

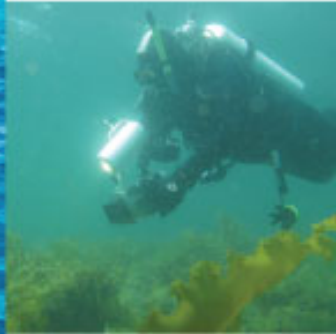
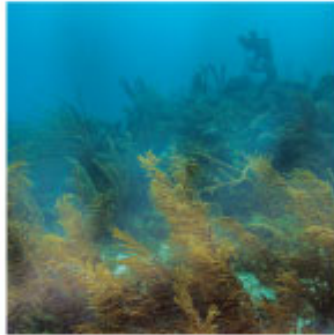


Fisheries and Oceans
Canada

Pêches et Océans
Canada

2017-18

DEPARTMENTAL RESULTS REPORT



Canada

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Minister's Message

I am pleased to present the 2017-18 Departmental Results Report for Fisheries and Oceans Canada (DFO) and the Canadian Coast Guard (Coast Guard). DFO is the lead federal department responsible for managing Canada's fisheries and protecting the marine environment, while the Coast Guard, a Special Operating Agency within our department, delivers programs and services that help keep our waterways safe, secure, and accessible.



Our responsibility

Surrounded by the Arctic, Atlantic, and Pacific oceans, Canada is a maritime nation that boasts the world's longest coastline and an offshore Exclusive Economic Zone that equates to 3.7 million square kilometres or 37 percent of our country's total landmass. Canada is also home to the Great Lakes, an immense sea of Arctic ice, and an abundance of freshwater resources. Taken together, this incredible wealth of water supports an intricate web of marine life which requires ongoing stewardship by all Canadians and all orders of government.

As Minister of Fisheries, Oceans and the Canadian Coast Guard, I am proud to lead a department that dates back to Confederation but which also helps to shape Canada's domestic and global responses to some very modern challenges. Foremost among these challenges are addressing environmental degradation in ocean and freshwater resources and deriving sustainable benefit from our natural resources for coastal and Indigenous communities.

Our priorities

Through sound science, forward-looking policy, and operational and service excellence, DFO and the Coast Guard focused on five organizational priorities in 2017-18. This helped us fulfill our departmental mission of providing Canadians with economically prosperous maritime and fisheries sectors, more sustainable aquatic ecosystems, and safe and secure waters. Priorities included:

- Improving marine safety and ocean protection;
- A cleaner and more sustainable environment;
- Investments in science in support of evidence-based decision-making;
- Advancing reconciliation with Indigenous peoples; and
- Operational improvements to support achieving priorities.

Our key accomplishments

In line with these priorities, some of our major accomplishments in 2017-18 included:

- Making strides in implementing the Oceans Protection Plan with our partners. This important, five-year investment of funding will help us expand our programs and activities to better protect the environment, improve marine safety, and engage Indigenous communities in the co-management of our oceans.

- Protecting over five percent of our marine and coastal areas in 2017 while continuing to work with provinces, territories, Indigenous peoples, industry, environmental organizations, and Canadians to protect 10 percent by 2020.
- Launching the Atlantic Fisheries Fund which encourages modern and innovative ways to harvest, process, and deliver high-quality, sustainably sourced fish and seafood from the region's wild capture and aquaculture fisheries.
- Addressing Indigenous rights, interests, and aspirations through fisheries-related economic opportunities as well as participation in collaborative management approaches to improve Indigenous peoples' access to, and management of, aquatic resources and marine space.
- Working closely with Indigenous communities, the Coast Guard also made progress on emergency response training and funding new programs and equipment that support this work.
- Introducing Bill C-68, an Act to amend the Fisheries Act and other Acts in consequence, which passed some important milestones on the road to restoring lost protections for fish and fish habitat and introducing new, modern safeguards.
- Making significant investments in science staff, technology, and partnerships that has increased our body of scientific knowledge related to Canada's oceans, lakes, and rivers, which is the foundation of evidence-based decision-making and strong public policy.

These and many other accomplishments are described in more detail within this report.

Our commitment to you

As Minister of Fisheries, Oceans and the Canadian Coast Guard, I am proud of the work our department does in enhancing environmental sustainability on behalf of fish harvesters and their associations, Indigenous peoples, shipping and port users, aquaculturists, recreational boaters, academia, non-profit organizations, environmental groups, Regional Fisheries Management Organizations, and all Canadians.

Going forward, we will implement new and innovative approaches to resolve problems and build a culture of measurement, evaluation, and innovation in our program and policy design and delivery. We will promote and sustain the environmental stewardship of our aquatic resources and safeguard our waterways for all Canadians.

The Honourable Jonathan Wilkinson, P.C., M.P.
Minister of Fisheries, Oceans and the Canadian Coast Guard

Results at a Glance

What funds were used?

