

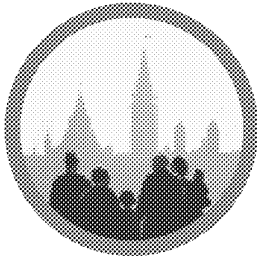
	Chapter
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	Protecting Fish Habitat

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Protecting Fish Habitat

Main Points

What we examined

Healthy habitat—places where fish can spawn, feed, grow, and live—is a fundamental requirement for sustaining fish. Fisheries and Oceans Canada is responsible for administering and enforcing the fish habitat protection provisions of the *Fisheries Act*. This includes reviewing proposed development projects in or near water to ensure that they do not damage fish habitat—or, if habitat loss is unavoidable, that habitat is created elsewhere to compensate. This is the “no net loss” principle of the Habitat Policy. In the 2006–07 fiscal year, Fisheries and Oceans Canada spent \$70 million on activities related to protecting fish habitat.

The pollution prevention provisions of the *Fisheries Act* prohibit the deposit of substances that can harm fish; they can enter habitat in several ways, for example, in municipal wastewater and industrial effluent. These provisions of the Act have been Environment Canada’s responsibility since 1978. For the 2008–09 fiscal year, Environment Canada planned to spend \$5.5 million to administer the pollution prevention provisions.

Our audit examined how both departments carry out their respective responsibilities for fish habitat protection and pollution prevention under the *Fisheries Act*. We also looked at their arrangements with others, such as provinces and stakeholders, that support the administration and enforcement of these provisions. In addition, we looked at Fisheries and Oceans Canada’s Environmental Process Modernization Plan (EPMP), its continuous improvement plan introduced in 2004.

Our audit work focused mainly on fish habitat in fresh water and estuaries rather than the marine environment.

Why it’s important

Fish habitat represents national assets that provide food and shelter for aquatic and terrestrial wildlife and water for human consumption and other uses. For Canada, with over one million lakes and the world’s longest coastline, protecting fish habitat is a challenge, given the impact of economic activity and the number of jurisdictions where inland waters and fish habitat are found. The fish habitat protection

and pollution prevention provisions of the *Fisheries Act* are among the federal government's important pieces of environmental legislation, especially as it relates to aquatic ecosystems.

The state of fish habitat is of concern to Canadians who make their living from commercial fishing or who enjoy recreational fishing—industries that together contribute billions of dollars to Canada's economy.

About one quarter of all petitions sent to our Office by Canadians relate to fish habitat issues.

What we found

- Fisheries and Oceans Canada and Environment Canada cannot demonstrate that fish habitat is being adequately protected as the *Fisheries Act* requires. In the 23 years since the Habitat Policy was adopted, many parts of the Policy have been implemented only partially by Fisheries and Oceans Canada or not at all. The Department does not measure habitat loss or gain. It has limited information on the state of fish habitat across Canada—that is, on fish stocks, the amount and quality of fish habitat, contaminants in fish, and overall water quality. Fisheries and Oceans Canada still cannot determine the extent to which it is progressing toward the Policy's long-term objective of a net gain in fish habitat. There has been little progress since 2001, when we last reported on this matter.
- Fisheries and Oceans Canada has made progress in implementing the Environmental Process Modernization Plan (EPMP) so that it can better manage risks that various projects pose to fish habitat. Under the Plan, the Department does not require that proposals for low-risk projects be submitted to it for review, relying instead on project proponents to voluntarily comply with habitat protection measures and conditions. This streamlining of the review process was intended to free up departmental resources for review of projects that pose a higher risk to habitat. For those projects that it has reviewed, however, the Department has little documentation to show that it monitored the actual habitat loss that occurred, whether habitat was protected by mitigation measures required as a condition for project approval, or the extent to which project proponents compensated for any habitat loss. Moreover, the Department reduced enforcement activity by half and at the time of our audit had not yet hired habitat monitors to offset this reduction.
- Environment Canada has not clearly identified what it has to do to fulfill its responsibility for the *Fisheries Act* provisions that prohibit the deposit of substances harmful to fish in waters they frequent. It has not established clear priorities or expected results for its

administration of the prohibition. Since 2005, departmental initiatives have identified the need for national guidance and coordination in administering the Act's provisions. However, the Department's activities have been largely reactive and inconsistent across the country.

- Environment Canada does not have a systematic approach to addressing risks of non-compliance with the Act that allows it to focus its resources where significant harm to fish habitat is most likely to occur. Further, it has not determined whether the stringent pollution prohibition of the *Fisheries Act* is being satisfied by the combination of the results achieved from its own activities under both the *Fisheries Act* and the *Canadian Environmental Protection Act, 1999*, and those achieved by other levels of government.
- Many of the issues raised in this report are long-standing and have been identified in previous audits that we have carried out. For example, we have previously observed that Fisheries and Oceans Canada had not implemented aspects of the Habitat Policy; that it did not know whether it was progressing toward the ultimate objective of a net gain in fish habitat; and that it needed to devote more time and effort to monitoring compliance with the habitat protection provisions of the *Fisheries Act*.

The departments have responded. Fisheries and Oceans Canada and Environment Canada agree with our recommendations. Their detailed responses follow each recommendation throughout the chapter.

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Introduction

Importance of fish and fish habitat

1.1 Fish are an important renewable marine and freshwater resource for Canada. For First Nations, fish are a central part of their culture and a vital food source. For other communities throughout Canada, fish have an economic significance for both commercial and recreational purposes. For example, in 2005

- the total value of commercial fish landed was \$2.1 billion; 52,805 people were employed in fishing and 29,342 in fish processing; and
- more than 3.2 million adult anglers participated in recreational fishing, which contributed \$7.5 billion to the Canadian economy.

1.2 Fish habitat represents assets that are important not only for fish, but also for human health and recreational use. Healthy habitat—places where fish can spawn, feed, grow, and live—is a fundamental requirement for sustaining fish, providing food and shelter for aquatic and terrestrial wildlife, and contributing to water quality for human consumption and other uses. Canada has more than one million lakes, and nine percent of the country's surface is covered by fresh water. It also has the world's longest coastline, and there are interjurisdictional issues with provinces. Fish habitat is under constant pressure from population growth and urban expansion. Many studies have indicated that damage to habitat is one of the key factors in threats to fish stocks.

The federal role in protecting fish habitat

1.3 The federal government is responsible for sea-coast and inland fisheries under the *Constitution Act*, 1867. The *Fisheries Act* contains provisions directed at protecting fish and fish habitat from certain human activity. The two principal sections of the Act examined in this audit are

- the fish habitat protection provisions that prohibit the harmful alteration, disruption, or destruction of fish habitat; and
- the pollution prevention provisions that prohibit the deposit of deleterious or harmful substances into waters frequented by fish.

1.4 The Minister of Fisheries and Oceans is responsible for the administration and enforcement of the *Fisheries Act*. However, in 1978, the Prime Minister assigned responsibility for the administration of the pollution prevention provisions to the Minister of the Environment. The Minister of the Environment was to introduce new environmental

protection legislation that included water pollution protection, and repeal aspects of the *Fisheries Act* pollution prevention provisions. While the *Canadian Environmental Protection Act*, 1999 provides protection against water pollution, the *Fisheries Act* pollution protection provisions were not repealed.

1.5 The 1986 Policy for the Management of Fish Habitat (Habitat Policy) remains the current policy for the protection of fish habitat. The Policy established a long-term objective of a net gain of habitat for Canada's fisheries resources. It also set out policy goals and strategies for the management of fish habitat supporting freshwater and marine fisheries. Environment Canada's administration of the Act's pollution prevention provisions is covered by the Habitat Policy, but it primarily focuses on Fisheries and Oceans Canada.

1.6 The 2001 Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act* (Compliance and Enforcement Policy) applies to both departments. It sets out the general principles for promoting, monitoring, and enforcing the *Fisheries Act* and explains the role of regulatory officials in enforcing the Act.

Habitat Management Program

1.7 Under the *Fisheries Act*, the Minister of Fisheries and Oceans has exclusive responsibility for decision-making authority related to habitat management. Within Fisheries and Oceans Canada, the Habitat Management Program has the primary responsibility for habitat. The Program is a major federal regulator for development projects occurring in, around, or with fresh and marine fish-bearing waters across Canada. It collaborates and works with the Fisheries and Aquaculture Management Sector's Conservation and Protection Program that carries out enforcement and the Science Sector's programs that provide research, scientific advice, monitoring, data management, and products.

1.8 The Habitat Management Program also works with other federal departments and agencies and with provinces, territories, municipalities, industry, and conservation groups, as well as consulting with First Nations, on the following objectives:

- to protect and conserve fish habitat in support of Canada's coastal and inland fisheries resources;
- to ensure that environmental assessments are conducted under the *Canadian Environmental Assessment Act*, or other

environmental assessment regime, before Fisheries and Oceans Canada makes a regulatory decision under the habitat provisions of the *Fisheries Act*; and

- to ensure that the requirements of the *Species at Risk Act* are met.

1.9 The Habitat Management Program is delivered across 6 regions in about 65 offices. From 2004 to 2008, the total number of full-time equivalents decreased from 460 to 430. In the 2006–07 fiscal year, Fisheries and Oceans Canada spent \$70 million on activities related to protecting fish habitat.

Pollution prevention provisions

1.10 Environment Canada administers the pollution prevention provisions of the *Fisheries Act* within its existing organizational structure that also supports its other legislative responsibilities, such as the *Canadian Environmental Protection Act, 1999*. It does not have a separate *Fisheries Act* program. The Department's Environmental Stewardship Branch administers the *Pulp and Paper Effluent Regulations* and the *Metal Mining Effluent Regulations* under the *Fisheries Act*'s pollution prevention provisions and is developing regulations for wastewater effluent.

1.11 For the 2008–09 fiscal year, Environment Canada planned to spend \$5.5 million and employ about 55 employees to administer the pollution prevention provisions.

