

Policy and Practice Report
The Department of Fisheries and Oceans'
Habitat Management Policies and Practices

7 April 2011

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1. Introduction

1. This policy and practice report (“Report”) provides an overview of the regulatory and policy tools that Fisheries and Oceans Canada (“DFO” or the “Department”) employs to protect habitat for Fraser River sockeye salmon.
2. The information contained in this Report is derived from documents disclosed to the commission or otherwise obtained through the commission’s investigations.¹ The accuracy of this Report is therefore subject to the accuracy of the documents so provided or obtained. Descriptions of policy and program objectives, purposes, outcomes, reviews or other qualitative assessments contained in this Report are as provided in the documents cited and are not necessarily the views of the commission.
3. This Report is not comprehensive of all DFO policies or programs related to habitat management. It is intended to provide a contextual background for the habitat management portion of the commission’s hearings. Certain topics relevant to habitat management but not covered in this report, such as the Wild Salmon Policy, water pollution and habitat enforcement, are covered by other sections of the commission’s evidentiary hearings.

1.1. Sockeye Salmon Habitat

4. As anadromous fish, sockeye salmon depend on freshwater and marine habitats at different stages in their lifecycle. Adults migrate from the Pacific Ocean to the Fraser River and its tributaries in order to spawn. Spawning depends on the

¹ The commission’s Terms of Reference direct the Commissioner to use the automated document management program specified by the Attorney General of Canada: Ringtail Legal. Source references in this Report, where possible, refer to the unique document identifier attached to a given document by Ringtail Legal. For such documents, citations refer to the Ringtail pagination, which may differ from the original pagination. References to “exhibits” refer to exhibits tabled at the commission’s evidentiary hearings. A full list of exhibits can be found at <<http://cohencommission.ca/en/Exhibits.php>>.

presence of suitable gravel and other habitat features. Juveniles rear largely in lakes before migrating to the estuary, and finally to the Pacific Ocean.²

5. Along the way, sockeye must overcome obstructions to migration, changes to land cover, fluctuations in water flow and temperature, degraded water quality, and direct habitat loss to foreshore development.³ These threats arise from a number of sources, ranging from catastrophic events such as landslides and chemical spills, to agriculture, forestry, and urbanization. There is general agreement that sockeye salmon habitat is not threatened by a single source, but by the cumulative impacts from the broad range of human activities that occur in the Fraser watershed.⁴

6. Loss of fish habitat has been identified as a leading factor in the decline of Canada's fisheries resources,⁵ and salmon in particular.⁶ In the lower Fraser River watershed, approximately 90% of the fish habitat was lost during the 20th century.⁷ The people of British Columbia are increasingly concerned about the rate of habitat degradation and loss.⁸

² Exhibits #1,2,and 3: Presentations of Mr. Mike Lapointe, Dr. David Welch and Mr. Karl English.

³ "Habitat Issues Affecting Fraser River Sockeye Salmon", [n.a., n.d.] CAN185561.

⁴ *Ibid.* at 22. For a more complete inventory and analysis of risks to Sockeye salmon habitat, see Cohen Commission technical report 3: "Fraser River freshwater ecology and status of sockeye salmon Conservation Units." See also Jeffrey Young & John Werring, *The Will to Protect: Preserving B.C.'s Wild Salmon Habitat* (Vancouver: David Suzuki Foundation, 2006), CAN142400 at 14.

⁵ Peter Pearse, *Rising to the Challenge: a New Policy for Canada's Freshwater Fisheries* (Ottawa: Canadian Wildlife Federation, 1988).

⁶ See, e.g., J. A. Lichatowich, *Salmon Without Rivers: a History of the Pacific Salmon Crisis* (Island Press, Washington: Island Press, 1999); Marvin Rosenau and Mark Angelo, *Conflicts Between Agriculture and Salmon in the Eastern Fraser Valley* (Vancouver: Pacific Fisheries Resource Conservation Council, 2005).

⁷ C. D. Levings & D. J. H. Nishimura, "Created and restored sedge marshes in the lower Fraser River and estuary: an evaluation of their functioning as fish habitat" (1996) 2126 Canadian Technical Report of Fisheries and Aquatic Sciences.

⁸ The commission received a number of habitat-related public presentations during its tour around the province as well as public submissions via its website. See online submissions at <<http://www.cohencommission.ca/en/submissions/ViewSubmissions.php>>, e.g., Judd, December 26, 2010; Russel, October 25, 2010; Crowe, October 22, 2010; Claydon, October 20, 2010; Dayton, October 14, 2010; ELC, October 6, 2010; Fall, September 15, 2010; Biagi, September 8, 2010; Brauer, June 29, 2010; MacIssac, June 18, 2010; Woodworth, June 3, 2010. Presentations at public forums discussing habitat were also provided by, among others: Keenan; Casper; George; O'Mahoney; Henselwood; Dupont; Nickerson; Madsen; Reynolds; Husband; Guerin; Bell and Tyson.

7. The Department acknowledges that fish habitat is not only essential to the production of fish, but also provides critical ecosystem services, such as water purification, flood control, and recreational opportunities that are likely worth several times more than the economic value of fisheries.⁹ Therefore, the Department aims to prevent habitat loss by regulating impacts on fish habitat arising from land and water-based works or undertakings in or near the Fraser River and the rest of Canada’s aquatic environment.¹⁰ DFO’s Habitat Management Program (the “HMP”) is the program through which the Department manages impacts on fish habitat. The HMP is the focus of this report.

1.2. Canada’s Authority with Respect to Fish Habitat

8. Section 91(12) of the *Constitution Act, 1867*, assigns the federal government exclusive legislative authority over the sea coast and inland fisheries.¹¹ Parliament assigned to the Minister of Fisheries and Oceans powers to protect fish habitat in the *Fisheries Act* (the “Act”). The Minister directs the activities of the Department.¹²
9. The Act contains a number of habitat protection provisions that many, including the Department, believe make the Act one of the strongest legislative tools in Canada in terms of environmental protection.¹³ Section 35 is the primary habitat protection provision. Subsection 35(1) prohibits the unauthorized carrying on of any work or undertaking that results in the “harmful alteration, disruption or destruction of fish habitat” (a “HADD”). Relief from this prohibition is found in

⁹ “[Draft] Backgrounder #1: What is fish habitat and why is it important to Canadians”, November 18, 2010, CAN297736 at 1.

¹⁰ In this Report, “works or undertakings” are normally referred to as development projects or developments.

¹¹ The constitutional framework is described in greater detail in the commission’s policy and practice report titled Legislative Framework Overview.

¹² *Department of Fisheries and Oceans Act*, R.S.C. 1985, c. F-15.

¹³ “Habitat Management Program: Standard Operating Policies Manual” – Memorandum 29 May 2006 CAN185999 at 9; Jeffrey Young & John Werring, *The Will to Protect: Preserving B.C.’s Wild Salmon Habitat* (Vancouver: David Suzuki Foundation, 2006), CAN024219 at 15.

subsection 35(2), which allows a HADD to occur with the Minister's authorization or pursuant to regulations. An authorization permits the HADD that results from a work or undertaking, not the work or undertaking itself that causes the HADD.

10. Fish habitat is a broad concept. The *Fisheries Act* defines "fish habitat" as "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes[.]"¹⁴ The Act defines "fish" to include all the life stages and parts of fish, shellfish, crustaceans and marine animals.¹⁵
11. Section 35 does not impose an affirmative regulatory duty on the minister, but rather creates a prohibition that the minister may or may not enforce. Unauthorized HADDs brought to the Department's attention may or may not be prosecuted. In 2008-09, the Department reported two convictions under the habitat protection provisions of the Act (one in the Pacific Region) and 37 "charges laid" (five in the Pacific Region).¹⁶
12. Section 36 prohibits the unauthorized deposit of a deleterious substance into water frequented by fish. It is often referred to as the key "pollution prevention" provision. Pursuant to an administrative agreement, Environment Canada, rather than DFO, administers and enforces aspects of pollution control arising from sections 36 to 42.¹⁷

¹⁴ *Fisheries Act*, R.S.C. 1985, c. F-14, s. 34(1).

¹⁵ *Ibid.* s. 2. The *Species at Risk Act*, S.C. 2003, c. 39, s. 2(1) definition is slightly broader. It defines habitat, in respect of aquatic species, as also including "any other areas on which aquatic species depend directly or indirectly in order to carry out their life processes, or areas where aquatic species formerly occurred and have the potential to be reintroduced." The Federal Court has confirmed that an aquatic species' critical habitat is correctly construed not simply as an area but as its ecological components, such as the biological, chemical, physical and acoustic features or qualities relied on by the species. See *David Suzuki Foundation v. Canada (Fisheries and Oceans)*, 2010 FC 1233; *Environmental Defence v. Canada (Fisheries and Oceans)*, 2009 FC 878.

¹⁶ "2008-2009 Annual Report to Parliament on the Administration and Enforcement of the Fish Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*" (2010) [2008-09 Annual Report].

¹⁷ In 1978, the Prime Minister assigned responsibility for section 36 to the Minister of Environment. A 1985 Memorandum of Understanding between DFO and the Department Of Environment reiterated the

13. While the HMP’s regulatory work focuses on section 35, other sections of the Act are sometimes considered by the Department as “habitat protection and pollution prevention provisions of the *Fisheries Act*”.¹⁸ These include:

Section	Authority
20	The Minister may require fish-ways to be constructed.
21	The Minister may authorize payment, order construction or removal or require fish stops or diverters for fish-ways.
22	The Minister may require sufficient flow of water for the safety of fish and flooding of spawning grounds as well as free passage of fish during construction.
26	Prohibits obstruction of fish passage through channels, rivers and streams. In addition, the Minister may authorize devices to prevent the escape of fish.
27	Prohibits the damage or obstruction of fish-ways, the impediment of fish to fish-ways and nearby fishing.
28	Prohibits the use of explosives to hunt or kill fish.
30	The Minister may require fish guards or screens to prevent the entrainment of fish at any water diversion or intake.
32	Prohibits the destruction of fish by any means other than fishing.
34	Definitions used throughout sections 35 to 42.
35	Prohibits works or undertakings that may result in harmful alteration, disruption or destruction of fish habitat, unless authorized by the Minister or under regulations.
36	Prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized under regulations.
37	The Minister may request plans and specifications for works or undertakings that might affect fish or fish habitat. The Minister may, by regulations or with Governor-in-Council approval, make orders to restrict or close works or undertakings that may harmfully alter fish habitat or lead to the deposit of deleterious substances.
38	Gives the Minister the authority to appoint inspectors and analysts and describes inspectors’ powers, including entry, search and the power to direct preventive, corrective or cleanup measures. Provides for regulations that require reporting of abnormal deposits of a deleterious substance or

responsibilities of both departments and set out mechanisms for information sharing and co-operation. The administration and enforcement of section 36 is explained more fully in the commission’s policy and practice reports dealing with habitat enforcement and effluents.

¹⁸ Under the Act, only ss. 34-42.1 fall under the heading “Fish habitat protection and pollution prevention”.

	substances that occur in contravention of the general prohibition, regulations or site-specific authorizations.
40	Sets out penalties in case of a contravention of: sections 35 or 36; failing to provide information or to undertake a project in compliance with section 37; or failing to make a report or to otherwise comply with section 38.
42	Those causing the deposit of deleterious substances in waters frequented by fish are liable for costs incurred by Her Majesty. Also, the Minister shall prepare an annual report on administration and enforcement of the fish habitat protection and pollution prevention provisions of the <i>Fisheries Act</i> as well as a statistical summary of convictions under section 42.1.
43	The Governor in Council may make regulations for carrying out the purposes and provisions of the <i>Fisheries Act</i> , including habitat protection and pollution prevention.

Table 1: The Department’s summary of the “Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*”.¹⁹

14. The HMP has a significant role in implementing two other statutes: the *Species at Risk Act* (“SARA”),²⁰ and the *Canadian Environmental Assessment Act* (the “CEAA”).²¹ Under SARA, the Minister of Fisheries and Oceans is the competent minister for listed aquatic species other than those in lands administered by Parks Canada.²² The Department’s role includes consideration of listed aquatic species at risk and their habitats in regulatory reviews and environmental assessments, as well as providing advice on recovery strategies and action plans.²³ Currently, no sockeye salmon population or population grouping is listed as a species at risk under SARA.²⁴

¹⁹ 2008-09 Annual Report, *supra* at 7.

²⁰ S.C. 2003, c. 39.

²¹ S.C. 1992, c. 37 [CEAA].

²² S. 2.

²³ “Species at Risk Act (SARA)”, online: DFO <<http://www.dfo-mpo.gc.ca/habitat/role/141/1415/14153-eng.htm>>.

²⁴ However, the Committee on the Status of Endangered Wildlife (“COSEWIC”) has assessed the status of the Cultus and Sakinaw populations of Fraser River sockeye as endangered. COSEWIC is the scientific body established by SARA to assess the status of wildlife species (SARA ss. 14-31). Despite COSEWIC’s recommendation, Canada declined to list the populations. See the order and reasons online at <http://www.sararegistry.gc.ca/virtual_sara/files/orders/g2-13902i_e.pdf>.

15. The HMP has responsibilities for administering the CEAA, particularly when the Department is a responsible authority.²⁵ The intersection between habitat management and environmental assessment under the CEAA is discussed in section 4 below.

2. Overview of DFO's Habitat Management Program

16. Within the Department, the HMP has the mandate to conserve and protect fish habitat.²⁶ The HMP is a major federal regulator for development projects occurring in or near fish-bearing waters in Canada.²⁷

17. Although the HMP is involved in non-regulatory activities, such as outreach, research, stewardship and education, the majority of its work is regulatory in nature. The primary focus of the HMP's regulatory work derives from section 35 of the Act.²⁸ When a developer or proponent²⁹ submits a proposal to the Department for regulatory review under the Act, the process is termed a "referral."³⁰ Approximately 80 percent of the HMP's resources are devoted to the referral review process.³¹

18. The referral process enables the HMP's habitat staff to review submitted proposals to assess whether a HADD is likely to result from the proposed works or undertakings.³² Habitat staff provide advice, through a variety of means

²⁵ See Section 4.1.

²⁶ 2008-09 Annual Report, *supra* at 1, 5-6, 9.

²⁷ *Ibid.* at 9.

²⁸ Section 32 dealing with direct mortality of fish has become a significant focus as well, as evidenced by a revised Practitioners Guide to Writing an Authorization for the Habitat Protection Provisions of the *Fisheries Act*, discussed in section 3.4 of this Report.

²⁹ In this Report, 'proponent' and 'developer' are used interchangeably. Proponents may include private land developers, government bodies, and others.

³⁰ "Regional Habitat Regulatory Decision Framework", July 2010, CAN186041 at 1.

³¹ "[Draft] Backgrounder #6: What are DFO's key activities in fish habitat management?", November 18, 2010, CAN297741 at 1.

³² HMP staff include habitat biologists, habitat technicians, managers and others. HMP staff are sometimes referred to as habitat referral staff, habitat practitioners or habitat assessors. This paper uses "habitat staff."

described further below, to proponents on how to proceed in a manner that complies with the Act. Often the advice focuses on how to avoid a HADD.³³ Under certain conditions, where harm to fish or fish habitat is unavoidable, habitat staff issue a section 32 or subsection 35(2) authorization.³⁴

19. Proponents voluntarily participate in the referral process. According to the Department, the habitat protection provisions do not create a mandatory obligation for proponents to seek advice or authorization from DFO.³⁵ However, failure to do so may expose a proponent to charges and prosecutions under the Act.³⁶

2.1. Origins of the Habitat Management Program

20. The HMP evolved gradually. The importance of habitat protection was recognized as early as 1968 with the establishment of a unit dedicated to habitat protection.³⁷ The first significant habitat protection provisions appeared in the Act in 1976.³⁸ In 1986, the Department tabled in Parliament the Policy for the Management of Fish Habitat (the “1986 Habitat Policy”), which has been instrumental in shaping the work of the HMP.³⁹
21. Before 1999, the Department’s habitat management activity was largely confined to Canada’s Atlantic and Pacific coasts. Canada had delegated responsibility for the management of freshwater fish habitat to the inland provinces.⁴⁰ In 1999, the Minister of Fisheries & Oceans indicated that habitat provisions of the Act would

³³ “[Draft] Backgrounder #6: What are DFO’s key activities in fish habitat management?” November 18, 2010, CAN297741 at 1.

³⁴ Such authorizations must be preceded by an environmental assessment under the CEAA. See section 4 of this Report.

³⁵ 2008-09 Annual Report, at 22.

³⁶ *Ibid.*

³⁷ Otto Langer, “Historic Overview of DFO’s Pacific Region Habitat Management’s Workload from 1965 to 2008”, March 2008, CAN220662 at 3.

³⁸ *Ibid.*

³⁹ This is discussed further in section 3.1.

⁴⁰ “Working Together to Conserve and Protect Canada’s Fish Habitat: Summary Report of the Habitat Blueprint Initiative”, 5 September 2001, [Blueprint Summary], CAN297754 at 5.

no longer be delegated to provinces, and the Department used additional resources to strengthen its capacity to protect fish habitat in the inland provinces.⁴¹ In the Pacific Region, service was expanded into South- and North-eastern British Columbia by relocating existing staff.⁴²

22. The HMP was further shaped by regulatory responsibilities assigned to the Minister of Fisheries and Oceans under other statutes enacted in the 1990s and 2000s, especially the SARA and the CEAA.⁴³ The current regulatory approach pursued by the HMP is described in more detail in section 3.

2.2. The HMP's Organizational Structure

23. Responsibility for delivery of the HMP is shared between DFO's national headquarters ("NHQ") and the regions. NHQ is responsible for the overall coordination of the delivery of the HMP, providing national policy direction, strategic advice, and coordination with other Department sectors, federal departments and national organizations.⁴⁴ Day-to-day delivery of the HMP is carried out by habitat staff located in the six regions and approximately 65 DFO offices.⁴⁵
24. At the NHQ level, responsibility for the HMP today lies primarily with two sectors. The policy aspects fall within the 'Programs Policy' sector, while the operational aspects fall within the 'Ecosystems and Fisheries Management' sector.⁴⁶ A third

⁴¹ *Ibid.* at 6; "Pacific Region's Approach to Anadromous and Resident Fish Habitat Protection", RMC Information Paper, 18 May 2006, CAN168705 at 1.

⁴² "Regional Habitat Regulatory Decision Framework", July 2010, CAN186041 at 2.

⁴³ "Background", in "Habitat Management Program: Standard Operating Policies", CAN185999 at 9.

⁴⁴ 2008-09 Annual Report at 9.

⁴⁵ *Ibid.*

⁴⁶ DFO sectors are national headquarters organisational divisions based on program activities. Until May 3, 2010, the DFO sectors were: a) Fisheries and Aquaculture Management; b) Fisheries Renewal; c) Human Resources & Corporate Services; d) Science and Oceans; e) Habitat and *Species At Risk Act*; and f) Policy. As of May 3, 2010, the sectors are: a) Strategic Policy; b) Programs Policy; c) Ecosystems and Fisheries Management; and d) Oceans and Science. See Exhibit 15, "Fisheries and Oceans Canada Organizational Structure", November 1, 2010.

sector, Oceans and Science, houses an ecosystems science group. Concerns were raised about Department organizational schemes in the 1990s that separated science from habitat as tending “to exclude habitat management as a primary client and recipient of [science] research.”⁴⁷

25. Previous iterations of the Department’s organizational structure have seen all aspects of the HMP included in one sector reporting to one assistant deputy minister (“ADM”). Prior to May 3, 2010, DFO’s national organization included a “Habitat and *Species at Risk Act*” sector, under which was a Habitat Management Directorate.⁴⁸ In the current organizational scheme, habitat is not the sole focus of any sector. There is no longer a single ADM responsible primarily for habitat management; rather, habitat management responsibilities are diffused across sectors.
26. The Pacific Region’s organization does not parallel NHQ’s organization. Habitat management functions remain largely integrated. Responsibility for the HMP lies primarily in the Oceans, Habitat and Enhancement Branch (“OHEB”), headquartered in Vancouver, and the area offices. Within OHEB, approximately 61 staff report to the Pacific regional director, OHEB.⁴⁹ OHEB’s activities include monitoring and ensuring compliance with the habitat protection provisions of the Act.⁵⁰
27. The regional director, OHEB, has functional relationships with six area directors and their respective OHEB area managers.⁵¹ Most pertinent to Fraser River sockeye habitat are the Lower Fraser Area, the BC Interior Area, and the South

⁴⁷ Office of the Auditor General, 1997 Report, Chapter 28 “Pacific Salmon: Sustainability of the Resource Base” (referring to a 1993-94 Peer Review of Habitat Science, conducted as a component of the internal audit of the HMP), [1997 AG Report] CAN002787 at 12.

⁴⁸ Exhibit 15, *supra* at 7; Habitat Management Directorate organizational chart, August 2009, CAN014579.

⁴⁹ Exhibit 33-22, “Set of 35 DFO Position Descriptions”, at 2.

⁵⁰ *Ibid.*

⁵¹ Exhibit 33-30, at 2.

Coast Area. The OHEB area managers for these areas each supervise approximately seven to twelve habitat biologists, engineers, technicians and others.⁵² The Department estimates that 30 percent of HMP staff and resources are directed into habitat activities in the Fraser River watershed.⁵³

28. A number of committees and working groups exist to facilitate coordination between the operational and policy sectors and between the national and regional governance structures. The existence and terms of reference of these committees have been in flux, particularly in the last two years, which have seen two re-organizations in the Department.

3. DFO's Regulatory Habitat Management Policies and Practices

29. This section of the Report begins with the Department's seminal 1986 Habitat Policy for the Management of Fish Habitat. The policy sets out several key principles that guide the HMP's regulatory program, including its goal of achieving a net gain in fish habitat productivity. The Report next describes efforts to improve or "modernize" the HMP. Today, the HMP uses a number of different tools to protect fish habitat. Guidance on how habitat staff apply these tools is provided by a number of standard operating policies, which are discussed throughout this part of the Report.

3.1. 1986 Habitat Policy and No Net Loss Principle

30. The 1986 Habitat Policy is a cornerstone of the HMP.⁵⁴ It continues to guide the Department's administration of the Act's habitat protection provisions. It recognizes that fish habitats are the production systems necessary to sustain Canada's fisheries resources.⁵⁵ The policy also acknowledges Canada's commitment to the United Nations' World Conservation Strategy, part of which

⁵² "Fish Habitat Management Contacts", online: DFO <<http://www.pac.dfo-mpo.gc.ca/habitat/contacts/index-eng.htm>>.

⁵³ "Habitat Management Program Organization and Delivery", deck [n.d.], CAN185560 at 1.

⁵⁴ "1986 Habitat Policy for the Management of Fish Habitat", CAN021794 [1986 Habitat Policy].

⁵⁵ *Ibid.* at 5.

calls for the maintenance of the support systems for fisheries and for the control of pollution.⁵⁶

31. Following a public discussion paper in 1983 and a proposed policy and procedures paper in 1985, the Department, in 1986, tabled the Habitat Policy in Parliament.⁵⁷ It is a department-wide policy, meaning it contains guidance intended not only for habitat staff, but also for Department staff involved in science, enforcement, policy and programs. It applies to all development projects and activities of any size, in or near the water, that could “alter, disrupt or destroy” fish habitats, whether by chemical, physical or biological means.⁵⁸
32. The Habitat Policy is one of national application. Although it states that “the federal government will not actively apply this policy in [the six provinces or parts thereof that manage inland fisheries,]” the policy has come to be applied in all Canadian fisheries waters.⁵⁹ The 1986 Habitat Policy also recognizes “that Native peoples could assume a great role in local fisheries management and environmental protection” in the future.⁶⁰

3.1.1. Objectives, Goals and the Guiding Principle of the 1986 Habitat Policy

33. The overarching objective of the 1986 Habitat Policy is to achieve a “net gain of the productive capacity of fish habitats.”⁶¹ The net gain objective is supported by three goals: active conservation of the existing productive capacity of habitats; restoration of damaged habitats; and development of new habitats, as shown in Figure 1.⁶²

⁵⁶ *Ibid.* at 6.

⁵⁷ Presented to Parliament by the Minister of Fisheries and Oceans, October 7, 1986, online: DFO <<http://www.dfo-mpo.gc.ca/habitat/role/141/1415/14155/fhm-policy/index-eng.asp>>.

⁵⁸ 1986 Habitat Policy, *supra* at 5.

⁵⁹ *Ibid.* at 6.

⁶⁰ *Ibid.* at 8.

⁶¹ *Ibid.* at 9.

⁶² *Ibid.* at 10-12.