Fisheries and Oceans Canada's total actual spending for 2017-18 was \$2,620,464,368.

Who was involved?

Fisheries and Oceans Canada's total workforce (full-time equivalents) for 2017-18 was 11,112.

Key Results Achieved:

- Fisheries Act:** We made giant strides towards restoring lost protections and incorporating modern safeguards into the Fisheries Act. The Department held extensive and meaningful consultations with Canadians including partners, stakeholders, and Indigenous peoples, which greatly informed proposed changes to the Act. Proposed amendments under Bill C-68 passed third reading of the House of Commons and have now been referred to the Senate. If passed, changes would improve the protection of our fisheries and their ecosystems. (See [A Fisheries Act for the Futureⁱ](#))
- Marine Conservation Targets:** Over the last year, we've continued to make progress towards our commitment to conserve 10% of Canada's oceans by 2020. In October 2017, we were proud to announce we reached our interim target of 5%, and as of March 2018, we recognized 7.75% of our marine and coastal areas as conserved. In 2017, we designated the St. Anns Bank Marine Protected Area (off the coast of Nova Scotia) and, through the application of science-based criteria, we recognized 51 marine refuges across Canada's three coasts, including 20 new marine refuges established in 2017. We also identified a new large Area of Interest off the coast of British Columbia, an area representing approximately 140,000 km², as well as two Areas of Interest and one proposed conservation area under the Fisheries Act off the Coast of Nova Scotia. The Minister also introduced Bill C-55 to help speed-up the designation process for Marine Protected Areas, without sacrificing sound science or the public's opportunity to provide input, and appointed an independent National Advisory Panel to consider standards within Canada's federal marine protected areas. (See [Meeting Canada's marine conservation targetsⁱⁱ](#))
- Reconciliation with Indigenous Peoples:** Reconciliation with Indigenous peoples and working with First Nations, Inuit, and Métis People in support of the development and implementation of a [Recognition and Implementation of Indigenous Rights Frameworkⁱⁱⁱ](#) is one of the Department's top priorities. In 2017-18, DFO/Coast Guard completed the first phase of the co-development, co-design, and co-delivery of Indigenous programs with the National Indigenous Fisheries Institute and began to implement the resulting improvements to programs; established Canadian Coast Guard Auxiliaries in the Pacific and Arctic and renewed agreements with other Auxiliaries; obtained agreement from Arctic coastal states on a draft version of a historic agreement to prevent unregulated fishing in the high seas portion of the Central Arctic Ocean; participated in Public Policy Forum roundtables with Indigenous partners in Atlantic and Pacific Canada; negotiated at over 50 tables across the country; worked to establish an inshore rescue boat station in the Arctic; finalized a Reconciliation Framework Agreement (RFA) on Fisheries with B.C. Coastal First Nations and continued discussions to advance negotiations towards a

long-term fisheries resources agreement and an additional RFA to support Bioregional Oceans Management and Protection; and worked to increase resources available to support the cultural competency of DFO/Coast Guard employees by preparing for the 2018-19 launch of the Indigenous Reconciliation Intranet page.

- **Investments in Ocean Science:** Through investments in Budget 2017, Fisheries and Oceans Canada is studying the effects of changing ocean conditions on fisheries, aquatic ecosystems, and coastlines. Increased scientific research helps us better understand the challenges and threats impacting our marine environments, so that we are able to better protect them. That is why DFO is also researching the impacts of sea-level rise and more frequent storms and storm surges on coasts and ocean infrastructure. Additionally, investments through the Oceans Protection Plan ([see below](#)) improved scientific knowledge and new technologies through more than \$130 million in new science funding and partnerships. These investments led to the hiring of additional scientists, biologists, hydrographers, and other science professionals across the country to help protect our coastal habitats, ecosystems, and marine species. Notable ocean science achievements in 2017-18, as a result of these and other investments, include:
 - Whole genome sequencing of important fishery species that enhanced the Department's ability to assess stock structure and biodiversity associations with changing environments;
 - The development of a remote in-field environmental DNA sampling device and a genetic tagging system for Pacific salmon hatcheries;
 - A major offshore exploration of the Beaufort Sea in Canada's Western Arctic, which revealed new understanding about complex food chains and fish communities in this understudied marine ecosystem, including the impacts of ocean acidification and the relationship between fisheries habitat and fish communities;
 - Successfully supporting Global Affairs Canada on the scientific elements of Canada's February 6, 2018 presentation on Canada's Atlantic Ocean Extended Continental Shelf Submission to the United Nations Commission;
 - Conducting oil spill research to better understand how oil behaves and degrades in different conditions, including cold water;
 - Completing scientific peer review on status of knowledge of the fate (i.e. distribution and degradation) and behavior of diluted bitumen¹ in the aquatic environment; and
 - Investing in research on enhancing ocean models to improve marine navigation, prevent accidents, and allow emergency responders to accurately track spills and predict their path.
- **Improved Marine Safety:** As part of the Oceans Protection Plan ([see below](#)), the Government of Canada committed to having a better coordinated federal emergency response by conducting regular response exercises with Indigenous and coastal communities and stakeholders. In 2017-18, the Coast Guard co-led the [Exercise Salish Sea 2017](#)^{iv} emergency preparedness exercise and introduced the [Indigenous Community Response Training](#)^v project to give members of coastal Indigenous communities additional knowledge, skills, and training to help build on the role they play in marine safety in their communities. DFO/Coast Guard also improved marine safety by extending the Coast Guard's Arctic season, improving its emergency towing capacity, applying new