1.12 Environment Canada's 2008–09 planned spending for the Department's enforcement activities was \$43.1 million, including spending on enforcement activities related to the *Fisheries Act*. As of October 2008, the Department's Enforcement Branch employed 198 enforcement officers. These officers are designated as inspectors under the *Fisheries Act* and are therefore responsible for enforcing the pollution prevention provisions, among other duties related to other legislation.

Previous audits

1.13 Our Office has included fish habitat in the scope of previous audits in the following reports:

- December 1997 Auditor General's Report, Chapter 28, Fisheries and Oceans Canada—Pacific Salmon: Sustainability of the Resource Base

- May 1999 Report of the Commissioner of the Environment and Sustainable Development, Chapter 5, Streamlining Environmental Protection Through Federal-Provincial Agreements: Are They Working?
- October 2001 Report of the Commissioner of the Environment and Sustainable Development, Chapter 1, A Legacy Worth Protecting: Charting a Sustainable Course in the Great Lakes and St. Lawrence River Basin
- October 2004 Report of the Commissioner of the Environment and Sustainable Development, Chapter 5, Fisheries and Oceans Canada—Salmon Stocks, Habitat, and Aquaculture

Focus of the audit

1.14 The audit focused on the administration and enforcement of the fish habitat protection and pollution prevention provisions of the *Fisheries Act* and the two policies (Habitat Policy and Compliance and Enforcement Policy) that set out the government's intentions related to these provisions. The audit included the policies, programs, and activities of Fisheries and Oceans Canada and Environment Canada, and the arrangements with provinces and stakeholders that support the administration and enforcement of these provisions. The audit largely focused on the protection of fish habitat in fresh water and estuaries rather than the marine environment.

1.15 More details on the audit objective, scope, approach, and criteria are in **About the Audit** at the end of this chapter.

Observations and Recommendations

Protecting fish habitat

1.16 Fisheries and Oceans Canada's principal activity in the protection of fish habitat involves the review of proposals for projects, in or near water, that are sent to the Department by those carrying out the projects. These reviews are intended to determine whether the projects will result in damage to fish habitat and, if so, whether the projects can be amended to avoid the damage. The Department conducts project reviews under the 1986 Habitat Policy's "no net loss" guiding principle, striving to balance unavoidable habitat losses with habitat replacement, on a project-by-project basis.

1.17 We looked at how Fisheries and Oceans Canada reviews these projects and monitors compliance with the project approval terms.

We also reviewed how the Department enforces the habitat protection provisions of the *Fisheries Act*. We reviewed the Department's implementation of the Environmental Process Modernization Plan, a continuous improvement plan aimed at improving efficiency, effectiveness, transparency, timeliness, and consistency of delivery of the Habitat Management Program. We also looked at the Department's collaboration with provinces, industry, and conservation groups.

1.18 The Habitat Policy provides direction, mainly to Fisheries and Oceans Canada, on how to administer and enforce the fish habitat protection provisions (section 35) of the *Fisheries Act*. We looked at whether the Department could demonstrate that it is making progress toward the Habitat Policy's long-term objective of an overall net gain in habitat. Finally, we reviewed the Department's overall progress in implementing the Habitat Policy.

Fisheries and Oceans Canada needs to improve its quality assurance system for project referrals

1.19 The Habitat Policy provides guidance in dealing with project proposals that are referred to Fisheries and Oceans Canada for review to determine whether changes to fish habitat are likely to occur if a project proceeds as proposed. Department staff reviewing proposals may make recommendations to alter project designs to mitigate potential impacts to habitat by issuing a Letter of Advice to **project proponents**. The proponent is responsible for redesigning or relocating the project so that the mitigation objective is met.

Project proponent—A person or organization planning a project that may affect fish habitat.

1.20 Based on departmental experience, about 10 percent of projects assessed by the Habitat Management Program will have harmful effects on fish habitat. If damage to fish habitat cannot be avoided, a *Fisheries Act* authorization—a ministerial permission to harm habitat—may be issued. This allows the project to proceed but triggers an **environmental assessment**, which ultimately results in a report and a recommendation on whether or not the project should proceed, with a proposed mitigation and follow-up program.

Environmental assessment—An assessment that, under the *Canadian Environmental Assessment Act*, may be one of four different types—a screening, a comprehensive study, mediation, or a panel review; the type of assessment varies depending on the project's size, complexity, and environmental impacts.

1.21 We expected to find evidence in the project files that project reviews are conducted, documented, and reviewed for quality assurance to ensure that project risks were being assessed and that decisions made by departmental staff on project referrals were consistent and predictable. Without good-quality assurance controls, there is a risk that projects could be approved that may cause more harm to habitat than authorized, mitigation measures may be inadequate, and compensation for damaged habitat may be insufficient.

1.22 We examined the Department's project referral processes by randomly selecting a sample of 16 ministerial authorizations and 30 projects in which letters of advice were issued. The sample was chosen in the 2007–08 fiscal year from a total population of 267 ministerial authorizations and 4,514 projects that resulted in a Letter of Advice. We found weaknesses in the Department's documentation and review of projects.

1.23 Required review processes. Our review of ministerial authorizations indicated that while there was much project-related information in the files, documentation required by departmental policies was often not found, such as

- identification of the project's potential impact on fish habitat;
- risk assessments of the impacts on habitat to determine their significance (for example, only 25 percent of the files we reviewed contained documentation on risk assessment);
- the Department's assessment of a proponent's analysis of habitat impacts;
- reasons why the Department required additional mitigation measures; and
- monitoring plans on mitigation measures and documentation of compensatory work prepared by the proponents.

1.24 For the 30 projects we reviewed that received letters of advice, we found that required steps were not followed consistently. None of the project files we reviewed contained all of the information that the Department requires to assess a project. For example, there was no documentation of how mitigation measures were arrived at in 27 (90 percent) of the project files.

1.25 Compensation plans. All authorizations we reviewed required habitat compensation (enhancement or creation of habitat to offset damage to existing habitat). Compensation is required to result in no net loss of habitat under the Habitat Policy. Proponents are required to provide the Department with the compensation plans that result from the review under the *Canadian Environmental Assessment Act*. Department staff must review the plan and include it in the project file before issuing a ministerial authorization. In our review of 16 authorizations, we found that 4 projects were issued ministerial authorizations without the required compensation plans on file.

1.26 For the 12 authorizations with compensation plans on file, 3 of the proponents' compensation plans had not been developed at the time the authorization was issued. For the other 9 authorizations

with compensation plans on file, 4 of these plans did not include the required detailed measures to compensate for habitat loss. Without these measures, the Department cannot properly evaluate whether the compensation was appropriate.

1.27 As mentioned earlier, the Habitat Management Program has the primary responsibility for habitat. The Program reviews major natural resource and industrial development projects, such as mines, hydroelectric, and infrastructure projects. The Minister may authorize a major project, even if there are large-scale losses of fish habitat, if it is believed that the project is in the best interests of Canadians because of socio-economic implications. The Department advised us that it is currently developing a policy that addresses large-scale habitat loss. This policy would clarify the approach for projects that are unlikely to achieve no net loss and would help to ensure transparency and consistency in decision making.

1.28 Key aspects of quality assurance. We looked at the guidance the Department provides to its staff. The *Fisheries Act*, the Habitat Policy, the Department's Risk Management Framework, and the project referral system all establish controls for the review and approval of projects, with the goal of no net loss to fish habitat. Staff use the Risk Management Framework to review the information and assess the project's risk, mitigation measures, and compensation plans for addressing unavoidable habitat damage.

Operational statements—Guidelines that describe the conditions and measures to be incorporated by a proponent into a lower-risk project in order to avoid negative impacts to fish and fish habitat, thereby allowing the project to proceed without a review by department staff. Examples of lower-risk projects range from dock construction in fresh water to routine maintenance dredging in marine waters.

1.29 Other than **operational statements**, which are used for the lowest-risk projects, we found that the Department does not have detailed guidance to help staff assess the proposed mitigation measures and make consistent decisions for similar projects. This guidance, together with random file reviews to ensure that guidance is being followed, would be a key element of a quality assurance system.

1.30 We also found that there is no national guidance on what compensation ratio to use under various habitat conditions or how to calculate habitat negatively affected. A compensation ratio is intended to make up for habitat that will be damaged during a project by having a proponent build or create compensatory habitat on a particular ratio, such as one-for-one or greater.

1.31 We found that the regions use different methods and elements to calculate the impact and determine the compensation ratio. For example, one region uses a simple calculation of the area affected, another uses a percentage of area deemed to be high-quality habitat, and another uses an estimate of affected habitat's productivity based

on the pounds of fish per unit of habitat. Similarly, the compensation ratios vary. The Maritimes Region uses a compensation ratio of 3 to 1, while other regions use a 1-to-1 ratio. In some cases, it was not possible to determine the ratio used.

1.32 Lack of guidance and file reviews. Our review of project files found a lack of documentation, a lack of compliance with departmental controls, and varying approaches by the regions. The Department has several elements of a quality assurance system for project referrals—the Habitat Policy, a Risk Management Framework, and standard operating policies that consist largely of practitioners’ guides and operational statements. However, it also needs to develop more guidance and carry out periodic reviews of project files to ensure that documentation is in place and controls are being applied.

1.33 Recommendation. In order to make consistent decisions on project referrals, in accordance with departmental expectations, Fisheries and Oceans Canada should ensure that an appropriate risk-based quality assurance system is in place for the review of these decisions.

Fisheries and Oceans Canada’s response. The Department accepts this recommendation. Over the past number of years, Fisheries and Oceans Canada has made efforts to improve the quality, consistency, and transparency of its decision making by implementing the Risk Management Framework. Although much progress has been made, the Department recognizes that there is still much work to be done with respect to documentation standards. With that in mind, by 31 March 2010, Fisheries and Oceans Canada will implement a risk-based quality assurance system to verify that documentation standards are being applied consistently by staff.

There is little monitoring of compliance and evaluation of effectiveness

1.34 The Habitat Policy states that proponents may be required to carry out follow-up monitoring on the effectiveness of habitat mitigation and compensation activities established as a condition of project approval by Fisheries and Oceans Canada.