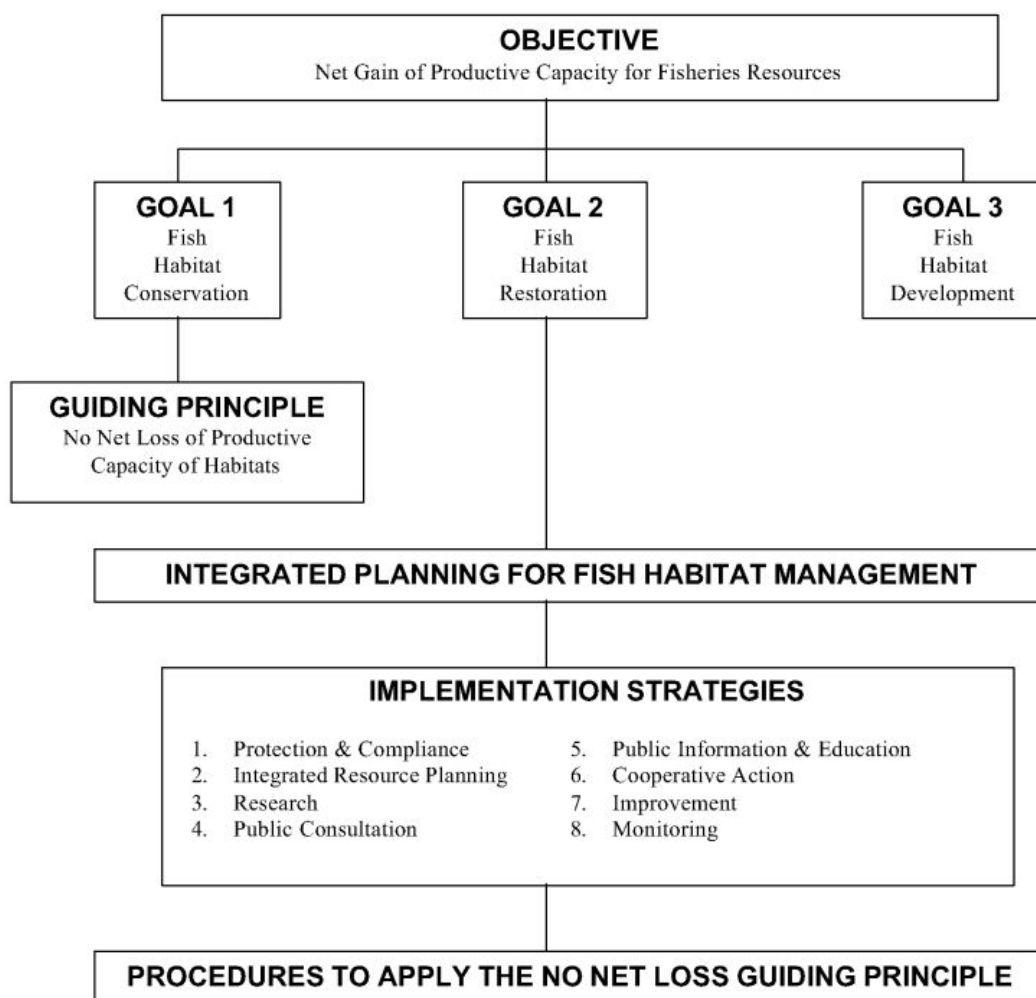


Figure 1: Policy Framework for Fish Habitat Management. Note that the implementation strategies are described in the policy as implementing goal 1, not goal 2 as the figure seems to indicate.⁶³

34. The conservation goal is the most fully articulated of the 1986 Habitat Policy’s three goals. It seeks to “[m]aintain the current productive capacity of fish habitats supporting Canada’s fisheries resources[.]”⁶⁴ In part, this is done by controlling the “negative impacts of existing and proposed projects and activities that have a potential to alter, disrupt and destroy habitats.”⁶⁵

⁶³ *Ibid.* at 13.

⁶⁴ *Ibid.* at 10.

⁶⁵ *Ibid.* Emphasis added.

35. The goal is guided by a principle of “no net loss of the productive capacity of [fish] habitats” (the “No Net Loss” principle).⁶⁶ The No Net Loss principle has become a central and lasting theme of the policy, and perhaps its most well-known feature.⁶⁷ Under the No Net Loss principle, the Department strives to balance unavoidable habitat losses to development with habitat replacement on a project-by-project basis. This is known as habitat compensation. The Department’s experience with achieving the net gain objective through compensation is discussed in section 3.1.4.

3.1.2. Implementation Strategies in the 1986 Habitat Policy

36. The 1986 Habitat Policy describes eight strategies to implement the conservation goal, summarized below:⁶⁸

1. Protection and Compliance

This strategy deals with the Department’s administration of the Act when dealing with proposed works and undertakings that could affect fish habitat. It holds that DFO will provide timely advice and specific requirements to any person, company or agency engaged in or responsible for work in or near water.⁶⁹ The advice and requirements attempt to control the potential adverse effects on fish habitats, whether from effluent discharges, water withdrawals, physical disturbances, exotic species, or other threats.⁷⁰ The Department will “work directly with the proponent, and will provide advice and input to referrals and permits managed by the provinces, territories or other federal agencies.”⁷¹

⁶⁶ *Ibid.* at 11.

⁶⁷ Although No Net Loss is the guiding principle, the phrase “to achieve No Net Loss” is regularly used as short-hand for the achievement of the 1986 Habitat Policy’s conservation goal of maintaining the current productive capacity of fish habitats. It is used in this way in this Report.

⁶⁸ Strategies to achieve the restoration and development goals were “in the developmental stage” at the time the 1986 Habitat Policy was written. 1986 Habitat Policy, *ibid.* at 9. The strategies do not appear to exist today.

⁶⁹ *Ibid.* at 16.

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

This strategy includes brief sections on proponent responsibilities, major project review procedures, enforcement and internal training and guidelines.⁷² The 1986 Habitat Policy states that the Department is preparing a “Procedural Guide to Achieving No Net Loss.”⁷³

On enforcement, the strategy explains how habitat enforcement would be carried out, including through investigations, consultation, seizure of equipment, prosecutions, applications for court injunctions, and private citizen prosecutions.⁷⁴

2. Integrated Resource Planning

This strategy provides that the Department will enter into agreements with other levels of government and federal agencies to participate in joint planning programs, such as the development of habitat inventories.⁷⁵ The 1986 Habitat Policy defines integrated resource planning as “the process whereby federal, provincial, territorial and municipal resource management agencies consult each other and private sector interests to plan for the future use of natural resources including forests, minerals, fish, land, water, wildlife and other resources.”⁷⁶

3. Scientific Research

This strategy provides that the Department will conduct scientific research to provide the information and technology necessary to protect fish habitat. This includes, among other areas of research, refining understanding of the factors that control the productive capacity of natural habitats and how to measure those factors, and assessing the relative importance of specific habitats. The

⁷² *Ibid.* at 17. Note the 1986 Habitat Policy pre-dates the coming into force of the *Canadian Environmental Assessment Act*.

⁷³ *Ibid.* at 19. It appears that such a guide was not produced, although in 2006 a Practitioners Guide to Habitat Compensation was created to implement the No Net Loss Policy. See section 3.1.4.

⁷⁴ *Ibid.* at 18-19.

⁷⁵ *Ibid.* at 19-20.

⁷⁶ *Ibid.* at 31.

Department also commits to establishing habitat research priorities and make public its habitat-related research findings.⁷⁷

4. Public Consultation

This strategy provides that the Department will consult on major or controversial fish habitat issues and on the development of new policies and legislation for fish habitat management.⁷⁸

5. Public Information and Education

This strategy provides that the Department will promote public awareness with respect to the conservation, restoration and development of fish habitats.⁷⁹

6. Cooperative Action

This strategy provides that the Department will participate, through inter-agency arrangements, in project referral systems and environmental assessment reviews. It will enter into agreements with industry, non-governmental organizations, other levels of government and other federal agencies to participate in joint planning organizations and programs. The department will also encourage community involvement in habitat related activities and encourage other organizations to protect habitat in accordance with Department guidelines, and subject to Department review and audit.⁸⁰

7. Habitat Improvement

This strategy provides that the Department will support habitat restoration and habitat development (improvement) projects, internally and by community and conservation groups, using departmental funds where available.⁸¹

⁷⁷ *Ibid.* at 20.

⁷⁸ *Ibid.* at 21.

⁷⁹ *Ibid.* at 21.

⁸⁰ *Ibid.* at 22.

⁸¹ *Ibid.* at 22-23.

8. Habitat Monitoring

This strategy provides that the Department aims to monitor effects on habitat during and after development. The Department is to monitor in order to evaluate and improve the effectiveness of prescribed conditions of regulatory approval.⁸²

Proponents of development projects may be required to undertake monitoring studies.⁸³ This strategy additionally contemplates the Department undertaking studies to determine baseline conditions in order to evaluate the effects of change. It also states that the Department will monitor for chemical contamination and consult with Environment Canada respecting that department's monitoring plans.⁸⁴

3.1.3. Application of the No Net Loss Principle

37. According to the 1986 Habitat Policy, applying No Net Loss does not mean an end to development projects in or near water, nor that unreasonable demands would be imposed on their designs.⁸⁵ However, each project, early in the planning phase, should be evaluated, using an existing process where possible, to determine if its impact on fish habitat would reduce that habitat's productive capacity.⁸⁶ The policy supposes a process whereby the Department receives information or a request for approval. These notifications and requests are collectively known as "referrals." Referrals may come through established interagency referral systems, through inquiries from the proponent or from concerned citizens, through public announcement of a project, or through the Department's own requests.⁸⁷

38. Once the information is received, the Department is to assess it and, if necessary, visit the site. The time and detail of the review will depend on the size

⁸² *Ibid.* at 23.

⁸³ *Ibid.* at 23.

⁸⁴ *Ibid.* at 23-24.

⁸⁵ *Ibid.* at 25.

⁸⁶ *Ibid.* at 25.

⁸⁷ *Ibid.* at 26.

of the project. The Department must then decide whether the project is likely to result in a net loss of productive habitat capacity. Depending on the outcome of those deliberations, the Department may decide to:

- a) permit the proposal to proceed as proposed (no harm expected to fish habitat);
- b) reject the proposal (potential harm to fish habitat judged unacceptable); or
- c) permit the proposal to proceed with conditions.⁸⁸

39. The Department imposes these conditions in order to achieve No Net Loss. Conditions may relate to either mitigation (actions taken during planning, construction and operation stages to alleviate potential adverse effects on the productive capacity of fish habitats)⁸⁹ or to compensation (explained below).

3.1.4. Compensation under the 1986 Habitat Policy

40. The 1986 Habitat Policy explains that if it proves “impossible or impractical” to maintain the productive capacity of habitat through mitigation, the Department may accede to the exploration of compensatory options.⁹⁰ Compensation is defined as “[t]he replacement of natural habitat, increase in the productivity of existing habitat, or maintenance of fish production by artificial means[.]”⁹¹

41. In practice, many development projects cannot proceed without harming fish habitat. Consequently, since 1986, DFO has authorized thousands of harmful impacts to fish habitat, on the permit condition that they create or improve other habitat to compensate for loss in habitat productivity.⁹²

⁸⁸ More recently, the Department has characterized its regulatory role as providing either advice or *Fisheries Act* authorizations, which may authorize, for example, the HADD of fish habitat that a proposed project will cause, but do not authorize the proposal itself. See section 3.3.

⁸⁹ *Ibid.* at 31.

⁹⁰ *Ibid.* at 25.

⁹¹ *Ibid.* at 30.

⁹² For example, in 2008-09 the HMP issued 287 authorizations. 2008-09 Annual Report, *supra*.

42. Compensation is guided by a hierarchy of compensation options under the 1986 Habitat Policy.⁹³ The first preference is for “like-for like” compensation (replacing natural habitat lost at or near the site). The next best options are a) off-site habitat replacement; and b) increasing the productivity of the affected fish stock, if reliable techniques are available. Finally, if it is not possible to avoid habitat loss or to compensate for the loss, the Department would consider proposals to compensate in the form of artificial production to supplement the fishery resource.⁹⁴ In any case, the costs are to be borne by the proponent.⁹⁵
43. The 1986 Habitat Policy provides for compensation for physical or biological habitat impacts, such as loss of riparian vegetation. In contrast, the policy states that compensation options “will not be possible as a means of dealing with chemical pollution and contamination problems.”⁹⁶
44. To provide operational guidance on compensation, in 2006, the Department published a Practitioners Guide to Habitat Compensation.⁹⁷ The guide directs habitat staff to aim for a compensation ratio greater than one-to-one.⁹⁸ The amount of compensation required is to be determined based on the residual net loss of the productive capacity after relocation, redesign and mitigation have been taken into consideration.⁹⁹ In situations where very high ratios are required, the guide suggests habitat staff should reconsider whether the proposed HADD should be authorized.¹⁰⁰

⁹³ 1986 Habitat Policy, *supra* at 25.

⁹⁴ *Ibid.* at 25-26.

⁹⁵ *Ibid.* at 26.

⁹⁶ *Ibid.* at 25.

⁹⁷ “Practitioners Guide to Habitat Compensation,” CAN186001.

⁹⁸ This means that the productive capacity of compensatory habitat exceeds the productive capacity of impacted habitat.

⁹⁹ Scientific tools to determine compensation ratios “should be used where they are available and suitable[.]” “Practitioners Guide to Habitat Compensation”, CAN186001 at 10.

¹⁰⁰ *Ibid.*

45. If the HADD authorization is conditional upon satisfactory compensation, failure to provide adequate compensation may invalidate the authorization and leave the proponent vulnerable to enforcement action.¹⁰¹ Another method habitat staff may use to ensure satisfactory compensation, at their discretion, is to demand financial security from the proponent.¹⁰²
46. The commission was provided with a recently revised version of the Practitioners Guide to Habitat Compensation that is in draft.¹⁰³ The draft revised compensation guide would remove the compensation hierarchy, on the basis that it is “too prescriptive and limits the ability to find innovative means to seek compensation.”¹⁰⁴ The revised version would also omit artificial propagation (the least preferred method of compensating for habitat losses in the original guide), which is “not sustainable in perpetuity[.]”¹⁰⁵

3.1.5. Failure to Achieve No Net Loss

47. Since 1986, DFO has not achieved its overarching Habitat Policy objective of attaining a net gain in the productive capacity of fish habitat.¹⁰⁶ The challenges DFO has faced including its inability to monitor and review whether No Net Loss is being achieved, are well documented—in particular, by the Office of the Auditor General.
48. In 1997, the Auditor General examined the sustainability of the resource base for Pacific salmon.¹⁰⁷ He found that the Department had not developed an acceptable, standardized measure of habitat productivity.¹⁰⁸ Moreover, the

¹⁰¹ *Ibid.* at 12.

¹⁰² *Ibid.*

¹⁰³ [Untitled – draft Practitioners Guide to Habitat Compensation version 2.0], CAN285181.

¹⁰⁴ *Ibid.* at 7. Note the original guide suggests practitioners have discretion to move down the hierarchy to maximize habitat gains. See CAN186001 at 9.

¹⁰⁵ *Ibid.*

¹⁰⁶ See, e.g., Commissioner of the Environment and Sustainable Development, Chapter 1 “Protecting Fish Habitat” 2009 [2009 CESD Report], CAN024152.

¹⁰⁷ 1997 AG Report, CAN002787.

¹⁰⁸ *Ibid.* at 6.

Auditor General's report suggested an accumulation of small impacts from small-scale developments "are probably the source of the slow net loss of habitat that is occurring."¹⁰⁹

49. In 1999, the Auditor General observed that fish habitat loss was still occurring, contributing to the continuing decline of many salmon stocks.¹¹⁰
50. In 2004, the Commissioner of the Environment and Sustainable Development (the "CESD") reported on salmon habitat.¹¹¹ The Commissioner found "indications that habitat loss is continuing" and that implementation of the 1986 Habitat Policy "does not seem to be working."¹¹² It suggested the Department "re-examine the objectives of the policy and make it work."¹¹³
51. In 2009, the CESD examined DFO's protection of fish habitat generally.¹¹⁴ The Commissioner reported that "[i]n the 23 years since the Habitat Policy was adopted, many parts of the Policy have been implemented only partially[...] or not at all."¹¹⁵ The report explained that because the Department "does not measure habitat loss or gain[, it] cannot determine the extent to which it is progressing toward the Habitat Policy's long-term objective of a net gain in fish habitat. There has been little progress since 2001[.]"¹¹⁶

¹⁰⁹ *Ibid.* at 11.

¹¹⁰ Office of the Auditor General, 1999 Report, Chapter 20 "Pacific Salmon: Sustainability of the Fisheries" [1999 AG Report], CAN002511 at 9.

¹¹¹ Commissioner of the Environment and Sustainable Development, 2004 Report to the House of Commons, Chapter 5 "Salmon Stocks, Habitat and Aquaculture", [2004 CESD Report] CAN002452. The CESD is appointed by the Auditor General and "is an Assistant Auditor General who leads a group of auditors specialized in environment and sustainable development." See "Commissioner of the Environment and Sustainable Development", online: Office of the Auditor General of Canada <http://www.oag-bvg.gc.ca/internet/English/cesd_fs_e_921.html>.

¹¹² *Ibid.* at 22.

¹¹³ *Ibid.*

¹¹⁴ 2009 CESD Report, *supra* CAN024152.

¹¹⁵ *Ibid.* at 6.

¹¹⁶ *Ibid.*

52. The Department has acknowledged the above-noted criticisms and is aware of many of the challenges of meeting the net gain objective.¹¹⁷ Internal audits corroborate the findings of the Auditor General’s Office with respect to loss of habitat. In 2000, DFO embarked on a national evaluation program to assess whether compensation is “achieving No Net Loss of fish habitat productivity”.¹¹⁸ The program included four components, each reported in a paper published in a peer-reviewed journal. These components are summarized in Table 2.

1. Literature review ¹¹⁹	<p>Located and reviewed ten studies from the peer-reviewed and “grey” literature that assessed habitat compensation projects. Found ten studies containing 109 No Net Loss assessments of 103 compensation projects across Canada between 1992 and 2003. The majority of the projects were in British Columbia and were either urban development or forestry-related.</p> <p>Results: over half of the projects were determined to have had smaller compensation areas than HADD areas, and over one third clearly did not achieve No Net Loss.</p>
2. File review ¹²⁰	<p>Analyzed files for 124 HADD authorizations (105 from BC) from 1994-1997.</p> <p>Results: 25% had smaller compensation areas than HADDs. Determination of No Net Loss could only be made for 14% of authorizations due to poor compliance with monitoring requirements and because the performance criteria used by DFO does not assess effectiveness / No Net Loss.</p>
3. Compliance audit ¹²¹	<p>Conducted site visits for 52 of the 124 authorizations from the file review (selected randomly), to assess compliance with HADD area, compensation area, biological, physical and</p>

¹¹⁷ See the Department’s responses located within each of the four above-noted reports.

¹¹⁸ “National Evaluation of Fish Habitat Compensation to Achieve No Net Loss: Final Publications for Circulation”, Memorandum, March 8, 2006, CAN197547 at 1.

¹¹⁹ David Harper & Jason Quigley, “A comparison of the areal extent of fish habitat gains and losses associated with selected compensation projects in Canada” (2005) 30:2 Fisheries 18, CAN197549.

¹²⁰ David Harper & Jason Quigley, “No Net Loss of Fish Habitat: A review and analysis of fish habitat compensation in Canada” (2005) 35:4 Environmental Management 1, CAN197548.

¹²¹ Jason Quigley & David Harper, “Compliance with Canada’s Fisheries Act: A Field Audit of Habitat Compensation Projects” (2006) 37:3 Environmental Management 336, CAN197550.

	<p>chemical requirements in authorizations.</p> <p>Results: 86% of authorizations had larger HADD or smaller compensation than authorized, or both. Two thirds resulted in net loss of habitat <i>area</i>.</p>
4. Effectiveness study ¹²²	<p>Evaluated 16 of the 52 authorizations (seven in BC) for achievement of No Net Loss by comparing habitat productivity at project site and reference sites.</p> <p>Results: 63% of authorizations resulted in net losses of habitat <i>productivity</i>.</p>

Table 2: Summary of the four papers representing the four components of the Department’s “national evaluation program.”

53. A summary of the challenges revealed by the four-part evaluation program was published in a fifth paper.¹²³ This paper includes 39 recommendations in three areas: 1) achieving No Net Loss; 2) measuring No Net Loss; and 3) improving organizational memory, learning and transparency (see Appendix 1).

3.1.6. Review and Renewal of the 1986 Habitat Policy

54. In response to the 2009 report of the CESD, the Department agreed to, by March 2010, determine what actions are required to fully implement the Habitat Policy.¹²⁴ In March 2011, DFO will table a report to the CESD outlining the Department’s progress made on this and other commitments arising from the 2009 report.

3.2. Efforts to Improve or Modernize the Habitat Management Program

55. By the late 1990s, the Department perceived the HMP to be facing a number of issues: a high volume of referrals; stakeholder dissatisfaction with regulatory inconsistency; increasing public scrutiny and a perception that DFO was not

¹²² Jason Quigley & David Harper, “Effectiveness of Fish Habitat Compensation in Canada in achieving No Net Loss” (2006) 37:3 Environmental Management 351, CAN197551.

¹²³ Jason Quigley, David Harper & Ryan Galbraith, “Fish Habitat Compensation to achieve No Net Loss: Review of Past Practices and Proposed Future Directions” (2006) 2632 Canadian Technical Report of Fisheries and Aquatic Sciences, CAN197553.

¹²⁴ *Supra* at 27.

adequately protecting fish habitat.¹²⁵ These issues prompted the Department to hire external consultants KPMG, in 1999, to advise on how to “modernize” the HMP.¹²⁶ KPMG’s final report, the “National Habitat Referral Study”, recommended a shift of HMP resources away from processing referrals (described as “reactive”) and towards pre-referral intervention and post-referral monitoring (described as “proactive”).¹²⁷

56. To address the National Habitat Referral Study’s recommendations, DFO in 1999 launched the National Habitat Blueprint Initiative (“the Blueprint Initiative”).¹²⁸ The Blueprint Initiative’s three primary objectives were to: 1) streamline the regulatory referral process and allow staff to focus on higher risk projects; 2) establish greater national consistency in policies, procedures, practices and services; and 3) achieve “a more balanced approach between regulatory and proactive activities in implementing the Habitat Policy”.¹²⁹
57. The Blueprint Initiative’s implementation was completed in March 2001.¹³⁰ An internal summary of the Blueprint Initiative reported that despite some achievements, significant challenges remained with respect to streamlining the referral process, integrated resource planning, information management, the contribution of science, and governance and accountability.¹³¹

3.2.1. *Environmental Process Modernization Plan*

58. In 2004, the Department initiated the Environmental Process Modernization Plan (EPMP). The EPMP was launched, “building on the results of the [Blueprint Initiative,]” and in response to a number of perceived challenges. These challenges included demands: a) by industry for greater certainty, clarity,

¹²⁵ Blueprint Summary, *supra* CAN297754 at 6.

¹²⁶ [Untitled] KPMG Report, CAN027685.

¹²⁷ *Ibid.* at 6.

¹²⁸ Blueprint Summary, *supra* CAN297754 at 5, 7.

¹²⁹ *Ibid.* at 7.

¹³⁰ *Ibid.* at 8.

¹³¹ *Ibid.* at 18.

consistency, predictability and timeliness in regulatory reviews and environmental assessments; b) by provinces and territories for improved coordination with their regulatory and environmental assessment process; c) by environmental and conservation groups demanding stricter application of the *Fisheries Act* and SARA and broader application of CEAA; and d) by Aboriginals and other stakeholders for greater involvement in regulatory decisions and environmental assessments.¹³²

59. At the time it was initiated, EPMP was the Department's contribution to the Government of Canada's "Smart Regulation" agenda released in 2004.¹³³ Similar to KPMG's recommendations and the Blueprint Initiative's objectives, the EPMP was focused on habitat staff spending less time reviewing "routine" projects and more time reviewing higher-risk projects and major projects.¹³⁴ EPMP would also increase emphasis on planning and monitoring.¹³⁵
60. Approved by the Minister in 2004, the EPMP initially comprised five elements:
1. a program-wide Risk Management Framework;
 2. streamlining regulatory reviews of low risk activities;
 3. strengthened partnering arrangements;
 4. improved coherent and predictable decision making; and
 5. improved management of major projects.¹³⁶

¹³² DFO, "National Implementation Plan for the Environmental Process Modernization Plan (EPMP)", CAN285178 at 2.

¹³³ Memorandum re: Environmental Process Modernization Plan, CAN023164 at 1. See the External Advisory Committee on Smart Regulation report, Smart Regulation for Canada, online: Canadian Environmental Network <http://www.cen-rcce.org/eng/consultations/delegate_calls/04_07_smart_reg_consultation_doc.pdf>. See also West Coast Environmental Law's Comments on Smart Regulation for Canada, online: WCEL <<http://wcel.org/resources/publication/west-coast-environmental-laws-comments-smart-regulation-canada>>.

¹³⁴ *Ibid.* CAN023164 at 1.

¹³⁵ *Ibid.*

¹³⁶ DFO, "National Implementation for the Environmental Process Modernization Plan (EPMP)" [n.d.] CAN285178 at 2.

