



**ANNUAL REPORT
TO PARLIAMENT**

on the Administration
and Enforcement
of the Fish Habitat
Protection and
Pollution Prevention
Provisions of the
Fisheries Act.

April 1, 2007

to March 31, 2008



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Minister of
Fisheries and Oceans



Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

Ms. Audrey O'Brien
Clerk of the House of Commons
Room 228-N, Centre Block
House of Commons
Ottawa, Ontario
K1A 0A6

Dear Ms. O'Brien:

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 2007-2008.

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.

Sincerely,

Gail Shea, P.C., M.P.

Attachments

Minister of
Fisheries and Oceans



Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

Mr. Paul C. 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 2007-2008.

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

Sincerely,

Gail Shea, P.C., M.P.

Attachments

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Abstract

Fisheries and Oceans Canada. 2008. Annual Report to Parliament on the Administration and Enforcement of the Fish Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*. April 1, 2007 to March 31, 2008: iv + 46 p.

This is a report on the administration of Fisheries and Oceans Canada's National Habitat Management Program and Environment Canada's Pollution Prevention Program during the 2007-2008 fiscal year. It highlights the two departments' national and regional activities.

Résumé

Pêches et Océans Canada. 2008. Rapport annuel au Parlement sur l'administration et l'application de dispositions de la *Loi sur les pêches* relatives à la protection de l'habitat du poisson et à la prévention de la pollution du 1^{er} avril 2007 au 31 mars 2008 : iv + 51 p.

Ce rapport porte sur l'administration du Programme national de gestion de l'habitat de Pêches et Océans Canada et du Programme de prévention de la pollution d'Environnement Canada au cours de l'exercice financier 2007-2008. Il présente les activités entreprises par les deux ministères à l'échelle nationale et régionale.

List of Acronyms

C&P	Conservation & Protection Program
CEAA	<i>Canadian Environmental Assessment Act</i>
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EC	Environment Canada
EDF	Environmental Damages Fund
EEM	Environmental effects monitoring
EPAM	Environmental Protection Alternative Measures
EPMP	Environmental Process Modernization Plan
FCSAP	Federal Contaminated Sites Action Plan
HADD	Harmful alteration, disruption or destruction
HaPAE	Healthy and Productive Aquatic Ecosystems
HMP	Habitat Management Program
MMER	<i>Metal Mining Effluent Regulations</i>
NPA	National Programme of Action for the Protection of the Marine Environment from Land-based Activities
OGLA	Ontario-Great Lakes Area
PATH	Program Activity Tracking system for Habitat Management
PPER	<i>Pulp and Paper Effluent Regulations</i>
RISS	Regulatory Information Submission System
RMF	Risk Management Framework
SARA	<i>Species at Risk Act</i>

1.0 Executive Summary

This Annual Report to Parliament summarizes the administration and enforcement of the fish habitat protection and pollution prevention provisions of the *Fisheries Act*¹, from April 1, 2007 to March 31, 2008. The annual report highlights the activities of Fisheries and Oceans Canada's (DFO) National Habitat Management Program (HMP), as well as Environment Canada's (EC) Environmental Enforcement Program, Environmental Emergencies Program and Compliance Promotion and Analysis Program.

Canada's freshwater and marine fish species and fish habitat play a critical role in Canada's economic prosperity and biological diversity. The *Fisheries Act* contains two key provisions that are applied for the conservation and protection of fish habitat that is essential to sustaining freshwater and marine fish species:

- DFO administers section 35, the key habitat protection provision, prohibiting 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 *Fisheries Act*; and
- EC administers section 36, the key pollution prevention provision, prohibiting the deposit of deleterious substances into waters frequented by fish, unless authorized by regulations under the *Fisheries Act* or other federal legislation.

1.1 Administration and Enforcement of the Fish Habitat Protection Provisions of the *Fisheries Act*

1.1.1 Review of Development Proposals (Referrals)

By ensuring that *healthy and productive fish habitat is available to sustain the production of fish species and populations that Canadians value*, DFO's HMP contributes to the department's strategic outcome of healthy and productive aquatic ecosystems. As well, DFO's Environmental Science, and Conservation and Protection (C&P) programs are key partners in realizing this strategic outcome.

The referral process enables HMP staff to review proposals to assess if harmful alteration, disruption or destruction (HADD) of fish habitat is likely to result from the proposed works or undertakings. HMP staff sends advice to the proponent on how to proceed with their works or undertakings in a manner that will comply with the *Fisheries Act*, mainly with respect to avoiding the HADD of fish habitat (section 35). These requirements are commonly

¹ The full text of the *Fisheries Act* can be found at: < <http://laws.justice.gc.ca/en/F-14/text.html> >

in the form of a “Letter of Advice”, an “Operational Statement”² for low risk activities, or an “Authorization” pursuant to subsection 35(2) of the Act.

During fiscal year 2007-2008 the HMP:

- reviewed 7,333 development proposals (referrals) to ensure compliance with the *Fisheries Act*, mainly with respect to avoiding the HADD of fish habitat, an increase of 1% compared to 2006-2007;
- provided 4,662 written advice to proponents or others, a reduction of 10% compared to 2006-2007, and;
- issued 280 authorizations, a reduction of 36% from 2006-2007

1.1.2 Compliance and Enforcement

DFO’s C&P Program is responsible for monitoring compliance with legislation and regulations regarding the conservation of fisheries resources and fish habitat. The Minister of Fisheries and Oceans appoints Fishery Officers to enforce fisheries regulations and management plans as well as the habitat provisions of the *Fisheries Act*.

DFO’s measures to promote compliance include communication and public education; consultation with parties affected by the habitat protection provisions of the *Fisheries Act*; and technical assistance as required.

Enforcement of habitat protection provisions is carried out through inspections to monitor or verify compliance; investigations of alleged violations; the issuance of warnings, Inspector’s Directions, Ministerial Orders; and court actions such as injunctions, prosecution, court orders upon conviction and suits for recovery of costs.

In 2007-2008, DFO:

- issued 59 warnings under the habitat protection provisions of the *Fisheries Act*;
- laid 21 charges under the habitat protection provisions of the *Fisheries Act*; and
- concluded 23 successful prosecutions, with fines of up to \$235,000.

² A list of DFO operational statements can be found at : < http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/epmp-pmpe/index_e.asp >

1.2 Administration and Enforcement of the Pollution Prevention Provisions of the *Fisheries Act*

EC has responsibility for various components of the administration and enforcement of the pollution prevention provisions of the *Fisheries Act*, involving the Environmental Enforcement Program; the Compliance Promotion and Analysis Program; and the Environmental Emergencies Program.

EC develops sector-based strategies and undertakes activities to promote and secure compliance with the pollution prevention provisions of the *Fisheries Act*. It 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*.

In 2007-08, EC carried out enforcement activities and measures under the *Fisheries Act*, including:

- 3,767 compliance verification inspections;
- 39 investigations, involving gathering and analyzing evidence and information relevant to a suspected violation; and
- two charges, six convictions and 188 written warnings.

2.0 The Policy and Legislative Setting

2.1 Purpose of Annual Report

This Annual Report to Parliament provides a summary of key activities undertaken by DFO and EC in conserving and protecting fish habitat under the *Fisheries Act* during fiscal year 2007-2008.

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.

The Annual Report is organized under the following four parts:

- Part 1.0 presents the executive summary.
- Part 2.0 provides the legislative and policy context for the conservation and protection of fish habitat, as well as an overview of DFO's HMP.
- Part 3.0 reports on the results achieved by DFO in 2007-2008 through the administration and enforcement of the fish habitat protection provisions of the *Fisheries Act*. This part covers both the review of development proposals (referrals) by HMP, and the support provided by DFO's Environmental Science, and C&P programs.
- Part 4.0 reports on the work of EC in developing regulations, policies and guidelines related to the pollution prevention provisions of the *Fisheries Act*.

2.2 Legislative Basis for the Conservation and Protection of Fish Habitat

The Government of Canada fulfills its constitutional responsibilities for sea coast and inland fisheries through the administration and enforcement of the *Fisheries Act*. This Act provides DFO with powers and authorities to conserve and protect fish habitat³, which is essential to sustaining freshwater and marine fish species and populations that Canadians value.

The *Fisheries Act* contains two types of provisions that are applied for the conservation and protection of fish habitat.

³ 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”.

Section 35 is the key habitat protection provision of the *Fisheries Act*. This section 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 *Fisheries 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*.

DFO administers and enforces section 35 and other related habitat protection provisions of the *Fisheries Act*, including sections 20, 21, 22, 26, 28, 30, and 32 (see Table 1 below).

Section 36 is the key pollution prevention provision. It 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 deposits of certain deleterious substances have been established for key industry sectors pursuant to section 36 (e.g., pulp and paper, and metal mining). As noted above, EC is responsible for the administration and enforcement of the pollution prevention provisions of the *Fisheries Act*.

The *Fisheries Act* also contains provisions that support the administration and enforcement of the habitat protection and pollution prevention provisions. These include:

- powers for the Minister to request plans and specification for works and undertakings that might affect fish or fish habitat (section 37);
- authority for the Minister to appoint inspectors and analysts (subsection 38(1));
- a description of inspectors’ powers (including entry, search, and direction of preventive, corrective or cleanup measures) (subsection 38(3));
- a description of offences and punishment (section 40); and
- a determination of liability when a deleterious substance has been deposited (section 42).

Table 1: Habitat Protection and Pollution Prevention Provisions of the <i>Fisheries Act</i>	
Section	Intent
20	The Minister may require fish-ways to be constructed.
21	The Minister may authorize payment, order construction or removal or require fish stops or diverters for fish-ways.
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. In addition, the Minister may authorize devices to prevent the escape of fish.
27	Prohibits the damage or obstruction of fish-ways, the impediment of fish to fish-ways 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.

2.3 Policy for the Management of Fish Habitat

The *Policy for the Management of Fish Habitat*⁴ (the Habitat Policy), which was tabled in Parliament in 1986, and its supporting operational policies provide a comprehensive framework for the administration and enforcement of the habitat protection and pollution prevention provisions of the *Fisheries Act* consistent with the goal of sustainable development.

The Habitat Policy has an overall objective to “increase the natural productive capacity of habitat for the nation’s fisheries resources” – that is, to achieve a “net gain” in fish habitat. This is to be achieved through the Habitat Policy’s 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.

The objective and goals of the Habitat Policy are to be achieved through eight implementation strategies: Protection and Compliance; Integrated Resource Planning; Scientific Research; Public Consultation; Public Information and Education; Cooperative Action; and Habitat Improvement and Habitat Monitoring.

A key element of the Habitat Policy is the guiding principle of “no net loss of the productive capacity of fish habitat”. This principle, which supports the conservation goal, 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, such as through implementing DFO’s written advice or other actions to mitigate adverse effects on fish habitat, 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, compensation⁵ is not an option.

⁴ The full text of the *Policy for the Management of Fish Habitat* can be found at:

< http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/management-gestion_e.asp >.

⁵ See Glossary in the *Policy for the Management of Fish Habitat* for the definition of compensation at:

< http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/operating-operation/fhm-policy/index_e.asp >.