1.35 To ensure that proponents meet the requirements of the Habitat Policy, the Habitat Management Program has two ways for the Department to evaluate proponents’ activities and its decisions (ministerial authorizations and letters of advice):

- monitoring of the proponent’s compliance with terms and conditions attached to the approval to proceed (including monitoring mitigation and compensation work); and

- follow-up monitoring at a later date to assess the effectiveness in achieving no net loss of fish habitat.

1.36 We reviewed the Department's monitoring efforts and expected it to use a risk-based approach to monitor projects. In our past audits, we identified a number of problems with monitoring activities and made recommendations for improvements.

1.37 In our review of 30 project referral files involving letters of advice, we found little or no evidence of compliance monitoring, as required by departmental guidance. We also found little documentation to show that the Department is assessing

- what habitat was lost in development projects,
- whether required mitigation measures protected habitat, and
- whether project proponents are compensating for lost habitat by developing new habitat.

1.38 Proponents are normally required to carry out project monitoring activities, and the Department may monitor projects directly or rely on monitoring by the proponent. We found that the Department does not have a risk-based approach to monitoring proponents' compliance with the terms and conditions of ministerial authorizations and letters of advice. For example, we found that proponents had carried out the required monitoring in only 6 of 16 (38 percent) sample items involving ministerial authorizations and 1 of 30 sample items involving letters of advice. Further, the Department directly monitored the proponent's compliance in only one of the cases we reviewed. We found no documentation to show that the Department had followed up or evaluated the effectiveness of its decisions—that is, whether implementing the conditions of the ministerial authorizations or letters of advice had resulted in no net loss of habitat.

1.39 At the time of our audit, the Habitat Management Program was implementing a Habitat Compliance Decision Framework to provide a nationally consistent approach to monitoring projects. The regions were at various stages of implementation, and none had fully implemented the Framework.

1.40 The Department does not have a systematic approach to monitoring proponents' compliance with the conditions of its project approvals. Nor does it evaluate whether its decisions on mitigating measures and compensation are effective in meeting the no net loss

principle. As a result, projects may be causing damage to habitat beyond the amount authorized, and mitigating measures and compensation may not be effective (see the case study below).

Fraser River Gravel Removal Plan Agreement

Project proposal. Fisheries and Oceans Canada, the Province of British Columbia, local governments, and First Nations agreed to gravel removal from the Fraser River, largely for flood and erosion management. Gravel deposits and the shifting flow of the Fraser River create bars, islands, and secondary channels between Hope and Mission, British Columbia. This area has high-quality habitat for at least 28 species of fish. The Department determined that gravel removal was harmful to fish habitat.

In 2004, the Department signed a Letter of Agreement with the Province of British Columbia to develop a five-year Gravel Removal Plan. Numerous project proponents (companies interested in removing gravel and selling it) submitted proposals to the Department. A number of ministerial authorizations have been issued and continue to be issued.

The following information provides examples of the Department's approach to approving and monitoring these proposals and highlights some of the challenges it faces in implementing the Habitat Policy.

Flood control. Engineering and scientific studies at different sites, some commissioned by the Department, concluded there was no reduction in the flood profile after gravel removal. These studies stated that changes in the flood profile were minimal in the removal area and were local to the removal site. Thus, gravel removal would not significantly affect the potential for flooding.

Damage to sensitive habitat. Projects in areas that are sensitive habitat for both salmon and sturgeon are high risk, but adequate information on fish stocks to assess project impacts was lacking for a number of the ministerial authorizations for gravel removal. In 2006, improper construction of a causeway for accessing one gravel removal site resulted in a side channel downstream drying up, exposing salmon nests and resulting in the loss of up to 2.25 million pink salmon.

Lack of compensation plans. The ministerial authorizations did not include compensation plans. The Department believes that compensation plans are not required on the assumption that new gravel will replace gravel removed over one to three spring runoffs. We found no documentation in the project files to support this position for large gravel removals, although there is evidence to the contrary. For example, 300,000 tonnes of gravel were mined from Foster Bar in 1995, but it has not been replaced to date. The Department advises us that the requirement for habitat compensation will be reviewed as part of the renegotiation of the 2004 Letter of Agreement, using the results of post-construction monitoring studies, lessons learned from removals under the 2004 agreement, and contemporary research.

Lack of monitoring. Although proponents are required to submit monitoring plans and surveys, there were few on file. These documents specify the conditions prior to gravel removal, during removal, and after removal, as required under the terms of the 2004 Letter of Agreement.

Lack of enforcement. The Department did not take enforcement action after a proponent failed to comply with the conditions of a ministerial authorization by exceeding the volume of gravel allowed to be extracted, destroying habitat, and mining outside the approved area. We could not find documentation to support the Department's lack of enforcement action. The Department advised us that it was short of resources at the time of the proponent's actions and that it is considered too late to pursue charges.

1.41 Recommendation. Fisheries and Oceans Canada should accelerate the implementation of its Habitat Compliance Decision Framework to ensure that there is an adequate risk-based approach to monitoring projects and providing assurance that proponents are complying with the *Fisheries Act* and all terms and conditions of departmental decisions. The Department should also determine whether the required mitigation measures and compensation are effective in meeting the no net loss principle.

Fisheries and Oceans Canada's response. The Department accepts this recommendation. Fisheries and Oceans Canada currently applies a risk-based approach, but recognizes that opportunities for improvement remain. Once the Habitat Compliance Modernization initiative is fully implemented, the Department will be able to provide better assurance that proponents are complying with the terms and conditions of the Department's decisions. Considering this, the Department commits to fully implement the Habitat Compliance Decision Framework and report on results of project monitoring activities by 31 March 2010 and annually thereafter.

Fisheries and Oceans Canada will continue to work with proponents to design and implement follow-up monitoring studies. Between now and the end of 2011, the Department will review and develop standard scientific methodologies to examine the effectiveness of compensation in achieving the no net loss guiding principle so that these methodologies can be used by proponents when designing monitoring studies.

Enforcement decisions need to be better documented

1.42 We reviewed the Department's approach to enforcement to determine if it could demonstrate that it was inspecting and investigating those suspected of violating section 35 of the *Fisheries Act*. The requirements and general procedures for habitat-related enforcement are found in the Habitat Policy and its associated Compliance and Enforcement Policy.

1.43 We expected enforcement of the habitat protection and pollution prevention provisions to be carried out in accordance with the Compliance and Enforcement Policy through inspections, investigations, issuance of warnings and directions by inspectors, and court actions. Notably, the Policy does not require documentation of most of these actions.

Occurrence—Information or a complaint that is logged in the Departmental Violation System. Whether the *Fisheries Act* has been violated can only be determined when the complaint or information is investigated.

1.44 The Conservation and Protection Program is part of the Fisheries and Aquaculture Management Sector, and habitat protection is only one of the Program's ten areas of activity. As a result, it spends more time nationwide on fisheries-related compliance issues.

1.45 We selected a random sample of 15 fish habitat **occurrences** recorded in the Departmental Violation System (DVS) in the 2007–08 fiscal year. We reviewed the sample items to determine if they complied with the Compliance and Enforcement Policy.

1.46 Lack of documentation. Overall, there was a lack of documentation in the files we reviewed. For example, for three cases of possible violations of subsection 35(2) of the *Fisheries Act*, the assessment of the violations and the factors considered to achieve the desired result with the alleged violator were not documented. A verbal warning was issued for one of the files we reviewed, but there was no documented acknowledgement by the alleged violator and no documentation of follow-up monitoring to ensure that corrective action requested in the warning was actually carried out. In one case, Habitat Management Program staff recommended that the Conservation and Protection Program proceed with charges against the alleged violator. No charges had been laid at the time of our audit, which was more than one year after the occurrence.

1.47 Enforcement. Due to the lack of documentation for the DVS files we reviewed, we could not determine whether the Department is following the Compliance and Enforcement Policy. We could not find evidence of what, if any, actions the Department had taken to inspect or investigate alleged violations or what enforcement actions it had taken. A quality assurance system for enforcement, including establishing appropriate procedures, documenting decisions, and periodically reviewing violation files would allow the Department to demonstrate that its decisions are made in accordance with departmental policies and expectations.

1.48 Recommendation. Fisheries and Oceans Canada should ensure that its enforcement quality assurance and control processes are sufficient to demonstrate that its actions have been taken in accordance with the Compliance and Enforcement Policy. The Department should provide guidance on the type of complaints that fishery officers should respond to and take action on, and the Department should specify minimum documentation requirements for occurrences.

Fisheries and Oceans Canada's response. The Department accepts this recommendation and, by 31 August 2010, will establish,

disseminate, and communicate to regions an operational protocol to ensure better documentation of enforcement actions and monitoring of activities to ensure consistency with the Compliance and Enforcement Policy.

Guidance on the nature of complaints that warrant the attention of fishery officers has also been identified as a need by the Department. By 31 March 2011, the Department will examine the process currently in use and, by 31 March 2012, the Department will examine the Habitat Compliance Decision Framework to improve its guidance to staff, clarify documentation protocols, and establish minimum documentation standards for occurrences.

Modernization of the Habitat Management Program is progressing

1.49 In 2004, the Department created the Environmental Process Modernization Plan (EPMP), which was part of a series of continuous improvement initiatives. The EPMP focused on key elements in modernizing the Habitat Management Program, including streamlined reviews of low-risk activities, strengthened partnership arrangements, and modernization of habitat compliance.

1.50 We reviewed the Department's progress in implementing the EPMP by reviewing departmental policies, procedures, and documents; analysing referral totals by year; and reviewing project files. We expected the Department to have fully implemented the EPMP into the Habitat Management Program and to have adjusted the EPMP accordingly to reflect implementation experience.

1.51 The Department has implemented parts of the EPMP but has made little progress in some areas—in particular, the Habitat Compliance Modernization initiative, which was introduced in 2005.