61. In late 2005, a sixth element was added – habitat compliance modernization (“HCM”). Although many of the intended elements of EPMP have now been implemented, some, such as HCM, are not yet fully implemented. DFO characterizes the EPMP as a “continuous improvement plan.”¹³⁷
62. The first element of EPMP, the Risk Management Framework, is a guidance framework for habitat staff to categorize risks to fish and fish habitat associated with development proposals. It recognizes that habitat value varies from location to location, and impacts on habitat vary from project to project.¹³⁸ Therefore, it attempts to optimally distribute limited habitat management resources by communicating the risks to proponents and identifying appropriate management options to reduce risks to acceptable levels.¹³⁹ The Risk Management Framework is discussed in section 3.3.2.
63. The focus of the second element, streamlining regulatory reviews, was the development of operational statements. Operational statements are guidance documents for proponents engaging in referrals deemed low risk. Each operational statement is specific to a type of development project or work. For a given type of project or work, the operational statement sets out conditions that a developer should follow to ensure the project avoids harming fish habitat. If the proponent can meet the conditions, a DFO review is not required. Operational statements are discussed further in section 3.3.2(a) below.
64. The third element of EPMP sought to improve coherence and predictability. A key component of this element was the development of a Standard Operating Policies Manual (“the Manual”), originally released in May 2006.¹⁴⁰ The Manual contains a number of documents that provide guidance to habitat staff on day-to-

¹³⁷ See, e.g., DFO, “EPMP Implementation Project, Pacific Region” 1 May 2007, CAN018899 at 4.

¹³⁸ Practitioners Guide to the Risk Management Framework, *supra* at 15-17.

¹³⁹ *Ibid.* at 5-7.

¹⁴⁰ The cover page to the Manual is found at CAN185998. Its attachments are numbered CAN185999 to CAN186044.

day program delivery, such as applying the Risk Management Framework, issuing authorizations, and writing letters. It replaced three key policy documents that, according to then-Director General of the HMP, “[did] not reflect the Program’s approach to using a risk management framework and therefore are no longer valid.”¹⁴¹ The Manual is discussed in more detail in section 3.3.1. Other strategies to improve coherence and predictability included the development of a mandatory training program for all habitat staff (discussed in section 6.1.2) and changes to the HMP governance structure.¹⁴²

65. The fourth element sought to bring a new approach to environmental assessments and the review of major projects. It allocated resources to dedicated national and regional units that would focus on environmental assessments of major projects.¹⁴³ It also resulted in the establishment of several policies related to DFO’s duties under the CEEA.¹⁴⁴ Under this element, senior management became more involved in decision making with respect to both *Fisheries Act* and CEEA decisions for major projects. According to a 2004 memo from the ADM to the regional directors general, the new decision making protocols were necessary to “situate the technical analysis and judgments of highly skilled field biologists in the broader context of sustainable development and the Government’s other environmental, economic and social priorities.”¹⁴⁵

¹⁴¹ Manual, memorandum, CAN 185999 at 4-5.

¹⁴² DFO, “National Implementation Plan for the Environmental Process Modernization Plan (EPMP)” CAN285178 at 4.

¹⁴³ DFO, “Toward a more effective, predictable and timely Habitat Management Program: The Environmental Process Modernization Plan” 2006, CAN037329 at 22; DFO, “Environmental Process Modernization Plan” memorandum 16 July 2004, CAN018169 at 2.

¹⁴⁴ DFO, “National Implementation Plan for the Environmental Process Modernization Plan (EPMP)” CAN285178 at 4.

¹⁴⁵ “EPMP: CEEA & FA Decision-Signing Protocols” memorandum from ADM, Oceans & Habitat Sector to regional directors general, 16 July 2004, CAN018169 at 2.

66. Renewed emphasis on partnerships was the fifth element. It sought to further engage industry, environmental groups, First Nations and provincial and local governments in habitat protection.¹⁴⁶
67. The sixth element of EPMP, habitat compliance modernization, was introduced in late 2005. HCM was intended to strengthen the HMP's capacity to monitor compliance with and effectiveness of regulatory requirements, including mitigation and compensation measures.¹⁴⁷ It would also serve to apply a more risk-based approach to habitat compliance management, emphasizing education and prevention and deemphasizing prosecution and penalties for *Fisheries Act* violations.¹⁴⁸ HCM led to the development of a habitat monitoring unit. This is described in more detail in section 5.2.3.

3.2.2. *Implementation of and Concerns with the EPMP*

68. When EPMP was introduced in 2004, habitat and other staff, particularly in the Pacific Region, expressed concerns over specific aspects of the plan.¹⁴⁹ Some were of the view that a focus on high-risk referrals would overlook many small impacts that would cumulatively cause significant harm.¹⁵⁰ Others perceived EPMP as “lowering the bar” or a “cost-cutting measure” rather than a “reallocation of resources to priorities” based on risk.¹⁵¹ Others expressed concern that EPMP overlooked habitat staff's regular work with proponents to avoid HADDs, thereby reducing the potential impacts of projects from what would be termed medium- or high-risk down to low-risk.

¹⁴⁶ DFO, “National Implementation Plan for the Environmental Process Modernization Plan (EPMP)” CAN285178 at 5.

¹⁴⁷ DFO, “Pacific Region Habitat Management Program: Habitat Compliance Modernization” deck, October 2008, CAN005927 at 4.

¹⁴⁸ DFO “Habitat Compliance Modernization” deck, December 15, 2005, CAN034931 at 5; email re: Draft EPMP Regional Plan, April 13, 2005, CAN157083.

¹⁴⁹ “Environmental Process Modernization Plan (EPMP) Implementation Project: Pacific Region” deck, May 1, 2007, CAN018899 at 7, 9.

¹⁵⁰ See, e.g., Letter to Minister, [n.d.] CAN174755 at 3.

¹⁵¹ “Environmental Process Modernization Plan (EPMP) Implementation Project: Pacific Region” deck May 1, 2007, CAN018899 at 9.

69. Some concerns may have arisen in part because the EPMP was associated with a contemporaneous reduction in resources to the HMP. In June 2005 the Department announced it would cut 42 HMP positions, including ten positions in Pacific.¹⁵² The Pacific Region also lost 24 fisheries officers involved in habitat protection, although these losses were partially offset by the creation of twelve new habitat monitoring positions within the HMP.¹⁵³
70. A Pacific Region internal review or “diagnostic” observed in 2008 that Pacific Region habitat staff did not perceive habitat protection as one of the objectives of EPMP.¹⁵⁴ The most commonly identified “barriers” to habitat staff’s acceptance of EPMP included a lack of success indicators, personal values conflicts, and a perception that EPMP would lower the bar for habitat protection.¹⁵⁵ Other common barriers included that habitat staff did not see the link between EPMP and the 1986 Habitat Policy, did not “buy into the rationale”, and were not given meaningful opportunity to provide input into its development.¹⁵⁶
71. Other key findings from the review include the following:
1. habitat staff are of the view that EPMP tools are insufficient to protect habitat;
 2. some habitat staff feel that EPMP further removes them from habitat, makes them less available and undermines their expertise; and
 3. increased monitoring to evaluate program effectiveness was viewed as a key activity for improving program delivery.¹⁵⁷

¹⁵² DFO, “Media Lines and QS & AS: Habitat Compliance Modernization” June 20, 2005, CAN014446 at 1

¹⁵³ *Ibid.* at 2; “Expenditure Review Committee Update: DMC – Halifax Meeting” September 2006 CAN0227740 at 14.

¹⁵⁴ DFO, “Reviewing and Improving the Habitat Management Program in the Pacific Region: EPMP Diagnostic”, deck, February 6-8, 2008 [EPMP Diagnostic], CAN260835 at 9.

¹⁵⁵ *Ibid.* at 20.

¹⁵⁶ *Ibid.*

¹⁵⁷ *Ibid.* at 22.

72. Habitat staff also identified “opportunities” associated with EPMP, including: effectiveness monitoring to improve habitat protection; streamlined reviews and workload reduction; and a more consistent program.¹⁵⁸
73. Initially, industry groups showed strong support for EPMP and its streamlining objectives.¹⁵⁹ In contrast, environmental and conservation groups were highly critical and concerned that it would lead to diffused accountability.¹⁶⁰ For example, the David Suzuki Foundation in 2006 suggested that EPMP “puts the developers in control of habitat protection[,]” and strongly advocated for increased resources to be devoted to habitat monitoring and enforcement.¹⁶¹ They also argued that reliance on overly general guidelines such as operational statements could reduce the Department’s ability to hold proponents legally responsible for habitat destruction.¹⁶² British Columbia was “fully supportive” of the EPMP, endorsing “the streamlining, and harmonizing approach[...] to work more cooperatively[.]”¹⁶³
74. When EPMP implementation was nearly complete, industry representatives surveyed continued to express many of the same concerns that had formed part of the original impetus for the EPMP, such as a lack of regulatory consistency and transparency and delays in obtaining regulatory approvals.¹⁶⁴
75. The Auditor General in 2009 reported that implementation of the EPMP is one factor that led to a decrease in referrals.¹⁶⁵ The Department’s annual reports

¹⁵⁸ *Ibid.* at 17-18.

¹⁵⁹ “Environmental Process Modernization Plan (EPMP) Implementation Project: Pacific Region” deck May 1, 2007, CAN018899 at 8.

¹⁶⁰ *Ibid.*

¹⁶¹ Jeffrey Young & John Werring, *The Will to Protect: Preserving B.C.’s Wild Salmon Habitat* (Vancouver: David Suzuki Foundation, 2006), CAN142400 at 21.

¹⁶² *Ibid.* at 22.

¹⁶³ Letter from BC Minister of Environment to Minister of Fisheries and Oceans, December 21, 2005, BCP001595 at 3.

¹⁶⁴ EPMP Diagnostic, *supra* CAN260835 at 23.

¹⁶⁵ 2009 CESD Report, *supra* CAN024152 at 21.

show that the number of referrals in Canada peaked in fiscal year 2003-04 at 13,324, and was followed by three years of significant decline.¹⁶⁶ Fiscal years 2006-07 through 2008-09 (the last year for which data are available) saw the number of referrals remain steady between 7,200 and 7,500.¹⁶⁷ The number of authorizations that DFO issued declined from a peak of 671 in 2003-04 to around 300 for the last three reported years.¹⁶⁸ Likewise, the number of times that DFO provided advice to proponents declined from a peak of 8,548 in 2003-04 to roughly half that number in 2008-09.¹⁶⁹

3.3. The Habitat Referral Process

76. As explained above, the HMP's work has been, to date, predominantly regulatory. In this respect, the HMP is largely focused on ensuring compliance with the prohibition against HADD in section 35(1) of the Act and other statutory provisions.¹⁷⁰ The following sections explain how, through the EPMP, the Department shifted toward a "risk management approach" to determining whether a HADD was likely, and thus to determining regulatory engagement. This approach is guided by the Risk Management Framework, as well as a set of standard operating policies. The policies guide habitat staff with respect to their management of referrals. Referrals may be managed through an assortment of non-specific tools, such as operational statements, through a non-statutory but project-specific letter of advice, or through a statutory authorization, which normally triggers a federal environmental assessment. Recently, the Pacific Region has developed some of its own policies to guide management and prioritization of referrals.

¹⁶⁶ Data from Annual Reports to Parliament 2001-02 through 2008-09, available online: DFO <<http://www.dfo-mpo.gc.ca/habitat/role/141/reports-rapports/index-eng.htm>>.

¹⁶⁷ *Ibid.*

¹⁶⁸ *Ibid.*

¹⁶⁹ *Ibid.*

¹⁷⁰ As described in section 1 of this report.

3.3.1. *The Standard Operating Policies Manual*

77. Most of the policies that guide the HMP's regulatory work are encapsulated in the Manual.¹⁷¹ The Manual is a reference guide to direct habitat staff on the day-to-day delivery of DFO's responsibilities under the habitat protection provisions of the *Fisheries Act*, the CEAA and the SARA.¹⁷² In keeping with the third element of EPMP, the Manual largely comprises policies of uniform national application, intended to improve regulatory coherence and predictability.
78. In addition, DFO regional offices may supplement the national standard operating policies with region-specific policies, as they have in Pacific Region. The Manual is a "living document" that each habitat practitioner¹⁷³ is responsible for updating when new or revised policies are made available through the HMP intranet.¹⁷⁴ As a result, there may be some variation among printed versions of the Manual.
79. The Manual is divided into several sections, each containing a number of policies. The version produced to the commission includes the following sections: 1) *Fisheries Act* policies; 2) CEAA policies; 3) SARA policies; 4) Environmental Assessment and Major Projects ("EAMP") policies; 5) information management policies; 6) operational statements / best management practices"; and 7) project review policies.¹⁷⁵ Of these, the sections on EAMP policies, project review

¹⁷¹ Habitat Management Program: Standard Operating Policies. The cover page to the Manual is found at CAN185998. Its attachments are numbered CAN185999 to CAN186044.

¹⁷² Memorandum May 29, 2006 CAN185999 at 4.

¹⁷³ The practitioner's guides in the Manual use "practitioner" to refer to habitat staff engaged in referrals.

¹⁷⁴ *Ibid.* The "Practitioners Guide to Writing a Subsection 35(2) *Fisheries Act* Authorization for DFO Habitat Management Staff (Version 1.1)" in the Manual produced to the commission and available in the Ringtail database appears to be out of date. Version 2.0, titled "Practitioners Guide to Writing an Authorization for the Habitat Protection Provisions of the *Fisheries Act*" is available online: DFO <<http://www.dfo-mpo.gc.ca/habitat/role/141/1415/14155/authorization-autorisations/index-eng.asp>>.

¹⁷⁵ *Ibid.* Note the section on EAMP policies does not contain any DFO policies but rather contains guidance materials published by other federal agencies or the government, and regulations under CEAA.

policies and operational statements / best management practices are not in the original table of contents provided by NHQ.¹⁷⁶

3.3.2. *The Risk Management Framework*

80. The Practitioners Guide to the Risk Management Framework guides habitat staff engaged in habitat referrals.¹⁷⁷ The Risk Management Framework has three components: aquatic effects assessment; risk assessment; and risk management.
81. The three components each comprise a series of discrete steps in the overall process by which habitat staff are directed to review development proposals, as outlined in Figure 2, which is excerpted from the Practitioners Guide to the Risk Management Framework.

¹⁷⁶ See Table of Contents CAN185999 at 7, which lists the original contents of the Manual. Compare to current table of contents at CAN185998.

¹⁷⁷ "Practitioners Guide to the Risk Management Framework," CAN186005.

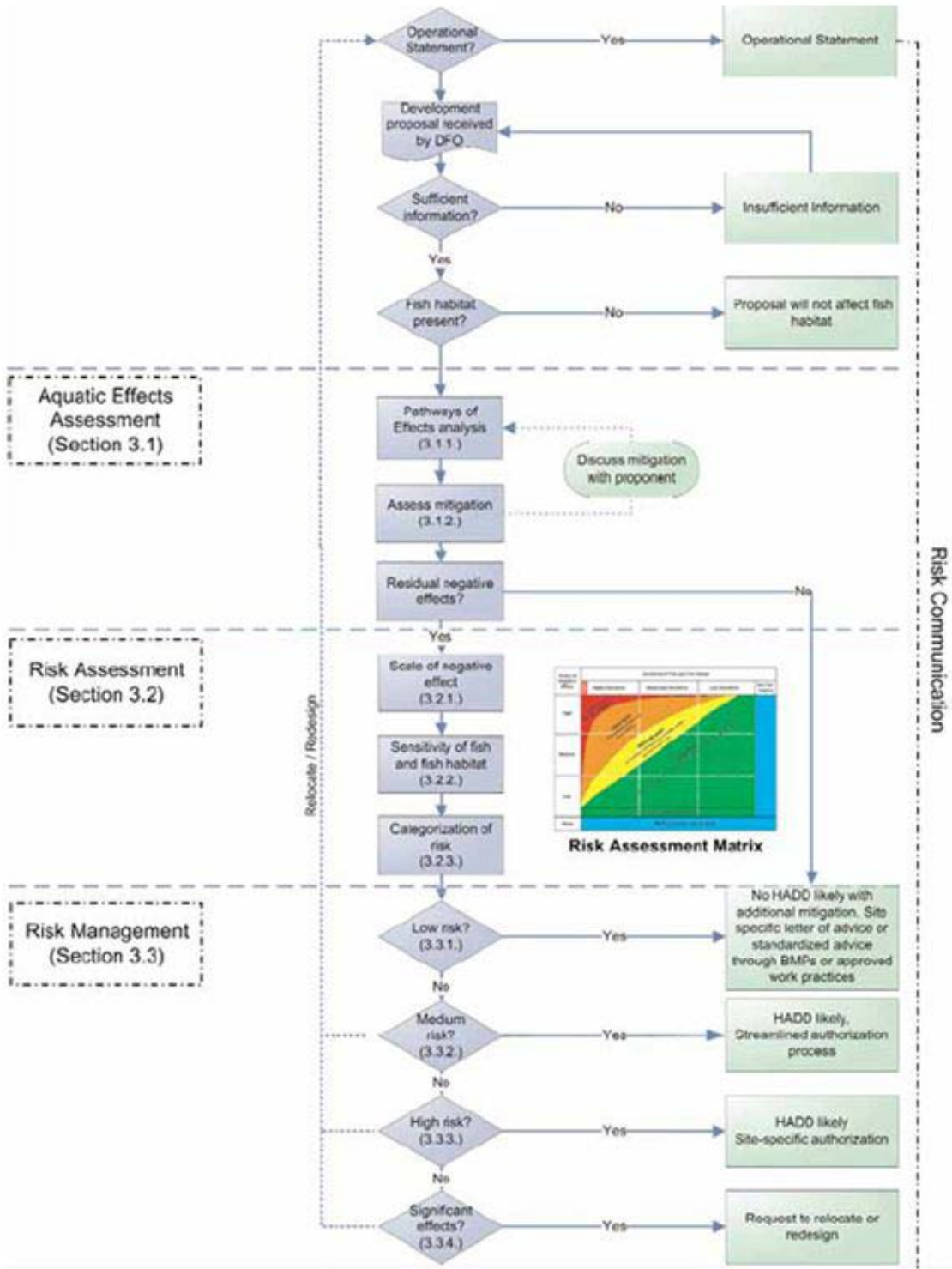


Figure 2: Applying the Risk Management Framework to decision-making under the habitat protection provisions of the *Fisheries Act*.¹⁷⁸

¹⁷⁸ *Ibid.* at 8.

82. As shown in Figure 2, the first stage of the HMP's Risk Management Framework is aquatic effects assessment. Aquatic effects assessment is a means of identifying the potential effects on habitat from a proposed development.¹⁷⁹ It involves the use of "pathways of effects" models or diagrams. These models are intended to trace known cause-effect relationships (e.g., vegetation clearing leads to a change in shade, which leads to a change in water temperature). The purpose is to help identify mitigation techniques or alternative design options.¹⁸⁰ They were developed "in consultation with habitat biologists, engineers and scientists from across the country."¹⁸¹ Pathways of effects diagrams exist for several classes of projects. Appendices 3 and 4 provide an example and list of pathways of effects diagrams.
83. According to the Risk Management Framework, pathways of effects diagrams can be used by both habitat staff and developers.¹⁸² However, the framework also states that the pathways are highly generalized and require habitat staff to apply expert judgment in determining [which] pathways apply.¹⁸³
84. The second stage of the Risk Management Framework is risk assessment. Risk assessment involves determining the scale of negative effect and the sensitivity of fish and fish habitat, and then using this information to plot a point on the risk assessment matrix. The habitat practitioner determines the scale of negative effect by assessing, among other things, the intensity, duration and physical extent of the impacts.¹⁸⁴ The practitioner determines the sensitivity of fish and fish habitat by assessing information available with respect to species and habitat sensitivity, resiliency, rarity and the species' dependency on the habitat, among

¹⁷⁹ *Ibid.* at 9.

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.* See also "Draft Report on 'What Was Said': The Role of Science in Habitat Management & Habitat Compliance Implementation", January 2008, CAN014395 at 17.

¹⁸² *Ibid.* at 9.

¹⁸³ *Ibid.* at 10.

¹⁸⁴ *Ibid.* at 14. The term "habitat practitioner" is synonymous with habitat staff for the purposes of this Report.

other factors. Watershed management plans, where they exist, are of “even greater value” in determining sensitivity.¹⁸⁵

85. The habitat practitioner then uses the analyses to plot a point on the Risk Assessment Matrix. The matrix is divided into four categories: low risk, medium risk, high risk and significant negative effects. Figure 3 shows two points, representing proposed projects, plotted on the Risk Assessment Matrix. Uncertainty is taken into account by changing the circle into an oval.¹⁸⁶

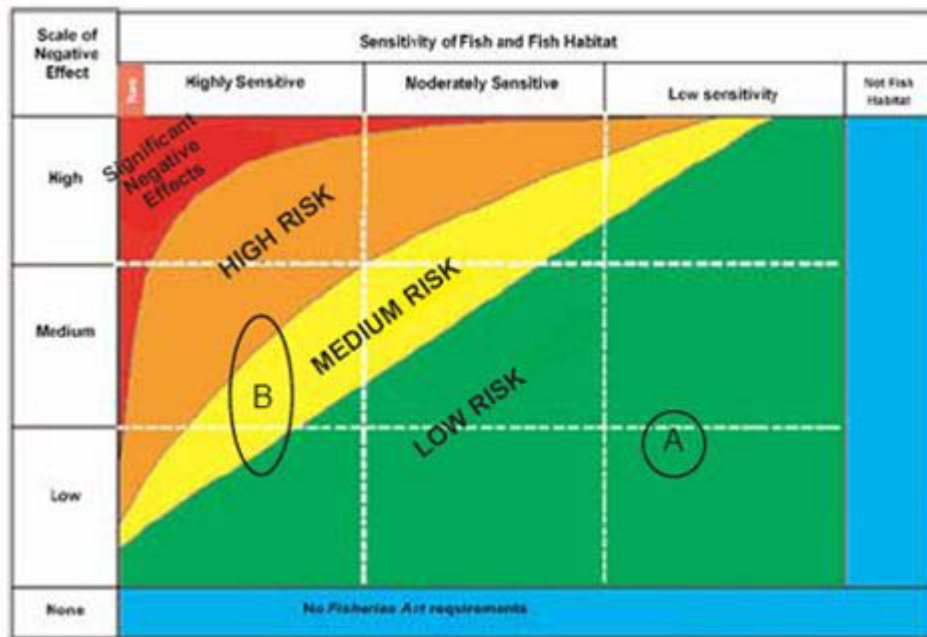


Figure 3: Risk Assessment Matrix with two plotted points representing two different proposed projects.¹⁸⁷

86. The final stage of the Risk Management Framework is risk management. This involves the practitioner determining the requirements the proponent should meet to reduce the risk of harm to habitat to the lowest practical and acceptable

¹⁸⁵ *Ibid.* at 15.

¹⁸⁶ *Ibid.* at 18.

¹⁸⁷ *Ibid.* at 19.

levels.¹⁸⁸ These requirements may be described in general guidelines applicable to all similar projects such as operational statements, or set out in specific conditions attached to a letter of advice or a *Fisheries Act* authorization. The requirements are tied to the level of assessed risk.

87. In the following paragraphs, the three main risk management tools used by the HMP are described: operational statements, letters of advice, and section 35(2) authorizations. The first two tools are generally used for referrals in the Risk Management Framework's low-risk category; the latter is generally used for referrals in the medium and high risk categories. Although discussed in the context of the Risk Management Framework below, the Department's use of letters of advice and section 35(2) authorizations predate the Risk Management Framework.

3.3.2.(a) *Operational Statements and other Guidelines*

88. Many low risk projects are never considered under the Risk Assessment Matrix. This is because DFO encourages proponents, where possible, to follow operational statements.¹⁸⁹ Each operational statement is specific to a type of development project or work, such as clear-span bridges, small moorings, or aquatic vegetation removal in lakes.¹⁹⁰ When the proponent can meet all the conditions in an applicable operational statement, the development can proceed *without* a DFO review. The operational statements encourage proponents to notify DFO ten working days before commencing work.¹⁹¹ In the Pacific Region, notification is not considered a referral unless the proponent advises it cannot comply with the mitigation measures found in the guidance tools.¹⁹²

¹⁸⁸ *Ibid.* at 19.

¹⁸⁹ *Ibid.* at 7. Also see the first section of Figure 2, above.

¹⁹⁰ For an example of an operational statement and notification form, see Appendix 5. For a list of operational statements applicable in BC, see Appendix 6.

¹⁹¹ Each operational statement includes this encouragement. Proponents can notify the department via the Pacific Region Operational Statement notification form, online: DFO <<http://www.pac.dfo-mpo.gc.ca/habitat/os-eo/form-formulaire-eng.htm>>.

¹⁹² "Regional Habitat Regulatory Decision Framework," July 2010, CAN186041 at 2.