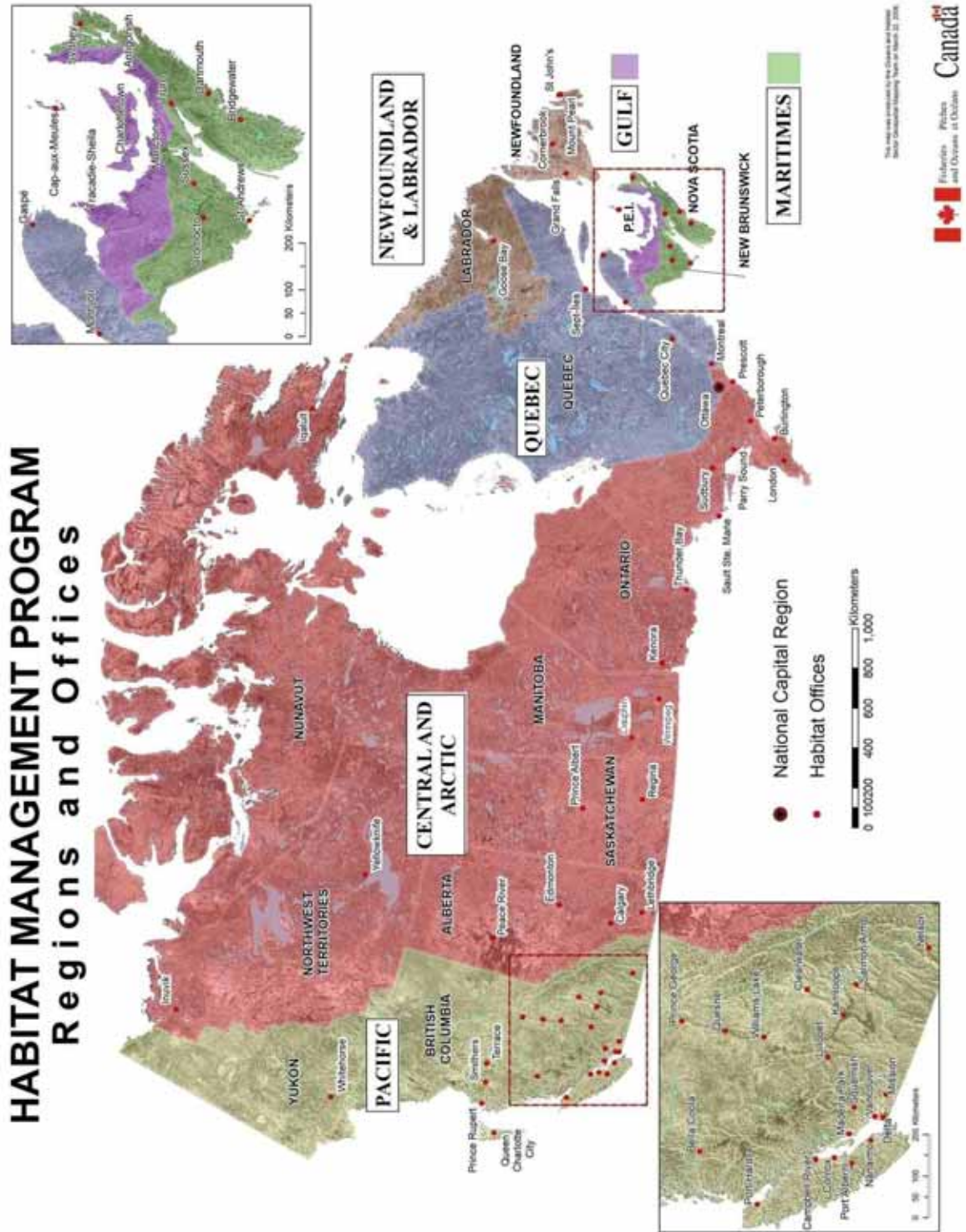
2.4 National Habitat Management Program

DFO's HMP is a key federal regulatory program with a mandate to conserve and protect fish habitat, pursuant to the *Fisheries Act*, the *Canadian Environmental Assessment Act* (CEAA) and the *Species at Risk Act* (SARA). HMP regulatory activities can have significant implications on a wide range of industries, businesses, communities and individual Canadians proposing or carrying out development projects in or around fish bearing waters. The growth of economic development activities across Canada, particularly in the natural resource based sectors, has resulted in a greater complexity and number of development proposals requiring DFO regulatory reviews.

Staff at the HMP's National Headquarters are 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 industry and non-governmental organizations). Day-to-day delivery of the program is carried out by habitat staff located in over 65 DFO offices across the country (see map on following page):

The HMP is supported by DFO's C&P Program, and Environmental Science Program, as described in Parts 3.3 and 3.4 of this report.

Map: Habitat Management Program Regions and Office Locations



3.0 Administration and Enforcement of the Fish Habitat Protection Provisions of the *Fisheries Act*

3.1 Benefit for Canadians: Healthy and Productive Aquatic Ecosystems

DFO aims to achieve the sustainable development and integrated management of resources in or around Canada's aquatic environment. This DFO strategic outcome, identified as *healthy and productive aquatic ecosystems* (HaPAE), is expected to take many years to come to fruition, and is beyond the control of any individual government department.

Canada's fisheries resources and fish habitat play a critical role in the economic prosperity and the biological diversity of Canada. In the context of sustainable development, provinces and territories, industry, aboriginal peoples and others play important roles in delivering HaPAE.

The HMP contributes to the strategic outcome HaPAE through its activities for ensuring that healthy and productive fish habitat is available to sustain the production of fish species and populations that Canadians value.

In support of this strategic outcome, the HMP in 2007-2008:

- reviewed 7,333 referrals to ensure compliance with the *Fisheries Act*, mainly with respect to avoiding the HADD of fish habitat (section 35), an increase of about 1% compared to 2006-2007;
- provided 4,662 written advice to proponents or others, a reduction of 10% compared to 2006-2007; and
- issued 280 authorizations, a reduction of 36% from 2006-2007.

Science support activities included assessing the impacts of development on aquatic ecosystems, and the provision of scientific advice and information related to the impacts of industrial activities on the aquatic environment. Science also provided case-specific advice to HMP on several large-scale projects such as the Mackenzie Valley Pipeline, and diamond mines in the north. In addition, Science advice was provided to specify mitigation measures for managing the impact of water withdrawals from the Athabasca River associated with oil sands projects.

DFO's C&P program provided enforcement and compliance monitoring activities in support of the HaPAE strategic outcome. These activities are linked to enhanced compliance with legislation, regulations and management measures (e.g., conditions of authorizations and orders). Information on C&P activities and related program outputs is provided below in Part 3.3.

Further information in terms of results achieved in 2007-2008 related to DFO's strategic outcomes is available in the 2007-2008 Departmental Performance Report.⁶

3.2 Administration of the Fish Habitat Protection Provisions of the *Fisheries Act*

3.2.1 Overview

The administration of the Fish Habitat Protection Provisions of the *Fisheries Act* is the responsibility of DFO's HMP. The program accomplishes this in part by reviewing development proposals (known as "referrals"). The referral process enables HMP staff to review submitted proposals to assess if a HADD of fish habitat is likely to result from the proposed works or undertakings. As part of its practice, the HMP applies a Risk Management Framework (RMF) consisting of three components: Aquatic Effects Assessment; Risk Assessment, and; Risk Management.⁷

As part of the referral process, HMP staff sends advice to the proponent indicating the requirements for the conservation and protection of fish habitat. This advice informs proponents on how to proceed with their works or undertaking in a manner that will comply with the *Fisheries Act*, mainly with respect to avoiding the HADD of fish habitat (section 35). These requirements are commonly in the form of a "Letter of Advice", an "Operational Statement" for low risk activities, or an "Authorization" pursuant to subsection 35(2) of the Act.

It is important to note that proponents voluntarily submit information about their proposed works or undertakings to determine if they comply with the habitat protection provisions of the *Fisheries Act*. In fact, 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, an Operational Statement, or an Authorization from DFO. However, failure to do so may expose a proponent to being charged and prosecuted under the *Fisheries Act*.

Prior to issuing certain Authorizations pursuant to the Fisheries Act, HMP staff must verify whether the project under review has potential to adversely affect wildlife species listed under SARA, or their critical habitat, and ensure that an environmental assessment (EA) under CEAA (or other EA regimes) is completed. In the context of development proposals, when DFO may exercise decision-making authority that triggers the CEAA (specifically, when DFO is the proponent; provides financial assistance; sells, leases, or otherwise

⁶ The report is available at: < <http://www.dfo-mpo.gc.ca/reports-rapports-eng.htm> >

⁷ Information on DFO's application of the RMF is available at:
< http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/modernizing-moderniser/risk-risques_e.asp >

transfers control or administration of federal land ; or, makes certain regulatory decisions to enable a project to be carried out), DFO becomes a responsible authority under the CEAA and must ensure that an EA is prepared prior to making a decision. In such cases, HMP staff must ensure that the EA considers broad environmental issues linked to the project, as well as including those directly associated with fish and fish habitat. The Fisheries Act regulatory decisions requiring environmental assessments (Law List Regulations under CEAA) involve: subsection 35(2) authorizing a HADD, flow needs for fish downstream of an obstruction; authorizing the destruction of fish by means other than fishing, and; orders to restrict or close works or undertaking that may cause a HADD or pollution of waters frequented by fish. For more specific information regarding EAs pursuant to the CEAA, please see the Canadian Environmental Assessment Registry.⁸

3.2.2 Categorizing Referrals

Habitat assessors and field staff have categorized referrals according to various work categories (see Table 2). The selected work category references a specific undertaking or works with potential to impact on fish and fish habitat. In 2003-2004, DFO completed a review of its work categories in consultation with regional staff and National Headquarters.

The following changes to the Work Category have been implemented:

- the Work Category “Mineral, Aggregate and Oil & Gas Extraction” was renamed “Mineral, Aggregate, Oil & Gas Exploration, Extraction, Production” to appropriately reflect the records that are categorized under this option;
- the sub-categories “Seismic Exploration on Land” and “Seismic Exploration on Water” and records therein, of the Work Category “Seismic Exploration”, were moved to the Work Category “Mineral, Aggregate, Oil & Gas Exploration, Extraction, Production”;
- the definitions for the Work Category “Mineral, Aggregate and Oil & Gas Extraction” was updated to reflect the additional records contained in the Work Category.