¹ The term 'bitumen' refers to a thick, (barely) fluid oil extracted from oil sands. Being thicker than conventional crude the oil needs lighter solvents or oils added to it to reduce its viscosity for transportation by pipeline. The resulting product is called 'diluted bitumen.'

technologies to improve navigation products and services (for example, implementing E-navigation technology to provide pilots and mariners with real-time marine information), and completing important work in support of the Minister's mandate commitment to re-open the Maritime Rescue Sub-centre in St. John's, Newfoundland (which re-opened in early 2018-19).

CANADA'S OCEANS PROTECTION PLAN

The [Oceans Protection Plan \(OPP\)](#)^{vi} is a five-year, \$1.5 billion, multi-departmental strategy to improve marine safety and responsible shipping, provide economic opportunities for Canadians, create stronger partnerships with Indigenous and coastal communities, and protect our coastlines and marine environment for generations to come. As part of its OPP work in 2017-18, DFO/Coast Guard:

- dedicated over 6,000 hours to helping protect marine mammals;
- created 182 new positions in the Canadian Coast Guard to better protect our coasts;
- held two Indigenous Community Response Training courses with coastal First Nations in B.C.;
- completed modern hydrographic surveys for 10 ports in Pacific and Quebec contributing to safer navigation;
- began 32 partner projects across the country to restore priority habitats; and
- removed nine abandoned vessels from small craft harbours in communities to help clean up our coasts.

For more information on the Department's plans, priorities and results achieved, see the "[Results: What We Achieved](#)" section of this report.

Raison d'être, Mandate and Role: Who We Are and What We Do

Raison d'être

Fisheries and Oceans Canada supports strong economic growth in our marine and fisheries sectors and contributes to a prosperous economy through global commerce by supporting exports and advancing safe maritime trade. The Department supports the innovation needed for a knowledge-based economy through research in expanding sectors such as aquaculture and biotechnology. The Department contributes to a clean and healthy environment and sustainable aquatic ecosystems for Canadians through habitat protection, oceans management, and ecosystems research. A safe and secure Canada relies on the maritime security, safe navigation, presence on our waters, and effective search and rescue services provided by the Canadian Coast Guard.

The Canadian Coast Guard, a special operating agency within Fisheries and Oceans Canada, is responsible for services and programs that contribute to all three of the Department's strategic outcomes (presented below) while contributing significantly to the safety, security, and accessibility of Canada's waterways. The Canadian Coast Guard also supports other government organizations by providing a civilian fleet and a broadly distributed shore-based infrastructure.

Mandate and Role

Our Mission

Through sound science, forward-looking policy, and operational and service excellence, Fisheries and Oceans Canada employees work collaboratively towards the following strategic outcomes:

- Economically Prosperous Maritime Sectors and Fisheries;
- Sustainable Aquatic Ecosystems; and
- Safe and Secure Waters.

Our Vision

To advance sustainable aquatic ecosystems and support safe and secure Canadian waters while fostering economic prosperity across maritime sectors and fisheries.

The Department's core work is guided by six key pieces of legislation:

- [Oceans Act](#)^{vii}: Provides that the Minister shall lead the development and implementation of plans for the integrated management of activities affecting estuaries and coastal and marine waters, in addition to the coordination of oceans issues. The act also establishes the Minister's responsibility for coast guard services, as well as responsibility for marine science services, such as the Canadian Hydrographic Service's nautical charts and publications.
- [Fisheries Act](#)^{viii}: Provides broad powers to the Minister for the proper management and control of commercial, Aboriginal and recreational fisheries, as well as aquaculture operations. Through long-standing arrangements, the provinces have assumed administrative responsibility for the management of most inland fisheries.
- [Species at Risk Act](#)^{ix}: Primarily the responsibility of the Minister of Environment and Climate Change. However, the Minister of Fisheries, Oceans and the Canadian Coast Guard is responsible for aquatic species at risk.
- [Coastal Fisheries Protection Act](#)^x: Regulates access by foreign fishing vessels to Canadian ports and Canadian fisheries waters. The act gives the Minister the power to issue licences authorizing foreign fishing vessels to enter Canadian fisheries waters to engage in specified fisheries-related activities.
- [Canada Shipping Act, 2001](#)^{xi}: Led by Transport Canada, the act sets out the Canadian Coast Guard's responsibility for navigation services, including vessel traffic services, aids to navigation (lighthouses, signal buoys, and beacons), and search and rescue.
- [Fishing and Recreational Harbours Act](#)^{xii}: Provides authority to the Minister over the use, management and maintenance of harbours listed in Schedule I of the act, including the power to undertake projects and to lease scheduled harbours to any person.