89. Not all operational statements apply in all regions. In the Pacific Region, there are approximately 17-20 applicable operational statements.¹⁹³
90. Proponents can also avoid DFO review by following other guidelines. The Pacific Region's website lists two British Columbia best practices that meet federal statutory requirements and thus exempt activities from DFO review.¹⁹⁴ It directs proponents that cannot follow these best management practices (or an operational statement) to conduct an aquatic effects assessment, and in conjunction, use best management practices or guidelines to determine the options for avoiding or reducing impacts.¹⁹⁵ If the proponent can follow the guidelines and avoid harm to fish and fish habitat, the website informs proponents that DFO does not need to review the project.¹⁹⁶

3.3.2.(b) Letters of Advice

91. Referrals in the low risk category are deemed "not likely to result in a HADD, providing appropriate mitigation measures are applied."¹⁹⁷ Thus, the habitat practitioner is given the management option of issuing a letter explaining that a HADD is unlikely for the given proposal. The letter of advice should list the mitigation measures that formed the basis of the decision and may direct proponents to an operational statement or to best management practices where applicable.¹⁹⁸

¹⁹³ The Manual contains 20 operational statements; the Pacific Region's website states that there are 17, lists 18 and refers users to an "Aquaculture webpage" for aquaculture-related operational statements. "Planning and Guidance for British Columbia and Yukon", online: DFO Pacific: <<http://www.pac.dfo-mpo.gc.ca/habitat/os-ee/Index-eng.htm>>.

¹⁹⁴ One relates to beaver dam removal; the other is the *Riparian Areas Regulation*, discussed in section 6.2.4. "Planning Guidance for BC and Yukon", online: DFO Pacific <<http://www.pac.dfo-mpo.gc.ca/habitat/os-ee/Index-eng.htm>>.

¹⁹⁵ DFO Pacific Region websites: "What you Need to Know", online: <<http://www.pac.dfo-mpo.gc.ca/habitat/know-savoir-eng.htm>>; and "Guidelines and Planning Tools", online: <<http://www.pac.dfo-mpo.gc.ca/habitat/guide-eng.htm>>.

¹⁹⁶ *Ibid.*

¹⁹⁷ "Practitioners Guide to the Risk Management Framework", *supra* CAN186005 at 20.

¹⁹⁸ *Ibid.*

92. The HMP sometimes uses template letters of advice to accomplish other functions:
1. providing advice to reduce potential impacts to an acceptable level;
 2. informing proponents of the process leading up to the issuance of a *Fisheries Act* authorization or SARA permit; or
 3. requesting additional information where proposals the impacts are uncertain.¹⁹⁹
93. Letters of advice must be distinguished from statutory authorizations: according to DFO, letters of advice do not authorize any HADD of fish habitat. If the proponent causes a HADD as a result of not following the plan confirmed in the letter of advice, the proponent is no longer compliant with subsection 35(1) of the Act and may be subject to enforcement action.²⁰⁰ The Federal Court has held that letters of advice constitute non-binding opinions with no legal effect.²⁰¹
94. Letters of advice are much more common than authorizations. In fiscal year 2008-09, the HMP provided 4,242 letters of advice to proponents and others and issued 287 authorizations.²⁰² In the same period, the Pacific Region provided 477 letters of advice and issued 56 authorizations.²⁰³

3.3.2.(c) *Statutory authorization of harm to fish habitat*

95. Medium risk proposals are likely to result in a HADD, so a section 35(2) authorization is necessary.²⁰⁴ The Risk Management Framework suggests that

¹⁹⁹ “Practitioners Guide to Writing Letters Used in *Fisheries Act* and *Species at Risk Act* Reviews,” CAN186000 at 3, 5.

²⁰⁰ CESD petition 227, “Friends of the Oldman River: Operational Statements and Letters of Advice,” Response to question 4, online: Office of the Auditor General of Canada <http://www.oag-bvg.gc.ca/internet/English/pet_227_e_30500.html#dfo>.

²⁰¹ *Cassiar Watch v. Canada*, 2010 FC 152, at para. 24.

²⁰² 2008-2009 Annual Report, *supra* at 2.

²⁰³ *Ibid.*

²⁰⁴ “Practitioners Guide to the Risk Management Framework”, CAN186005 at 21.

these works are usually routine in nature, with small-scale or temporary effects, which the Framework considers to lend itself to a streamlined authorization process. If a proposal falls in this medium risk category and a streamlined authorization process has not been established, then a site-specific authorization would be required.²⁰⁵ One example of a streamlined authorization process is the class authorization developed in the Yukon for placer mining.²⁰⁶

96. High risk proposals will require site-specific review and authorization under subsection 35(2) of the Act. These authorizations may contain conditions concerning compensation, mitigation measures, monitoring, and financial securities. These conditions are the subject of other guidance in the Manual.²⁰⁷
97. Finally, development proposals with “significant negative effects” are those with residual effects so large or impacts to habitat of such importance they cannot be adequately compensated.²⁰⁸ The Framework states that these proposals “will likely be considered a ‘Major Project’[.]”²⁰⁹
98. Authorizations are statutory approvals issued by the minister’s delegates that permit otherwise prohibited impacts to fish and fish habitat. They give the proponent protection from prosecution pursuant to section 32 and subsection 35(1), provided the proponent complies with the conditions of the authorization.²¹⁰

²⁰⁵ “Practitioners Guide to Writing Letters Used in *Fisheries Act* and *Species at Risk Act* Reviews”, CAN186000 at 4.

²⁰⁶ “Practitioners Guide to the Risk Management Framework”, CAN186005 at 21.

²⁰⁷ These practitioner’s guides are discussed throughout the sections that follow.

²⁰⁸ “Practitioners Guide to the Risk Management Framework”, *supra* CAN186005 at 22.

²⁰⁹ Major projects are managed by the Regional Manager of EAMP and are discussed below in section 4.

²¹⁰ “Practitioners Guide to Writing an Authorization for the Habitat Protection Provisions of the *Fisheries Act*” at 3, online: DFO <<http://www.dfo-mpo.gc.ca/habitat/role/141/1415/14155/authorization-autorisations/index-eng.asp>>.

99. The Practitioners Guide to Writing an Authorization for the Habitat Protection Provisions of the *Fisheries Act* contains guidance for habitat staff authorizing harm to fish (section 32) or fish habitat (section 35(2)).²¹¹
100. Habitat staff determine if an authorization will be necessary after completing the steps described in the Risk Management Framework.²¹² If relocation, redesign and other mitigation techniques cannot ensure the development will avoid impacts to fish or fish habitat, an authorization is required to proceed.²¹³ A proponent initiates the authorization process by submitting a signed application for a *Fisheries Act* authorization.²¹⁴
101. Authorizations “would typically not be considered” if:
1. the goal of No Net Loss in productive capacity of fish habitat is unlikely to be achieved;
 2. the destruction of fish or fish habitat would compromise conservation and protection goals and fisheries management objectives;
 3. a HADD of fish habitat has already occurred;
 4. the activities violate subsection 36(3) of the *Fisheries Act*;
 5. impacts may jeopardize the survival or recovery of an aquatic species listed under SARA; or
 6. all feasible measures or reasonable alternatives to minimize the impact of the activity on a listed species or its critical habitat will not be taken.²¹⁵
102. Conditions in an authorization commonly relate to various plans and information provided by the proponent, including:

²¹¹ “Practitioners Guide to Writing Letters Used in *Fisheries Act* and *Species at Risk Act* Reviews”, CAN186000.

²¹² Practitioners Guide to Writing an Authorization for the Habitat Protection Provisions of the *Fisheries Act*, *supra* at 6.

²¹³ *Ibid.*

²¹⁴ An application will trigger an environmental assessment under the CEAA; see section 4 below.

²¹⁵ *Ibid.* When a proposed development may impact a SARA-listed aquatic species, its residence or its critical habitat, habitat practitioners are to ensure that the requirements of the SARA are also satisfied. See *Ibid.* at 3.

1. the proponent's proposed development plan;
 2. specific fish and fish habitat mitigation measures (examples include control measures for erosion and sediment);
 3. reporting of mitigation monitoring results (examples include undertaking a monitoring program and providing records);
 4. habitat compensation plans (examples include area and schedule for compensatory habitat);
 5. habitat compensation monitoring results (examples include biological criteria to evaluate effectiveness of compensatory habitat); and
 6. estimates for financial security.²¹⁶
103. In addition to project-specific conditions, all authorizations are directed to contain a condition that allows DFO to suspend activities where impacts are greater than those previously assessed.²¹⁷

3.3.3. *Pacific Region Referral Management and Prioritization*

104. The Pacific Region has developed its own Regional Habitat Regulatory Decision Framework (the "Regional Regulatory Framework").²¹⁸ The Region characterizes it as "complementary to, and consistent with" the national Risk Management Framework.²¹⁹ The Regional Regulatory Framework is intended to further categorize and prioritize development proposals submitted for regulatory review. It does not address major projects, which are managed by EAMP staff, as noted at section 4 below.
105. The Regional Regulatory Framework is part of an effort to make the regulatory review process clear and accessible to proponents, and make data management

²¹⁶ *Ibid.* at 12.

²¹⁷ *Ibid.* at 12.

²¹⁸ "Regional Habitat Regulatory Decision Framework," July 2010, CAN186041.

²¹⁹ *Ibid.* at 3.

simpler for the Department, in part by using online tools.²²⁰ DFO’s national habitat management webpage “Working Near Water” and its Pacific regional counterpart “Working Near Water in BC and Yukon” guide proponents through the referral process. An overview diagram from the Pacific webpage is provided in Figure 4. Note that in the Pacific Region, proponents are encouraged to complete the aquatic effects assessment on their own or with the help of a qualified environmental professional.²²¹

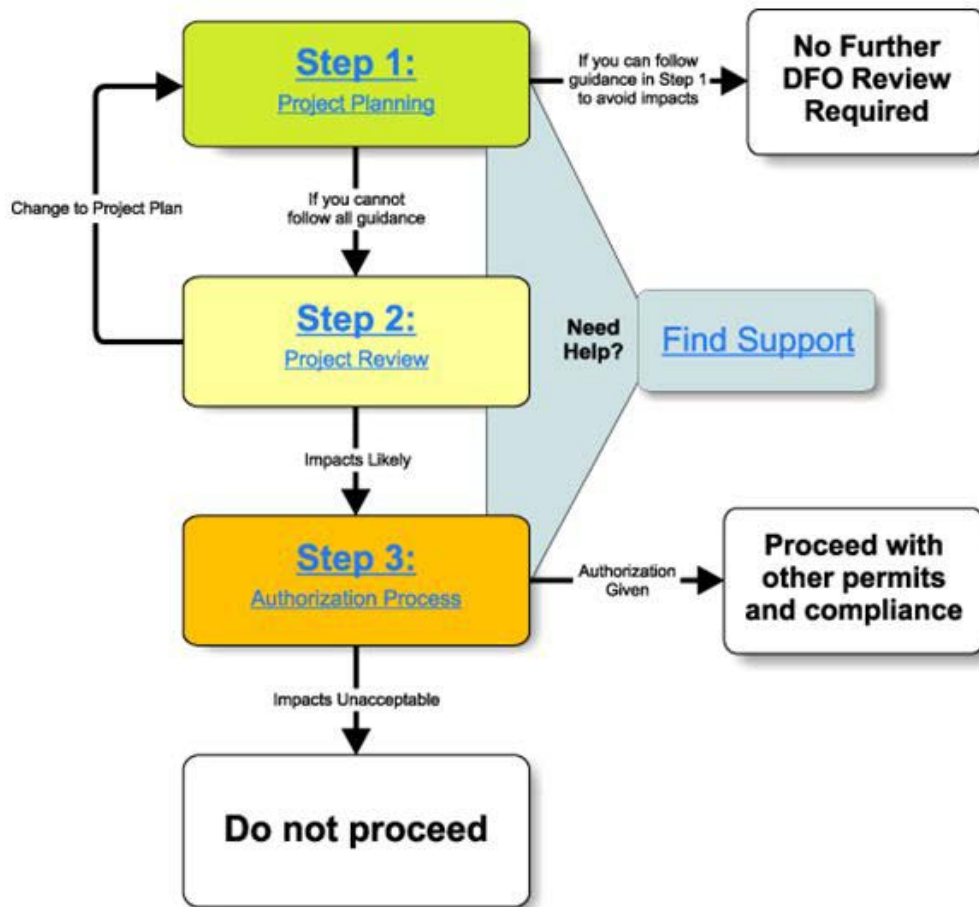


Figure 4: An overview of the project review process in the Pacific Region.²²²

²²⁰ “Overview of Habitat Regulatory Improvement Initiatives: RDG Update”, deck, September 2010, CAN185907.

²²¹ “Additional Information to Support a Project Review” online, DFO Pacific: <<http://www.pac.dfo-mpo.gc.ca/habitat/steps/praf/additional-praf-eng.htm>>; and “Aquatic Effects Assessment” online, DFO Pacific: <<http://www.pac.dfo-mpo.gc.ca/habitat/steps/praf/assess-evaluer-eng.htm>>.

²²² “What you Need to Know: An Overview of the Project Review Process”, online: DFO Pacific <<http://www.pac.dfo-mpo.gc.ca/habitat/know-savoir-eng.htm>>.

106. The Pacific Region “prioritizes” referrals in order to address the perception that “the number of mandatory regulatory reviews outstrips DFO capacity[.]”²²³ The referral prioritization process is set out in the Regional Regulatory Framework, as seen in Figure 5.

²²³ “Regional Habitat Regulatory Decision Framework”, July 2010, CAN186041 at 3.

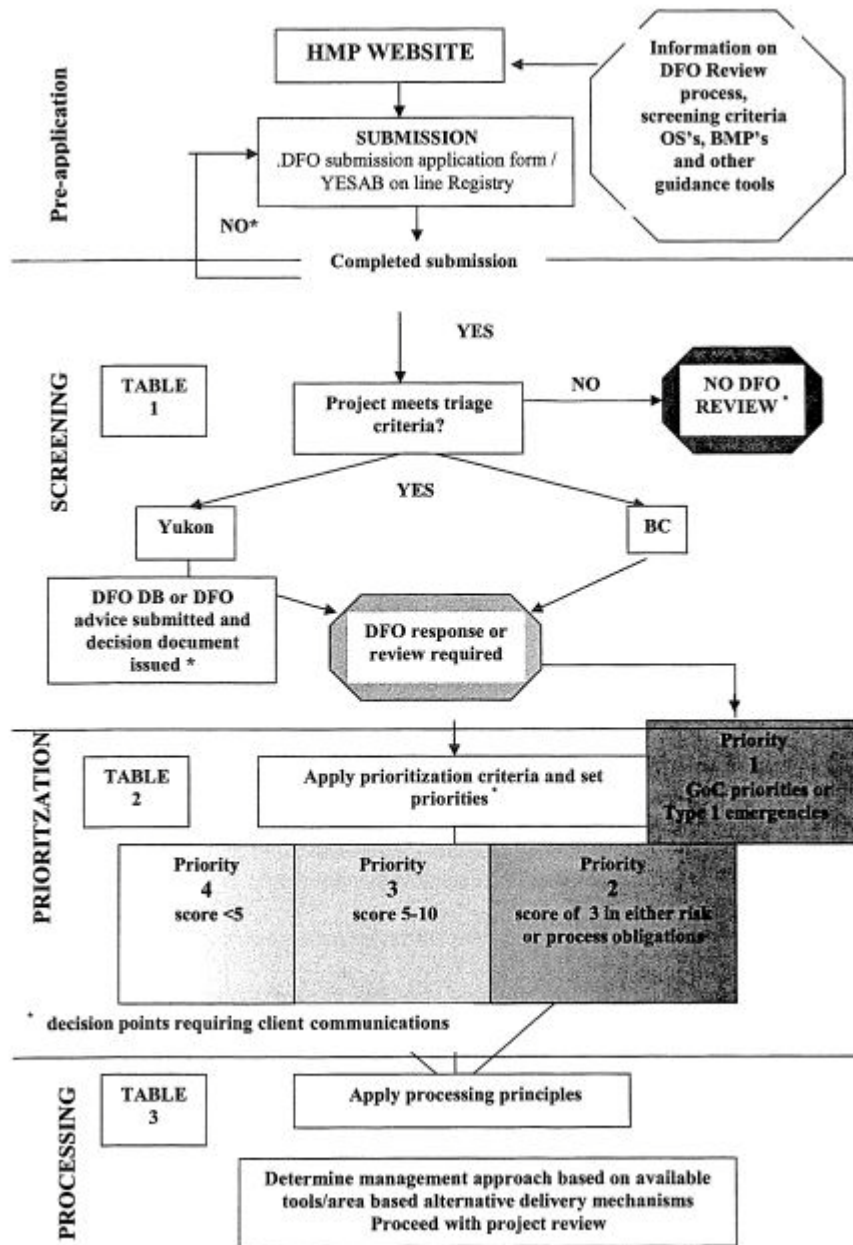


Figure 5: HMP, Pacific Region, referral triage and prioritization process.²²⁴

107. The process normally begins when the proponent submits, through the HMP website, a project review application form. If the form or other proposal has sufficient information, HMP will initiate electronic tracking and start the review.²²⁵

²²⁴ *Ibid.* at 4.

²²⁵ *Ibid.* at 5.

108. The second step is initial screening to filter out any proposals that do not require review. Non-reviewable projects, according to the Regional Regulatory Framework, are those that are considered low risk or for which mitigation measures, if complied with, would prevent a HADD.²²⁶ These include activities covered by operational statements, as well as various works and projects the Regional Regulatory Framework considers low risk.²²⁷ For such proposals, habitat staff are directed to provide proponents with a national template letter advising that the project does not require further DFO review.²²⁸ There are also a number of “optionally reviewable” projects.²²⁹
109. Step three involves establishing priorities for processing. The first priorities are: a) emergencies that represent immediate threats to fish and fish habitat; and b) established Government of Canada priorities.²³⁰ Government of Canada priorities include, for example, federally funded infrastructure projects.²³¹ Priorities two through four are based on scores determined by project prioritization criteria. There are four criteria:
1. relative risk, which is based on the risk assessment attributes of the national Risk Management Framework (effect severity and habitat/species sensitivity);
 2. obligatory reviews and time sensitivity;
 3. species or area conservation concerns, including those arising from the Departmental Salmon Stock Outlook, Marine Protected Areas, and the SARA; and
 4. regional and area priorities, which may include particular industries or activities.²³²

²²⁶ *Ibid.* at 17.

²²⁷ *Ibid.* at 18.

²²⁸ The template letter includes generic recommendations. See template letter at CAN185908.

²²⁹ “Regional Habitat Regulatory Decision Framework”, July 2010, CAN186041 at 19.

²³⁰ *Ibid.* at 6.

²³¹ *Ibid.*

²³² *Ibid.* at 15.

110. Thus, second priority projects are those with the highest risk scores, followed by third and fourth priority projects. The Regional Regulatory Framework directs habitat practitioners to then process referrals in order of priority. Only first and second priority proposals *must* be reviewed.²³³
111. The review itself “may vary from area to area in recognition of the differing array of referral management partnerships and streamlining processes [...] that have evolved in each area over time.”²³⁴

3.4. Other Key Policies in the Standard Operating Policies Manual

112. A number of other policies inform the HMP’s regulatory work but are less complex and can be summarized here. They include:
- a. Practitioners Guide to Letters of Credit²³⁵

This guide serves to help habitat staff when requesting or drawing upon letters of credit from proponents as a condition of a subsection 35(2) authorization. The use of letters of credit is discretionary and will depend on the scale, type, and degree of uncertainty of habitat compensation involved.
 - b. Practitioners Guide to Fish Passage²³⁶

This guide provides clarity around the application of the Act to development proposals that may impact fish passage. It involves a risk management approach, and relates to sections 20, 30, 32 and 35(2).
 - c. Application of the Habitat Protection Provisions of the *Fisheries Act* to Existing Facilities and Structures²³⁷

²³³ For other prioritization principles, see Table 3, *Ibid.* at 16.

²³⁴ *Ibid.* at 6.

²³⁵ CAN186003.

²³⁶ CAN186004.

This departmental position statement confirms that the habitat protection provisions of the Act apply to the ongoing operation, modification, maintenance or other works and undertakings associated with an existing facility or structure in or near fish-bearing waters, even if the facility or structure was constructed prior to the enactment of those provisions.

d. Position Statement on the Management of Fish Mortality²³⁸

The statement largely applies to section 32, but also sections 21, 22, 30 and 36(5). It incorporates a risk-based approach, but also mentions the precautionary approach.²³⁹

e. Proponent's Guide to Information Requirements for Review Under the Fish Habitat Protection Provisions of the *Fisheries Act*.²⁴⁰

This guide is designed for proponents proposing to carry out works or undertakings near water. It outlines the information habitat staff require to conduct a review.

f. Practitioners Guide to the *Species at Risk Act*²⁴¹

This 2007 guide provides information for Habitat staff on the incorporation of SARA into referral reviews and environmental assessments.

g. *Fisheries Act* Signing Protocols²⁴²

This document outlines the signing authorities for decisions under the habitat protection provisions of the Act. It represents the national model for accountability. Some decisions, such as rejecting a project as proposed for unacceptable HADD, require consultation with NHQ. The document states

²³⁷ CAN186008.

²³⁸ CAN186009.

²³⁹ *Ibid.* at 3.

²⁴⁰ CAN186010.

²⁴¹ CAN186020.

²⁴² CAN186011.

that regional directors general may delegate responsibilities to regional or area directors.²⁴³

4. DFO's Policies and Practices regarding Environmental Assessment

113. Section 4.1 of this Report addresses DFO's duties and powers under the CEAA, including the relationship between the CEAA and DFO's authority to manage Fraser River sockeye habitat. In summary, before DFO can make any regulatory decision under the *Fisheries Act* to authorize or require mitigation of a project's impact on fish habitat, it must first conduct an environmental assessment of that project under the CEAA.
114. Section 4.2 describes the organizational entities in Pacific Region and NHQ with responsibilities for environmental assessment under the CEAA, and notes some inter-departmental and inter-jurisdictional committees and agreements.
115. Section 4.3 outlines specific DFO policies and practices for the implementation of CEAA. In this respect, this Report does not generally address the guidance materials published by the Canadian Environmental Assessment Agency ("CEA Agency"). With the newly legislated exception of comprehensive studies, the CEA Agency does not conduct environmental assessments under the CEAA. Rather, the CEA Agency largely has a coordinating role. It has also published many guidance materials, which DFO habitat practitioners and assessor may rely on in conducting CEAA assessments.²⁴⁴
116. It should be understood that DFO is required to conduct environmental assessments under the CEAA for only a small fraction of the development projects referred to it every year. In 2005, of 2,088 development project referrals, Pacific Region commenced 106 CEAA assessments (5.08% of referred projects.)

²⁴³ The Pacific Region decision approval process is found at CAN186043.

²⁴⁴ CEA Agency. "Policy and Guidance", online:

<<http://www.ceaa.gc.ca/default.asp?lang=En&n=F1F30EEF-1> (accessed March 6, 2011)>.

In 2009, Pacific Region received 1,823 referrals and commenced 66 CEAA assessments (3.62%). These numbers are slightly lower than the national percentages.²⁴⁵

117. It is also noted that Parliament must conduct a review of the CEAA seven years from when it was amended in 2003 by Bill C-9. The review has officially started and it is believed that a standing committee will begin deliberations in 2011.²⁴⁶

4.1. DFO as a Responsible Authority under the CEAA

118. The CEAA was enacted in 1993. It came into force in January 1995 when the regulations “needed to make the Act work” were finalized.²⁴⁷ It is intended to “ensure that projects are considered in a careful and precautionary manner before federal authorities take action in connection with them, in order to ensure that such projects do not cause significant adverse environmental effects.”²⁴⁸
119. The CEAA is implemented by many federal departments and agencies, including Natural Resources Canada, Environment Canada, Indian and Northern Affairs, Health Canada and the National Energy Board, to name just a few. In particular, these departments may act as “responsible authorities” under the CEAA, and be responsible for the environmental assessment of proposed development projects.

²⁴⁵ “Pacific Region Referrals - Data extracted from PATH: October 13, 2010 by Wendy Morrell”, CAN185616. For a visual sense of the number and locations of development projects assessed under the CEAA that are within the Fraser River watershed, see map titled “Fraser Valley Watershed Area and Canadian Environmental Assessment Projects,” CAN014661.

²⁴⁶ This review is not to be confused with the *Jobs and Economic Growth Act, 2010*, by which the CEAA was most recently amended in July 2010.

²⁴⁷ *Canadian Environmental Assessment Act*, 1992, c. 37, as am. See *MiningWatch Canada v. Canada (Fisheries and Oceans)*, 2010 SCC 2, [2010] 1 S.C.R. 6 [*MiningWatch*] at para. 31. The four essential regulations coming into force in 1995 were the *Comprehensive Study List Regulations*, SOR/94-638; the *Exclusion List Regulations*, SOR/94-639; the *Inclusion List Regulations*, SOR/94-637; and the *Law List Regulations*, SOR/94-636.