⁸ Canadian Environmental Assessment Agency < http://www.ceaa-acee.gc.ca/050/index_e.cfm >

**Table 2:
Work Categories
Fiscal Year 2007-2008**

Work Category	Description
Aquaculture	Includes all forms of aquaculture in marine, estuarine and freshwater, including: shellfish culture, marine plant culture, polyculture, finfish cage culture, freshwater ponds and hatcheries.
Contaminated Site Remediation	The cleanup of contaminated sites, including: excavation and removal of contaminated sediments and soils; treatment of contaminated groundwater, etc.
Control of Nuisance Species	Works to capture, control and poison nuisance species.
Dredging	Dredging, including: clamshell, backhoe, suction, cutter suction, suction hopper, and any other type of dredging in freshwater, estuarine and marine conditions. Does not include dredging for the purposes of ocean mining of minerals or aggregate.
Fish Offal Disposal	Includes sites for disposal into the aquatic environment of fish offal from vessels, barges, etc. Does not include disposal of fish waste from a fish plant through an effluent pipe.
Habitat Improvement	Modifications to or structures placed into any aquatic habitat to improve the capacity of the habitat to produce fish.
Instream Works	Work and activities in a stream, brook, river, lake, estuary or any marine area, including: excavation, pool excavation, beaver dam removal, ditch cleaning, and aquatic vegetation removal.
Log Handling	Establishment and operation of aquatic and terrestrial areas used for storing and sorting logs. Includes log sorts at pulp mills and sawmills. Includes underwater log salvage.
Mineral, Aggregate and Oil & Gas Exploration, Extraction, Production	Includes all forms of mining and mineral exploration, including offshore and onshore oil and gas exploration and production, as well as ocean mining. This category also includes the use of explosives or other methods to explore sub-surface geological structures underwater or on land.
Shoreline Works (Foreshore and Streambank Work)	Includes physical works along a shoreline, both in the riparian zone and in the zone between Low-Low Water (LLW) (Low Water) and High-High Water (HHW) (High water) in a stream, brook, river, lake, estuary or any marine area.
Structures in Water	Includes structures built in all habitat types (riverine, lacustrine, palustrine (wetlands), estuarine, marine) including: docks and boathouses for personal or commercial purposes, wharves, breakwaters, commercial marine terminals, personal and commercial moorings, boat launches, water intake physical structures including screens, effluent outfall pipes and outfalls, fishing weirs, artificial reefs, and gear placed in water.
Water Management	Includes physical structures and activities involved in water management, such as: dams, dykes, diversions, reservoirs and reservoir operations, irrigation canals, stormwater management plans, water withdrawal from natural waterbodies and reservoirs, irrigation canals, hydroelectricity generation, etc.
Watercourse Crossings	Crossings of all kinds that traverse wetlands, streams, brooks, rivers, ponds, lakes, estuaries and any area in the marine environment. Includes small undertakings up to large pipeline and cable crossings across oceans.
Other	To be used for those proposed projects that do not fit any of the above Main Categories.

3.2.3 Review of Development Proposals (Referrals)

Data recorded in the Program Activity Tracking System for Habitat (PATH) on review of referrals are presented in this section.

Figure 1 illustrates the pattern in total habitat referrals, by region, from fiscal years 2004-2005 to 2007-2008.

Figure 2 illustrates the regional distribution of total habitat referrals for 2007-2008.

Table 3 presents summary data on the number of habitat referrals in 2007-2008 by work category for each DFO region.

DFO analysis suggests the following:

- nationally, the total number of referrals has decreased by 25% since 2004-2005. Over the same four-year period, regional declines in the number of referrals range from 8% in the Newfoundland & Labrador Region to 33% in the Gulf Region;
- for 2007-2008, Central and Arctic Region accounted for 3,330 referrals, or about 46% of the national total; Pacific Region accounted for another 26%, and Newfoundland and Labrador Region, 12%;
- in the Ontario-Great Lakes Area of the Central and Arctic Region, the impact of partnership agreements implemented under the Environmental Process Modernization Plan (EPMP) is demonstrated where Conservation Authorities reviewed 1,797 development projects, and Parks Canada Agency reviewed another 148. These referrals did not require a review by DFO staff; and
- three work categories combined accounted for nearly 60% of the national total – watercourse crossings (26%), shoreline works (18%), and structures in water (13%).

Table 3: Summary of Habitat Referrals by Work Category Fiscal Year 2007-2008⁹															
Region	Work Categories														
	Aqua.	Cont. Site Rem.	Cont. Nuis. Spec.	Dredg.	Fish Off. Disp.	Hab. Imp.	Instr. Works	Log Hand.	Min. Agg. & O&G Extract.	Shor. Works	Struct. in Water	Water Mgmt	Water-course Xing	Other ¹⁰	Total
Newfoundland and Labrador	25	3	0	22	7	2	30	0	129	119	110	24	256	146	873
Maritimes	22	9	0	31	0	49	23	0	9	93	105	55	229	33	658
Gulf	7	5	0	56	0	35	14	0	1	24	15	24	88	42	311
Quebec	1	1	0	29	3	4	5	5	6	53	28	9	105	3	252
Central and Arctic	0	28	2	219	0	19	286	1	249	583	500	244	954	245	3330
Pacific	21	13	2	36	0	46	221	36	119	454	210	248	263	240	1909
Total	76	59	4	393	10	155	579	42	513	1326	968	604	1895	709	7333

⁹ Note: For reporting purposes, the receipt of a referral by DFO is accounted for in the statistics of the same year that event actually occurred; while any DFO decisions linked to the referral could occur in a subsequent year and be accounted for separately in the statistics for that year.

¹⁰ "Other" includes referrals identified with the Work categories of "to be determined," "Undetermined" and "Other".

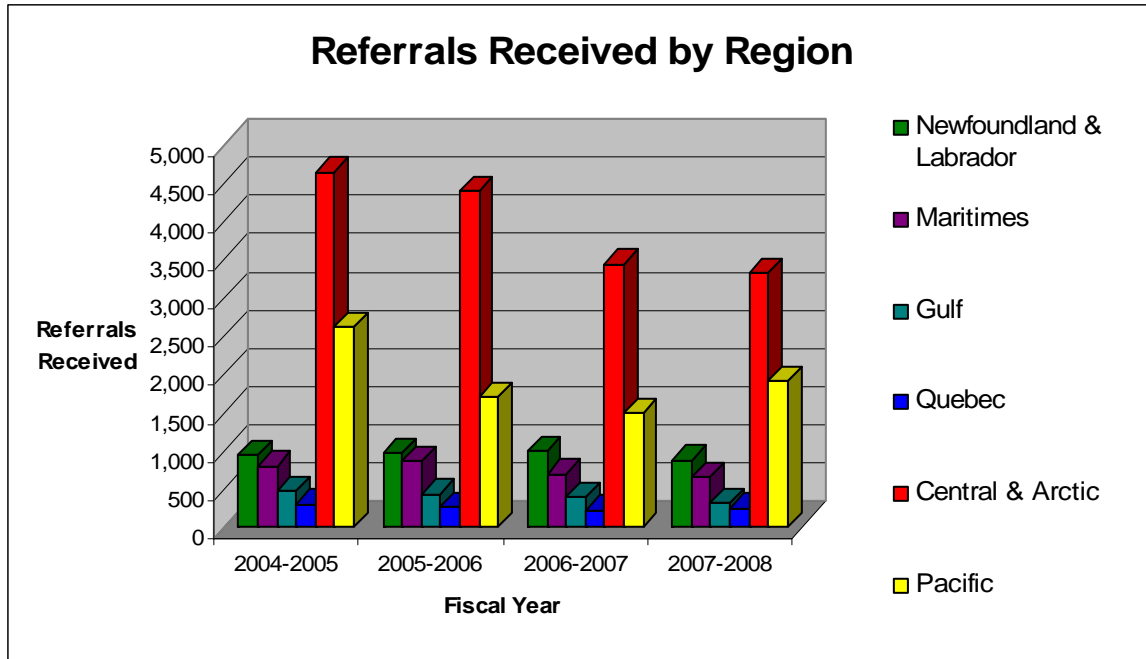


Figure 1: Referrals Received by Region, 2004-2005 to 2007-2008

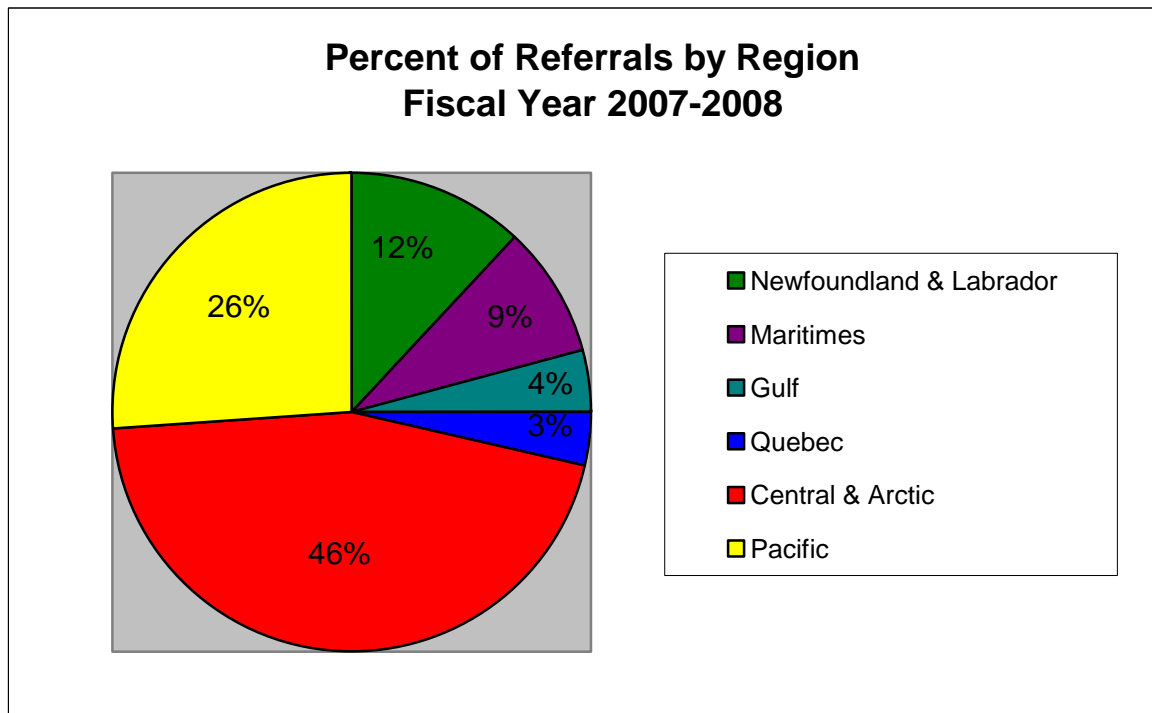


Figure 2: Percent of Referrals by Region, 2007-2008

3.2.4 Advice Provided and Authorizations Issued

Data recorded in PATH on advice provided by DFO and authorizations issued are presented in this section.

Table 4 lists for each region in 2007-2008:

- the letters of advice provided to proponents or others;
- the operational statements provided as advice; and
- the Authorizations issued.

Figure 3 and Figure 4 illustrate the regional distribution of advice and authorizations, respectively in 2007-2008.

DFO analysis suggests the total number of letters of advice provided has decreased by 27% since 2004-2005; over the same four-year period regional changes range from a decline of 45% in the Pacific Region to an increase of 9% the Newfoundland and Labrador Region.

REGION	Advice Provided to Proponent or Others¹¹	Operational Statements Provided as Advice	Authorizations Issued	TOTAL
Newfoundland and Labrador	735	28	6	769
Maritimes	405	4	19	428
Gulf¹²	172	0	11	183
Quebec	257	8	25	290
Central and Arctic	2205	195	162	2562
Pacific	617	36	57	710
TOTAL	4391	271	280	4942

¹¹ Advice provided to others includes: written advice to federal agencies, provincial/territorial/other agencies, letters of advice to proponents, letters of approval to proponents, mitigation measures provided to permitting agencies.

¹² In the Gulf Region, as a result of an agreement with the Province of New Brunswick, DFO does not need to provide Operational Statements for streamlining certain activities.

