Officers. A modified version of this training session was provided to environmental monitors hired by the Labrador Inuit Association and the Innu Nation as well as DFO's fishery guardians.
- Habitat Management staff developed a comprehensive training presentation to outline regional policies and programs concerning the conservation and protection of fish and fish habitat pertaining to forestry-related activities. This training was provided to various employees in the forestry sector.

Maritimes

- An initiative was launched to stimulate partnerships between Habitat Management and Navigable Waters Protection and Conservation and Protection. A workshop was held to promote communication and discussion between divisions, and to develop recommendations on how to work better together. This work was used in the development of a National DFO cross-delivery initiative.
- Two strategy sessions for Habitat staff were held to review the existing organization and to develop strategies for adjusting to the shift of responsibilities from a single Maritimes Region to one with independent Maritimes and Gulf Regions.

Central and Arctic

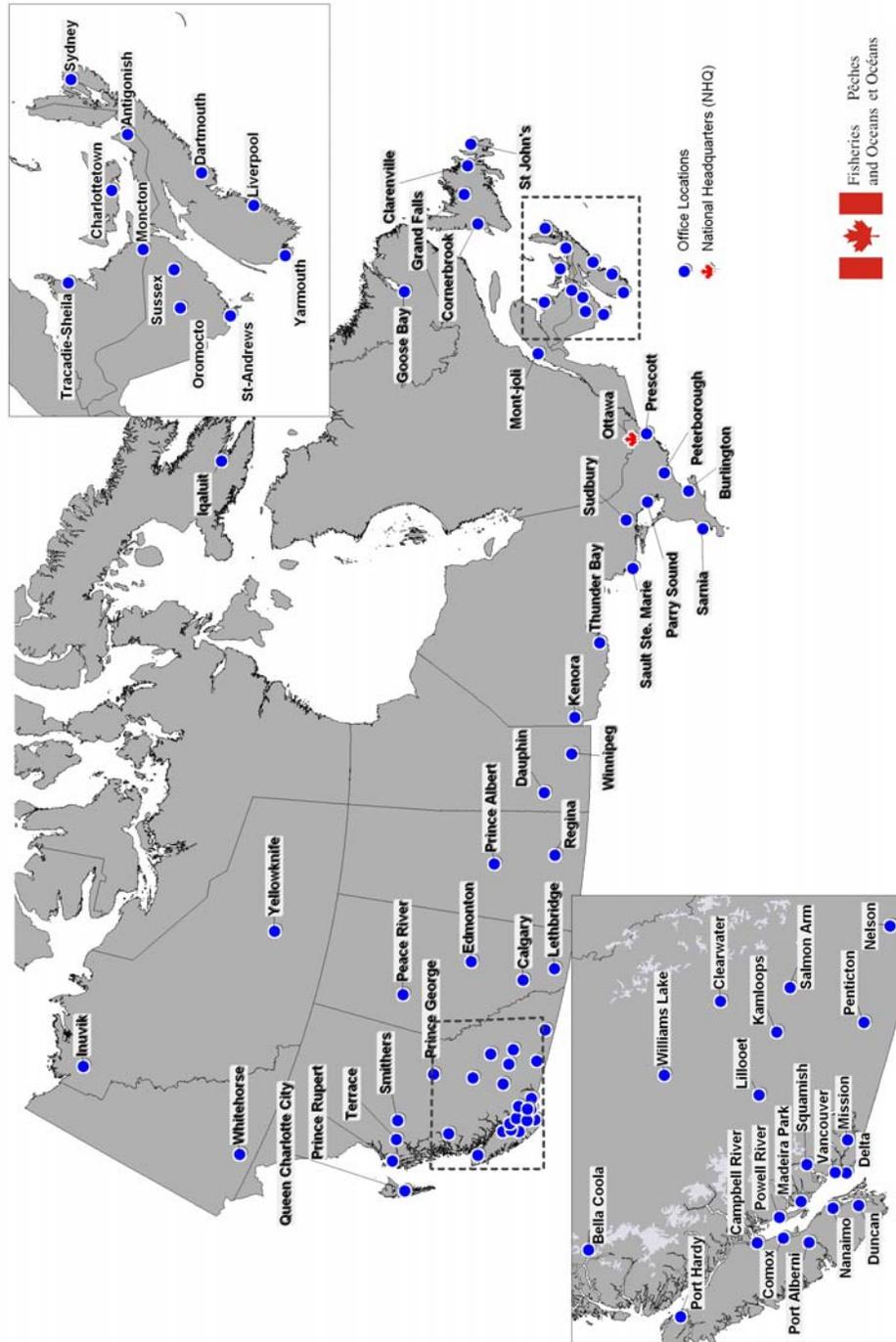
- Developed and presented training modules for Biologists, Fishery Officers, and Navigation Protection Program staff, aimed at increasing awareness and understanding of fish habitat and assisting them in the delivery of Area programs including, Navigable Waters and Habitat Management.

- Provided staff with training courses in basic habitat enforcement relating to Inspector or Guardian status (under section 36 of the *Fisheries Act*).
- A Cumulative Effects Assessment workshop was developed specifically for DFO Fish Habitat Management staff to improve their knowledge of cumulative effects when reviewing projects under CEAA.

Pacific

- A newly opened office in Nelson British Columbia, housing four Habitat Management staff will serve the south-east portion of the Interior Area.
- Two Pacific Region Habitat Management staff members participated in a national team to re-design the regulatory process of the department's Habitat Management and Navigation Protection Programs, linking them for increased efficiency.
- Two habitat enforcement-related training sessions were delivered: Regional Habitat Enforcement in Kamloops (a three-day course on *Fisheries Act* habitat enforcement legalities and compiling a court brief); and Harmful Alteration, Disruption or Destruction, in Victoria (a pilot course with a field component on investigating offences under section 35 of the *Fisheries Act*).

National Fish Habitat Management Program Office Locations



Map 1: National Fish Habitat Management Program's Office Locations



Map 2: Environment Canada'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 authorise 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 authorise 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 authorised by the Minister or under regulations.
36	Prohibits the deposit of deleterious substances into waters frequented by fish, unless authorised 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 authorisations.
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 s.37; or failing to make a report or to otherwise comply with s.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 s.40.
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.