²⁴⁸ CEAA s.4(1)(a).

4.1.1. When must DFO conduct a CEAA assessment?

120. Where a proposed project may harmfully alter, disrupt or destroy fish habitat, such that an authorization under section 35(2) of the *Fisheries Act* would be required for the project to proceed lawfully, then under section 5(1)(d) and the *Law List Regulations*, an environmental assessment of that project must be conducted under CEAA.²⁴⁹ This situation is the most common trigger of DFO's duty to conduct an environmental assessment under CEAA. However, the CEAA is also triggered where DFO is the proponent of a project, or where it provides land or funding for a project.²⁵⁰
121. Where DFO may issue a license or permit that authorizes a project, in whole or in part, under a provision listed in the *Law List Regulations* – such as section 35(2) of the *Fisheries Act* – DFO becomes responsible for the assessment of that project as a “responsible authority.”²⁵¹ Beyond section 35(2), a number of other *Fisheries Act* provisions related to the HMP are listed on the *Law List Regulations*.²⁵²
122. There may be more than one responsible authority for any given environmental assessment under the CEAA. Where this is the case, the responsible authorities shall determine together the manner in which they will exercise their powers and

²⁴⁹ CEAA s.5(1)(d) and *Law List Regulations*, SOR/94-636, Schedule I, Item 6(e).

²⁵⁰ CEAA ss.5(1)(a), (b) and (c). For example, DFO policy contemplates that funds given under Aquaculture Restructuring and Adjustment for aquaculture development would trigger a CEAA assessment: “*CEAA Guide: Applying the Canadian Environmental Assessment Act for the Fish Habitat Management Program*” (April 2001, DFO) (“the HMP’s 2001 CEAA Guide”), CAN186018 at 18.

²⁵¹ CEAA, ss.11(1) and 2 (definition of “responsible authority”).

²⁵² Other provisions listed in the *Law List Regulations* and thus triggering the application of the CEAA, which are relevant to DFO’s Habitat Management Program, are: ss.22(1), 22(2), 22(3), 32, 37(2) and 36(5)(a)-(e) where the regulation made pursuant to those paragraphs contains a provision that limits the application of the regulation to a named site.

duties.²⁵³ In this respect, DFO and other departments have developed a practice of identifying a “lead” responsible authority.²⁵⁴

123. DFO does not conduct an environmental assessment under the CEAA where it uses non-statutory tools to manage fish habitat. As discussed above in section 3, DFO has developed a practice of issuing letters of advice and has created a number of operational statements. Under the Department’s approach, if a proponent conforms to the advice in a letter of advice or an operational statement, the proponent avoids causing a HADD, such that no section 35(2) authorization is required. Therefore, where DFO chooses to issue a letter of advice, or where a proponent relies on an operational statement, no environmental assessment under the CEAA is required.²⁵⁵
124. Projects are statutorily exempted from a CEAA assessment if they are listed on the *Exclusion List Regulations, 2007*,²⁵⁶ if they are in response to an emergency,²⁵⁷ or if, following the July 2010 amendments, they are a class of infrastructure project set out by schedule and funded by various federal governmental funding programs.²⁵⁸

4.1.2. What level of CEAA assessment must DFO conduct?

125. There are four levels or types of assessment under the CEAA, with increasing levels of rigour: screening, comprehensive study, review panel (or joint review panel) and mediation.²⁵⁹ Screenings and comprehensive studies involve self-assessment by a department, while a review panel is independent of government.

²⁵³ CEAA, ss.12(1) and (2).

²⁵⁴ See e.g. the HMP’s 2001 CEAA Guide, CAN186018 at 22-23. Note that “lead” responsible authority is not a statutory term under the CEAA.

²⁵⁵ See also Section 3.2.2.(b) *supra*

²⁵⁶ CEAA s.7(1) and the *Exclusion List Regulations, 2007*, SOR/2007-108.

²⁵⁷ CEAA ss.7(2) and (3).

²⁵⁸ CEAA s.7.1 and Schedule.

²⁵⁹ *MiningWatch, supra* at para.14.

126. The vast majority of projects receive a screening level assessment under CEAA.²⁶⁰ Whether a project must commence as a screening or a comprehensive study is determined by the operation of sections 18 and 21, in conjunction with the *Comprehensive Study List Regulations*.²⁶¹ In determining which level of assessment is required, a responsible authority must assess the entire project proposed by the proponent, and not merely a portion of the project.²⁶²
127. The *Comprehensive Study List Regulations* list classes of projects likely to have significant adverse environmental effects,²⁶³ often large infrastructure or industrial projects. Comprehensive studies mandate public consultation in the assessment,²⁶⁴ and consideration of additional factors beyond those required in a screening.²⁶⁵
128. As a result of the July 2010 amendments, DFO no longer conducts comprehensive studies. The CEA Agency is now responsible for conducting comprehensive studies.²⁶⁶ HMP guidance materials state that these changes “were made to streamline the regulatory process and make a single Agency responsible for a simplified comprehensive study process”.²⁶⁷ Where the CEA

²⁶⁰ See e.g. the HMP’s 2001 CEAA Guide, CAN186018 at 22-23, stating that screening level assessments comprise “about 99% of DFO’s EAs”.

²⁶¹ Section 18 provides that “Where a project is not described in the comprehensive study list or the exclusion list made under paragraph 59(c)” a screening shall be conducted. Section 21 provides “If a project is described in the comprehensive study list” a comprehensive study shall be conducted. “Comprehensive study list” is defined at s.2; the comprehensive study list is prescribed within the *Comprehensive Study List Regulations*, SOR-94-638.

²⁶² *MiningWatch*, *supra* at paras. 34, 42. Following *MiningWatch*, Parliament modified the CEAA to provide the Minister of Environment with discretion to scope only some components of a project for assessment. For discussion of this, see section 4.3.2 *infra*.

²⁶³ *Comprehensive Study List Regulations*, SOR-94-638, preamble.

²⁶⁴ CEAA ss.21.1, 21.2, 22 and 23(2).

²⁶⁵ CEAA s.16.

²⁶⁶ CEAA s.11.01 and ss.21-22. These changes do not apply where the responsible authority is the National Energy Board or Canadian Nuclear Safety Commission.

²⁶⁷ “General Guidance for the Application of the Amendments to the *Canadian Environmental Assessment Act* in the *Jobs and Economic Growth Act, 2010*”, draft dated November 2, 2010 (“CEAA 2010 Amendments Guidance”), CAN285183 at 1.

Agency is doing a comprehensive study of a project that may have impacts on fish habitat, DFO will continue to “provide its expertise and specialist knowledge to the Agency.”²⁶⁸

129. Section 28 provides that the Minister of Environment may refer a comprehensive study or a screening to a review panel for assessment.²⁶⁹ This may be done at any time, including at the conclusion of a screening.²⁷⁰ If the Minister of Environment appoints a review panel to assess a project,²⁷¹ DFO officials may provide evidence, documents and submissions to the review panel.²⁷² After a review panel has submitted its report to the Minister of Environment, where DFO is a responsible authority, DFO again becomes involved in decision-making about the project.²⁷³

4.1.3. What must DFO consider in a CEAA screening?

130. A CEAA screening is often triggered by the need for a HADD authorization under section 35(2). However, once triggered, DFO cannot limit its environmental assessment to impacts on fish habitat. Rather, DFO and other responsible authorities are obligated to assess all of the project’s environmental effects under the CEAA, including the environmental effects of malfunctions or accidents that may occur, and any cumulative environmental effects that are likely to result.²⁷⁴ In addition, DFO must assess the significance of these environmental effects, technically and economically feasible mitigation measures that would mitigate any significant adverse environmental effects and any other matter that DFO considers relevant.²⁷⁵

²⁶⁸ *Ibid.* See also CEAA s.12(3).

²⁶⁹ CEAA s.25 provides that a responsible authority may request the Minister to make the referral.

²⁷⁰ CEAA s.20(1)(c) requires a responsible authority to refer the project to the Minister for a referral to a review panel in certain circumstances at the conclusion of its screening assessment.

²⁷¹ CEAA s.29, 33-36; for powers and duties of a joint review panel see ss.40-42.

²⁷² CEAA s.35. See e.g. “Proposed Prosperity Mine – DFO’s Submission to the Review Panel”, unsigned Memorandum to the Deputy Minister (March 2010), CAN027804.

²⁷³ CEAA s.37.

²⁷⁴ CEAA ss.16(1)(a) and 2 (definition of “environmental effects”).

²⁷⁵ CEAA s.16(1).

131. DFO must also consider any comments from the public that are received in accordance with the legislation.²⁷⁶ However, in a screening, DFO is not required to provide an opportunity for the public to submit comments. Rather, DFO may exercise its discretion to allow public participation in a screening where it considers this appropriate in the circumstances or is required to so by a regulation.²⁷⁷
132. The CEAA establishes the Canadian Environmental Assessment Registry (“the CEA Registry”).²⁷⁸ The CEA Registry consists both of the CEA Agency’s internet site and the project files maintained for each assessed project.²⁷⁹ When acting as a responsible authority, DFO is required to ensure certain information and notices are posted to the internet site.²⁸⁰ Either the responsible authority or the CEA Agency must establish and maintain a project file containing all records produced, collected or submitted with respect to the project’s assessment.²⁸¹ Under section 55, the public has a right of convenient public access to the CEA Registry, including the right to access a copy of project file records in a timely manner on request.

4.1.4. What is the outcome of a CEAA assessment?

133. As a responsible authority, DFO does not “approve” a project under the CEAA. Rather, in a screening, DFO reaches a conclusion about the likelihood of significant adverse environmental effects and determines whether permits may issue (“Course of Action Decision”).²⁸² In a comprehensive study for which DFO is a responsible authority, after the CEA Agency conducts the assessment and

²⁷⁶ CEAA s.16(1)(c).

²⁷⁷ CEAA s.18(3). No regulation exists requiring public participation in particular circumstances.

²⁷⁸ CEAA s.55 and s.2 (definition of “registry”).

²⁷⁹ CEAA s.55(1).

²⁸⁰ CEAA ss.55.1 and 55.3. The CEA Agency is also responsible for posting certain documents; see s.55.2.

²⁸¹ CEAA s.55.4.

²⁸² CEAA s.20.

the Minister of Environment issues a decision statement, DFO must make a Course of Action Decision under section 37(1).²⁸³ DFO is also responsible, at the conclusion of a comprehensive study, for ensuring the implementation of mitigation measures.²⁸⁴

134. After a CEAA assessment, DFO must decide whether to exercise its regulatory authority under the *Fisheries Act*. For example, it must decide whether to issue a HADD authorization under section 35(2), and if so, on what conditions, taking into account mitigation measures considered in the CEAA assessment. DFO is not permitted to issue any authorization or permit until the assessment is concluded.²⁸⁵
135. Finally, at the end of a CEAA assessment, DFO may also be required to design and implement a follow up program. A follow-up program may include monitoring. A follow-up program is intended to verify the accuracy of the assessment and determine the effectiveness of mitigation measures.²⁸⁶ The results of follow-up programs may be used for implementing adaptive management measures or for improving the quality of future environmental assessments.²⁸⁷

4.2. DFO Organizational Units with Environmental Assessment Responsibilities

136. In Pacific Region, OHEB is generally responsible for conducting assessments for which DFO is a responsible authority.²⁸⁸ Both Area offices and regional headquarters have various duties in relation to CEAA assessments, with regional headquarters focused primarily on major projects through its Environmental Assessment and Major Project division.

²⁸³ DFO also has responsibilities under ss.37(1.1) and (1.3) for considering and, with the approval of Cabinet, responding to a mediator or review panel's report.

²⁸⁴ CEAA ss.37(2), (2.1) and (2.2)(November 2, 2010 p.8-9.

²⁸⁵ CEAA ss.5(1)(d), 11(2), 13.

²⁸⁶ CEAA s.38 and s.2 (definition of "follow up program").

²⁸⁷ CEAA s.38(5).

²⁸⁸ Expert input may be provided by Science or Fisheries and Aquaculture Management staff.

4.2.1. Environmental Assessment and Major Projects (EAMP)

137. As discussed in section 3 above, under the EPMP, DFO decided to give higher priority to environmental reviews of major industrial or infrastructure projects. DFO decided that it would require a new organizational structure and new policy guidance to manage major projects, so as to ensure increased predictability and respond to concerns about delays in its decision-making.²⁸⁹
138. It is important to note that “major project” is not a statutory term under the CEAA. Rather, major project is shorthand for the projects that DFO has decided to devote increased resources and priority to when conducting CEAA assessments.
139. DFO attempted to clarify decision-making roles and responsibilities for major projects in two basic ways. First, DFO created and resourced dedicated units, nationally and regionally, to focus on major projects. Second, DFO codified greater involvement in decision-making for major projects by senior officials in regional headquarters, with functional direction from NHQ.²⁹⁰ The changes responded to the Departmental Management Committee’s definition for major projects, which included projects of socio-economic interest with millions of investment dollars, with potential to engage ministers and with a risk of major legal challenges or public concern.²⁹¹
140. To respond to DMC’s definition, DFO needed formal definitional clarity around what constituted a “major project”. In 2006, HMP published a “Major Projects Criteria” guideline, updating this in 2009.²⁹² Current criteria for major projects are:

²⁸⁹ “Habitat Management Program – Pacific Region” (January 2007), presentation, CAN027760 at 8-9.

²⁹⁰ “Implementing the Environmental Assessment (EA) and Major Projects (MP) Model in Pacific Region and Process Map”, presentation to Senior Habitat Management Committee dated November 2004, CAN267232. See email attaching this presentation, dated November 14, 2004, CAN267231.

²⁹¹ *Ibid*, CAN267232 at 4.

²⁹² “Major Project Criteria: SHMC Approved – November 2, 2006” (last updated 29 July, 2009); CAN186015. For a list of major projects for DFO assessment as of January 2007, see “Habitat Management Program – Pacific Region,” *supra*, CAN027760 at 18-19.

Major Projects are tangible works/undertakings (as understood in the habitat protection provisions of the *Fisheries Act*) that have one or more of the following:

Category 1:

A project initiative meeting any of the following factors is a Major Project.

- DFO is responsible authority (RA) for a comprehensive study or an RA for a screening within a comprehensive study as determined by another RA²⁹³
- DFO is an RA for a federal public environmental assessment review process (i.e. CEEA Panel)
- Potential to require ministerial or Governor in Council decisions(s) (including, projects requiring scheduling of tailings impoundment areas under the Metal Mining Effluent Regulations)

Category 2:

The following factors apply to project initiatives which do not meet any of the above criteria. They may be considered singly or in any combinations in order to reach a decision as to whether the project initiative is to be considered a Major project. NOTE: Consideration of the following criteria will be made in consultation between Regional managers EAMP, and Habitat Protection and Sustainable development with approval from EAMP NHQ.

- *Fisheries Act* or aquatic *Species at Risk Act* (SARA) decision(s) that have the potential for impacts on significant fish and fish habitat and/or substantial socio-economic impacts;
- Transboundary, or inter-regional effects;
- Involvement of multiple jurisdictions or EA regimes, including joint reviews;
- Involvement of multiple Responsible Authorities;
- Expression of, or series risk of significant legal, Aboriginal or public concern(s) and challenge(s) (such as Petition, injunction);
- Addressing EA responsibilities relative to section 79 of the SARA for non-aquatic species; or
- DFO is a Federal authority (expert department) for a Comprehensive Study or a federal public EA review process.

²⁹³ As noted above in section 4.1.2, DFO no longer has conduct of comprehensive studies following the July 2010 amendments to CEEA.

141. In Pacific Region, OHEB already had a centralized “Major Projects Unit” before this became a focus of the EPMP. Its Major Projects Unit was created in 1997. It conducted comprehensive studies and multijurisdictional screenings among other assessments, doing roughly 40% of assessments in the Pacific Region annually.²⁹⁴
142. Under the EPMP, this Major Projects Unit was renamed to Environmental Assessment and Major Projects (EAMP).²⁹⁵ The EAMP division is headed by a Regional Manager, reporting to the Regional Director of OHEB. The EAMP Regional Manager manages the CEAA process and habitat referral process for major projects in collaboration with Major Projects Review officials in NHQ.²⁹⁶
143. Nationally, under the EPMP, DFO created a new division called Major Projects Review. It was headed by the National Director who reported to the Director General of the Habitat Management Directorate and managed approximately 23 staff.²⁹⁷ With the dissolution of the Habitat Management Directorate as part of the recent NHQ re-organization, policy functions and staff within Major Projects Review have moved to the Program Policy Sector, while operational functions and staff have moved to the Ecosystems and Fisheries Management Sector.
144. For clarity, it is noted that DFO uses a different definition of major project, for the purpose of prioritizing habitat referrals and CEAA assessments, than may be used by other departments for similar purposes. For example, the Major Projects

²⁹⁴ *Supra*, “Implementing the Environmental Assessment (EA) and Major Projects (MP) Model in Pacific Region and Process Map”, CAN267232 at 2-3.

²⁹⁵ *Ibid.*

²⁹⁶ Regional Manager, EAMP is one of five regional managers in the Oceans, Habitat and Enhancement Branch reporting to the Regional Director, OHEB. The other regional managers oversee Habitat Protection and Sustainable Development; Oceans; Salmon Enhancement Program; and Species at Risk.

²⁹⁷ Major Projects Review Organization Chart, July 2009, CAN014637. The National Director was the third director-level position in the former Habitat Management Directorate, the other two being Director, Habitat Protection and Director, Habitat Program Services. See Habitat Management Directorate Organization Chart, August 2009, CAN014645.

Management Office, funded and staffed through Natural Resources Canada, instead focuses on “major resource projects”. The Major Project Management Office provides project management and coordination for major resource projects in the federal regulatory review process.²⁹⁸ It is focused on extractive resource activities like mining and energy development, whereas the DFO criteria for major projects also extend to infrastructure projects.

145. On occasion, the Pacific Region EAMP deviates from the HMP major project criteria. Specifically, EAMP has at times taken responsibility for classes of projects not meeting the major projects definition but that were challenging or controversial, such as gravel mining in the Lower Fraser River.²⁹⁹ Other controversial classes of projects, like aquaculture, have remained with habitat staff in Area offices.

4.2.2. *Non-Major or Regular Projects*

146. Responsibility for conducting CEAA assessments of development proposals not meeting the major projects criteria lies primarily with Area offices. For projects with potential to impact Fraser River sockeye or their habitats, CEAA assessments will be largely conducted by habitat staff in the BC Interior, South Coast and Lower Fraser Area offices. These Area habitat staff will generally be the point of contact for proponents, rather than OHEB staff in the EAMP or elsewhere within regional headquarters. As a general proposition, in the Department’s assessment of non-major projects, there is less formal separation of the CEAA assessment and of DFO’s regulatory review under section 35(2) of the *Fisheries Act*.³⁰⁰

²⁹⁸ Major Projects Management Office website at <<http://www.mpmo-bggp.gc.ca/index-eng.php>> (accessed March 5, 2011).

²⁹⁹ Gravel mining projects in the Lower Fraser River are currently overseen by the BC Interior Area office.

³⁰⁰ “Implementing the Environmental Assessment (EA) and Major Projects (MP) Model in Pacific Region and Process Map”, *supra*, CAN267232 at 10.

4.2.3. Committees

147. DFO has participated in inter-departmental committees with mandates to coordinate approaches to environmental assessment. Previously, the CEA Agency chaired the interdepartmental Senior Management Committee on Environmental Assessment, with an Environmental Assessment and Major Projects Subcommittee. Currently this function is served by the Environmental Assessment Programs Committee, intended “to facilitate a whole-of-government approach to the preparation of high quality environmental assessments in a predictable, certain and timely manner pursuant to the requirements of CEAA and in accordance with direction received from Ministers and Deputy Ministers.” It is chaired by the CEA Agency’s Vice President of Operations, and its members are those Directors General of DFO, Transport Canada, Natural Resources Canada, Environment Canada and Health Canada who have primary environmental assessment responsibilities. The committee may invite other NHQ and regional officials to meetings, which are intended to be monthly.³⁰¹
148. In Pacific Region, there is a Regional Director Environmental Assessment Committee that aims to ensure interdepartmental coordination on environmental assessment matters and meet routinely with proponents of major projects.³⁰²

4.2.4. Agreements with Other Departments and Jurisdictions

149. DFO itself is not a party to agreements with other jurisdictions regarding the conduct of environmental assessments. Canada however has entered agreements with a number of provinces, including with British Columbia, aimed at greater inter-jurisdictional coordination and cooperation in environmental assessment.³⁰³

³⁰¹ Environmental Assessment Programs Committee: Terms of Reference, January 9, 2009, CAN285185.

³⁰² Email chain “Meeting on Update on Vancouver Terminal 2”, April 8-9, 2008, CAN082644 at 1, 3; “Terminal 2 Meeting Notes”, November 13, 2007, CAN255036 at 3.

³⁰³ For all previous such agreements between Canada and British Columbia, see the CEA Agency webpage at <<http://www.ceaa.gc.ca/default.asp?lang=En&n=EA76AACC-1>> (accessed March 5, 2011).

150. The *Canada-British Columbia Agreement on Environmental Assessment Cooperation* was signed by the Environment Ministers for Canada and British Columbia in April 1997.³⁰⁴ It expired five years later, in April 2002. In October 2002, the parties confirmed that they would extend the agreement on an interim basis pending proclamation of the 2003 CEEA amendments and BC's amended *Environmental Assessment Act* in 2002.³⁰⁵
151. In 2004, these governments signed a revised *Canada-British Columbia Agreement for Environmental Assessment Cooperation*.³⁰⁶ The revised agreement was in force for five years. It expired in March 2009 and has not been renegotiated.³⁰⁷
152. In December 2008, the parties did "confirm their desire to renew the 2004 Bilateral Agreement" in the preamble of the "Operational Procedures to Assist in the Implementation of the Environmental Assessment of Projects Subject to the Canada-British Columbia Agreement for Environmental Assessment Cooperation".³⁰⁸ At Clause 4, the CEA Agency and the BC Environmental Assessment Office recommend future revisions to the 2004 Bilateral Agreement to ensure coordination where one party proceeds by review panel and the other

³⁰⁴ "Canada-British Columbia Agreement on Environmental Assessment Cooperation (April 2007)" on CEA Agency website at <<http://www.ceaa.gc.ca/default.asp?lang=En&n=3E426670-1>> (accessed March 5, 2011).

³⁰⁵ CEA Agency news release at <<http://www.ceaa.gc.ca/default.asp?lang=En&xml=81B62E66-43A1-4762-9718-D57A232A89FF>> (accessed March 6, 2011).

³⁰⁶ "Canada-British Columbia Agreement for Environmental Assessment Cooperation (March 2004)" on the CEA Agency website at <<http://www.ceaa.gc.ca/default.asp?lang=En&n=04A20DBC-1>> (accessed March 5, 2011).

³⁰⁷ CEA Agency webpage titled "Canada-British Columbia Agreement for Environmental Assessment Cooperation" <<http://www.ceaa.gc.ca/default.asp?lang=En&n=EA76AACC-1>> (accessed March 4, 2011).

³⁰⁸ "Operational Procedures to Assist in the Implementation of the Environmental Assessment of Projects Subject to the Canada-British Columbia Agreement for Environmental Assessment Cooperation (December 2008)", CEA Agency website at <<http://www.ceaa.gc.ca/default.asp?lang=En&n=2A48AAAF-1>> (accessed March 4, 2011).

at a lower level of assessment, and new clauses regarding Aboriginal interests.³⁰⁹

4.3. DFO's Policies and Practices for CEEA Implementation

153. This section of the Report outlines the policies and practices, specific to DFO, that have guided it as a responsible authority under the CEEA. DFO policies do not provide exhaustive guidance on implementing all aspects of the CEEA. Under the EPMP, DFO focused on creating “new operational policies for triggering and scoping under CEEA”.³¹⁰
154. This Report does not systematically describe the numerous guidance materials published by the CEA Agency to guide responsible authorities, including DFO, in exercising their statutory powers and duties under CEEA. Current and former guidance material published by the CEA Agency is published on its website.³¹¹

4.3.1. Early Triggering Policy for Major Projects

155. In May 2004, the ADM of Oceans and Habitat issued a memorandum to all Regional Directors General setting out an early triggering policy for major projects (“Early Triggering Policy”).³¹² Sometimes stated as the “in until you’re out” principle, the Early Triggering Policy directed DFO to trigger a CEEA assessment as early as possible, rather than wait for a proponent to provide information showing that its project may harm fish habitat.³¹³ The Early Triggering Policy is to “address the perception that DFO is causing delays in the

³⁰⁹ *Ibid.*

³¹⁰ “Update on DFO’s Environmental Process Modernization Plan”, presentation to CCFAM meeting, November 1, 2006, CAN027677 at 7.