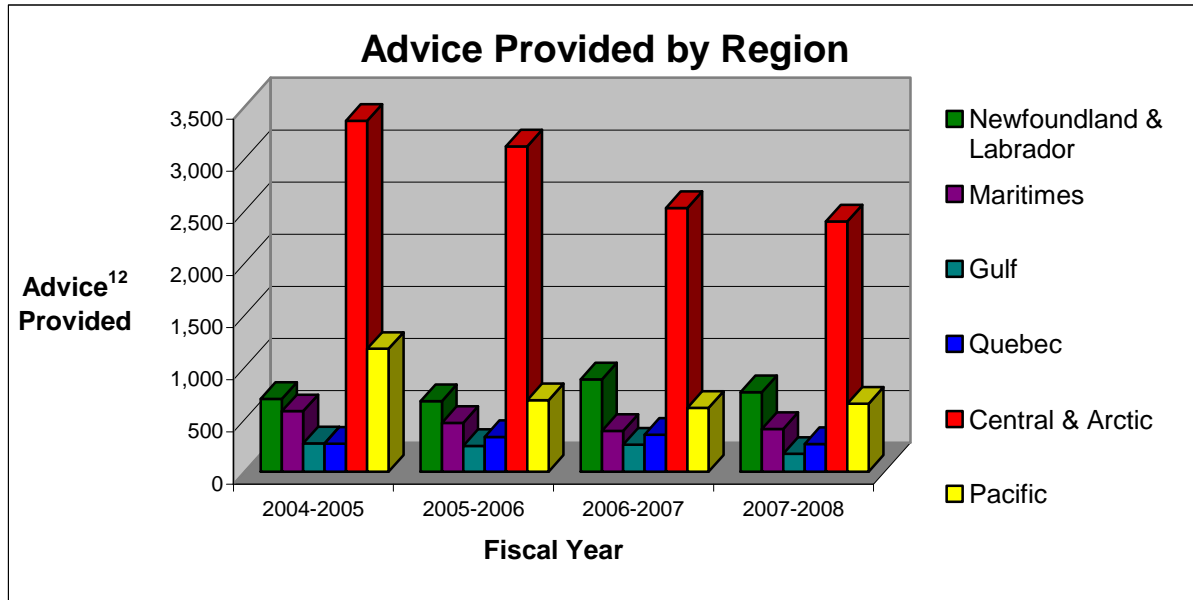


Figure 3: Advice Provided by Region, 2004-2005 to 2007-2008

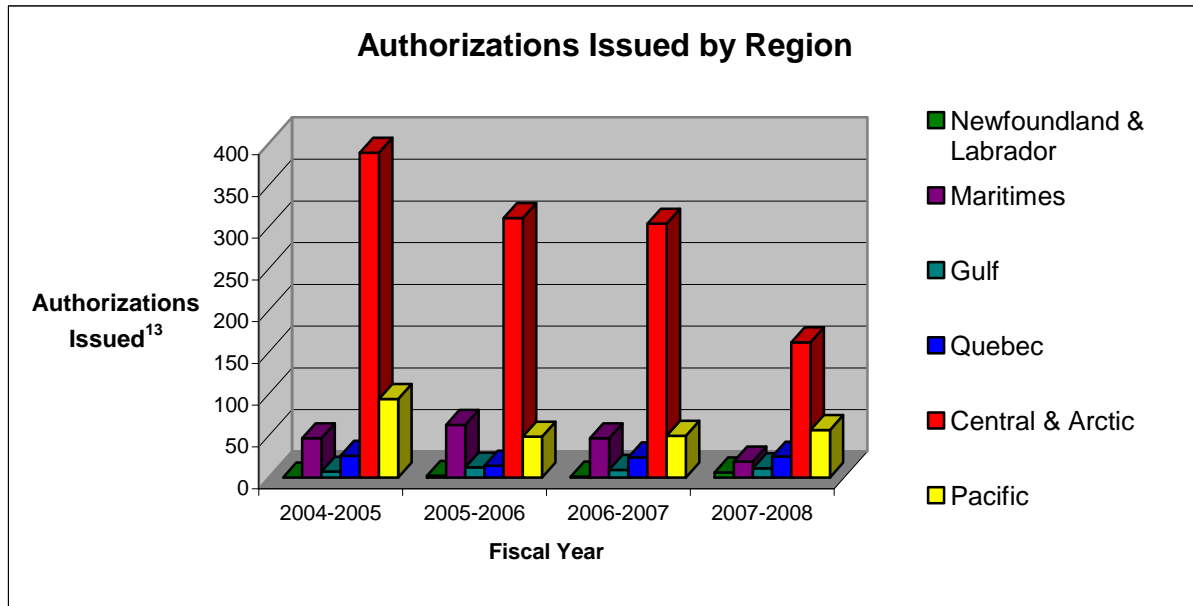


Figure 4: Authorizations Issued by Region, 2004-2005 to 2007-2008

¹³ As of 2005-2006, the advice provided includes Operational Statements provided as Advice (following receipt of referral).

¹⁴ Notification of use of Class Authorizations are not included in this chart.

3.2.5 Notifications and Use of Regulatory Streamlining Tools

DFO develops and implements operational statements as a management tool to improve efficiency and effectiveness of its regulatory reviews for low-risk activities. The operational statements specify mitigation measures needed to avoid harm to fish habitat, providing proponents with greater certainty on what they must do to comply with the habitat protection provisions of the *Fisheries Act*. It is voluntary for proponents to submit notification forms to DFO when any operational statement is used. In 2007-2008, DFO received 2,443 notifications, an increase of 40% compared to the total received in 2006-2007.

To streamline the regulatory process for specific activities, DFO has established “class” authorizations for agricultural municipal drains in Southern Ontario (Ontario-Great Lakes Area), and for placer mining in the Yukon Territory. The process in Ontario was initiated in 1999-2000. It provides a mechanism for proponents to use class authorizations for pre-defined drain maintenance activities thereby eliminating the requirement for a proponent to undergo a site-specific review process. In the Yukon Territory, DFO, the Yukon Government, and the Council of Yukon First Nations implemented a new integrated regulatory regime for placer mining. This regime includes a streamlined process for environmental review of placer mining proposals pursuant to the *Yukon Environmental and Socio-economic Assessment Act*. In 2007-08, a total of 16 section 35(2) authorizations were developed for projects effecting fish habitat in specific watercourses in the Yukon Territory. These watershed-based authorizations utilize a system that classifies watersheds according to their suitability and sensitivity for fish and fish habitat.¹⁵

Table 5 summarizes the notifications of use of DFO regulatory streamlining tools for 2007-2008.

Table 5: Notifications of use of Class Authorizations and Operational Statements Fiscal Year 2007-2008			
REGION	Class Authorizations Notifications	Operational Statements Notifications	TOTAL
Newfoundland and Labrador	0	31	31
Maritimes	0	0	0
Gulf	0	0	0
Quebec	0	11	11
Central and Arctic	156	2251	2407
Pacific	0	150	150
TOTAL	156	2443	2599

¹⁵ For more information on placer authorizations refer to:
< <http://www.yukonplacersetariat.ca/infocentre.html> >.

3.2.6 Habitat Management Continuous Improvement Initiatives

Environmental Process Modernization Plan (EPMP)

The EPMP was launched in 2004 to make the HMP more effective in conserving and protecting fish habitat, efficient in the delivery of its services, and integrated with the interests and priorities of others. The following describes the six elements of the EPMP and progress in implementing related policy, programming and organizational changes in 2007-2008.

The first element of the EPMP involves a science-based Risk Management Framework (RMF) for identifying projects with greatest impacts on fish habitat and making regulatory decisions in a more transparent and consistent manner. The RMF provides a structured approach to communicate the HMP's regulatory review and approval process. As well, application of the RMF has provided a foundation for identifying additional possibilities for improving the efficiency of referrals where there may be low or medium risks posed to fish and fish habitat. In 2007-2008, DFO continued to enhance the RMF in collaboration with Science, including a scientific review of risk management applications to land and water-based activities, and development of additional Pathways of Effects that are useful to describe linkages between specific development activities in terms of impacts on fish and fish habitat.

The second element of the EPMP is focused on streamlining of regulatory reviews. In 2007-2008, DFO continued to create and promote operational statements to improve efficiency and effectiveness of regulatory reviews for low-risk activities. DFO issued two new operational statements for low-risk activities, bringing the total number of operational statements to 20. To establish "one-window" delivery of operational statements, DFO continued to implement formal agreements with the provinces of Manitoba, Prince Edward Island, New Brunswick, and Nova Scotia.

The objective of the third element of the EPMP is to improve the consistency and predictability of DFO regulatory decisions. During 2007-2008, DFO continued to implement the Mandatory Training Program for HMP staff. As a result, 90% of HMP staff successfully completed the mandatory Habitat Management-101 course, and 65% of staff having completed the mandatory Information Management-101 course. The completion rate of the latter course increased by 45% compared to the previous fiscal year. Progress in other areas includes new guidance materials approved for Habitat Practitioners and the distribution of a Standard Operating Policy Manual. These documents provide DFO staff with guidance that will improve the consistency of regulatory decisions.

The fourth component of the EPMP involves strengthening DFO's partnerships with provinces, industry, Aboriginal groups, non-government organizations, and municipalities, to identify and collaborate on matters of mutual interest. This component supports establishment of formal agreements on habitat management that clarify responsibilities and develop mechanisms for integrating conservation and protection objectives into the priorities of partners and

stakeholders¹⁶. In 2007-2008, DFO continued to manage national-level agreements with Canada's natural resource industry sectors and the Canadian Electricity Association. Such partnership agreements benefit industry by facilitating clarity with respect to DFO requirements for complying with the habitat protection provisions of the *Fisheries Act*. To increase federal-provincial cooperation in protecting and enhancing fish habitat, DFO continued to implement its agreements with the provinces of Nova Scotia, Prince Edward Island, Manitoba and British Columbia. DFO also worked to finalize an agreement with the province of Saskatchewan, which is expected to be completed in 2008-2009.

Under the fifth element of the EPMP, DFO strives to improve the management of EAs for "major projects" under CEAA. Typically, major projects involve large-scale natural resource development projects that have nationally significant socio-economic implications. In 2007-2008, DFO continued to implement a new management model related to "major projects" aimed at strengthening accountabilities at senior levels within DFO, timely and effective application of the EA process amongst other objectives. DFO continued to develop policy guidance to provide clarity and improve review processes for EA major projects.

The sixth element of the EPMP involves Habitat Compliance Modernization that aims to strengthen monitoring compliance for and effectiveness of regulatory requirements pursuant to the habitat protection provisions of the *Fisheries Act*. In 2007-2008, DFO developed and implemented regional protocols based on the National Protocol between HMP and C&P that was took effect in 2006-2007. The National Protocol defines the various roles and responsibilities of the C&P program and the HMP in the delivery of an integrated habitat compliance program. DFO's capacity to manage compliance activities was strengthened through the completion of approximately 80% of planned staffing actions for new positions responsible for Habitat Management Monitoring. DFO will continue development of monitoring protocols and procedures to evaluate the effectiveness of its regulatory requirements.

In summary, DFO accomplishments after four years of implementing the EPMP include the following:

- a Risk Management Framework and new operational policies for HMP staff;
- streamlining tools, processes and protocols (e.g., new operational statements);
- a mandatory training program for HMP staff;
- organizational changes to address the application of EA processes to major projects;
- a new program governance structure; and
- formal partnering arrangements to engage key partners and stakeholders.