1.52 Streamlining. The Department developed operational statements to streamline its review of projects so that it could focus its reviews on higher-risk projects. The statements, available on its Internet site, outline measures and conditions to avoid harming habitat in order to comply with subsection 35(1) of the *Fisheries Act*. Project proponents who comply with the statements do not have to submit their proposal for review by the Department. The implementation of the EPMP is one of the contributing factors that has led to a decrease in referrals from 13,234 in the 2003–04 fiscal year to 7,333 in 2007–08.

1.53 Partnering arrangements. In 2005, the Department completed a formal cooperative Memorandum of Understanding (MOU) with Nova Scotia. The provinces of British Columbia, Prince Edward Island,

and Manitoba already had agreements in place. These agreements outline collaborative work with the provinces to carry out activities related to protection of fish habitat. The Department has also signed agreements with industry groups and non-governmental conservation organizations.

1.54 Modernization of habitat compliance. The Department decided to move the focus of the Habitat Management Program from enforcement, which is largely reactive in responding to complaints, to compliance promotion, such as communication and publication of information, public education, consultation with stakeholders, and technical assistance. The Department advised us that most activity of the Conservation and Protection Program related to habitat issues is determined by the level of risk associated with habitat occurrences that are assessed by habitat managers.

1.55 As a result of the new direction, the Conservation and Protection fishery officers have spent significantly less time on habitat-related enforcement matters—from 78,057 hours in 2003 to 38,249 hours in 2007 (a percentage decrease of total time from 6.4 percent to 3.3 percent). The Department advised us that this reduction is largely due to the Department's decision to move to a new habitat compliance strategy. In 2004, the number of fishery officers in the Central and Arctic Region was reduced from 56 to 24, and officers in the Pacific Region were directed to focus more on enforcement of other matters and less on habitat issues.

1.56 The Department implemented a National Habitat Compliance Protocol to clarify the roles, responsibilities, and accountabilities of the Habitat Management Program and the Conservation and Protection Program. Habitat monitors, staff who would work in the Habitat Management Program on both compliance promotion and enforcement, were to be engaged and carry out much of the work being done by fishery officers. Although originally planned for 2006, the hiring of habitat monitors was still in progress during our audit.

1.57 Compliance promotion. We found that the Department's compliance promotion is limited and that it has no overall strategy for this activity. As a result, it has not realized an improvement in habitat conservation and protection through increased compliance promotion and risk-based strategies for monitoring and enforcement.

1.58 Implementation progress. The Department has made progress in implementing the EPMP so that it can better manage its risks. However, we noted that some elements, such as Habitat Compliance

Modernization, are not yet fully implemented. The Department has identified future needs for the EPMP, including consultation, partnering and accountability for agreements, and a formal evaluation of the EPMP. These initiatives have to be incorporated fully into the Habitat Management Program before the Department can confirm that the Program is being risk-managed.

Accountability in agreements is weak

1.59 The Habitat Policy calls for cooperation by encouraging and supporting involvement by government agencies, public interest groups, and the private sector to conserve, restore, and develop fish habitat. In the delivery of its Habitat Management Program, the Department relies on the support of and input from a number of internal and external groups. Without their help, the Department would need more resources to deliver its mandate.

1.60 The Department is required, through inter-agency cooperative agreements, to participate in the provincial project review systems and in provincial environmental assessment reviews for projects.

1.61 Jurisdictional responsibilities over water matters are complex as the provinces have many responsibilities in this area. Provincial water powers include flow regulation, authorization of water use development, water supply, pollution control, thermal and hydroelectric power development, and agriculture and forestry practices.

1.62 The responsibility for inland fisheries (for example, fishing licences and limits) has been delegated to the provinces, but the federal government has retained the responsibility for habitat. Fisheries and Oceans Canada relies on provincial government programs to administer some of its fish habitat protection responsibilities. Habitat agreements are in place with four provinces, but implementation of the agreements varies considerably by province.

1.63 As provincial officials are designated as fishery officers by the Department, we expected an appropriate accountability framework to be in place that includes the delivery of reports to the federal government on the status of habitat, enforcement actions taken, and monitoring carried out.

1.64 We found that Fisheries and Oceans Canada has made progress in working with stakeholders to identify development practices that reduce the potential for impact on fish habitat and promote compliance with the *Fisheries Act*. The Department has also worked with environmental

groups, including those on the Canadian Environmental Network, to engage them in improving the delivery of its desired results.

1.65 For example, since 2001, the Department has developed agreements with 36 conservation authorities in Ontario to help deliver the habitat program. The authorities do this by, for example, reviewing project referrals (most of the low-risk files) and issuing letters of advice on the Department's behalf.

1.66 We found that there are weaknesses in the oversight process for the agreements with Ontario conservation authorities. The agreements have few accountability mechanisms, such as performance measures, audit provisions, or formal evaluation requirements. Thus, there is no formal means for the Department to know if the assigned activities have been carried out according to its policies and guidelines. While the agreements state that the Department is responsible for reviewing the letters of advice prepared by conservation authorities, we found that the Department did not receive copies of these letters to review.

1.67 In our 2001 audit of the Great Lakes Basin, we recommended that the Department develop suitable accountability arrangements with its partners—notably the provinces and others it relies on to achieve the objectives of the *Fisheries Act*.

1.68 These issues from seven years ago still remain and they are relevant to the Habitat Management Program today.

1.69 Recommendation. Fisheries and Oceans Canada should clarify the parts of the Habitat Management Program that it will continue to administer, the extent that it wants others to deliver the program on its behalf, and the resource implications. The Department should also assess whether accountability mechanisms in all of its existing agreements are working effectively enough to report and assess the results achieved through its collaboration with others. In addition, it should review the agreements to ensure that they are aligned with its view of the long-term goals of the Habitat Management Program.

Fisheries and Oceans Canada's response. The Department accepts this recommendation and, by 31 March 2011, will have reviewed and evaluated its memoranda of understanding with provinces and territories. The Department will continue to work with its partners to strengthen the governance and accountability mechanisms and ensure that the partnership arrangements are aligned with the Department's goals and its strategic vision.

Habitat loss or gain is not being measured

1.70 The approach under the Habitat Policy is to achieve no net loss of habitat on each project and, together with habitat restoration and development, achieve a gain in habitat overall. We expected that Fisheries and Oceans Canada would be collecting and analyzing habitat data to determine whether it is achieving the Policy's objective of a net gain in habitat.

1.71 Measuring aspects of habitat is a complex process. In our past audits, we recommended that Fisheries and Oceans Canada collect and analyze information to provide up-to-date assessments on habitat conditions. In this current audit, we found no significant improvement in the quantity and quality of information on fish habitat. The Department lacks information on fish stocks, quantity and quality of fish habitat, contaminants in fish, and overall water quality.

1.72 Provinces and other government agencies, First Nations, and stewardship groups collect habitat information in discharging their responsibilities. There continues to be no simple access to current and complete data, and key technical data for many watersheds is lacking. As a result, the Department lacks the scientific information needed to establish a baseline for the state of Canada's fish habitat. To address this, the Department has begun a project to access habitat databases managed by others to more easily gather habitat information. However, establishing national baseline data for habitat remains a challenge.

1.73 The Department can also use indicators of habitat quality, such as water quality, water flow, and fish stock data, to arrive at an assessment of the quality of habitat in select ecosystems. Ecosystems to be reviewed could focus on those with significant human activity as the Department cannot regulate natural changes to habitat. However, the Department has not made much progress in developing such indicators. The Department's ongoing challenges in collecting data and selecting habitat indicators means that it still does not know whether it is progressing toward the Habitat Policy's long-term objective of a net gain in fish habitat.

1.74 Recommendation. Fisheries and Oceans Canada should develop habitat indicators to apply in ecosystems with significant human activity. The Department should use these indicators to assess whether it is making progress on the Habitat Policy's long-term objective to achieve an overall net gain in fish habitat.

Fisheries and Oceans Canada's response. The Department accepts and agrees with this recommendation and is committed to moving toward an ecosystems approach and the increased use of biological

indicators, particularly in areas of significant human activity. However, this task is far from trivial as it will require significant new scientific understanding to ensure that the indicators adopted do in fact tell us what we need to know about the health of the aquatic ecosystem.

The Habitat Policy is not fully implemented after 23 years

1.75 We expected that Fisheries and Oceans Canada would have substantially implemented the Habitat Policy. Without such implementation, unmanaged human activity could result in further decline of fish habitat, fish stocks, and the benefits derived by Canadians from both.

1.76 In our October 2001 Report, we noted that 15 years had passed since the Habitat Policy was adopted and that it had not been fully applied. In our current audit, we found that the Department had implemented parts of the Policy, but progress in some areas did not advance as expected.

1.77 For example, the Policy indicates that the Department is to ensure a uniform and equitable level of compliance with statutes, regulations, and policies. However, as noted earlier, the Department cannot demonstrate that projects it reviews have been adequately assessed on a consistent basis, as required by the Habitat Policy. It needs to carry out better compliance monitoring and effectiveness evaluation—other key elements required under the Policy.

1.78 Research. The Habitat Policy also requires the Department to conduct scientific research to provide the information and technology necessary for the conservation, restoration, and development of fish habitat. In 2001, we reported that the Department lacked scientific information that it needed to carry out its mandate effectively, including information on the quality of fish habitat. According to the Department, implementation of an **ecosystem science approach** is in the early stages, and assessment of habitat is not yet possible. It notes that data does not exist for many aquatic habitat features, or available information may not be organized in ways that allow staff to access it efficiently and systematically.

1.79 To address these gaps, the Department advised us that it has a five-year research plan to address the impact from human activities. External to government, there are recently formed Centres of Expertise that study the impacts of hydro and of oil and gas on habitat, and a new Centre of Expertise is being created to provide science support to the Habitat Management Program. In addition, Ecosystem

Ecosystem science approach—An approach to science that focuses on identifying and understanding the key relationships in nature and their links to human needs and actions.

Research Initiatives, whose objective is to deploy an ecosystem science approach, were recently established in seven areas across the country.