³¹¹ CEA Agency “Policy and Guidance”, online: CEA Agency <<http://www.ceaa.gc.ca/default.asp?lang=En&n=DACB19EE-1>>. (accessed March 4, 2011).

³¹² “Early Triggering Policy for Major Projects”, memorandum, May 2004 (“Early Triggering Policy”) CAN186014.

³¹³ *Ibid* at 2.

assessment process.”³¹⁴ One issue “perceived as causing delays and raised by proponents and provincial governments is the timing of the triggering of CEAA,”³¹⁵ and thus early triggering is meant to support a more harmonized process with provincial reviews.³¹⁶ Provincial reviews may commence before the proponent has given DFO habitat staff the fish habitat information that they need to confirm if it has a s.5(1)(d) CEAA trigger.³¹⁷

156. DFO faces challenges in conducting CEAA assessments where there is a lack of timely, relevant information on fish habitat impacts from proponents. In this respect, DFO has recently published the “Proponent’s Guide to Information Requirements for Review Under the Fish Habitat Protection Provisions of the Fisheries Act.”³¹⁸ These information requirements have not been enacted in a regulation under the *Fisheries Act*.³¹⁹
157. DFO limits its Early Triggering Policy to major projects, and does not require early triggering of the CEAA for other developments with the potential to harm fish habitat.³²⁰ By contrast, the CEA Agency directs early triggering by responsible authorities for all projects that may require CEAA assessments.³²¹
158. The Early Triggering Policy is an internal directive. It is posted on the HMP intranet site and included in the Manual, but is not generally available to the public online.

³¹⁴ *Ibid.*

³¹⁵ *Ibid* at 1.

³¹⁶ *Ibid* at 2.

³¹⁷ Provincial reviews also may not require fish habitat information that is required by DFO.

³¹⁸ “Proponent’s Guide to Information Requirements for Review Under the Fish Habitat Protection Provisions of the Fisheries Act (Version 1.2, April 2009)”, CAN186010.

³¹⁹ No regulations have been enacted under s.37(3)(a) of the *Fisheries Act*.

³²⁰ “Early Triggering Policy”, *supra*, CAN186014.

³²¹ The CEA Agency’s “Operational Policy Statement: Establishing the Project Scope and Assessment Type under the *Canadian Environmental Assessment Act* (September 2010),” CAN186013 at 3, states: “all federal authorities with a strong possibility of a trigger are expect to adopt an ‘automatically in’ approach with respect to their environmental assessment obligations, rather than delaying engage until they have certainty that an environmental assessment with be required”.

4.3.2. Scope of the Project under CEAA

159. Until 2010, when assessing projects under the CEAA, DFO sometimes engaged in a practice known colloquially as “scoping to trigger”.³²² DFO would scope down some projects that it was required to assess under the CEAA, such that the project assessed by DFO was smaller than the project proposed by a proponent. When scoping to its regulatory trigger, DFO would limit its assessment to those parts of a project causing physical impacts to fish habitat.³²³ On occasion, this practice sometimes resulted in a project being assessed by screening rather than by a comprehensive study with mandatory public participation.^{324 325}
160. In January 2010, in *MiningWatch Canada v. Canada*, the Supreme Court held that scoping a project to be less than the project proposed, and the consequent avoidance of comprehensive studies with public participation, was unlawful.³²⁶
161. DFO began scoping to trigger after the CEAA was enacted in 1995.³²⁷ The HMP’s 2001 CEAA Guide, still included in the Manual, advised DFO habitat staff that scoping to trigger was mandatory for some projects:
- Recent case law (Sunpine, Federal Court of Appeal) endorses narrowly scoped projects for regulatory triggers....For projects subject to CEAA s.5(1)(d) regulatory triggers (most of HMP’s EAs), the project’s scope must be limited to those elements over which the federal government can validly assert authority

³²² The documents in which DFO describes its practice of scoping to trigger are set out in the following paragraphs of section 4.3.2.

³²³ For example, for the proposed TrueNorth oil sands mine, for the purpose of CEAA assessment, DFO limited the scope of project to s.35(2) authorized works and deemed it a “creek destruction project”: *Prairie Acid Rain Coalition v. Canada (Minister of Fisheries and Oceans)*, 2006 FCA 31.

³²⁴ *MiningWatch, supra*.

³²⁵ A related past practice, by responsible authorities or proponents under CEAA, is project-splitting. In *MiningWatch, supra* at para.40, the Court describes project splitting as “representing part of a project as the whole, or proposing several parts of a project as independent projects in order to circumvent additional assessment obligations.” See also “OHEB Key issues”, draft memo, CAN027932: “Project-splitting is a current issue resulting from a poorly coordinated referral system. On some developments, we get 3 different projects – the upland rezoning, the foreshore works, and the marina development. This makes timelines complicated, and the CEAA coordination and consultation very unwieldy.”

³²⁶ *MiningWatch, supra*.

³²⁷ *Friends of the West Country Assn. v. Canada (Minister of Fisheries and Oceans)*, [2000] 2 F.C. 263 (FCA)

either directly or indirectly. Thus the project addressed in the EA should correspond to the federally-regulated undertaking involved in the application.³²⁸

162. As part of the EPMP, DFO further codified its scoping practices. It published the “Practitioners’ Guide to the Determination of the Scope of the Project under the Canadian Environmental Assessment Act (CEAA) Relative to the Fisheries Act” (“Practitioners’ Guide on Scoping”),³²⁹ which was supportive of narrow scoping and also suggested the possibility of multiple scopes and levels for one assessment.³³⁰ The Practitioner’s Guide on Scoping was internal guidance, included in the Manual and posted on the HMP intranet, but not available to the public online.
163. In February 2010, DFO withdrew from its Practitioner’s Guide on Scoping from the Manual, describing it as largely invalidated by the Court’s decision.³³¹ In its place, the Manual now contains two documents. The first is an HMP memorandum entitled “Scope of Project” dated February 2010.³³² It confirms “a change from our previous practice of determining the scope of project relative to our paragraph 5(1)(d) CEAA trigger, as was the established policy and based upon the jurisprudence up to date of the court’s decision.”³³³ The second, released by the CEA Agency, is an Operational Policy Statement entitled “Establishing the Project Scope and Assessment Type under the *Canadian Environmental Assessment Act*” and dated September 2010. It reflects both the Court’s decision and the July 2010 amendments.³³⁴
164. The HMP has also created its own draft guidance on the July 2010 amendments entitled “General Guidance for the Application of the Amendments to the

³²⁸ The HMP’s 2001 CEAA Guide, *supra*, CAN186018 at 91.

³²⁹ “Practitioners’ Guide on Scoping (Version 1.0, 2007)”.

³³⁰ *Ibid.*

³³¹ Email, “Update: Red Chris Court Decision and Response Required”, January 28, 2010, CAN294784.

³³² “Scope of Project”, HMP memorandum, CAN186013 at 1.

³³³ *Ibid.*

³³⁴ “Operational Policy Statement: Establishing the Project Scope and Assessment Type under the *Canadian Environmental Assessment Act* (September 2010),” CAN186013 at 2.

Canadian Environmental Assessment Act in the Jobs and Economic Growth Act, 2010 (“CEAA 2010 Amendments Guidance”).³³⁵ The CEAA 2010 Amendments Guidance confirms that, in general, “these amendments do not affect scope of project determinations as clarified through the Court decision on MiningWatch”.³³⁶ However it also confirms that the amendments do give the Minister of Environment the discretion to limit the scope of project in accordance with any conditions that the Minister may publish on which to exercise this authority.³³⁷ The CEAA 2010 Amendments Guidance states that “[c]onditions for the use of this authority will be developed, and these conditions will be made public.”³³⁸ It goes on to state that “work is underway by the Agency to identify potential conditions”.³³⁹

165. DFO’s past scoping practices may not cause concern in the context of projects with potential impacts on Fraser River sockeye habitats. Even when it has scoped narrowly, DFO includes impacts on fish habitat within its assessments. Scoping to trigger may have had the effect of limiting assessment of some types of projects like aquaculture, where the section 35(2) trigger has been limited to physical impacts on habitat and not other potential impacts to sockeye habitats.

4.3.3. DFO Decision Protocols for CEAA assessments

166. In support of EPMP elements, in June 2009, the HMP finalized three revised decision protocols for major projects under the CEAA.³⁴⁰ The protocols identified DFO officials with responsibility for all the key activities and decisions during an environmental assessment, for each of the three main types of CEAA

³³⁵ General Guidance for the Application of the Amendments to the *Canadian Environmental Assessment Act in the Jobs and Economic Growth Act, 2010* November 2, 2010 (“CEAA 2010 Amendments Guidance”), CAN285183.

³³⁶ *Ibid* at 5.

³³⁷ *Ibid* at 5-6. In addition, the Minister of Environment may delegate this authority to a responsible authority in accordance with the published conditions.

³³⁸ *Ibid* at 6.

³³⁹ *Ibid* at 6.

³⁴⁰ “CEAA Key Decision Points & Authorities (Updated July 17, 2009)”, CAN186016.

assessment. Some decisions are assigned to the Regional Manager of EAMP. Other decisions are assigned to the Regional Directors of Habitat, the National Director of Major Projects Review, Regional Directors General, the ADM or the Deputy Minister.

167. The first decision protocol is entitled “Key Decision Points and Authority for Screening of a Major Project under CEAA.”³⁴¹ Some parts of the screening protocol are now out of date after the *MiningWatch* decision and July 2010 amendments.
168. The second protocol is entitled “Key Decision Points and Authority for Comprehensive Study (all considered Major Projects) under CEAA”.³⁴² In general, much of this protocol no longer applies as the July 2010 amendments now give conduct of comprehensive studies to the CEA Agency.³⁴³
169. The third protocol is entitled “Key Decision Points and Authority for Panel Reviews (all considered Major Projects) under CEAA”.³⁴⁴ Very little, if anything, requires revision in this protocol to ensure consistency with the July 2010 amendments.

4.3.4. *The HMP’s 2001 CEAA Guide*

170. In 2001, HMP released a lengthy document entitled “CEAA Guide: Applying the *Canadian Environmental Assessment Act* for the Fish Habitat Management Program” (“the HMP’s 2001 CEAA Guide”).³⁴⁵ This document was intended to

³⁴¹ *Ibid* at 2.

³⁴² *Ibid* at 5.

³⁴³ As noted in section 4.1.4, the course of conduct decision under s.37 remains with DFO (where it is a responsible authority). This protocol assigns that decision to Regional Directors General.

³⁴⁴ CEAA Key Decision Points & Authorities (Updated July 17, 2009)”, *supra*, CAN186016 at 9.

³⁴⁵ The HMP’s 2001 CEAA Guide, *supra*, CAN186018.

provide practical guidance on CEAA assessments targeted to the HMP, beyond the CEA Agency's guidance materials aimed at all responsible authorities.³⁴⁶

171. The HMP's 2001 CEAA Guide was internal guidance and not currently available online. Portions of it were rendered out of date after the November 2003 amendments, July 2010 amendments and the *MiningWatch* decision.³⁴⁷

4.3.5. DFO practice of not allowing public participation in screening assessments

172. As noted above, public participation is not mandatory in a screening. Rather, as a responsible authority, DFO may choose to include and facilitate public participation in its screening level assessments.³⁴⁸ The HMP 2001 CEAA Guide states that "HMP is strongly committed to addressing public concerns in EA."³⁴⁹
173. As a matter of practice, DFO Pacific Region very rarely allows public participation in its screening assessments of projects likely to cause harm to fish habitat. Generally speaking, community members, scientists and stakeholders with information or concerns about the potential impacts of a project on Fraser River sockeye or their habitats have rarely been given statutory opportunities to provide their input or to have DFO consider it, in the course of DFO screenings.
174. At the commission's request, DFO reviewed the Program Activity Tracking for Habitat ("PATH") database to confirm the number and percentage of CEAA screenings in British Columbia, in the last five years, for which DFO as a responsible authority allowed public participation pursuant to section 18. DFO confirmed that, since January 1, 2005, as a "lead" responsible authority in 296 screenings under the CEAA, it had not allowed public participation for any single

³⁴⁶ CEA Agency "Policy and Guidance", online: CEA Agency

<<http://www.ceaa.gc.ca/default.asp?lang=En&n=DACB19EE-1>> (accessed March 4, 2011).

³⁴⁷ The HMP's 2001 CEAA Guide, *supra*, CAN186018, see e.g. 14, 23, 29, 30-31, 45, 59-71, 78-81 and 91-92.

³⁴⁸ See section 4.1.3 above.

³⁴⁹ The HMP's 2001 CEAA Guide, *supra*, CAN186018 at 112 and Appendix 17.

any project proposed to be undertaken in the Fraser River basin.³⁵⁰ It advised that it had allowed public participation in only two screening assessments elsewhere in the province in this time period.³⁵¹

175. DFO does not have any guidance materials, specific to DFO, on how to facilitate public participation in a screening under CEEA. The CEA Agency has published guidelines on how to ensure meaningful public participation in screenings, which guidance is available on its website.³⁵² As part of its quality assurance program under section 69, the CEA Agency analyzed public participation practices in screenings; results were not broken down by department.³⁵³

4.3.6. DFO practice of limiting access to the CEA Registry after six months

176. DFO commences dozens of CEEA assessments annually for proposed projects in the Fraser River basin and in sockeye salmon coastal migratory areas. Each assessment results in a final screening or comprehensive study report. Each assessment requires the collection of environmental studies, analyses and data to enable consideration of the project's potential effects on fish and fish habitat, including mandatory consideration of cumulative effects. For a particular location of Fraser River sockeye habitat, such as Shuswap Lake, or for a particular class

³⁵⁰ In providing this information, DFO advised that it does not track public participation on screenings where DFO is not the lead RA. Of the 348 screenings initiated in the province by DFO, it was the lead in 296, but another federal department was the lead in 52, some of which could have had public participation. It is noted that the "lead" RA is not a statutory concept under the CEEA.

³⁵¹ The two screenings in which DFO allowed public participation were the Kitimat - Summit Lake Natural Gas Pipeline Looping Project and the Ruby Creek Molybdenum Mine. However, these two projects are described on the comprehensive study list. If DFO had assessed them consistent with the Court's later reasons in *MiningWatch*, as comprehensive studies, each would have required public consultation.

³⁵² Under s.58(1)(a) of the CEEA, the Minister of Environment has issued the "Ministerial Guideline on Assessing the Need for and Level of Public Participation in Screenings under the Canadian Environmental Assessment Act" (July 2006). The CEA Agency has also published the *Public Participation Guide* (May 2008). These guidance materials, among others, are on the "Policy & Guidance" webpage at <<http://www.ceaa.gc.ca/default.asp?lang=En&n=DACB19EE-1>> (accessed March 6, 2011).

³⁵³ Public Participation in Screenings: An Analysis of Efforts made to Obtain Information and Views of the Public during the Conduct of Screenings (November 2009): <http://www.ceaa.gc.ca/A5DFDF5B-79FB-4531-BA69-A21F4CC8A081/Public_Participation_in_Screenings-eng.pdf> (accessed March 5, 2011).

of projects, like aquaculture, a review of project files could provide useful information. The ability to review project files allows insight into the adequacy of mitigation measures used in previous assessments and could aid in adaptive management.

177. As noted above in section 4.1.3 of this Report, under the CEAA, any member of the public has a right to convenient access to the CEA Registry. The CEA Registry includes a Project File for each assessed project, which file must include records relevant to the environmental assessment including environmental studies.
178. DFO has a practice of limiting public access to the CEA Registry to the six-month period after a CEAA assessment ends.
179. An Instructor Guidebook published by the HMP National Training Program sets out DFO's practice of limiting the right to access environmental studies after an assessment concludes.³⁵⁴ This Instructor Guidebook states that the "current practice" is "if an EA has been concluded for 6 months or less, DFO (in most cases) responds in the same manner as for an active EA". It also states that requests for access to information "related to EAs that have been closed for more than six months should be referred to the Regional PATH/CEAR Coordinator or the National PATH/CEAR Coordinator for advice prior to responding."³⁵⁵
180. The Instructor Guidebook instructs DFO habitat staff to generally limit public access to project files, within six months after an assessment is completed, to only the final Screening Report. DFO habitat staff are also instructed that, more than six months after an assessment, the "current DFO practice is generally for the Registry coordinators to send a standard form letter outlining the CEAR

³⁵⁴ "EA-ÉE 202 - DFO and the CEA Registry. Instructor Guidebook (Version 1.1, October 2010)", HMP National Training Program ("Instructor Guidebook"), CAN186084.

³⁵⁵ *Ibid* at 205, 208. For the training module, see 205-230. "CEAR" in this quote refers to the Canadian Environmental Assessment Registry.

process and requirements, which may or may not include provision of the documents (determined on a case by case basis).”³⁵⁶

181. DFO’s practice of limiting access has been described in internal emails,³⁵⁷ as well as in emails to members of the public. For example, the DFO approach to limiting access to the CEA Registry was explained by the Pacific Region’s PATH/CEA Registry Coordinator in an effort to provide assistance to a requester:

“CEAA not allowing a responsible authority to withhold a project file on the basis that the project is concluded has been under constant and ongoing discussions with the Agency. My advise (sic) from Headquarters is that the Act indicates that the need for the “registry” (and therefore the need to meet requirements under the registry) exists only during the time that the EA is active and/or until the end of any follow up program under CEAA. It isn’t that the documents could not continue to be released or made public, but that there is no administrative capacity to manage these project files in that way. It would require creating a capacity to in essence have an ongoing library of all documents across the country on any EA that was ever conducted. As simple as that may sound, time, resources and facilities to create and manage such a thing would be necessary. So – from our mandate to manage the “registry” components of CEAA we will respond while the EA is ongoing, and as a gesture we continue to respond for the 6 months following it’s (sic) conclusion and all other requests are considered on a case by case basis.”³⁵⁸

182. Another rationale sometimes provided for limiting access to the CEA Registry is that the obligation to provide access extends only to those projects actively “undergoing” an environmental assessment.³⁵⁹ As stated by a DFO official, the purpose of access is to enable the public’s ability to make “arguments” in an assessment, but that “once a decision has been made it is now not up to the public and an Access to Information Request must be submitted to obtain records.”³⁶⁰ There have been conflicting views within DFO on whether Access to Information procedures may substitute for the right of access under the CEA

³⁵⁶ *Ibid* at 208.

³⁵⁷ Email re “Screening Report”, February 13, 2009, CAN082052 at 1.

³⁵⁸ Email re “Request for Popkum”, November 3, 2006, CAN055715 at 9-10.

³⁵⁹ HMP Standard Operating Policies Manual, Table of Contents, CAN185999 at 11.

³⁶⁰ Email re. “CEAA Assessment 06-01-26452”, CAN052600 at 4-5.

Registry.³⁶¹ The CEA Agency's "Guide to the Canadian Environmental Assessment Registry" does not endorse the use of the Access to Information process and does not limit CEA Registry access to within six months of an assessment.³⁶²

183. DFO has no publically available guidance on how to access the CEA Registry. The Manual states that policy and reference material related to the use of PATH and the CEA Registry are "coming soon".³⁶³

5. Habitat Compliance Modernization and Habitat Monitoring

184. HCM is the sixth element of the EPMP. It was intended to develop a nationally coherent, risk-based approach to compliance with the habitat protection provisions of the Act.³⁶⁴ It led to three important outcomes: a national framework for compliance management; protocols that clarify the roles and responsibilities for HMP and Conservation and Protection ("C&P") with respect to compliance; and greater capacity to conduct habitat monitoring. Habitat monitoring capacity was increased by the establishment of a unit devoted to habitat monitoring: the Habitat Monitoring Unit (the "HMU"). Before discussing HCM and the HMU, a brief overview of habitat monitoring is presented.

5.1. Habitat Monitoring Overview

185. Habitat monitoring is an essential tool to determine whether No Net Loss is being achieved. In 1986, the importance of monitoring and its link with No Net Loss

³⁶¹ Email from Wendy Morrell, DFO Manager of the CEA Registry to Judy Benvie, DFO ATIP, December 4, 2008, CAN081532 at 1.

³⁶² CEA Agency, "Guide to the Canadian Environmental Assessment Registry (August 2005)", online: CEA Agency <<http://www.ceaa.gc.ca/default.asp?lang=En&n=52400497-1&offset=&toc=hide>> (accessed March 6, 2011).

³⁶³ HMP Standard Operating Policies Manual, Table of Contents, CAN185999 at 7.

³⁶⁴ "Habitat Compliance Decision Framework", CAN186007 at 4.

was recognized in the eighth strategy of the 1986 Habitat Policy.³⁶⁵ In 2005, a study reported that since the introduction of the 1986 Habitat Policy, more than 2500 HADD authorizations had been issued, yet only 103 compensation projects had been evaluated to determine their success in achieving No Net Loss.³⁶⁶ The link between habitat monitoring and compensation is also evident in the Practitioners Guide to Compensation.³⁶⁷ Without a monitoring program, there is no quantitative data to assess whether compensation and mitigation conditions are being adhered to, and whether they are effective in preventing loss of the productive capacity of fish habitat.

186. Although HCM brought a greater emphasis on monitoring, habitat monitoring was happening in the Pacific Region before HCM, to a limited extent. A 2008 monitoring survey found that habitat staff devoted approximately five percent of their time to monitoring.³⁶⁸ Currently, the Pacific Region expects that habitat staff spend no less than 20 percent of their time on monitoring.³⁶⁹
187. The HMP distinguishes among three categories of habitat monitoring: compliance monitoring; effectiveness monitoring; and ecosystem monitoring.³⁷⁰
188. Compliance monitoring involves Department staff ensuring that: a) proponents comply with any conditions of authorizations or orders; and b) developments conform to any advice aimed at avoiding negative effects to fish and fish

³⁶⁵ 1986 Habitat Policy, *supra* at 24.

³⁶⁶ David Harper & Jason Quigley, "A comparison of the areal extent of fish habitat gains and losses associated with selected compensation projects in Canada" (2005) 30:2 Fisheries 18, CAN197549.

³⁶⁷ "Practitioners Guide to Habitat Compensation", CAN186001 at 10-11.

³⁶⁸ Note the survey was conducted for the South Coast Area only.

³⁶⁹ "Habitat Monitoring Update: Presentation to Regional Managers", April 16, 2010, CAN185559; email re: HMU Update, CAN285188 at 1.

³⁷⁰ Other HMP materials refer to the third category as "environmental effects monitoring" or "fish habitat health monitoring". Still other HMP materials omit the third kind of monitoring and refer only to compliance and effectiveness monitoring. It is unclear in some cases whether the author is incorporating some or all elements of fish habitat health monitoring into effectiveness monitoring. See, e.g., CAN185559, *Ibid.* at 7 or "Habitat Monitoring Strategy: Pacific Region", CAN285194 at 1.

habitat.³⁷¹ It might be expressed in simple terms as “did the proponent do what the Department told them to do?” This can be determined by collecting data through site visits or by obtaining reports from the proponent or a third party, which may be a condition of the HADD authorization.³⁷²

189. Effectiveness monitoring involves verifying that mitigation and compensation measures effectively achieve their intended outcomes in terms of preventing loss of productive capacity of fish habitat.³⁷³ It might be expressed as, “are properly implemented measures working to achieve No Net Loss?”
190. Finally, ecosystem or “fish habitat health” monitoring is monitoring to establish baseline conditions and determine the cumulative effects of multiple impacts on fish habitat.³⁷⁴ It focuses on productive capacity at the watershed level.³⁷⁵
191. The HMP conducts some compliance monitoring. In 2009, the CESD reported that the Department does not have a systematic approach to compliance monitoring.³⁷⁶ The CESD also found that proponents were carrying out the required monitoring in only six of 16 projects involving authorizations and one of 30 projects involving letters of advice.³⁷⁷ The Department does not require a proponent to submit a monitoring report when following a plan confirmed by a letter of advice or when following an operational statement.³⁷⁸ Compliance monitoring has improved since the CESD’s audit, with the formation of the HMU.

³⁷¹ “Habitat Compliance Decision Framework”, CAN186007 at 8.

³⁷² *Ibid.* at 5; 1986 Habitat Policy, *supra* at 23.

³⁷³ “[Draft] Pacific Region Habitat Monitoring Framework” February 15, 2011, at 5.

³⁷⁴ *Ibid.*

³⁷⁵ *Ibid.*

³⁷⁶ 2009 CESD Report, *supra* CAN024152 at 17. Monitoring has improved since the CESD’s audit, explained below.

³⁷⁷ *Ibid.*

³⁷⁸ CESD petition 227, “Friends of the Oldman River: Operational Statements and Letters of Advice”, Response to question 7, online: Office of the Auditor General of Canada <http://www.oag-bvg.gc.ca/internet/English/pet_227_e_30500.html#dfo>.