Program Priorities

DFO plans to implement two key initiatives over the coming period, namely: 1) Regulatory Improvement Initiative for Major Resource Projects; and, 2) Habitat Management Continuous Improvements.

¹⁶ Information on DFO's partnerships can be found at http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/aboutus-a-propos/partners-partenaires/index_e.asp

For the Regulatory Improvement Initiative, the federal government committed in Budget 2007 to reducing the federal regulatory review process for major resource projects to an average of two years. To support this commitment, DFO received additional resources for regulatory activities under the *Fisheries Act*, as well as for environmental assessment and Aboriginal consultation responsibilities. Budget 2007 also announced the creation of a Major Projects Management Office (MPMO), within Natural Resources Canada, which will provide oversight to this Regulatory Improvement Initiative. DFO is working closely with the MPMO and other departments to implement this initiative. Also, DFO will be working closely with Indian and Northern Affairs Canada and other departments to support regulatory improvements in the north, an area not covered by the Regulatory Improvement Initiative.

DFO will continue to implement initiatives designed to ensure more effective and efficient delivery of its mandate to regulate the impacts on fish and fish habitat of activities occurring in and around fresh and marine waters. This will be achieved through greater predictability, transparency and timeliness in its regulatory decision-making. DFO will continue to develop and apply standardized management approaches and tools (e.g., operational statements) that provide project proponents with specific mitigation measures to avoid harm to fish and fish habitat, and work to integrate these approaches and tools into provincial permitting systems. As well, DFO will strengthen its capacity to ensure compliance with the habitat protection provisions of the *Fisheries Act* through increased monitoring.

3.3 Compliance and Enforcement of the Fish Habitat Protection Provisions of the *Fisheries Act*

DFO's C&P Program is responsible for monitoring compliance with legislation and regulations regarding the conservation of fisheries resources and fish habitat. The Minister of Fisheries and Oceans 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 fishers regarding government policies and regulations. The enforcement and compliance monitoring activities of Fishery Officers are key to protecting Canada's fish and fish habitat.

For more information, see the *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act*¹⁷.

¹⁷ The full text of the Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act can be found at:

< <http://www.ec.gc.ca/ele-ale/default.asp?lang=En&xml=D6765D33-DB9B-4FA9-9E92-815A013842F4> >

Table 6, Table 7 and Table 8 summarize C&P's compliance and enforcement activities by region in 2007-2008.

Table 6: Summary of DFO Habitat Enforcement Activities Fiscal Year 2007-2008			
REGION	Warnings Issued	Charges Laid	Alternatives to Prosecution
Newfoundland and Labrador	1	0	0
Maritimes	8	9	0
Gulf	9	2	0
Quebec	0	0	0
Central and Arctic	14	9	1
Pacific	27	1	0
TOTAL	59	21	1

Table 7: Convictions Reported under the Habitat Protection Provisions of the <i>Fisheries Act</i> Fiscal Year 2007-2008				
REGION	35(1)	36(3)	40(3)	TOTAL
Newfoundland and Labrador	0	0	0	0
Maritimes	1	1	0	2
Gulf	0	0	0	0
Quebec	1	0	0	1
Central and Arctic	6	3	1	10
Pacific	10	0	0	10
TOTAL	18	4	1	23

**Table 8:
Summary of Convictions and Alternative Measures to Prosecution
Fiscal Year 2007-2008**

REGION	PROVINCE	AREA	WATERBODY	FISHERIES ACT SECTION	PROJECT DESCRIPTION	CONVICTION / RESOLUTION DATE	FINE	SENTENCE DETAILS
Quebec	Quebec	Îles-de-la-Madeleine	Prés quai Havre-Aubert	35(1)	Rebuilding of an old dock without permission from DFO	May 9, 2007	\$1,000	
Pacific	British Columbia	Lower Fraser	Fraser River near the mouth of Silverdale Creek	Seven charges under 35(1)	Land clearing and infilling on the Fraser River	July 12, 2007	\$41,000	\$6,000 for remediation works \$35,000 for enhancement
Pacific	British Columbia	Lower Fraser	Fraser River near the mouth of Silverdale Creek	35(1)	Land clearing and infilling on the Fraser River	July 12, 2007	\$4,000	\$500 to court and \$3500 for habitat enhancements
Pacific	British Columbia	Central Coast	Holberg Inlet	35(1)	A bobcat machine had done work on the beach leading to an impact of fish habitat	October 18, 2007	\$500	
Pacific	British Columbia	South Coast		35(1)	Fill placed in wetland	December 19, 2007	\$100	\$100 fine and court order to clean up the area pursuant to section 79.2.

**Table 8:
Summary of Convictions and Alternative Measures to Prosecution
Fiscal Year 2007-2008**

REGION	PROVINCE	AREA	WATERBODY	FISHERIES ACT SECTION	PROJECT DESCRIPTION	CONVICTION / RESOLUTION DATE	FINE	SENTENCE DETAILS
Maritimes	Nova Scotia	Yarmouth	Mahone Bay	35(1) 36(3)	An excavator was used to scrape the beach area below the high-tide mark. Rocks were removed from this area and a silt plume was observed in the water surrounding the work area.	December 5, 2007	\$30,000	Voluntary rehabilitation of the site cost the accused \$380,000. As a result there was a joint recommendation of a \$30,000 fine divided in the following way: \$10,000 to the court, \$10,000 donated to the LaHave River Salmon Association and \$10,000 donated to BCAF.
Central & Arctic (C&A)	Ontario	Ontario Great Lakes Area (OGLA)	Tributary of the East Humber River	36(3)	Sediment entered the Tributary from the pumping of a newly created storm water management pond under construction immediately east of tributary on the development site.	October 9, 2007	\$75,000	Fine assessed was \$75,000 of which is \$60,000 was subject to a section 79.2 order and directed to Toronto and Region Conservation Authority for restoration works on the Marigold Creek/East Humber watershed.

**Table 8:
Summary of Convictions and Alternative Measures to Prosecution
Fiscal Year 2007-2008**

REGION	PROVINCE	AREA	WATERBODY	FISHERIES ACT SECTION	PROJECT DESCRIPTION	CONVICTION / RESOLUTION DATE	FINE	SENTENCE DETAILS
C&A	Ontario	OGLA	Ottawa River	35(1)	A portion of the Ottawa River was filled in. Ministry of Natural Resources led investigation, with the assistance of DFO. MNR laid charges, DFO provided prosecutor.	November 27, 2007	Decision Incomplete until second accused is sentenced.	Sanction of \$8,500 imposed. \$7,650 of which was subject to a section 79.2 order directed to South Nation Conservation Authority. Sentencing of second accused to follow.
C&A	Ontario	OGLA	Bay of Quinte	Two charges under 35(1)	Dredging a near-shore marsh, and building a berm that isolated a smaller bay from Bay of Quinte.	January 31, 2008	\$235,000	Berm was ordered removed and habitat restored. Sanction of \$235,000 imposed, \$5,000 of which is a fine, \$230,000 was subject to a section 79.2 order and directed to the Crown, to be administered by partner agency Quinte Conservation, in part to restore the damaged habitat onsite.

**Table 8:
Summary of Convictions and Alternative Measures to Prosecution
Fiscal Year 2007-2008**

REGION	PROVINCE	AREA	WATERBODY	FISHERIES ACT SECTION	PROJECT DESCRIPTION	CONVICTION / RESOLUTION DATE	FINE	SENTENCE DETAILS
C&A	Alberta	Prairies	Jumping Pound Creek	36(3) 35(1)	Instream works and alteration of creek banks	February 14, 2008	\$12,000	The defendant was ordered to pay a total penalty of \$12,000 to deal with both charges – one section 35(1) and one section 36(3). The sum of \$1,200 shall be paid as a fine and the sum of \$10,800 shall be paid in trust to the Receiver General of Canada, in care of DFO to be used towards projects, which will support the management and enhancement of fish habitat in the province of Alberta. The defendant has been further ordered to complete shoreline stabilization work at the location of the offence.
C&A	Alberta	Prairies	Fallentimber Creek	35(1)	Instream and shoreline alteration	October 22, 2007	\$15,000	The defendants were required to pay a penalty of \$15,000. \$1,500 as a fine and \$13,500 to be paid into a fund administered by DFO to be used to manage, conserve and protect fish and fish habitat in the Little Red Deer River watershed, Alberta.

**Table 8:
Summary of Convictions and Alternative Measures to Prosecution
Fiscal Year 2007-2008**

REGION	PROVINCE	AREA	WATERBODY	FISHERIES ACT SECTION	PROJECT DESCRIPTION	CONVICTION / RESOLUTION DATE	FINE	SENTENCE DETAILS
C&A	Ontario	OGLA	Lake Simcoe, Cook's Bay	40(3) via 37(1)	Defendant failed to meet the conditions of its authorization (construction of pike spawning channels).	October 18, 2007	\$8,500	Pike spawning channels were built while court proceedings were ongoing. Sanction of \$8,500 imposed, \$7,000 of which was subject to a section 79(2) order and directed to Muskies Canada for the Lake Simcoe Muskellunge Restoration fund.
C&A	Manitoba	Prairies	Seine River	35(1)	Diversion of the river and subsequent dewatering of 32 km	February 29, 2008 (Charges are stayed)		Defendants entered into a "Protection Measures Resolution Agreement" on February 29 th , 2008. Defendant paid \$40,000 to DFO, which has been set aside in the fish habitat enhancement fund for projects focused on protecting and conserving fish habitat in the province of MB.

3.4 Scientific Support

DFO's Science Sector conducts research and provides advice to assist habitat management practitioners. In collaboration with Habitat Managers, Environmental Scientists identify knowledge gaps related to habitat conservation, restoration and improvement, and devise research projects to address those gaps. Research pursued in 2007-2008 included:

- developing empirical models for evaluating the productive capacity of fish habitat, linking fish biomass at specific habitats to total population production;
- assessing the impacts of hydroelectric dam operations (ramping rate) on downstream aquatic ecosystems;
- refining methodologies for the remediation of oil-contaminated sites;
- 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';
- assessing the effects of aquaculture on the environment;
- conducting joint research, with Habitat Management staff, into the efficacy of habitat compensation projects in meeting compensation objectives in a 'habitat productive capacity' framework; and
- developing the knowledge necessary to make decisions regarding stream flows and water allocations in order to ensure that water levels are sufficient for fish.