1.80 Recommendation. Fisheries and Oceans Canada should determine what actions are required to fully implement the 1986 Habitat Policy and confirm whether it intends to implement all aspects of the Policy.

Fisheries and Oceans Canada's response. The Department accepts this recommendation and, by March 2010, will determine what actions are required to fully implement the Habitat Policy.

Pollution prevention provisions

Deleterious substances—Substances that are directly or indirectly harmful to fish and that can take many different routes to enter the aquatic environment. Examples of sources of these substances include municipal wastewater, industrial effluent, agricultural run off, urban and natural resource development, landfills, and abandoned mines.

1.81 The pollution prevention provisions of the *Fisheries Act* prohibit all deposits of **deleterious substances** into waters frequented by fish. This type of prohibition has been a part of the *Fisheries Act* since its enactment in 1868. The only exception to this general requirement is when harmful deposits are authorized by regulations under the Act.

1.82 Six regulations are currently in force under the *Fisheries Act's* pollution prevention provisions. These regulations allow deposits of specific harmful substances from the regulated industry within specific discharge limits.

1.83 Environment Canada has been responsible for the administration of the pollution prevention provisions of the *Fisheries Act* since 1978. Environment Canada administers the Act within its existing organizational structure and processes that also support its other legislative responsibilities, such as the *Canadian Environmental Protection Act, 1999*. It does not have a separate *Fisheries Act* program.

Accountability for addressing *Fisheries Act* responsibilities is lacking

1.84 We focused on Environment Canada's processes for determining how it fulfills its *Fisheries Act* responsibilities. We expected to find the following two conditions:

- Environment Canada has clearly identified what it must do to meet its *Fisheries Act* responsibilities, including establishing results expectations and appropriate accountability arrangements for delivering those responsibilities.
- Environment Canada has identified and assessed the risks associated with substances that are harmful to fish, developed and implemented compliance strategies to manage significant risks, and regularly updated approaches to mitigate or address risks.

The following paragraphs present our findings related to these expectations:

1.85 Results expectations. Environment Canada has not established clear objectives or results expectations for meeting its *Fisheries Act* responsibilities.

1.86 Environment Canada has identified its priorities for administration of the *Fisheries Act* in its 2008–2009 Report on Plans and Priorities (RPP). Its RPP points to the *Pulp and Paper Effluent Regulations* (about 115 mills are subject to these regulations), *Metal Mining Effluent Regulations* (about 100 mines are subject to these regulations), development of new regulations for wastewater effluent, and enforcement of the Act as its priorities.

1.87 Environment Canada has not clearly established what it plans to achieve with its main *Fisheries Act* responsibility—ensuring compliance by industries and activities with the Act's prohibition against the deposit of harmful substances in water frequented by fish (the Department estimates that this could apply to hundreds of thousands of organizations or individuals).

1.88 Administration of the Act's prohibition requirement. In 2005, Environment Canada established a *Fisheries Act* working group to develop and implement a national approach for administering the Act's prohibition against the deposit of harmful substances in water frequented by fish. The working group identified nine national priorities and additional regional priorities (sectors, industries, or activities) where water pollution issues should be addressed through administering the Act's prohibition requirement. The working group recommended a plan of action to address these priorities. It has not met since 2006, and no one is clearly assigned the responsibility for action on the issues identified.

1.89 Further, the working group observed that Environment Canada's focus was on its administration of the *Canadian Environmental Protection Act, 1999* and that the Department no longer had the management structure to administer the *Fisheries Act*.

1.90 In November 2007, Environment Canada officials reviewed the working group's findings and did further analysis to identify challenges with administering the pollution prevention provisions. It identified specific challenges faced by the Department in ensuring compliance with the *Fisheries Act* prohibition requirement, including a lack of clear priorities, difficulties in determining compliance, and reactive activities, with inconsistent responses across regions and across sectors.

1.91 No further coordinated action was taken on these departmental initiatives, leaving Environment Canada without a national approach to provide coordination, focus, and guidance on administration of the Act's prohibition requirement.

1.92 Environment Canada has not clearly identified what it has to do to meet its *Fisheries Act* responsibilities, including establishing results expectations and appropriate accountability arrangements for delivering those responsibilities.

1.93 Recommendation. Environment Canada should set out clear objectives and results expectations for its *Fisheries Act* responsibilities, and establish accountability for achieving the desired results, including providing national coordination and guidance on the administration of the Act.

Environment Canada's response. The Department accepts this recommendation and will put in place a Results-based Management and Accountability Framework in 2009–10 for Environment Canada's *Fisheries Act* responsibilities. The framework will clearly identify the objectives, responsibilities, and expected results, including how national coordination and guidance on Environment Canada's administration of the Act will be provided.

1.94 Compliance strategy. We expected to find that Environment Canada had developed and implemented a compliance strategy to address significant *Fisheries Act* responsibilities. A compliance strategy would address areas of greatest risk to fish habitat based on integrated information gathering and the use of scientific knowledge. It would then set departmental priorities for using tools such as compliance promotion, education, promotion of technology development, and targeted enforcement to increase rates of compliance.

Environmental effects monitoring—Activity that assesses the aquatic ecosystems downstream from the site of effluent discharge to determine the impacts of the effluent on fish and the aquatic environment over the long term.

1.95 Environment Canada has a compliance strategy, **environmental effects monitoring**, and an enforcement plan in place for each of the two regulations it actively administers and enforces—the *Pulp and Paper Effluent Regulations* and the *Metal Mining Effluent Regulations*.

1.96 However, Environment Canada does not have a *Fisheries Act* compliance strategy for the industries and activities that must comply with the Act's prohibition requirement against the deposit of harmful substances in water frequented by fish. The Department informed us that the number of parties potentially subject to the Act's prohibition requirement numbers in the hundreds of thousands. The size of this population represents a challenge in developing a compliance strategy

and setting priorities for the use of compliance promotion and enforcement resources.

1.97 Environment Canada has not instituted an overall risk-based approach to the *Fisheries Act* to identify, assess, and address risks of non-compliance with the Act that could result in significant harm to fish habitat. The use of risk-based methodologies would allow the Department to focus its resources on those areas where significant risks to fish habitat are highest and ensure that they are adequately addressed in a consistent manner.

1.98 The absence of a risk-based approach to the *Fisheries Act*'s prohibition requirement also hampers the ability of the Department's Enforcement Branch to plan its enforcement activities based on significant risks to fish habitat identified by the Department. The 2008–2009 National Enforcement Plan reflects a largely reactive approach, based on complaints, to the Act's prohibition requirement. However, the Plan does include planned inspections for some cruise ships, fish plants, and abandoned mines.

1.99 Identification of substances harmful to fish. We expected to find that Environment Canada had identified and assessed the risks associated with substances that are potentially harmful to fish and incorporated this information into its decision-making processes. We found that many sources of pollution that are harmful to fish are known to Environment Canada, but that information is incomplete and, in the absence of a compliance strategy for the *Fisheries Act* prohibition requirement, the Department is not using information that it does have to its full potential.

1.100 There are many substances or combinations of substances that have the potential to harm fish. Environment Canada has different means to identify such substances, including scientific and some working knowledge of sources of pollution and some individual substances that are harmful to fish and the aquatic environment. For example, during the late 1990s, the Department's Science Branch conducted a series of threat assessments that were summarized in a 2001 report. While this work is now becoming dated, it identified sources of pollution by industries and activities, such as municipal wastewater effluent, that have a significant impact on aquatic ecosystems.

1.101 Environment Canada has knowledge about chemical substances through its scientific assessments under the *Canadian Environmental Protection Act, 1999* and about the sources of some pollution that are harmful to fish from the Department's other initiatives, such as the

processes supporting the 1987 Great Lakes Water Quality Agreement. However, the Department's 2006 Science Plan identified the need for additional information to adequately assess the impacts of substances, especially the combination of substances entering fish habitat.

1.102 In June 2008, Environment Canada reported that “there is no national network of water quality monitoring sites designed specifically for the purpose of reporting the state of Canada’s water quality in a fully representative way at different geographic scales across Canada.” While such monitoring is not designed to identify individual substances harmful to fish, Environment Canada has indicated that information from water quality monitoring in sensitive watersheds could be used to supplement information about impacts on fish and fish habitat.

Complementary roles of related legislation and other jurisdictions have not been assessed

Canadian Environmental Protection Act, 1999—Environment Canada’s primary legislation for controlling industrial and commercial chemicals and wastes that present an unacceptable risk to human health and the environment. The Act gives Environment Canada authority to regulate substances that are determined to be toxic.

1.103 As noted earlier, Environment Canada does not have a separate organizational structure or processes to manage its overall *Fisheries Act* responsibilities; it uses the structures and processes that support its other legislative responsibilities, including the **Canadian Environmental Protection Act, 1999 (CEPA)**.

1.104 Environment Canada has informed us that CEPA can play a complementary role to reduce the risk of violations of the *Fisheries Act* and reduce discharges of CEPA-regulated substances, thereby protecting fish habitat.

1.105 Reliance on CEPA. We expected to find that Environment Canada had determined the extent that the results achieved from its administration of CEPA could be relied on to meet its mandate for the *Fisheries Act*’s prohibition against the deposit of harmful substances into waters frequented by fish. The Department could also use such an assessment to help it determine the resources needed for administering its *Fisheries Act* responsibilities. However, Environment Canada has not completed such an assessment.

1.106 The case study (page 38) shows how the Department has used and proposes to use CEPA and the *Fisheries Act* to address significant risks to fish habitat from wastewater effluent.

1.107 Reliance on other jurisdictions. We focused on Environment Canada’s approach to cooperation with other jurisdictions, most notably provinces. Environment Canada relies on water legislation and enforcement in other jurisdictions to protect water from the effects of pollution and complement its *Fisheries Act* responsibilities. We expected

that Environment Canada had determined the extent that it could rely on the water legislation and enforcement by other jurisdictions to meet its mandate for the *Fisheries Act's* prohibition requirement. We found that Environment Canada had not done this.