192. The HMP is not systematically conducting effectiveness monitoring.³⁷⁹ However, it is beginning to develop the tools and capacity to do so. The Department has historically demanded little to no pre-impact monitoring before a development occurs.³⁸⁰ With no baseline information it is difficult for later monitoring efforts to determine the effect a project has had, and to draw conclusions about meeting No Net Loss.³⁸¹

193. The HMP does not conduct ecosystem monitoring.³⁸²

5.2. Habitat Compliance Modernization

194. Habitat Compliance Modernization was added to EPMP in 2005, driven in part by budget reductions mandated by the Expenditure Review Committee.³⁸³ It comprises three elements (sometimes referred to as objectives): a modernized approach habitat compliance management; clarified roles and responsibilities for HMP and C&P; and a greater capacity to conduct habitat monitoring.³⁸⁴ These elements led to three outcomes: a national compliance decision framework; protocols that clarify the roles and responsibilities for HMP and C&P with respect to compliance; and a unit devoted to habitat monitoring.

³⁷⁹ 2009 CESD Report, *supra* CAN024152 at 17.

³⁸⁰ Quigley and Harper reported in 2006 that, out of 52 HADD authorization sites visited, only one had quantitative pre-impact data, and none had previously determined reference sites. Jason Quigley & David Harper, "Effectiveness of Fish Habitat Compensation in Canada in achieving No Net Loss" (2006) 37:3 Environmental Management 351, CAN197551, at 12.

³⁸¹ *Ibid.*

³⁸² The Draft Pacific Region Habitat Monitoring Framework, *supra* at 5, states that fish habitat health monitoring is five years from implementation.

³⁸³ The Prime Minister established the Expenditure Review Committee of Cabinet in December 2003. "Expenditure Review 2005", online: Expenditure Review <<http://www.expenditurereview-examendesdepenses.gc.ca/2005/index-eng.asp>>. See Expenditure Review Committee Update: DMC – Halifax Meeting, September 2006, CAN027740; "Memo re: Habitat Compliance Modernization – Conference Call to Update Staff on Implementation in Pacific Region", December 14, 2005, CAN038587 at 1.

³⁸⁴ "Habitat Management Program Organization and Delivery", deck [n.d.], CAN185560 at 10; "Pacific Region Habitat Management Program: Habitat Compliance Modernization" deck October 2008, CAN005927 at 4.

5.2.1. Habitat Compliance Decision Framework

195. The first of the three elements of HCM is the development of an integrated, risk-based, nationally-coherent approach to habitat compliance management.³⁸⁵ This approach is largely encapsulated in a 2007 policy document titled the Habitat Compliance Decision Framework (the “Compliance Framework”).³⁸⁶ The Compliance Framework is found in the Manual. It provides guidance to habitat staff in assessing compliance risks, making compliance decisions, and providing a rationale for those decisions.³⁸⁷
196. To support the Compliance Framework’s implementation, a training course was developed and attended by 25 HMP and 25 C&P Pacific Region staff in 2009.³⁸⁸ The Compliance Framework is not believed to have significantly changed the way the Pacific Region HMP approaches habitat compliance decision-making,³⁸⁹ though it does provide a “nationally coherent decision process[.]”³⁹⁰
197. The Compliance Framework focuses solely on compliance monitoring and responding to situations of potential non-compliance.³⁹¹ It divides compliance monitoring into two broad categories: a) monitoring of reviewed works or undertakings (those that have been through the referral process, including those where an operational statement applies); and b) monitoring of works or undertakings that have not been reviewed.³⁹²

³⁸⁵ “Habitat Compliance Decision Framework”, CAN186007 at 4.

³⁸⁶ *Ibid.*

³⁸⁷ *Ibid.* at 4.

³⁸⁸ “Pacific Region Habitat Compliance Modernization (HCM) Communication & Status” [n.d.] CAN285229 at 3.

³⁸⁹ “Habitat Monitoring Update: Presentation to Regional Managers”, April 16, 2010, CAN185559 at 3.

³⁹⁰ “Pacific Region Habitat Compliance Modernization (HCM) Communication & Status” [n.d.] CAN285229 at 2.

³⁹¹ “Habitat Compliance Decision Framework”, *supra* CAN186007 at 1. It states that other documents will be developed to provide guidance on related matters, such as effectiveness monitoring.

³⁹² *Ibid.* at 8-9.

198. When a proponent fails to comply with prescribed conditions or inadequately applies measures to avoid impacts to fish habitat, or where an unforeseen event could result in a violation of the habitat protection provisions of the Act, the Compliance Framework directs habitat staff to conduct a compliance risk assessment.³⁹³ It sets out the procedures for doing so, which include assessment of compliance factors and impacts to fish and fish habitat, to determine the level of compliance risk (see Figure 6). It also suggests a gradient of proportionate responses.³⁹⁴ Habitat staff are directed to first work toward a voluntary solution with the owner or operator to achieve compliance.³⁹⁵

³⁹³ *Ibid.* at 9.

³⁹⁴ *Ibid.* at 14-15.

³⁹⁵ *Ibid.* at 9.

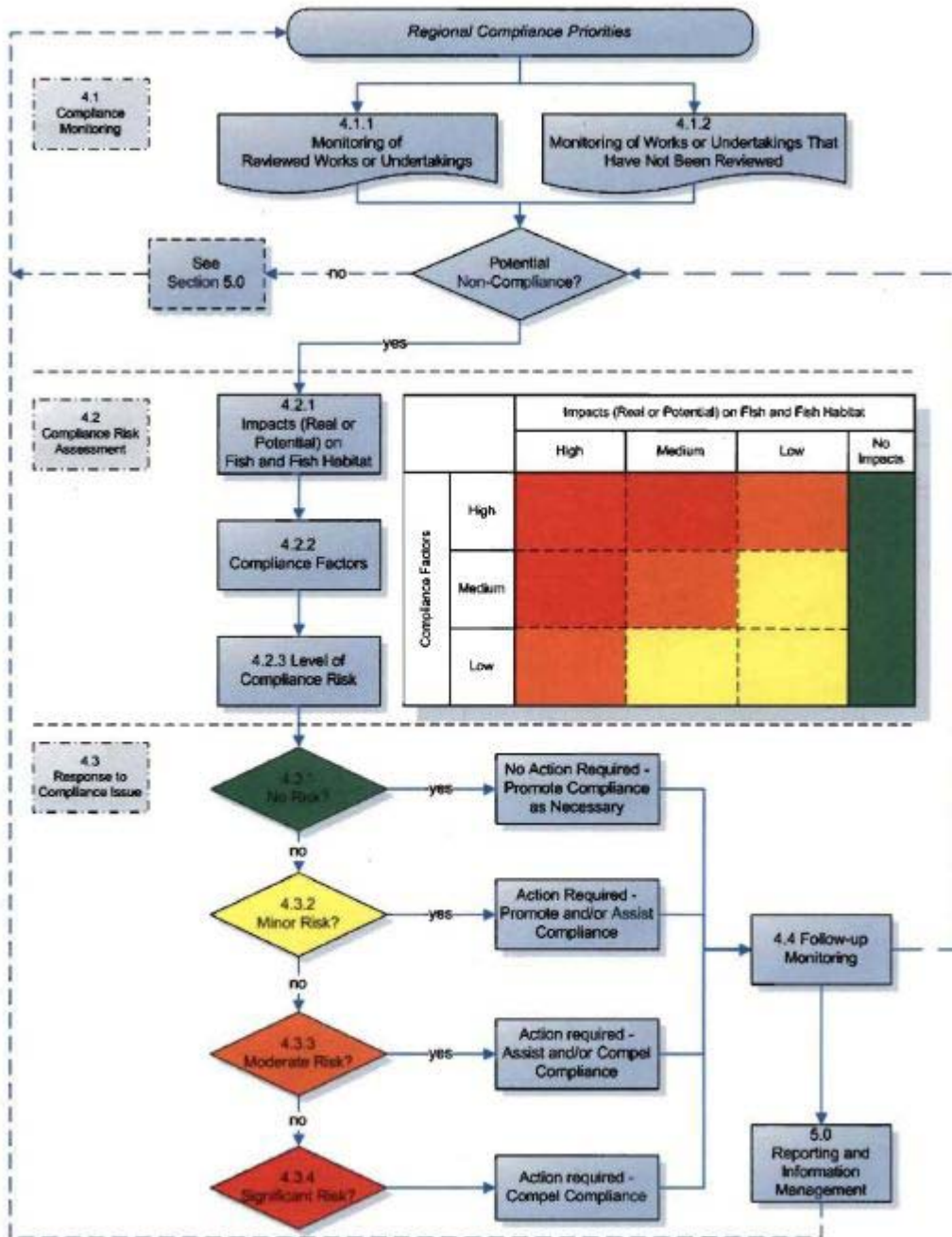


Figure 6. Process map for the application of the habitat compliance decision framework.³⁹⁶

³⁹⁶ *Ibid.* at 10.

5.2.2. Habitat Compliance Protocols

199. The second element of HCM is to clarify the roles, responsibilities and accountabilities of both the HMP and C&P. This is done in part through a National Habitat Compliance Protocol signed in January 2007, by the assistant deputy ministers of Oceans and Habitat and Fisheries and Aquaculture Management.³⁹⁷ The 2007 Compliance Protocol was replaced in 2010 by a similar agreement signed by the directors general for Ecosystems Management and C&P, and the senior assistant deputy minister for Ecosystems and Fisheries Management (the “Compliance Protocol”).³⁹⁸
200. The Compliance Protocol establishes “lead” and “support” roles for the HMP and C&P. The HMP leads in:
- planning compliance priorities;
 - delivering education, training, agreements and stewardship to promote compliance;
 - habitat monitoring; and
 - tracking and maintaining information related to compliance promotion, monitoring, occurrences and responses through the national PATH database.
201. The Compliance Protocol connects with the Compliance Framework, with respect to occurrence screening, using the process map (Figure 6; also an appendix to the Compliance Protocol).³⁹⁹ It directs HMP to lead in determining risk to fish and fish habitat; while C&P leads in assessing the compliance risk factors. HMP also leads in making the final determination of level of compliance risk.⁴⁰⁰

³⁹⁷ “National Habitat Compliance Protocol”, January 2007, CAN186073.

³⁹⁸ “National Habitat Compliance Protocol”, December 2010.

³⁹⁹ An occurrence is “an observed or reported incident which is a potential violation of a statute or regulation.” Occurrence screening is defined as “the initial information gathering and risk assessment of occurrence management used to inform a response decision.” *Ibid.* at 3.

⁴⁰⁰ *Ibid.* at 5.

202. When it comes to responding to compliance issues, HMP leads in conducting activities aimed at “voluntary restoration” in response to all “no risk, minor risk, and moderate risk” compliance issues, while C&P leads responses to “moderate risk and significant risk” compliance issues.⁴⁰¹
203. One implication of the Compliance Protocol is that Habitat staff will be no longer be designated as inspectors. Instead they will be designated as fishery guardians, with limited powers, while C&P fishery officers will be designated as inspectors.⁴⁰²
204. The Compliance Protocol contemplates that regional operational protocols will be developed between HMP and C&P “to reflect the operating environment and operational needs unique to each region”.⁴⁰³ These regional operational protocols form annexes the national Compliance Protocol.
205. The Pacific Region Habitat Compliance Protocol (the “Pacific Compliance Protocol”) was finalized June 11, 2007.⁴⁰⁴ It states that it will be “in effect” for two years and will be renewed annually. A revised version is in draft.⁴⁰⁵
206. The Pacific Compliance Protocol directs each area within the Pacific Region to “develop an approach, consistent with this Regional Protocol, which describes clear operational roles and responsibilities between C&P and HMP.”⁴⁰⁶ Delineation of roles and responsibilities at the area level is to be accomplished by

⁴⁰¹ *Ibid.* (Capitalization omitted). C&P responses may include the issuance of Inspector’s directions, warnings and Ministerial Orders, conducting investigations, executing warrants, laying charges, preparing court briefs and providing evidence in court.

⁴⁰² Memorandum for the Deputy Minister: Approval of the Revised National Habitat Compliance Protocol, August 13, 2010, CAN295278 at 4.

⁴⁰³ “National Habitat Compliance Protocol”, December 2010, at 2.

⁴⁰⁴ Pacific Region Habitat Compliance Protocol, June 11, 2007, CAN186074.

⁴⁰⁵ Draft Pacific Region Habitat Compliance Protocol, February 2010, CAN178153.

⁴⁰⁶ Pacific Region Habitat Compliance Protocol, June 11, 2007, CAN186074 at 3.

these “operational plans”.⁴⁰⁷ The draft area operational plans are not supposed to diverge significantly from their regional and national counterparts; nor do habitat staff believe them to cause a significant change in operations in the areas.⁴⁰⁸

5.2.3. *Habitat Monitoring through the Habitat Monitoring Unit*

207. The third and final element of HCM involves strengthening HMP’s capacity to conduct habitat monitoring. The Department addressed this element by creating approximately twelve habitat monitoring positions in the Pacific Region. The positions consist of monitoring coordinators and monitoring technicians, integrated with each of the area offices, and a habitat monitoring team leader. All area monitoring coordinators report operationally to their respective OHEB area managers and functionally to the regional habitat monitoring team leader.⁴⁰⁹ Together they make up the Habitat Monitoring Unit (“HMU”).⁴¹⁰ Although plans for a Pacific habitat monitoring unit first appeared with HCM in 2005, the positions were not fully staffed until the summer of 2009.⁴¹¹
208. Monitoring is coordinated at the national and regional levels. At the national level, the Habitat Monitoring Working Group formed in 2009.⁴¹² This group is intended to provide recommendations to the Habitat Management and Environmental Assessment Subcommittee to the National Ecosystems Management Organizing Committee with respect to monitoring strategies, opportunities, resource needs,

⁴⁰⁷ Finalized versions were unavailable. See, e.g., the Draft Lower Fraser Area Interim Habitat Compliance Protocol at CAN178153, the Draft BC Interior Area Operational Plan at CAN186070, and the Draft South Coast Area Operational Plan at CAN186076.

⁴⁰⁸ “Pacific Region Habitat Management Program: Habitat Compliance Modernization” deck October 2008, CAN005927 at 9.

⁴⁰⁹ *Ibid.* at 13.

⁴¹⁰ “Draft Responsibilities for Area Based Habitat Monitoring Coordinators” [n.d.], CAN285224.

⁴¹¹ See “Habitat Compliance Modernization” deck, December 15, CAN034931; and “Pacific Region Habitat Management Program: Habitat Compliance Modernization” deck, October 2008, CAN005927 at 18.

⁴¹² Habitat Monitoring Working Group - Terms of Reference, November 28, 2010, CAN285171.

capture and reporting of data, and emerging issues.⁴¹³ Members include Habitat Monitoring Team Leaders from each region, as well as several national HMP representatives and a C&P representative. It is chaired by the Manager, Non-Major Project Operations, NHQ. Its terms of reference are in draft.⁴¹⁴

209. At the regional level, the HMU reports to and receives direction from two regional committees: 1) the Regional Habitat Compliance Committee, co-chaired by the Regional Director of OHEB and the Director of C&P; and 2) the Regional Habitat Management Committee, a committee that includes OHEB area managers, regional managers, and others.⁴¹⁵
210. Despite EPMP's intended shift of resources away from referrals and towards monitoring, the Department has no finalized policy or operational guidance on monitoring. There is no national habitat monitoring strategy. Initial steps towards national guidance on monitoring were taken in 2005, with the preparation of a draft National Habitat Monitoring Framework.⁴¹⁶ However, that 2005 draft was never finalized. More recently, the Pacific Region has developed a similar Habitat Monitoring Framework that was in draft as of February 2011.⁴¹⁷ It includes criteria to determine monitoring priorities as well as protocols for communications, data management, reporting and evaluation.

211. The HMU's monitoring work is underway, but results are not yet available.

6. Other Matters Related to DFO's Habitat Management

212. Three topics warrant explanation and do not neatly fit with the other sections of this paper: 1) the way the Department manages files and information related to its regulatory work; 2) the Department's coordination with British Columbia on

⁴¹³ *Ibid.*

⁴¹⁴ *Ibid.*

⁴¹⁵ "[Draft] Pacific Region Habitat Monitoring Framework" February 15, 2011, *supra*, at 7.

⁴¹⁶ "[Draft] National Habitat Monitoring Framework", December 15, 2005, CAN285177.

⁴¹⁷ "[Draft] Pacific Region Habitat Monitoring Framework" February 15, 2011, *supra*.

habitat issues; and 3) the process by which the Department accepts and tracks implementation of recommendations arising from investigations and examinations.

6.1. Data and File Management

213. Adequate data and file management practices are essential to providing data to support habitat monitoring activities.⁴¹⁸ The HMP has faced difficulties with ensuring adequate data and file management, and the Pacific Region has been no exception.
214. Information the Department has is not organized in ways that allow staff to access it efficiently and systematically.⁴¹⁹ Information related to referrals is stored in combinations of paper and electronic files, centrally and with individual staff, in ways that are not standardized across the region.⁴²⁰ Certain area offices face technological issues that make some regional and national programs and systems difficult to use.
215. As just one example of concerns with habitat data management at DFO, in 2009 the CESD examined the Department's management of project referral information. The Commissioner reported that documentation required by departmental policies often could not be located. This included identification of impacts to habitat, documentation of risk assessment, and monitoring plans.⁴²¹ For example, out of 16 authorizations for HADD that required habitat compensation, four had no compensation plans on file, three featured compensation plans still in development when the authorization was issued, and

⁴¹⁸ "BC Interior Area Authorization File Audit 2002-2006", deck, October 1, 2008, [BCI Audit] CAN027737 at 3.

⁴¹⁹ As reported in 2009 CESD Report, *supra* at 26.

⁴²⁰ BCI Audit, *supra* at 9.

⁴²¹ 2009 CESD Report, *supra* at 14.

four did not include enough detail to allow the Department to evaluate whether compensation was appropriate.⁴²²

216. The HMU in the Pacific Region is aware of, and attempting to address, the particular difficulties that its file management practices create for the ability to conduct compliance monitoring.⁴²³ In 2009, HMU staff in the South Coast area conducted a file-based audit to determine if monitoring conditions were being met and if the required program documents to assess compliance (such as authorizations, screening reports, monitoring reports, photos and letters of credit) could be located. Out of 72 files, 63 were missing some monitoring items, and 28 were missing all monitoring items. Eight were missing letters of credit worth approximately \$485,000.⁴²⁴

6.1.1. *The PATH database*

217. The primary tool that HMP uses to track and access data and decisions made on its various activities, including habitat referrals, is the Program Activity Tracking for Habitat system (“PATH”). PATH is a national electronic database that replaced the Habitat Referral Tracking System in 2005.⁴²⁵ It incorporates an electronic interface with the internet site of the Canadian Environmental Assessment Registry, which is administered by the CEA Agency to provide public access to environmental assessment documents.⁴²⁶
218. Use of PATH is mandatory for environmental assessments and referrals, including operational statements and best management practices notifications. It is optional for other activities such as planning, stewardship, education,

⁴²² *Ibid.* at 14-15.

⁴²³ “Standardized Monitoring Information Requirements”, November 30, 2009, CAN285208 at 3-4, states that DFO monitoring information is “to be captured on Compliance Monitoring Form.”

⁴²⁴ “Results of the Detailed Authorization Audit”, email, CAN285195 and spreadsheet attachment CAN285196. The habitat monitoring coordinator in the South Coast Area office initiated this survey to ensure that monitoring challenges and progress were documented and understood.

⁴²⁵ “Habitat Management Program: Standard Operating Policies Manual,” 185999 at 11.

⁴²⁶ CEEA, *supra* ss. 2, 55, 55.1.

partnering and administrative tasks.⁴²⁷ With respect to monitoring, some of the information resulting from monitoring efforts is entered into PATH, although a separate, HMU-specific system to track monitoring appears to be in development.⁴²⁸

219. Although PATH is not the primary database for tracking habitat enforcement information, the National Habitat Compliance Protocol provides that HMP will lead in “tracking and maintaining information related to monitoring, occurrences, inspections and responses to non-compliance” through the PATH database.⁴²⁹ However, it further provides that C&P will lead for habitat investigations and prosecutions, which are managed through another national database, the Department Violation System (“DVS”). DVS is a case management tool that tracks data on both fisheries and habitat related violations. When C&P takes over investigation or enforcement related to a file, the transfer is noted in PATH and any further information is then tracked by C&P in DVS.⁴³⁰ C&P staff may request access to PATH; habitat staff do not currently have access to DVS. One apparent reason for this is because of the more sensitive nature of the information that DVS contains. HMP has considered the need for better access to and integration of the PATH and DVS systems, which is constrained in part by technical barriers.
220. PATH is maintained by an advisor, information management, based in Ottawa. The program continues to evolve and is normally updated two to three times per year. Although it began essentially as a series of “check boxes,” it currently supports maps, photos and documents.

⁴²⁷ “Habitat Management Program: Standard Operating Policies Manual”, 185999 at 1; “[Draft] File Management Protocol for SCA”, CAN285189.

⁴²⁸ “[Draft] Pacific Region Habitat Monitoring Framework” February 15, 2011, at 9.

⁴²⁹ “National Habitat Compliance Protocol”, December 2010 at 5-6.

⁴³⁰ “[Draft] File Management Protocol for SCA”, CAN285189 at 7.

221. However, many within and outside of the Department have identified a number of shortcomings with PATH. For example, it is useful for identifying decisions, but not for documenting the rationale behind those decisions, such as application of the Risk Management Framework. Perhaps most notably, its utility is limited by the willingness and available time of habitat staff to populate it with data. The HMP has struggled to ensure its habitat staff use the system, particularly in the Pacific Region. The acceptance of PATH varies by office.⁴³¹ Obstacles include general inconsistency in data entry, slow access and an inability to store documents electronically in some offices, a perceived resistance to change, time constraints and high workloads, lack of administrative support for habitat biologists, and a preference for “field work” over “desk work.”⁴³²
222. Despite recording information about numerous development activities impacting fish habitats, for a number of reasons, PATH cannot presently be used to determine cumulative effects or watershed-level impacts. One reason is that there is no obligation on proponents to contact the Department for work done in accordance with an operational statement, so PATH cannot provide an accurate estimate of how many works are proceeding in or near water without a DFO review. Another reason is that PATH does not carry data related to species or habitats. An audit conducted in by the BC Interior office concluded that “[m]andatory PATH fields do not collect data required to assess program performance [No Net Loss].”⁴³³ For example, the following categories of data are typically written in an authorization but not recorded in PATH:
- compensatory techniques used (e.g., riparian planting);
 - project monitoring required;
 - project monitoring conducted; and
 - performance criteria for compensatory habitat.⁴³⁴

⁴³¹ BCI Audit, *supra* CAN027737 at 11.

⁴³² Some of these problems are captured informally at “re: HMU Update” email, CAN285188.

⁴³³ BCI Audit, *supra* CAN027737 at 14.

⁴³⁴ “Standardized Monitoring Information Requirements”, November 30, 2009, CAN285208.

223. The following categories of data are not typically recorded in an authorization or in PATH, although some have been proposed for one or both, for discussion purposes:

- the fish species affected by the HADD, including any SARA-listed species affected by the HADD;
- value of the impacted habitat – marginal, important or critical;
- DFO justification for accepting the HADD;
- HADD area for each habitat type (e.g., in-channel, estuarine, riparian);
- compensation option(s) selected;
- DFO justification for compensation option(s) selected;
- compensation area for each habitat type;
- compensation ratio; and
- species affected by the compensation.⁴³⁵

6.1.2. Other Information Systems

224. The HMP uses or formerly used, to varying degrees, a handful of other data systems, although not all of these systems are maintained or populated by DFO.⁴³⁶

1. Fisheries Information Summary System (“FISS”)

The FISS is a geo-referenced database of fish, fish habitat and lake classification overview data.⁴³⁷ It contains fish and fish habitat maps, and data on fish distribution, obstructions, enhancement and management activities and references. The majority of its records are fish “distribution” records (100,962), rather than “sensitivity” records (619) or “value” records (682).

⁴³⁵ *Ibid.*

⁴³⁶ British Columbia possesses a number of fish and fish habitat datasets. See British Columbia, Letter to Cohen Commission re Habitat data, September 28, 2010, BCP001615.

⁴³⁷ BC Ministry of Environment, “FISS Background and Further Information”, online: MOE <<http://www.env.gov.bc.ca/fish/fiss/background.htm>>.

The impetus for FISS was the 1982 Pearse report.⁴³⁸ It began as a joint venture between DFO and the Ministry of Environment, Lands and Parks (now the Ministry of Environment or “MOE”) in 1984. Today, British Columbia is the official custodian of the FISS database, although DFO contributes data from time to time. It is searchable and available to the public online. However, according to the Department, FISS “is not being kept up to date.”⁴³⁹ It appears to have last been updated in 2006.⁴⁴⁰

2. Regional databases

A number of databases provide some fish habitat information on a limited geographic scale. These include: the Lower Thompson River Conservation Unit Watershed Statistics, a spatial database of land use change developed under the Wild Salmon Policy; the Fraser River Estuary Management Plan; the Columbia Shuswap Regional District Habitat Atlas, and a database called Lower Fraser River Lost Streams.⁴⁴¹

3. Habitat Training System

The Habitat Training System is a national web-based system that: 1) allows online registration for national habitat training courses; 2) tracks completion of courses; and 3) provides an online learning component for certain courses.⁴⁴² Some courses are mandatory, depending on the employee’s position and duties.⁴⁴³

6.2. Coordination with British Columbia and Local Governments

⁴³⁸ *Ibid.*

⁴³⁹ “DFO Document and Records Management Systems”, [n.d.] CAN185549 at 18.