Research results are transferred to HMP staff in the form of peer reviewed advice, workshops, published reports, fact sheets, briefings, and personal consultations. Information provided can range from informal, one-on-one discussions, to regional advice sessions and large-scale National Advisory Process workshops that follow a formal process to produce peer-reviewed, published advisory documents. The Canadian Science Advisory Secretariat within the Science Sector oversees the production of science advice, and maintains a website where reports are made available¹⁸. In 2007-2008, advice was provided to HMP in many areas, including:

- a national workshop on the efficacy and applicability of available methodologies for assessing changes in Productive Capacity caused by hydroelectric activities;¹⁹
- a national peer review to examine the suitability of technologies available for closed containment facilities for finfish aquaculture;²⁰
- a review of the protocol for the detection and relocation of freshwater mussel species at risk in Ontario Great Lakes Area;²¹
- a national workshop on modelling tools for ecosystem approaches to management;²²

¹⁸ < http://www.dfo-mpo.gc.ca/csas/Csas/Home-Accueil_e.htm >

¹⁹ < http://www.dfo-mpo.gc.ca/csas/Csas/Publications/Pro-CR/2008/2008_002_e.htm >

²⁰ < http://www.dfo-mpo.gc.ca/csas/Csas/Publications/SAR-AS/2008/2008_001_e.htm >

²¹ < http://www.dfo-mpo.gc.ca/csas/Csas/Proceedings/2007/PRO2007_010_E.pdf >

²² < http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/Pro-CR/2008/2008_007_e.htm >

- a workshop on the design, implementation & effectiveness of compensation measures related to coastal and estuarine activities;
- science advice on the mitigation of hydroelectric impacts on American eels in the upper St. Lawrence / Lake Ontario;
- allowable harm assessments for species protected under the SARA;
- an examination of the impacts of seismic sounds on marine mammals, fish, and invertebrates through a series of national peer review workshops;
- science advice on potential impacts of water management scenarios related to the Athabasca River Oil Sands;
- expert advice and testimony on the impacts of alleged infractions of the *Fisheries Act*, assisting in prosecutions of offences and remediation of the impacts;
- provision of scientific advice on a referral by referral basis in relation to determination of HADDs (harmful alteration, disruption, and destruction of habitat), monitoring and compensation requirements, etc; and
- review of environmental impacts statements, effects monitoring programs, compensation effectiveness, and supporting documents in relation to oil and gas developments, mining, hydroelectric developments, and other major industrial sectors.

4.0 Administration and Enforcement of the Pollution Prevention Provisions of the *Fisheries Act*

Since 1978, EC has been responsible, for the enforcement of the pollution prevention provisions of the *Fisheries Act* - namely section 34 and sections 36 to 42. These sections of the Act deal with the deposit of deleterious substances into waters frequented by fish. In addition, a 1985 *Memorandum of Understanding between the Department of Fisheries and Oceans and Environment Canada* outlines the departments' respective responsibilities in the administration and enforcement of the pollution prevention provisions, and outlines several mechanisms to facilitate information sharing and cooperation.

EC develops sector-based strategies and undertakes activities to promote and secure compliance with the pollution prevention provisions of the *Fisheries Act*. 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*.

Operating across the country, EC has responsibility for various components of the administration and enforcement of the pollution prevention provisions of the *Fisheries Act*, involving the:

- Environmental Enforcement Program
- Compliance Promotion and Analysis Program; and
- Environmental Emergencies Program.

4.1 EC Enforcement Activities and Measures

4.1.1 The Environmental Enforcement Program

EC's Enforcement Branch aims to create and sustain the most effective and efficient environmental and wildlife law enforcement function in fulfillment of statutory requirements under the Acts administered by the Department.

The Enforcement Branch's operations focus on verifying compliance, identifying instances of non-compliance and taking appropriate measures to enforce compliance. This is done through three principal activities:

- *Inspections*: Annual National Inspection Plans identifying priority areas for the coming year are developed in consultation with EC programs and enforcement partners. Inspection findings and intelligence estimates are often the starting point for investigations;

- *Investigations*: Investigations are triggered by inspection results, intelligence or public complaints/requests;
- *Intelligence*: On-going information collection and analysis of compliance activities and emerging non-compliance issues within regulated sectors to identify potential violators. Production of intelligence reports for internal consumption to support enforcement decision making and information to national and international partners as appropriate.

For the Environmental Enforcement Program to meet its mandate to secure compliance with subsection 36(3) of the *Fisheries Act* and with six regulations made under subsection 36(5) of the Act, EC inspectors/fishery officers in the Department's five administrative regions conduct inspections and investigations into the deposit of deleterious substances into water frequented by fish. In the event of alleged violations, they may also apply a number of enforcement tools including issuing written warnings or directions and laying charges. In selecting appropriate enforcement measures, EC inspectors/fishery officers consider the following criteria set down in policy:

- The nature of the violation (seriousness of harm, intent of the violator, compliance history, attempts to conceal information or obstruct);
- The effectiveness of the measure in achieving the desired result (general result sought is compliance within the shortest time with no further occurrence); and
- The consistency in enforcement (consistency in responses to violations so similar situations are addressed in a similar fashion across regulated communities and across the country).

The *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* guides EC inspectors/fishery officers in the fair, predictable and consistent application of the law. EC inspectors/fishery officers also use an electronic database called the National Emergencies and Enforcement Management Information System and Intelligence System to record, track, and analyze enforcement activities.

4.1.2 Summary of Enforcement Activities

Table 9 summarizes the number of occurrences, inspections and investigations carried out under the *Fisheries Act* during 2007-2008 by EC.

The following explanations should be noted with respect to the table:

- An **occurrence** is any event where there is a possible violation of the environmental and wildlife legislation administered, in whole or in part, by EC. An occurrence can generate an inspection or an investigation. Occurrences are tabulated based on Reported Date, for all categories except Spill/Release. An occurrence file may include one or more regulations, therefore is it possible that the data at the regulation level, may not add to the total at the legislation level.
- An **inspection** is an activity that involves verification of compliance with the environmental or wildlife legislation administered, in whole or in part, by EC. Only

closed files using the end date are tabulated. The number of inspections relates to the number of regulatees inspected for compliance under each of the applicable regulations.

- An **investigation** is the gathering and analyzing, from a variety of sources, of evidence and information relevant to a suspected violation where there are reasonable grounds to believe that an offence has been, is being or is about to be committed with regards to the environmental or wildlife legislation administered, in whole or in part, by EC. Investigations are tabulated by number of investigations files, based on Start Date of the investigation. An investigation file may include activities relating also to another piece of legislation and may include one or more regulations. Therefore, the total number of investigations shown by regulation may not add to the total at the legislation level.

**Table 9:
EC Enforcement Activities and Measures Carried Out under *Fisheries Act*
Fiscal Year 2007-2008**

NATIONAL	Inspections ²³			Investigations ²⁴	Enforcement measures				
	Off-site	On-site	Total		Prosecutions	Charges	Convictions	Written Directives	Written Warnings
General Prohibition	813	597	1,410	29	2	2	6	30	84
Alice Arm Tailings Deposit	0	0	0	0	0	0	0	0	0
Chlor-Alkali Mercury Liquid Effluent and Guidelines	3	1	4	0	0	0	0	0	0
Meat and Poultry Products Plant Liquid Effluent and Guidelines	45	18	63	0	0	0	0	0	0
Petroleum Refinery Liquid Effluent and Guidelines	127	4	131	0	0	0	0	0	0
Port Alberni Pulp and Paper Effluent	1	0	1	0	0	0	0	0	0
Potato Processing Plant Liquid Effluent and Guidelines	80	10	90	1	0	0	0	0	0
Pulp and Paper Effluent Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments	1,319	82	1,401	4	0	0	0	4	69
Metal Mining Effluent	588	79	667	5	0	0	0	5	35
TOTAL	2,976	791	3,767	39	2	2	6	39	188

²³ **Number of Inspections - new way of counting:** Only closed files using the end date are tabulated. The number of inspections relates to the number of regulatees inspected for compliance under each of the applicable regulations.

²⁴ **Number of Investigations:** Investigations are tabulated by number of investigations files, based on Start Date of the investigation. An investigation file may include activities relating also to another legislation and may include one or more regulations. Therefore, the total number of investigations shown by regulation may not add to the total at the legislation level.

ADDITIONAL STATISTICS:

There were 78 referrals to another federal/provincial or municipal government or department.

Table 10: Investigation Breakdown Fiscal Year 2007-2008	
INVESTIGATION BREAKDOWN	# of Investigations
Investigation Started and Ended in FY 2007-2008	7
Investigation Started in FY 2007-2008 and still on-going at end of FY 2007-2008	30
Investigation Started before FY 2007-2008 and ended in FY 2007-2008	28
Investigation Started before FY 2007-2008 and still ongoing at end of FY 2007-2008	44

EXPLANATORY NOTES: THE STATISTICS ARE TABULATED AS FOLLOWS

The measures such as Inspection Tickets, Written Warnings, Written Directions, Injunctions, Ministerial Orders and Environmental Protection Compliance Orders are tabulated at the section level of a regulation. Example, if the outcome of an inspection is the issuance of a written warning that relates to three sections of a given regulation, the number of written warnings is three.

Prosecutions: The number of prosecutions is represented by the number of regulatees that were prosecuted by charged date regardless of the number of regulations involved (including Tickets).

Environmental Protection Alternative Measures (EPAMs): The number of EPAMs is represented by the number of regulatees whom signed EPAMs by the charged date regardless of the number of regulations involved.

Charges: The number of charges (excluding tickets) is tabulated at the section level of the regulation by charge date, by regulatee.

Counts: The number of counts (excluding tickets) is tabulated at the section level of the regulation, by offence date relating to the regulatee's charge.

Convictions: The number of convictions (excluding tickets) is represented by the number of counts where the regulatee was found guilty or pleaded guilty.

Investigation Tickets: It is tabulated at the section level of the regulation by charge date, by regulatee.

4.1.3 Enforcement Highlights

Pulp and Paper Effluent Regulations

In June 2007, Cascades Fine Papers Group Inc., a division of Cascades Inc., which operates the Breakey Fibres Division mill in Levis, Quebec, pleaded guilty to three counts of indictment for having, in December 2003, January and February 2004, and again in February 2005, deposited a deleterious substance (final effluent from the water treatment system) into the Chaudière River, in violation of subsection 36(3) of the *Fisheries Act*.

The Court of Quebec ordered Cascades Fine Papers Group Inc. to pay a penalty of \$125,000.00 (\$45,000.00 fine and an \$80,000.00 payment) to the Environmental Damages Fund (EDF) administered by EC. This Fund helps to ensure that polluters take responsibility for offences and provides the courts with a way of guaranteeing that money is directly invested to improve the quality of the environment. The charges were laid following an investigation by enforcement officers from EC's Environmental Enforcement Branch - Quebec Region.

General Prohibition

In September 2007, an Inspector's Direction was issued in Nova Scotia to a ready mix concrete facility under subsection 36(3) of the *Fisheries Act* as a result of an ongoing discharge of a very high pH concrete washwater into waters frequented by fish. The facility has since ceased to discharge any washwater offsite by erecting a closed loop system.

In June 2007, an Inspector's Direction was issued to the City of St. John's and the responsible officials under subsection 36(3) of the *Fisheries Act* as a result of intermittent discharges of a deleterious substance (i.e., chlorinated swimming pool effluent) to a municipal storm sewer, which discharged into waters frequented by fish. Following the issuing of the direction, measures were undertaken by the municipality to end the discharge, thereby complying with the terms of the Inspector's Direction.

In May 2004 an estimated 45 m³ of crude oil was released to a creek in Alberta following a pipeline break. On May 11, 2006, charges were laid under subsection 36(3) of the *Fisheries Act* against Leddy Exploration Limited for the release. On April 23, 2007, Leddy Exploration pleaded guilty to one charge under subsection 36(3) of the *Fisheries Act*. The Judge ordered Leddy to pay a fine of \$2,500; deposit \$40,000 into the EDF; and make a presentation to the Western Canada Spill Services (an association of oil companies operating in the area of the oil spill) regarding the offence and how to prevent similar offences. The funds sent to the EDF will be used by Trout Unlimited to establish a trout lake in the area of the spill, with the objective that the lake will provide habitat that will promote the growth of larger than average trout. Alberta Sustainable Resource Development (Fish & Wildlife Dept.) is assisting in the implementation of this project to ensure its success. Leddy Exploration made its presentation on April 25, 2007 in accordance with the court order.