1.108 There is a history of cooperation on water pollution prevention where federal, provincial, and territorial governments have worked together through the Canadian Council of Ministers of the Environment (CCME) to address wastewater effluent, water quality monitoring, and water quality guidelines. Such cooperation is widely recognized as being important to implementing successful pollution prevention programs.

1.109 The Government of Canada has entered into formal agreements with Alberta and Saskatchewan to administer aspects of the *Fisheries Act's* pollution prevention provisions. In a 1999 Report, the Commissioner of the Environment and Sustainable Development reported that these agreements did not always work as intended and that many activities that are essential to implementing the agreements were not working as well as they could.

Efforts to address risks posed by wastewater effluent

Wastewater effluent has long been identified as a major risk to aquatic ecosystems. It is one of the largest sources of pollution in water by volume and is a significant source of releases of nitrogen and phosphorus into water, both substances that can be harmful to fish. The issues that all governments must address to reduce the risks to water quality from wastewater effluent are complex and costly.

Under the *Fisheries Act*, wastewater effluent can contain substances harmful to fish. Environment Canada does not presently have a compliance strategy to ensure that municipal and other communities' wastewater facilities comply with the Act's prohibition requirement. However, Environment Canada's Enforcement Branch responds to complaints involving wastewater facilities. Since 1999, several high-risk substances often found in wastewater effluent have been regulated under the *Canadian Environmental Protection Act, 1999* (CEPA).

In 2003, Environment Canada started working with the Canadian Council of Ministers of the Environment (CCME) to address wastewater effluent issues. In October 2007, the CCME released the draft Canada-wide Strategy for the Management of Municipal Wastewater Effluent (the Strategy) for consultation. At the same time, Environment Canada consulted on its proposal to develop and use *Fisheries Act* regulations to implement the Strategy.

The Strategy is to be implemented over a long time frame, as long as 30 years, with the high-risk facilities having to meet the proposed regulatory requirement within 10 years. The rationale for this lengthy time frame is the complex nature of the issues being addressed and the large costs involved to construct or upgrade wastewater facilities.

The necessary *Fisheries Act* regulations have yet to be established. However, this is an example of how CEPA and the *Fisheries Act* can be used to address significant risks to fish habitat.

1.110 We examined the Canada–Alberta Administrative Agreement for the Control of Deposits of Deleterious Substances under the *Fisheries Act*. We found that the agreement was out of date and not being fully implemented (see the case study below).

1.111 We found that Environment Canada cannot demonstrate that the agreements with the provinces are active and being implemented, and it does not know the extent that the legislative frameworks of other jurisdictions can be relied on to support Environment Canada's administration and enforcement of the pollution prevention provisions of the *Fisheries Act*.

**Canada-Alberta Administrative Agreement for the Control
of Deposits of Deleterious Substances under the *Fisheries Act***

In 1994, the Governments of Canada and Alberta entered into the Canada-Alberta Administrative Agreement for the Control of Deposits of Deleterious Substances under the *Fisheries Act* (the Agreement). The purpose of the Agreement was to establish terms and conditions for the cooperative administration of the pollution prevention provisions of the *Fisheries Act* and relevant provincial legislation. The rationale behind this was to streamline and coordinate the regulatory activities of Canada and Alberta and to reduce duplication. We examined the mechanisms that were in place under the Agreement to report to Environment Canada on the results achieved for specific responsibilities administered on its behalf.

We found that the Management Committee that governs the implementation and administration of the Agreement has not met in over two years. Environment Canada informed us that it meets regularly at the staff level with Alberta to discuss issues, including enforcement activity and reported releases of substances. Although Environment Canada has not formally assessed these working-level arrangements, it informed us that they are working effectively.

To determine how this collaboration has occurred in practice, we examined the arrangements for implementation of the Agreement with respect to oil sands operations. The Pembina Institute, an Alberta-based environmental non-governmental organization, has reported that oil sands operations are producing about 1.8 billion litres of tailings per day, storing them in tailing ponds. These tailings contain substances that are potentially harmful to fish. According to several environmental impact assessments of oil sands projects, leaching of the substances contained in the tailing ponds can be expected.

Environment Canada participates in environmental impact assessments and a number of oil sands working groups and research initiatives. Environment Canada has informed us that it does not have its own independent monitoring program because Alberta prohibits the release of tailing pond contents to surface water and monitors for leaching into local rivers and lakes. Alberta has a process in place to report spills to Environment Canada, including incidents that potentially fall under the *Fisheries Act*.

Environment Canada relies on the Agreement and the arrangements with Alberta to meet its *Fisheries Act* responsibilities. However, the Agreement's Management Committee has not provided its oversight role in over two years and Environment Canada has not formally assessed the extent that the arrangements with Alberta fulfill the Department's *Fisheries Act* responsibilities.

1.112 Recommendation. Environment Canada should develop a risk-based approach to the *Fisheries Act* pollution prevention provisions to identify, assess, and address significant risks associated with non-compliance with the Act. As part of this approach, Environment Canada should determine whether there are significant risks to fish habitat associated with non-compliance with the *Fisheries Act* that are not being addressed by the combination of its own administration and enforcement of the Act, and the administration of other federal and provincial legislation.

Environment Canada's response. The Department accepts this recommendation and has assigned responsibility to the Public and Resources Sectors Directorate of the Environmental Stewardship Branch to coordinate risk management and compliance promotion priorities for subsection 36(3) of the *Fisheries Act* and associated regulations.

In 2009–10, Environment Canada will develop a work plan to identify current risks and risk management activities in non-regulated sectors, including *Fisheries Act* compliance promotion activities and other federal and provincial legislation. In 2010–11, the Department will complete the review of risks and risk management activities and will adjust departmental work plans as required.

Some regulations and guidance are outdated

1.113 We expected that Environment Canada would actively administer the *Fisheries Act* regulations pursuant to the pollution prevention provisions, and ensure that the regulations, and guidance on compliance with the Act, are adequate, up-to-date, relevant, and enforceable.

1.114 Regulated industries. Of the six *Fisheries Act* pollution prevention regulations currently in force, Environment Canada actively administers two—the *Pulp and Paper Effluent Regulations* and the *Metal Mining Effluent Regulations*. The four remaining regulations date back to the 1970s and are based on outdated technology and practices, making them difficult to enforce.

1.115 For example, the *Petroleum Refinery Liquid Effluent Regulations* contain outdated effluent sampling methods and requirements that are used to determine whether refineries are complying with the *Fisheries Act*. In addition, these regulations only apply to the five refineries that began operations on or after 1 November 1973 when the regulations came into force. The 14 refineries that were operating before that date are not subject to the regulations but are covered by voluntary guidelines.

1.116 In 1998, the Standing Committee on Environment and Sustainable Development recommended that the Minister of the Environment undertake a review of *Fisheries Act* regulations to ensure that they were adequate, up-to-date, and enforceable. Further, regulations that were found to be deficient were to be amended to ensure their enforceability. The government responded that a review was not needed at that time. Consequently, the regulations that the Committee was concerned about 10 years ago have yet to be reviewed by Environment Canada and have not been updated.

1.117 Under the 2007 Cabinet Directive on Streamlining Regulations, departments are responsible for ensuring that regulations continually meet their initial policy objectives and for renewing their regulatory frameworks on an ongoing basis. While Environment Canada officials have raised concerns about these outdated regulations, the Department has no plans to address the concerns.

1.118 Guidelines and best practice statements. Between 1970 and 1977, the Minister of Fisheries and the Environment issued six *Fisheries Act* guidelines to specific industries. These guidelines recommend voluntary measures that could be applied to control effluent discharged from operations and thereby demonstrate compliance with the Act. The guidelines are based on technology and best practices dating back to the 1960s. Consequently, the guidelines represent an impediment to Environment Canada's current enforcement of the Act's prohibition requirement, as industrial practices and technology have changed significantly in the intervening decades.

1.119 Environment Canada has also issued many industry-specific best practice statements over the years. However, the Department has no process to review and recall these statements should they become outdated.

1.120 Recommendation. Environment Canada should review existing *Fisheries Act* regulations, guidelines, and best management practices to ensure that they are adequate, up-to-date, relevant, and enforceable.

Environment Canada's response. The Department accepts this recommendation. Over the 2009–2012 period, Environment Canada will undertake a review of the continued relevance of the four regulations noted below in light of *Fisheries Act* guidelines, provincial standards, and industry best management practices, and will take the necessary steps to update or repeal them as appropriate:

- Chlor-Alkali Mercury Liquid Effluent Regulations
- Meat and Poultry Products Plant Liquid Effluent Regulations

- Petroleum Refinery Liquid Effluent Regulations
- Potato Processing Plant Liquid Effluent Regulations

Enforcement quality assurance and control have weaknesses

1.121 We focused on Environment Canada's enforcement activities that prevent, deter, and detect non-compliance with the pollution prevention provisions of the *Fisheries Act*. Enforcement activities include

- inspections to verify compliance;
- investigations of suspected violations; and
- measures to compel compliance, such as written directives and warnings, and charges under the Act.

1.122 We expected that Environment Canada could demonstrate that its enforcement actions had been taken in accordance with the Compliance and Enforcement Policy, which states that the Act must be administered and enforced in a "fair, predictable and consistent manner" and provides general guidance on how this is to be achieved.

1.123 We examined the Enforcement Branch's quality assurance and control practices for its enforcement activities. There are a number of important quality assurance and control practices in place. For example, Environment Canada has provided reporting independence to its Enforcement Branch as it now reports directly to the Deputy Minister, and the Department and Fisheries and Oceans Canada jointly developed the 2001 Compliance and Enforcement Policy in response to recommendations from a 1998 Report of the Standing Committee on the Environment and Sustainable Development. However, we found the following:

- There is no overall process by which headquarters reviews regional enforcement activities to assess whether the Policy was followed and consistently enforced.
- The Enforcement Branch has limited information on the nature and extent of *Fisheries Act* compliance issues. The Enforcement Branch believes that about 40 to 50 percent of the public complaints it receives arise from *Fisheries Act* concerns, but it has not completed an analysis of the nature of these complaints or the subsequent enforcement activities.