⁴⁴⁰ Ministry of Environment, FISS Status Update, May 17, 2006, online: MOE <<http://www.env.gov.bc.ca/fish/fiss/update.htm>>.

⁴⁴¹ “DFO Document and Records Management Systems”, [n.d.] CAN185549 at 22.

⁴⁴² *Ibid.*

⁴⁴³ For an example of HMP training materials, see “DFO and the CEA Registry: Instructor Guidebook”, October 2010, CAN186084.

225. The Province of British Columbia has jurisdiction over private lands and provincial Crown lands and resources as provided for in the *Constitution Act*, 1867. Activities regulated by the Province, including logging, mining, agriculture, road construction, and waste, water and land management all may have impacts on sockeye salmon habitat. The BC *Water Act* is the primary statute for managing works in and about a body of water and the diversion of water.⁴⁴⁴ The BC Legislature has delegated authority to local governments over land use planning and zoning.⁴⁴⁵
226. Pursuant to administrative agreements negotiated in the early 20th century, a number of provinces have assumed responsibilities for day-to-day management of inland fisheries.⁴⁴⁶ British Columbia assumed responsibility for the management of all freshwater fish species except anadromous salmon through a 1938 agreement with the Department.⁴⁴⁷ Notwithstanding this, the federal government retains responsibility for the management of fish habitat in all fisheries waters of Canada.⁴⁴⁸
227. The Department's 1986 Habitat Policy states the view that natural resource interests such as the forestry, mining, energy and agriculture sectors make legitimate demands on water resources, and that effective integration of resource sector objectives, including fisheries, will therefore involve cooperation with other government agencies that regulate those sectors.⁴⁴⁹ Prior to 2000, there was generally good operational collaboration and cooperation between DFO and the BC MOE for referrals with implications for salmon habitat.⁴⁵⁰

⁴⁴⁴ *Water Act*, R.S.B.C. 1996, c. 483.

⁴⁴⁵ *Local Government Act*, R.S.B.C. 1996, c. 323, part 26.

⁴⁴⁶ 1986 Habitat Policy, *supra* CAN185560 at 6.

⁴⁴⁷ Referred to in the "Working Agreement Respecting Fish Habitat Protection, Improvement and Inventory" between Canada and British Columbia, November 26, 1987, CAN000949 at 1.

⁴⁴⁸ See section 1.2 of this report.

⁴⁴⁹ 1986 Habitat Policy, *supra* CAN185560 at 14.

⁴⁵⁰ Briefing Note for the Regional Director General; April 2009, CAN287395 at 1.

228. The 1986 Habitat Policy states that integrated planning activities will be consistent with any federal-provincial administrative agreement for habitat management. There have been a number of such agreements.⁴⁵¹ Both governments entered into the 1997 Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues, which spawned two habitat-related sub-agreements: the 2000 Canada-British Columbia Fish Habitat Management Agreement (the “Canada-BC Habitat Agreement”) and the 1999 Sub-Agreement Respecting Fisheries Information Coordination and Sharing (the “Canada-BC Info Sharing Agreement”), discussed below.

6.2.1. Canada–British Columbia Fish Habitat Management Agreement (2000)

229. The Canada-British Columbia Fish Habitat Agreement was signed in 2000 by the Minister of Fisheries and Oceans and the BC Minister of Fisheries.⁴⁵² It includes a number of specific commitments for both parties. Some of the key commitments include:

- to establish a federal-provincial habitat management committee at the director level (or equivalent);⁴⁵³
- to establish local habitat management committees, or use existing committees or frameworks, to develop a coordinated local approach to setting objectives for fish habitat protection, watershed and resource planning, and fish habitat referrals;⁴⁵⁴
- to provide fish habitat information to both environmental assessment processes;⁴⁵⁵
- to engage in collaborative compliance and effectiveness monitoring;⁴⁵⁶

⁴⁵¹ For example, the Memorandum of Understanding between the DFO and the MOE on Coordination of Fish Habitat Management Activities, 1986, referenced in the Working Agreement Respecting Fish Habitat Protection, Improvement and Inventory, 1987, CAN000949. See also List of Treaties, Acts, Regulations, Agreements, Policies, Programs and Procedures Related to the Management of Fish and Fish Habitat on the Pacific Coast of Canada, Submitted by DFO to the commission, May 17, 2010, CAN163355 at 11.

⁴⁵² Canada–British Columbia Fish Habitat Management Agreement, 2000, CAN094864.

⁴⁵³ *Ibid.* at 2.

⁴⁵⁴ *Ibid.*, 4.2.1 – 4.2.4.

⁴⁵⁵ *Ibid.*, 4.2.5.

- to consider efficiencies to be gained through coordinated training and co-location of staff;⁴⁵⁷ and
- to report annually on implementation to the respective deputy ministers.⁴⁵⁸

230. Early progress was made in some key areas.⁴⁵⁹ Today, however, there is no active federal-provincial habitat management committee at the director level. The materials provided to the commission did not document any annual reporting process on the implementation of the Agreement to the respective deputy ministers. Since the Agreement was signed, relationships between DFO and BC MOE staff have changed. This is attributed to both parties experiencing organizational realignments, changes in legislation, and downsizing.⁴⁶⁰

6.2.2. *Sub-Agreement Respecting Fisheries Information Coordination and Sharing*

231. The 1999 Canada-BC Information Sharing Sub-Agreement has little bearing on the Department's work today.⁴⁶¹ The purpose of the Sub-Agreement was to provide a process for implementing the information sharing components of its parent agreement, the Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues.⁴⁶²

⁴⁵⁶ *Ibid.*, 4.2.6, 4.2.7.

⁴⁵⁷ *Ibid.*, 4.1.10, 4.2.10.

⁴⁵⁸ *Ibid.* 4.0.

⁴⁵⁹ For example, there was increased DFO involvement in BC Forest Practices Code management committees to ensure fish habitat concerns are addressed; coordinated habitat referral responses in certain sectors, such as forestry and aquaculture; development of the Canada-BC Watershed-Based Fish Sustainability Planning Process; and the establishment of a senior management level committee. See "Review of the Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues" (draft), [n.d], CAN000382 at 10-12.

⁴⁶⁰ Briefing Note for the Regional Director General; April 2009, CAN287395 at 2; "Canada/BC Agreement on the Management of Pacific Salmon Fishery Issues (attachment 1)", CAN000383 at 2.

⁴⁶¹ "Sub-Agreement to the Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues Respecting Fisheries Information Coordination and Sharing" CAN186085.

⁴⁶² *Ibid.* at 1.

232. Initial meetings took place, but two issues prevented acceptance of the agreement: which data sets to share, and how costs would be recovered.⁴⁶³ The two governments did develop, in 1999, a computer mapping and database application called the Fisheries Project Registry. As of 2001 the application was receiving 2,500 “hits” per day.⁴⁶⁴ It mainly captured restoration and enhancement projects. However, the Fisheries Project Registry is currently “not resourced” and “not up to date.”⁴⁶⁵

6.2.3. Other Initiatives

233. Other Canada-BC fisheries processes, most notably the Pacific Council of Fisheries and Aquaculture Ministers (“PCFAM”) and its staff-level support committee, the Pacific Fisheries and Aquaculture Committee (“PFAC”), have not formalized any cooperative processes or approaches to fish habitat management over the last decade. A Canada-BC Fish Habitat Management Task Group did recently form in response to a commitment made by the Canadian Council of Fisheries and Aquaculture Ministers. Its 2009 terms of reference state that it will dissolve once a “Fish Habitat Subcommittee” is established under either the Canada-BC Habitat Agreement or the PCFAM/PFAC process.⁴⁶⁶ The Fish Habitat Subcommittee has not been formed to date.

234. Some habitat staff perceived a withdrawal of British Columbia from the habitat referral process following a series of provincial resource reductions in relevant ministries starting in 2001.⁴⁶⁷ It is widely perceived at DFO that significant provincial downsizing has eroded the ability of British Columbia to participate

⁴⁶³ “Review of the Canada–British Columbia Agreement on the Management of Pacific Salmon Fishery Issues” [n.d.] CAN000382 at 12.

⁴⁶⁴ *Ibid.* at 12.

⁴⁶⁵ “DFO Document and Records Management Systems”, [n.d.] CAN185549 at 21.

⁴⁶⁶ Terms of Reference: Canada-BC Fish Habitat Management Task Group, October 15, 2009, CAN285265.

⁴⁶⁷ “Regional Habitat Regulatory Decision Framework”, July 2010, CAN186041 at 2; 2004 CESD Report, *supra* CAN002452 at 22; “OHEB Key Issues” July 26, 2007, CAN027932.

effectively in habitat management processes.⁴⁶⁸ Habitat staff have also perceived impacts from changes to provincial legislation: for example, British Columbia shifted in 2004 from a planning and process-oriented approach to forestry to a results-based approach, reducing opportunities for the Department to be involved in early planning to prevent harm to fish habitat.⁴⁶⁹

235. The CESD reported in 2009 that accountability in agreements with provinces is weak.⁴⁷⁰ The Department agreed to review and evaluate, by March 31, 2011, its memoranda of understanding with provinces and territories.⁴⁷¹

6.2.4. *The RAR and the RAR Agreement*

236. The *Riparian Areas Regulation* (the “RAR”) is a British Columbia regulation under the *Fish Protection Act*.⁴⁷² The Department was engaged in its development before it came into effect in 2005.⁴⁷³ The first purpose of the RAR is to protect riparian areas from development. The other primary purpose is to facilitate agreements among provincial, federal and local government for its implementation.⁴⁷⁴ The RAR does not apply to all local governments in BC, but applies to many of those in the Fraser River watershed.⁴⁷⁵

237. The DFO website, “Working Near Water” states that “[p]rojects reviewed and constructed in accordance with the RAR are not expected to result in harmful alteration, disruption, or destruction of riparian fish habitat.”⁴⁷⁶ It directs

⁴⁶⁸ Regional Management Committee Information Paper, “Pacific Region’s Approach to Anadromous and Resident Fish Habitat Protection”, CAN168705 at 1.

⁴⁶⁹ Pacific Fisheries Resource Conservation Council “Landscape Level Impacts to Salmon and Steelhead Streams Habitats in British Columbia”, CAN002599 at 95.

⁴⁷⁰ 2009 CESD Report, *supra* CAN024152 at 23.

⁴⁷¹ *Ibid.* at 24.

⁴⁷² *Fish Protection Act*, S.B.C. 1997, c. 21; *Riparian Areas Regulation*, B.C. Reg. 376/2004 [RAR].

⁴⁷³ “Pacific Region Implementation Plan 2006-2010 Report on Progress as of March 2009” April 14, 2010, CAN285123 at 21.

⁴⁷⁴ RAR, *supra* s. 2.

⁴⁷⁵ *Ibid.* s. 3.

⁴⁷⁶ “Guidelines and Planning Tools”, online: DFO Pacific <<http://www.pac.dfo-mpo.gc.ca/habitat/guide-eng.htm#riparian>>.

proponents to submit their proposal to the MOE and adds that DFO's involvement, if any, will be determined through the RAR process.⁴⁷⁷

238. The RAR minimizes government review of projects, instead relying on developers to hire qualified environmental professionals to conduct assessments to determine riparian setbacks.⁴⁷⁸ Some habitat staff perceive the RAR as having resulted in higher impacts on fish habitat than before.⁴⁷⁹
239. The Department, the BC MOE and the Union of British Columbia Municipalities entered into the Intergovernmental Cooperation Agreement Respecting the Implementation of British Columbia's Riparian Areas Regulation (the "RAR Agreement") on July 16, 2008. Under the RAR Agreement, the parties agree to establish, within three months of the signing the agreement, a tripartite RAR steering committee that meets at least annually and prepares an annual report. A "RAR Coordinating Committee" exists and may be filling this role, although no annual reports were found in the documents provided. Monitoring compliance with the RAR, another requirement under the RAR Agreement, appears to have begun, led by British Columbia, in 2010.⁴⁸⁰

6.3. Previous Audits and the Department's Implementation of Recommendations

240. Numerous audits, evaluations and investigations, both internal and external, have examined the Department's management of fish habitat.⁴⁸¹ The commission's Interim Report summarizes the recommendations from the majority

⁴⁷⁷ *Ibid.* The website adds that "if your project includes work both within riparian areas protected by the RAR as well as work below the High Water Mark, you should submit your proposal to both the BC Ministry of Environment (riparian component) and to DFO (in or near water works) for review."

⁴⁷⁸ "Toward a more effective, predictable and timely Habitat Management Program: The Environmental Process Modernization Plan" deck, 2006, CAN037329 at 19.

⁴⁷⁹ "OHEB Key Issues" July 26, 2007, CAN027932.

⁴⁸⁰ "re: RAR Compliance Monitoring / Audit", email, February 25, 2010, CAN164003 at 4.

⁴⁸¹ Some of the Auditor General's and the CESD's observations and recommendations related to the work of the HMP are mentioned throughout this paper where most directly relevant. See sections 3.1.5. and paras. 191, 215, and 234-5,

of these reports, as well as reports that did not consider management of fish habitat.⁴⁸²

241. Some of these investigations have led to recommendations that the Department implemented successfully. For example, in 1982, Dr. Peter Pearse recommended that the “policy of the Department should be to ensure that the total fish production capacity in the region will not be diminished as a result of industrial or other activities that impinge on fish habitat.”⁴⁸³ He went on to add that “harm to fish habitat should be tolerated[...] only if the damage is fully compensated through expanded fish production capacity elsewhere.”⁴⁸⁴ These concepts reappear in the 1986 Habitat Policy that continues to guide the Department’s work.⁴⁸⁵
242. Other recommendations and observations seem to recur continually. For example, Dr. Peter Pearse also recommended in 1982 that the governments of Canada and British Columbia jointly compile a comprehensive inventory of fish habitats in freshwater streams and estuaries in the province.⁴⁸⁶ In 1997, the Auditor General recommended that the Department make the collection of information on Pacific salmon habitat a “high priority.”⁴⁸⁷ In 2004, the CESD reported that there has been inadequate coordination between federal and provincial governments in managing fish habitat,⁴⁸⁸ and that there was limited information available on the status of the conditions of salmon habitat.⁴⁸⁹ Accordingly, the Commissioner recommended that DFO “collect and analyze

⁴⁸² “Fraser River Sockeye Salmon: Past Declines. Future Sustainability?” Interim Report, October 2010. A summary of the recommendations related to habitat management are found at 64-80.

⁴⁸³ Pearse, Peter H. “Turning the Tide: A New Policy for Canada’s Pacific Fisheries” (Vancouver: The Commission on Pacific Fisheries Policy, 1982), CAN000049 at 38.

⁴⁸⁴ *Ibid.*

⁴⁸⁵ This sentence is not meant to imply that the genesis of the 1986 Habitat Policy can be solely attributed to Dr. Pearse’s recommendations.

⁴⁸⁶ *Ibid.* at 37.

⁴⁸⁷ 1997 AG Report, *supra* CAN002787 at 8.

⁴⁸⁸ 2004 CESD Report, *supra* CAN002452 at 11.

⁴⁸⁹ *Ibid.* at 20.

information to provide up-to-date assessments on habitat conditions.”⁴⁹⁰ Finally, in 2009, the CESD observed that the Department lacks information on quantity and quality of fish habitat and recommended that DFO “develop habitat indicators to apply in ecosystems [and] use these indicators to assess whether it is making progress [toward No Net Loss].”⁴⁹¹ The 2009 report correctly observes that the lack of habitat inventory and other issues are long-standing and have been identified in previous audits.⁴⁹²

243. The Department has identified a lack of quantitative data in each of the following:
- baseline habitat conditions;
 - key threats to fish habitat in different regions;
 - fish habitat requirements for some species; and
 - links between fish habitat and productive capacity.⁴⁹³
244. The Department had opportunity to comment on draft versions of the 2009 CESD report before agreeing with the recommendations. The Department made several commitments that are contained within the report. It describes these commitments as “cost-neutral”.⁴⁹⁴
245. To track progress on each commitment arising from the 2009 CESD Report, the Department developed a Management Action Plan (“MAP”).⁴⁹⁵ The MAP lists each recommendation, DFO’s response, actions taken to date, and responsibility (usually by sector, unless Environment Canada). MAPs are living documents that are revised from time to time and exists in different versions, with different levels

⁴⁹⁰ *Ibid.* at 21.

⁴⁹¹ 2009 CESD Report, *supra* CAN024152 at 25.

⁴⁹² *Ibid.* at 7.

⁴⁹³ “[Draft] Backgrounder #7: What are some of the concerns and challenges with DFO’s activities?”, November 18, 2010, CAN297742.

⁴⁹⁴ “Initiating MECTS request” email, January 19, 2010, CAN185891.

⁴⁹⁵ “DFO & EC Response to May 2009 CESD Audit Report & Progress Made”, October 28, 2010.

of specificity and different security classifications for different audiences within the Department.⁴⁹⁶

246. Regions were asked to provide an update on their progress in early 2010 by entering responses into a MAP.⁴⁹⁷ The Pacific Region expected that NHQ would lead most of the responses and had received little or no guidance from NHQ on implementation as of late January, 2010.⁴⁹⁸ An updated MAP is expected in March 2011.

⁴⁹⁶ E.g., contrast *Ibid.* with *infra*.

⁴⁹⁷ "Spring 2009 CESD Report: Management Response & Planning Milestones" [n.d] CAN185886.

⁴⁹⁸ "Re: CESD MAP Update 2010-005-00033", email. January 28, 2010, CAN185885.

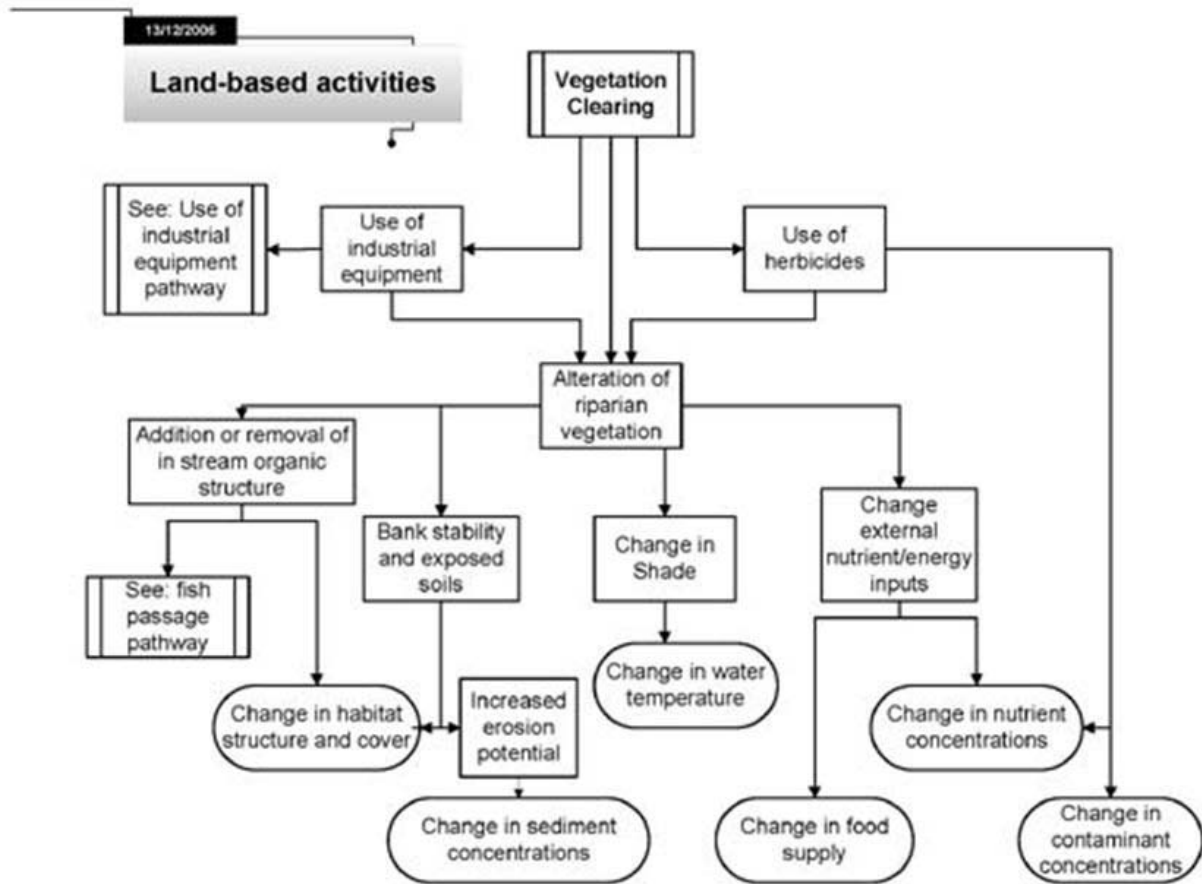
Appendix 1 DFO Habitat Evaluation Program Recommendations, 2006

(Page 1 and pages 24-27 inclusive of CAN197553)

Appendix 2 Standard Operating Policies Manual Memo and Table of Contents

(pages 4-8 inclusive of CAN185999)

Appendix 3 Example pathways of effects diagram: vegetation clearing⁴⁹⁹



⁴⁹⁹ "Vegetation Clearing", online: DFO <<http://www.dfo-mpo.gc.ca/habitat/what-quoi/pathways-sequences/vegetation-eng.asp>>.

Appendix 4 List of pathways of effects diagrams⁵⁰⁰

Land-based Activities:

- Vegetation Clearing
- Cleaning or maintenance of bridges or other structures
- Excavation
- Use of explosives
- Grading
- Use of industrial equipment
- Streamside livestock grazing
- Riparian Planting

In-water Activities:

- Placement of marine finfish aquaculture site
- Addition or removal of aquatic vegetation
- Organic debris management
- Dredging
- Fish passage issues
- Placement of material or structures in water
- Marine seismic surveys
- Structure removal
- Wastewater management
- Water extraction
- Change in timing, duration and frequency of flow

⁵⁰⁰ "Pathways of Effects", online: DFO <<http://www.dfo-mpo.gc.ca/habitat/what-quoi/pathways-sequences/index-eng.asp>>.

Appendix 5 Example operational statement and notification form

Appendix 6 List of operational statements applicable in BC⁵⁰¹

Stream Crossings by Roads:

- [Clear-Span Bridges](#)
- [Temporary Ford Stream Crossing](#)
- [Ice Bridges and Snow Fills](#)
- [Bridge Maintenance](#)
- [Culvert Maintenance](#)
- [Maintenance of Riparian Vegetation in Existing Rights-of-Way](#)

Crossings by Lines

- [Overhead Line Construction](#)
- [Directional Drilling](#)
- [Punch and Bore Crossings](#)
- [Dry Open-cut Stream Crossings](#)
- [Underwater Cables in Freshwater Systems](#)
- [Maintenance of Riparian Vegetation in Existing Rights-of-Way](#)

Shoreline Activities:

- [Routine Maintenance Dredging for Navigation](#)
- [Dock and Boathouse Construction in Freshwater Systems](#)
- [Small Moorings](#)
- [Aquatic Vegetation Removal in Lakes](#)
- [Public Beach Maintenance](#)

Aquaculture Activities:

- Refer to the Pacific Region [Aquaculture webpage](#)

Other Activities:

- [Isolated Ponds](#)

⁵⁰¹ "Planning Guidance for British Columbia and Yukon", online: DFO Pacific <<http://www.pac.dfo-mpo.gc.ca/habitat/os-ee/index-eng.htm>>.

Appendix 7 List of Acronyms

ADM	Assistant Deputy Minister
CEAA	<i>Canadian Environmental Assessment Act</i>
CEA Agency	Canadian Environmental Assessment Agency
CEA Registry	Canadian Environmental Assessment Registry
CESD	Commissioner of the Environment and Sustainable Development
C&P	Conservation and Protection
DFO	Fisheries and Oceans Canada
DVS	Departmental Violation System
EAMP	Environmental Assessment and Major Projects
EPMP	Environmental Process Modernization Plan
FISS	Fisheries Information Summary System
HADD	Harmful alteration, disruption or disruption of fish habitat
HCM	Habitat Compliance Modernization
HMP	Habitat Management Program
HMU	Habitat Monitoring Unit
MOE	Ministry of Environment (BC)
MPMO	Major Projects Management Office
NHQ	National Headquarters
OHEB	Oceans, Habitat and Enhancement Branch
PATH	Program Activity Tracking for Habitat database
RAR	<i>Riparian Areas Regulation</i>
SARA	<i>Species at Risk Act</i>