In July 2004, the Alberta Natural Resources Conservation Board received a complaint concerning a hog operator pumping liquid manure through an irrigation system into Grantham Lake in southern Alberta. On August 24, 2005, four charges were laid: one count under the Alberta *Agricultural Operation Practices Act*; two counts under the Alberta *Environmental Protection and Enhancement Act*; and one count under subsection 36(3) of the *Fisheries Act*. On May 30, 2007, Habraken Farms Ltd. attended court in Lethbridge, Alberta and pleaded guilty to one count under the Alberta *Environmental Protection and Enhancement Act*. Habraken Farms was sentenced to a penalty of \$50,000 including a \$25,000 fine and a creative sentence requirement to provide \$25,000 to Lethbridge Community College to be used for a project entitled “Utilizing the floating aquatic plant, water hyacinth to reduce nutrients and improve water quality in sewage lagoons and farm dugouts”. All other charges against the company were dropped.

In May 2006, Alberta Environment reported a fish kill on the Beaverlodge River west of Grande Prairie. There was a report of a green color to the water and numerous dead fish. The green color was discovered to be coming from a sewage lagoon discharge belonging to a municipality nearby. On March 27, 2008, a charge was laid against the municipality for a violation of subsection 36(3) of the *Fisheries Act*. The matter is now before the Court.

The City of Dawson, Yukon, pled guilty in 2003 to a subsection 36(3) *Fisheries Act* offence for depositing deleterious substances in the Yukon River resulting from charges initiated by EC in 2000. Dawson had been under direction in its previous water licenses (as early as 1983) to build a treatment facility that complied with the *Fisheries Act*, but had never met those conditions. Subsequently, Dawson agreed to a court order requiring that a mechanical plant be built and functional by 2004. Shortly thereafter, Dawson requested additional time to construct a sewage treatment system, citing excessive operational costs associated with the mechanical plant option. The court order was extended by agreement of the parties to construct a functional sewage treatment system by December 2008, which also met the provisions of the *Fisheries Act*. With substantial assistance from Yukon Government, Dawson eventually brought forward an aerated lagoon option in 2006. The chosen sites was considered controversial by residents, and as a result of a municipal referendum, Dawson’s mayor and council were required to pass a bylaw in March 2008, prohibiting the construction of the lagoon at the preferred site. Dawson and the Yukon Government currently have no substantive contingencies for a sewage treatment plant, other than the original mechanical plant design. The judge has now instructed the City to provide concrete proposal(s) by September 2008 that require full reconsideration of the mechanical plant option and any other option the City wants to advance at the same time. The parties realize that the December 2008 deadline will need to be revisited.

Agreements

The *Canada-Alberta Administrative Agreement for the Control of Deposits of Deleterious Substances under the Fisheries Act* entered into force on September 1, 1994. The agreement, establishes the terms and conditions for the cooperative administration of subsection 36(3) and the related provisions of the *Fisheries Act*, as well as regulations under the *Fisheries Act* and the *Alberta Environmental Protection and Enhancement Act*. The Agreement streamlines and coordinates the regulatory activities of EC and Alberta Environment in relation to the

protection of fisheries, and reduces duplication of regulatory requirements for regulatees. During 2007-2008, Alberta Environment reported 2,238 incidents to EC, of which 340 were related to the *Fisheries Act*. This collaboration led to 255 (onsite and offsite) inspections and 3 investigations.

To facilitate the cooperative administration of subsection 36(3) of the *Fisheries Act* and its accompanying regulations, EC maintains bilateral agreements with Saskatchewan. The *Canada-Saskatchewan Administrative Agreement for the Control of Deposits of Deleterious Substances under the Fisheries Act* sets out the principles for cooperation and identifies a preliminary list of activities where detailed collaborative arrangements could be developed. Existing collaborative arrangements are described in the five annexes to the agreement. In 2007-2008, Saskatchewan Ministry of Environment conducted one joint inspection under the *Pulp and Paper Effluent Regulations* (PPER) with EC. Saskatchewan Ministry of Environment reported 540 spills to EC, of which 47 were related to the *Fisheries Act*.

The *Canada-Quebec Pulp and Paper Agreement* expired on March 31, 2007. The agreement enabled the Environment Ministry of Quebec to act as a “single window” with the pulp and paper industry for the gathering of information required pursuant to the PPER, the *Fisheries Act*, and two other regulations under the *Canadian Environmental Protection Act, 1999*. The agreement put a cooperative procedure in place between the Environment Ministry of Quebec and EC with respect to regulating the pulp and paper industry. Negotiations to renew the agreement are expected to be held in 2008-2009.

4.2 EC Compliance Promotion Activities

Compliance promotion consists of activities that aim to increase the awareness and the understanding of the laws and its and regulations, what is required to conform to them, and the benefits of compliance (as well as the penalties of non-compliance). This information is communicated to Canadians through numerous vehicles, including websites; advisory letters and emails; brochures; site visits; responses to inquiries; and information sessions.

Compliance promotion activities are planned, developed and delivered nationally by EC’s sector experts and the five regional offices of the Environmental Protection and Operations Directorate.

4.2.1 Pulp and Paper

In 2007-2008, EC published proposed amendments to the PPER in *Canada Gazette*, Part I for consultation. Comments received following this consultation will be taken into consideration when developing a final version of the amendments, which will then be published in *Canada Gazette*, Part II. The proposed amendments are a result of operational experience gained through implementing the environmental effects monitoring (EEM) requirements, as well as feedback from a multi-stakeholder group of policy experts brought

together to work on the Smart Regulation project on *Improving the Effectiveness and Efficiency of Pulp and Paper EEM*. The proposed amendments are intended to improve the PPER, so that the pulp and paper EEM requirements are more effective and efficient.²⁵

Ongoing compliance promotion activities, meetings and site visits on the EEM program for operating mills subject to the PPER, were conducted in several provinces and advice was provided on EEM study designs to these facilities.

Several Pulp Mills in the Atlantic Region have announced plans for ceasing operations and closure. EC personnel have communicated with these mills to highlight requirements for continued compliance with the PPER, and with the *Fisheries Act* subsection 36(3) when the facility ceases to be a mill, but may continue to have an effluent discharge to waters frequented by fish.

The Regulatory Information Submission System for pulp and paper mills deployed last year in the Atlantic and Pacific Regions is still being promoted and used. The information system is a web-based reporting tool used by industry to report mandatory data as required under PPER.

4.2.2 Metal Mines

EC continued to enforce the *Metal Mining Effluent Regulations* (MMER) through both onsite and offsite inspections of the mines in the Region. In addition, inspections were completed at a number of mines that do not yet fall under the MMER, but are expected do so in the near future. At these locations, the primary effort was to ensure the mine representatives understood the scope and application of the MMER. Inspections were also completed at coalmines to ensure compliance with the general provisions of the *Fisheries Act* and better understand possible environmental impacts from the operations. Ten onsite and 39 offsite MMER inspections were completed in 2007-2008.

Site visits and initial compliance promotion activities were carried out for the Moose River gold mine, and Gays River mine in the Atlantic region.

In January 2008, Atlantic EC compliance promotion personnel supported the Enforcement Branch in the inspection and investigation of New Brunswick Blue Note Caribou mines. The tailing pond waters were close to overtopping the dam and had to be discharged, yet in samples taken throughout the year, some tests show that the effluent was dangerous to fish and aquatic life. EC employees continue to help the company by providing information on technical options.

In Ontario, two mining projects at the pre-development stage, before metal ore production starts, received formal notification letters to advise them of their responsibilities under the MMER and the *Fisheries Act*. User-friendly reporting procedures outlining the requirements

²⁵ For more information on the proposed amendments, see < www.ec.gc.ca/eem >

were also developed and distributed to the thirty-one regulated mines in Ontario. The goal is to help with the reporting and clarify issues. In addition, advice on the proposed use of fish-bearing waters for depositing tailings was provided for three mining projects through compliance promotion and the EA process.

To improve the identification process for new and re-opened mining projects, Ontario Region receives copies of Notices of Project Status under the Ontario *Mining Act* from the Ontario Ministry of Northern Development and Mines. Notices were reviewed for eight production projects and seven advanced exploration projects in Ontario resulting compliance promotion information exchanged on subsection 36(3) of the *Fisheries Act* and MMER in a timely manner.

A closed mine in Ontario projected to use a natural water body as a polishing pond in an effluent relocation proposal for approval by provincial authorities. As a result of advice on subsection 36(3) of the *Fisheries Act*, the proponent reconsidered its proposal and the use of the water body as a polishing pond is no longer an option.

4.2.3 Wastewater

During 2007-2008, EC provided compliance advice, related to the *Fisheries Act*, on more than 32 wastewater treatment projects reviewed under the CEEA, under the *Canadian Environmental Protection Act (Pollution Prevention planning for inorganic chloramines and chlorinated effluents)* and under the *National Framework for the Review Process of Water and Wastewater Systems in First Nations Communities*.

EC recognizes the key role played by provinces and territories in the management of the wastewater and is working with these jurisdictions and other stakeholders through the Canadian Council of Ministers of the Environment. In November 2003, the Council agreed to develop a Canada-wide Strategy for the management of municipal wastewater effluents. The strategy will include national performance standards applicable to the effluents of all wastewater systems in the country and risk-based implementation timelines.

EC intends to develop wastewater effluent regulations under the *Fisheries Act* as its principal instrument to contribute to the implementation of the Canada-wide Strategy. The regulations, which will include national standards, will be applied in a harmonized regulatory framework with the provinces and territories. The desired outcomes is to ensure that the release of wastewater effluent does not pose unacceptable risks to human and ecosystem health or fisheries resources through the application of one set of standards in a fair, consistent, and predictable manner.

Between November 2007 and January 2008, EC conducted extensive consultations with First Nations, municipalities, non-governmental organizations, and federal departments and agencies on its proposed regulatory framework for wastewater.

4.2.4 Shellfish Sanitation – Water Quality Monitoring

In 2007-2008:

- the total area assessed in Canada increased from 15,684 km² to 15,735 km²;
- the total area approved for harvest increased from 10,003 km² to 10,053 km²;
- the total area conditionally approved decreased from 463 km² to 458 km²; and
- the total area closed for harvest increased from 5,218 km² to 5,224 km².

In 2007-2008, EC in the Atlantic provinces, together with its partners, conducted growing area surveys in southeastern and southwestern New Brunswick; portions of the north and eastern coasts of Newfoundland; the Eastern Shore, Annapolis Basin, Bras d'Or Lakes and portions of the Northumberland Strait in Nova Scotia; and all growing areas of Prince Edward Island. In Quebec, EC conducted growing area surveys on portions of the North Shore, the Magdalen Islands, the Gaspé and the Lower St. Lawrence. On the Pacific coast, EC together with its partners and stakeholders conducted water quality monitoring surveys in most shellfish growing areas in the Pacific region. Nationally the majority of surveys were re-evaluations of existing classified areas; there were some comprehensive surveys resulting in a few new harvest areas.

Also in 2007-2008 EC began to reassess the classification of shellfish harvest areas near Wastewater Treatment Plants to include impacts under failure conditions.