1.124 We selected a random sample of 15 enforcement actions—inspections, investigations, and measures to compel compliance—taken in the year ended 31 March 2008 to determine whether they

were taken in accordance with the Compliance and Enforcement Policy. We found that the enforcement actions we reviewed demonstrated compliance with the Policy.

1.125 Nevertheless, the weaknesses in the Enforcement Branch's quality assurance and control practices limit the Branch's ability to demonstrate that its actions have been taken in accordance with the Compliance and Enforcement Policy.

1.126 Recommendation. Environment Canada should ensure that its enforcement quality assurance and control practices are sufficient to demonstrate that its actions have been taken in accordance with the Compliance and Enforcement Policy.

Environment Canada's response. The Department accepts this recommendation. The Enforcement Branch is continuing to develop a framework, standardize processes, and establish accountabilities to enhance its quality assurance and its quality control. More specifically, the quality assurance and quality control framework is being both developed and implemented over the 2009–10 and 2010–11 fiscal years and maintained thereafter. At the same time, the Enforcement Branch is establishing a quality assurance unit, as well as a working group, to oversee and support the quality of enforcement data. Collectively, their responsibilities will include developing new procedures for data entry, implementing a systematic data quality and control monitoring process that will involve both regional management teams as well as headquarters, conducting periodic quality assurance analysis of enforcement files, and providing training to Enforcement Officers.

Interdepartmental cooperation

Cooperation between the two departments is lacking

1.127 The Minister of Fisheries and Oceans continues to be legally responsible to Parliament for all sections of the *Fisheries Act*, including administration of the pollution prevention provisions that have been assigned to Environment Canada. The Habitat Policy and the Compliance and Enforcement Policy promote the concept of Fisheries and Oceans Canada and Environment Canada working cooperatively to achieve the policies' objectives. We expected to find that the two departments had formal arrangements to establish the expectations for administration of the pollution prevention provisions of the *Fisheries Act* and that they had implemented the cooperative arrangements reflected in the policies.

1.128 A 1985 Memorandum of Understanding (MOU) between Fisheries and Oceans Canada and Environment Canada sets out their collective responsibilities for administration of the pollution prevention provisions of the *Fisheries Act*. It is not being actively implemented by the two departments. For example, the MOU calls for regular, at least annual, meetings between senior officials to discuss operational, regulatory, and national policy considerations. These meetings are not held.

1.129 In response to our 2001 audit, Fisheries and Oceans Canada noted that the Memorandum of Understanding would be reviewed in the near future to further clarify the respective roles and expectations of the two departments in administering the pollution prevention provisions. This has not been done.

1.130 Implementing the policies. We found that Fisheries and Oceans Canada and Environment Canada have few formal interactions related to the policies. The Habitat Policy indicates that Fisheries and Oceans Canada is to work with Environment Canada to establish federal priorities. The Policy also stipulates that Fisheries and Oceans Canada is to provide criteria for fisheries protection to Environment Canada to guide it in its effort to protect fish and fish habitat from pollution. This has not been done.

1.131 The 2001 Compliance and Enforcement Policy called for a joint review of its implementation by the two departments after five years. Seven years later, we found that neither department was aware of this requirement and the joint review has not been done.

1.132 While there are many ongoing working-level interactions between officials of the two departments, we found that this has not been translated into the specific actions called for under the Habitat Policy and the Compliance and Enforcement Policy.

1.133 Establishing expectations. There are no formal arrangements by which Fisheries and Oceans Canada and Environment Canada establish the expectations for administration of the pollution prevention provisions of the *Fisheries Act*. Environment Canada's administration of the provisions has been left to its discretion.

1.134 Recommendation. Fisheries and Oceans Canada, with the support of Environment Canada, should clearly establish the expectations for Environment Canada's administration of the pollution prevention provisions, including the expected interactions between the two departments to support the delivery of the 1986 Habitat Policy.

Environment Canada's and Fisheries and Oceans Canada's response. The departments accept this recommendation and, by 31 March 2011, will review the administration of section 36 of the *Fisheries Act*. By 31 March 2012, a renewed Memorandum of Understanding that better establishes expectations and responsibilities for Environment Canada will be in place.

Conclusion

1.135 Fisheries and Oceans Canada and Environment Canada cannot demonstrate that they are adequately administering and enforcing the *Fisheries Act*, and applying the Habitat Policy and the Compliance and Enforcement Policy in order to protect fish habitat from the adverse impacts of human activity.

1.136 Habitat Policy. In the 23 years since the Habitat Policy was adopted, Fisheries and Oceans Canada has not fully implemented the Policy, and little information exists about the achievement of the Policy's overall long-term objective of a net gain in productive fish habitat. Fisheries and Oceans Canada needs to gather information on the state of fish habitat and develop habitat indicators to assess the state of Canada's fish habitat. Through improved information about the state of fish habitat, Canadians will be better informed about whether progress is being made toward the Policy's long-term objective.

1.137 Environmental Process Modernization Plan (EPMP). Fisheries and Oceans Canada has made progress in implementing the EPMP so that it can better manage its risks. The EPMP has resulted in a reliance on Canadians' self-compliance with the *Fisheries Act* habitat protection provisions for common, low-risk projects, to allow the Department to use its resources on projects that represent a greater risk to fish habitat. There are shortcomings in implementation of the EPMP. We found that the Department does not have adequate quality assurance and control processes for its new risk-based decision making. It cannot demonstrate that projects that represent a risk to fish habitat have been adequately assessed and a consistent approach has been applied. We found that Fisheries and Oceans Canada reduced its enforcement by half before implementing its new compliance approach. Further, the Department rarely monitors whether project proponents actually comply with the Department's conditions of approval or whether proponents' actions effectively maintained the expected no net loss in habitat.

1.138 Pollution prevention provisions. Environment Canada has not clearly identified what it has to do to meet its *Fisheries Act* responsibility for the pollution prevention provisions, including establishing results expectations and appropriate accountability arrangements that provide national coordination and guidance on the administration of the Act. Environment Canada does not use a risk-based approach to the *Fisheries Act* to identify, assess, and address risks associated with non-compliance with the Act that could lead to significant harm to fish habitat. It does not have a *Fisheries Act* compliance strategy for the industries and activities that must comply with the Act's prohibition against the deposit of harmful substances in waters frequented by fish. Environment Canada has not determined whether the results achieved through other legislation (such as the *Canadian Environmental Protection Act, 1999*), other levels of government, and its own enforcement activities meet the Act's stringent pollution prohibition requirement.

1.139 Review of regulations. Regulations under the pollution prevention provisions of the *Fisheries Act* allow regulated industries to deposit specified substances into waters frequented by fish within discharge limits. Environment Canada actively administers only two of the six *Fisheries Act* regulations for which it has responsibility. The two regulations cover the pulp and paper industry and metal mines, which have in the past represented risks to fish. However, the remaining four regulations, all of which date to the 1970s, are not actively being administered. The Department considers them to be outdated and difficult to enforce. By not reviewing these regulations to determine whether they still meet their initial policy objectives, Environment Canada is not following the 2007 Cabinet Directive on Streamlining Regulations.

1.140 Continuing issues. Many of the issues raised in this chapter have been raised before in previous audit reports, especially as they relate to Fisheries and Oceans Canada. For example, we have previously observed that Fisheries and Oceans Canada had not implemented aspects of the Habitat Policy, did not know whether it was progressing toward the ultimate objective of a net gain in fish habitat, and needed to devote more time and effort to compliance monitoring.

About the Audit

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by The Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

Objective

The audit objective was to determine whether Fisheries and Oceans Canada and Environment Canada can demonstrate that they are adequately administering and enforcing the *Fisheries Act*, and applying the Habitat Policy and the Compliance and Enforcement Policy in order to protect fish habitat from the adverse impacts of human activity.

Scope and approach

The audit included the administration of the fish habitat protection and pollution prevention provisions of the *Fisheries Act* and the two policies (the Habitat Policy and the Compliance and Enforcement Policy) that set out the government's intentions related to these provisions. The audit included the policies, programs, and activities of Fisheries and Oceans Canada and Environment Canada, and certain arrangements with others that support the administration and enforcement of these provisions.

The audit did not focus on the environmental assessments required by the *Canadian Environmental Assessment Act* that may be triggered by ministerial authorizations under the provisions of the *Fisheries Act*.

Our approach included reviewing documents from the headquarters and regional offices, interviewing management and employees, examining databases, examining a sample of project proposals referred to Fisheries and Oceans Canada, examining a sample of enforcement actions taken by both departments, and analyzing procedures. We also reviewed a number of relevant environmental petitions and the related responses from department ministers.

Criteria

Listed below are the criteria that were used to conduct this audit and their sources.