Additionally, EC provided guidance to a number of community projects funded through EcoAction and the New Brunswick Environmental Trust Fund to identify and remediate selected pollution sources that were suspected of adversely affecting shellfish water quality in Eastern New Brunswick. Although the results of these projects are unlikely to have an immediate effect on shellfish classification, it is expected that they will help stem the potential degradation of water quality. The results will be evaluated through EC's routine re-evaluation surveys of the nearby growing areas.

The Canadian Shellfish Sanitation Program partners in Quebec continued to update information for its internet portal on shellfish classified areas launched in March 2005.²⁶ This portal provides information on the status on classified areas in this province.

On the Pacific coast, EC's compliance promotion activities coupled with collaboration with BC's Provincial Environmental Health Officers, resulted in the removal of unapproved sewage discharges and the removal of some sanitary shellfish closures on the BC south coast-mainland, east and west of Vancouver Island and the north coast.

²⁶ < <http://www.mollusca.gc.ca/> >

4.2.5 Deleterious Substances

This fiscal year, the Atlantic Region has worked on the National Programme of Action for the Protection of the Marine Environment from Land-based Activities (NPA) file and has delivered these activities. A presentation entitled "Managing the Impacts of Untreated Sewage Releases on Shellfish Harvesting" was given at the Maritime Provinces Water & Wastewater Association 27th Annual Training Seminar. The purpose of this presentation was to inform wastewater treatment plant operators of the importance of preventing releases of untreated sewage and reporting of any such releases when they occur.

The co-chairs of the NPA Atlantic Team gave a seminar at the International Ocean Institute, Dalhousie University as part of the Institute's 27th Ocean Governance Training Programme for marine professional from developing countries. The seminar dealt with the role of the NPA in Canada. The participants represented 13 countries from around the world.

A presentation at the 34th Annual Aquatic Toxicity Workshop entitled "The Power of Shared Responsibility: Enabling Community Action to monitor Land-based Pollution of Atlantic Canada's Coastal Waters" gave an overview of the NPA and looked at community involvement in coastal monitoring and the need for simple, robust, methods for use by community groups.

The *Federal and Provincial Legislation and Responsibilities in the Management of Marine Finfish Aquaculture Operations in New Brunswick* fact sheet was updated and re-posted on the web.

A meeting was held to discuss the roles of the various Nova Scotia regulatory agencies in responding to sedimentation events in watercourses. The meeting was organized by the Saint Mary's University Department of Geography and included representatives from EC, DFO, the Nova Scotia Department of Environment & Labour, the Nova Scotia Department of Transportation, Halifax Regional Municipality, and the Sackville River Association. A regulatory agencies' sub-group, chaired by the Nova Scotia Department of Environment & Labour, has been formed to review the current practice in responding to sedimentation complaints.

EC compliance promotion personnel in the Ontario region participated on an intergovernmental working group led by the Ontario Ministry of Government Services to develop a policy for scattering of cremated ashes and other religious offerings into Ontario watercourses. EC compliance promotion personnel in Ontario also reviewed 12 proposals for the use of larvicides to control West Nile virus mosquito larvae.

EC compliance promotion personnel in the Pacific and Yukon region delivered a clinic at the *Union of British Columbia Municipalities Environment Conference* in June 2007 regarding non-point source pollution and the impacts of urban development on water quality. The clinic was geared to local government staff and politicians, with approximately 50 participants from across BC in attendance. The clinic covered water quality issues related to urban development, such as road runoff and an overview of common urban pollutants, as well as

tools and best management practices available to minimize the effects. EC personnel, under the Georgia Basin Action Plan, carried out the clinic.

4.2.6 Contaminated Sites

Contaminated Site programs work to mitigate, reduce and/or eliminate negative impacts from contaminated sites on the environment and on human health. During 2007-2008, EC provided ongoing scientific and technical advice related to contaminated sites (federal and non-federal sites) and potential *Fisheries Act* implications for more than 130 sites through various avenues including the Federal Contaminated Sites Action Plan (FCSAP), compliance promotion activities, and environmental assessments. Through its secretariat and expert support role in FCSAP, EC provided expert advice to custodial departments of contaminated sites as well as scored and ranked applications for funding through FCSAP.

EC also provided compliance promotion information during the assessment and remediation stages of a number of contaminated sites, and through its participation on more than 20 technical working groups.

4.2.7 Pollution Prevention

Atlantic Ready Mix Concrete Industry

EC compliance promotion personnel in the Atlantic region, in response to a request from the Enforcement Branch, conducted compliance promotion activities with the concrete sector before an inspection program started. EC coordinated several site familiarization tours with the Enforcement Branch, provincial, and municipal staff, and had follow-up meetings to ensure coordination of EC compliance promotion and enforcement activities with other jurisdictions. Enforcement inspections began in the fall of 2007.

Fin Fish Farms

EC continued to chair the Ontario Sustainable Aquaculture Working Group and collaborated with DFO and the University of Guelph on three projects related to freshwater aquaculture, a feed waste quantification study, a temperature monitoring study at fish farm operations in Lake Huron, and a project to develop stable isotope markers for fish waste. These projects will generate information to enable better monitoring of environmental impacts and reduce waste inputs from freshwater aquaculture.

EC participated on a Steering Committee led by the Ontario Ministry of Natural Resources to develop a permit application guide for cage aquaculture.

Boat and Shipyard Repair Facility Inspections

In 2007-2008, the Environmental Enforcement Division inspected 38 boat and shipyard repair facilities as part of a three-year compliance and enforcement strategy. The intent of the program is to stop ubiquitous releases of antifouling paint wastewater into coastal waters. Phase II of the project has been completed and Pacific and Yukon Region will be initiating Phase III in 2008-2009 to inspect a large number of operating facilities to ensure that

facilities and verify compliance with subsection 36(3) of the *Fisheries Act* are collecting containing and/or treating antifouling paint waste.

On the Pacific coast, the Pacific and Yukon Region conducted compliance promotion activities for the boat and ship repair and maintenance sector as part of its three-year compliance and enforcement project to address pollution problems. The initiative is intended to encourage adoption of best management practices to reduce pollution from hull maintenance activities. Brochures were developed and distributed at information booths, which were set up at various events including the Vancouver Boat Show. EC is working with DFO Small Craft Harbours to implement the practices at the local Harbour Authorities' facilities. A public web site has been developed for boatyard best management practices implementation.²⁷

Clean Boating

EC Pacific and Yukon continued with phase two of the Hull Maintenance Best Management Practices Program in 2007-2008. This initiative is intended to encourage adoption of these practices to reduce pollution from hull maintenance activities. Many boatyards across British Columbia are upgrading their facilities to prevent anti-fouling paint waste generated during hull maintenance activities from entering the aquatic environment. Several facilities have installed containment systems that collect contaminated pressure-wash water and paint residues. EC provided examples of these success stories at both the Vancouver and Victoria Boat Shows in February 2008. Also available at the boat shows was the newly published Georgia Strait Alliance document, *Alternative Fouling Control Systems (Environmental options for bottom painting)*, developed with the aid of EC and the California Sea Grant Extension Program.

In response to request from readers of the Atlantic Boating News, a Maritime map (initially developed by EC) which identifies all regional marinas with pump out stations was updated. This was the fourth year for the map reprint, which is very useful to visiting boaters. The number of participating marinas has increased from 28 in 2003 to 39 in 2007. A supporting website is also available.

EC Québec provided advice and shared information with respect to the discharge of untreated wastewater from at least 50 boathouses on Réservoir Gouin. Information was also provided on boating in lakes that are also used as source of drinking water for surrounding municipalities.

²⁷ A website with information on best management practices for boatyards can be found at:
< <http://www.pyr.ec.gc.ca/boatyards> >

Non-Metal Mines

EC provided guidance, through the environmental assessment process (federal and/or provincial), and direct discussions to a number of coal, potash and gypsum mines and associated activities (e.g. brine disposal pipelines), gravel or aggregates pits and quarries with respect to requirements under subsection 36(3) of the *Fisheries Act*.

Fish Habitat

In 2007-2008, approximately 636 federal EAs were active for projects requiring a permit or authorization under the *Fisheries Act*. These projects ranged in size from small-scale, local initiatives such as riverbank stabilization projects, to large natural resource developments like oil sands production. EC, upon request from the responsible authority, contributed relevant expertise as a federal authority to many of these EAs, in areas related to prediction, mitigation and verification of impacts on aquatic environments.

Unregulated Food Sector Issues (e.g., fish processing, vegetable processing, beverage production)

Risk assessment work to identify potential impacts associated with seafood processing plant effluents was compiled and reported in EC Operation Division surveillance report EPS-5-AR-07-03 “Characterization and Toxicity Testing of Fish Processing Plant Effluent in Canada”.

Oil and Gas

EC participated in compliance promotion discussions on the proposed Irving Eider Rock Refinery in Saint John, New Brunswick. This will be the largest refinery on the East Coast of Canada, and company officials wanted to verify refinery requirements as they might apply to innovations in process design and discharges.

4.3 EC’s Environmental Emergencies Program

EC’s Environmental Emergencies Program plays an important role concerning the response to the deposit of deleterious substances in water frequented by fish. Subsection 38(5) of the *Fisheries Act* states that persons who own or are responsible for a deleterious substance, or persons who cause or contribute to a deposit of the deleterious substance in water frequented by fish, must “take all reasonable measures consistent with safety and with the conservation of fish and fish habitat” to prevent the deposit or, where that deposit actually does occur, “to counteract, mitigate or remedy any adverse effects that result”.

If a spill or other deposit out of the normal course of events occurs, Environmental Emergencies Program personnel provide environmental and technical advice to the responsible parties, environmental response organizations and to other levels of government. In addition, Environmental Emergencies personnel:

- receive notifications and reports of spills, leaks and deposits of deleterious substances in water frequented by fish in Canadian and trans-boundary waters;
- access the site of the deposits of deleterious substances in water frequented by fish, in order to observe or to carry out spill response activities;
- collect and analyze relevant information at the site of the deposit;
- issue inspector's directions requiring the responsible parties to take remedial or preventive measures, should they fail to take all reasonable measures to prevent the deleterious deposit as required under subsection 38(5) of the *Fisheries Act*, or to counteract, mitigate, or remedy any adverse effects that result from the deposit; and
- support enforcement actions, when required, by collecting and preserving evidence under exigent circumstances or when encountered in plain view.

In 2007-2008, EC's Environmental Emergency Officers, who are designated as inspectors under the *Fisheries Act*, conducted 88 on-site inspections to verify that the responsible parties complied with subsection 38(5) of the *Fisheries Act*.

The scope and nature of on-site inspections conducted by Environmental Emergency Officers varies across EC's five regions depending on the location of the incident, the responsible parties and arrangements that exist with other jurisdictions. Efforts are made to ensure that the environment is protected against deposits of deleterious substances in water frequented by fish while minimizing duplication of administrative effort between the federal, provincial and territorial governments.

The Environmental Emergencies Program also coordinates the activities of the Regional Environmental Emergencies Teams in EC's five administrative regions. These interdisciplinary, interdepartmental, multi-stakeholder teams provide agencies involved in an environmental emergency response with consolidated advice and scientific information on environmental protection, environmental damage assessment, clean-up measures and the disposal of waste resulting from cleanup activities.