Criteria	Sources
Fisheries and Oceans Canada and Environment Canada should administer and enforce the fish habitat protection and pollution control provisions of the <i>Fisheries Act</i> in a fair, predictable, and consistent manner so as to achieve the Habitat Policy and the Compliance and Enforcement Policy.	<ul style="list-style-type: none"> • Department of Fisheries and Oceans, Policy for the Management of Fish Habitat, 1986 • Environment Canada, Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the <i>Fisheries Act</i>, 2001 • Cabinet Directive on Streamlining Regulation, 2007

Criteria	Sources
Fisheries and Oceans Canada and Environment Canada should work collaboratively with provinces, communities, and stakeholders to implement the fish habitat protection and pollution control provisions of the <i>Fisheries Act</i> , and the Habitat Policy and the Compliance and Enforcement Policy. Where specific responsibilities are administered by others on behalf of Fisheries and Oceans Canada and Environment Canada, mechanisms should be in place to report to Fisheries and Oceans Canada or Environment Canada on the results achieved in the conduct of these responsibilities.	<ul style="list-style-type: none"> • Department of Fisheries and Oceans, Policy for the Management of Fish Habitat, 1986 • Environment Canada, Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act, 2001 • CCME, A Canada-wide Accord on Environmental Harmonization • 1999 CESD Report—Streamlining Environmental Protection Through Federal-Provincial Agreements: Are They Working?
Fisheries and Oceans Canada's Environmental Process Modernization Plan should support the achievement of the Habitat Policy and the Compliance and Enforcement Policy, and be implemented fully, adapting its implementation to reflect experience.	<ul style="list-style-type: none"> • Department of Fisheries and Oceans, Policy for the Management of Fish Habitat, 1986 • Environment Canada, Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act, 2001 • DFO Change Agenda • DFO, Environmental Process Modernization Plan, 2004 • Cabinet Directive on Streamlining Regulation, 2007
Fisheries and Oceans Canada and Environment Canada should measure and report on the extent to which their programs and activities contribute to the achievement of the Habitat Policy and the Compliance and Enforcement Policy and meet the reporting requirements under the <i>Fisheries Act</i> .	<ul style="list-style-type: none"> • Department of Fisheries and Oceans, Policy for the Management of Fish Habitat, 1986 • Environment Canada, Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act, 2001 • Results for Canadians: A Management Framework for the Government of Canada

Audit work completed

Audit work for this chapter was substantially completed on 3 October 2008.

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 1. The number in front of the recommendation indicates the paragraph number where it appears in the chapter. The numbers in parentheses indicate the paragraph numbers where the topic is discussed.

Recommendation	Response
Protecting fish habitat	
1.33 In order to make consistent decisions on project referrals, in accordance with departmental expectations, Fisheries and Oceans Canada should ensure that an appropriate risk-based quality assurance system is in place for the review of these decisions. (1.19–1.32)	Fisheries and Oceans Canada's response. The Department accepts this recommendation. Over the past number of years, Fisheries and Oceans Canada has made efforts to improve the quality, consistency, and transparency of its decision making by implementing the Risk Management Framework. Although much progress has been made, the Department recognizes that there is still much work to be done with respect to documentation standards. With that in mind, by 31 March 2010, Fisheries and Oceans Canada will implement a risk-based quality assurance system to verify that documentation standards are being applied consistently by staff.
1.41 Fisheries and Oceans Canada should accelerate the implementation of its Habitat Compliance Decision Framework to ensure that there is an adequate risk-based approach to monitoring projects and providing assurance that proponents are complying with the <i>Fisheries Act</i> and all terms and conditions of departmental decisions. The Department should also determine whether the required mitigation measures and compensation are effective in meeting the no net loss principle. (1.34–1.40)	Fisheries and Oceans Canada's response. The Department accepts this recommendation. Fisheries and Oceans Canada currently applies a risk-based approach, but recognizes that opportunities for improvement remain. Once the Habitat Compliance Modernization initiative is fully implemented, the Department will be able to provide better assurance that proponents are complying with the terms and conditions of the Department's decisions. Considering this, the Department commits to fully implement the Habitat Compliance Decision Framework and report on results of project monitoring activities by 31 March 2010 and annually thereafter. Fisheries and Oceans Canada will continue to work with proponents to design and implement follow-up monitoring studies. Between now and the end of 2011, the Department will review and develop standard scientific methodologies to examine the effectiveness of compensation in achieving the no net loss guiding principle so that these methodologies can be used by proponents when designing monitoring studies.

Recommendation	Response
<p>1.48 Fisheries and Oceans Canada should ensure that its enforcement quality assurance and control processes are sufficient to demonstrate that its actions have been taken in accordance with the Compliance and Enforcement Policy. The Department should provide guidance on the type of complaints that fishery officers should respond to and take action on, and the Department should specify minimum documentation requirements for occurrences. (1.42–1.47)</p>	<p>Fisheries and Oceans Canada’s response. The Department accepts this recommendation and, by 31 August 2010, will establish, disseminate, and communicate to regions an operational protocol to ensure better documentation of enforcement actions and monitoring of activities to ensure consistency with the Compliance and Enforcement Policy.</p> <p>Guidance on the nature of complaints that warrant the attention of fishery officers has also been identified as a need by the Department. By 31 March 2011, the Department will examine the process currently in use and, by 31 March 2012, the Department will examine the Habitat Compliance Decision Framework to improve its guidance to staff, clarify documentation protocols, and establish minimum documentation standards for occurrences.</p>
<p>1.69 Fisheries and Oceans Canada should clarify the parts of the Habitat Management Program that it will continue to administer, the extent that it wants others to deliver the program on its behalf, and the resource implications. The Department should also assess whether accountability mechanisms in all of its existing agreements are working effectively enough to report and assess the results achieved through its collaboration with others. In addition, it should review the agreements to ensure that they are aligned with its view of the long-term goals of the Habitat Management Program. (1.49–1.68)</p>	<p>Fisheries and Oceans Canada’s response. The Department accepts this recommendation and, by 31 March 2011, will have reviewed and evaluated its memoranda of understanding with provinces and territories. The Department will continue to work with its partners to strengthen the governance and accountability mechanisms and ensure that the partnership arrangements are aligned with the Department’s goals and its strategic vision.</p>
<p>1.74 Fisheries and Oceans Canada should develop habitat indicators to apply in ecosystems with significant human activity. The Department should use these indicators to assess whether it is making progress on the Habitat Policy’s long-term objective to achieve an overall net gain in fish habitat. (1.70–1.73)</p>	<p>Fisheries and Oceans Canada’s response. The Department accepts and agrees with this recommendation and is committed to moving toward an ecosystems approach and the increased use of biological indicators, particularly in areas of significant human activity. However, this task is far from trivial as it will require significant new scientific understanding to ensure that the indicators adopted do in fact tell us what we need to know about the health of the aquatic ecosystem.</p>

Recommendation	Response
<p>1.80 Fisheries and Oceans Canada should determine what actions are required to fully implement the 1986 Habitat Policy and confirm whether it intends to implement all aspects of the Policy. (1.75–1.79)</p>	<p>Fisheries and Oceans Canada's response. The Department accepts this recommendation and, by March 2010, will determine what actions are required to fully implement the Habitat Policy.</p>
<p>Pollution prevention provisions</p>	
<p>1.93 Environment Canada should set out clear objectives and results expectations for its <i>Fisheries Act</i> responsibilities, and establish accountability for achieving the desired results, including providing national coordination and guidance on the administration of the Act. (1.81–1.92)</p>	<p>Environment Canada's response. The Department accepts this recommendation and will put in place a Results-based Management and Accountability Framework in 2009–10 for Environment Canada's <i>Fisheries Act</i> responsibilities. The framework will clearly identify the objectives, responsibilities, and expected results, including how national coordination and guidance on Environment Canada's administration of the Act will be provided.</p>
<p>1.112 Environment Canada should develop a risk-based approach to the <i>Fisheries Act</i> pollution prevention provisions to identify, assess, and address significant risks associated with non-compliance with the Act. As part of this approach, Environment Canada should determine whether there are significant risks to fish habitat associated with non-compliance with the <i>Fisheries Act</i> that are not being addressed by the combination of its own administration and enforcement of the Act, and the administration of other federal and provincial legislation. (1.94–1.111)</p>	<p>Environment Canada's response. The Department accepts this recommendation and has assigned responsibility to the Public and Resources Sectors Directorate of the Environmental Stewardship Branch to coordinate risk management and compliance promotion priorities for subsection 36(3) of the <i>Fisheries Act</i> and associated regulations.</p> <p>In 2009–10, Environment Canada will develop a work plan to identify current risks and risk management activities in non-regulated sectors, including <i>Fisheries Act</i> compliance promotion activities and other federal and provincial legislation. In 2010–11, the Department will complete the review of risks and risk management activities and will adjust departmental work plans as required.</p>

Recommendation	Response
<p>1.120 Environment Canada should review existing <i>Fisheries Act</i> regulations, guidelines, and best management practices to ensure that they are adequate, up-to-date, relevant, and enforceable. (1.113–1.119)</p>	<p>Environment Canada’s response. The Department accepts this recommendation. Over the 2009–2012 period, Environment Canada will undertake a review of the continued relevance of the four regulations noted below in light of <i>Fisheries Act</i> guidelines, provincial standards, and industry best management practices, and will take the necessary steps to update or repeal them as appropriate:</p> <ul style="list-style-type: none"> • Chlor-Alkali Mercury Liquid Effluent Regulations • Meat and Poultry Products Plant Liquid Effluent Regulations • Petroleum Refinery Liquid Effluent Regulations • Potato Processing Plant Liquid Effluent Regulations
<p>1.126 Environment Canada should ensure that its enforcement quality assurance and control practices are sufficient to demonstrate that its actions have been taken in accordance with the Compliance and Enforcement Policy. (1.121–1.125)</p>	<p>Environment Canada’s response. The Department accepts this recommendation. The Enforcement Branch is continuing to develop a framework, standardize processes, and establish accountabilities to enhance its quality assurance and its quality control. More specifically, the quality assurance and quality control framework is being both developed and implemented over the 2009–10 and 2010–11 fiscal years and maintained thereafter. At the same time, the Enforcement Branch is establishing a quality assurance unit, as well as a working group, to oversee and support the quality of enforcement data. Collectively, their responsibilities will include developing new procedures for data entry, implementing a systematic data quality and control monitoring process that will involve both regional management teams as well as headquarters, conducting periodic quality assurance analysis of enforcement files, and providing training to Enforcement Officers.</p>
<p>Interdepartmental cooperation</p>	
<p>1.134 Fisheries and Oceans Canada, with the support of Environment Canada, should clearly establish the expectations for Environment Canada’s administration of the pollution prevention provisions, including the expected interactions between the two departments to support the delivery of the 1986 Habitat Policy. (1.127–1.133)</p>	<p>Environment Canada’s and Fisheries and Oceans Canada’s response. The departments accept this recommendation and, by 31 March 2011, will review the administration of section 36 of the <i>Fisheries Act</i>. By 31 March 2012, a renewed Memorandum of Understanding that better establishes expectations and responsibilities for Environment Canada will be in place.</p>