For more general information about the Department, see the "[Supplementary Information](#)" section of this report. For more information on the Department's organizational mandate letter commitments, see the [Minister's mandate letter](#)^{xiii}.

LOOKING TO THE FUTURE

Departments will continue to evolve in how they report on the results being achieved for Canadians. This year, the Department reported results against the Treasury Board Policy on Management, Resources and Results Structures. This reporting structure, which was introduced in 2005, applies up to and including this report. However, in June 2017, the Department developed a Departmental Results Framework in accordance with the new Treasury Board Policy on Results. The objectives of the new policy are to improve the achievement of results across government and enhance the understanding of the results the government seeks to achieve, does achieve, and the resources used to achieve them. Beginning with the 2018-19 Departmental Plan, the Department articulated its plans and results under four core responsibilities:

- Fisheries;
- Aquatic Ecosystems;
- Marine Navigation; and
- Marine Operations and Response.

Operating Context and Key Risks

Operating Context

Canada has the longest coastline of any nation and is uniquely positioned with direct access to the Atlantic, Pacific, and Arctic oceans. A strong maritime tradition and close relationship to the sea means that Canada is well placed to be a leading nation in the ocean economy and in its protection.

The overarching goal of Fisheries and Oceans Canada (DFO) and the Canadian Coast Guard (Coast Guard) is to protect Canada's three oceans, coasts, waterways and fisheries and ensure that they remain healthy for future generations. With approximately 11,000 employees in over 400 locations across Canada and on over 100 vessels, DFO and the Coast Guard carry out a broad mandate to work towards ensuring that: Canadian fisheries and aquaculture are sustainably managed; Canada's oceans and other aquatic ecosystems are protected from negative impacts; the Canadian maritime economy and all mariners are supported with safe and navigable waters; Canada's international trade is supported; and Canada's civilian fleet has the capability to respond to on-water incidents and support its clients.

The following are among some of the key trends affecting Canada's ocean economy, and its ocean and freshwater environment and coastal communities:

- increasing focus on a renewed relationship with Indigenous peoples based on the recognition of rights, respect, co-operation, and partnership;
- steady growth in global demand for seafood products and a corresponding increase in market value balanced with the management of fisheries resources in a manner that is sustainable;
- rising sea temperatures, water levels, and an increasing number of extreme weather events due to climate change are expected to have notable impacts on Canada's coastlines and river systems, marine species abundance and distribution, and may result in economic impacts on coastal communities and fishers;
- contamination of the ocean from plastics, other waste debris and pollutants and a focus on enhanced oceans protection;
- increasing number of aquatic species at risk in Canada and a focus on potential viable options that serve to protect them while balancing environmental and economic interests;
- increasing vessel cargo tonnage handled in major ports in recent years, including at the Port of Montreal (a 35% increase between 2013 and 2017), the Port of Vancouver (a 5% increase), and the Port of Prince Rupert (a 5% increase). During the same period, the largest container ships calling in Canada have increased in size, and are now some 44% larger on average than in 2013;
- increasing navigational access and marine activity in Canada's Arctic which is home to rich and vibrant Indigenous cultures and communities, and the subsequent expansion of economic activity in the region;
- increasing vessel voyages in Canadian Arctic waters (a 17.9% increase over the past five years). Commercial shipping activity in the Arctic has increased by 45% since 2013, with the number of persons on board increasing by 37%;

- increasing importance of commercial fishing to the regional economies of Indigenous communities; and
- increasing vulnerability of domestic and global fish stocks to decreases in abundance due to human activity, ecological conditions, and climate change.

Key Risks

Two risks were identified in the 2017-18 Departmental Plan: Infrastructure and Information Technology.

Infrastructure

There is a risk that the Department may not be able to maintain its infrastructure to support the required levels of service delivery. This includes fleet assets, small craft harbours, real property, shore-based assets, information technology assets and equipment, and other moveable assets including scientific equipment.

Mitigating Strategy and Effectiveness

- The Department improved the environmental sustainability of Fisheries and Oceans Canada's (DFO) program delivery by implementing the Federal Contaminated Sites Action Plan, which involved assessment activities at 371 sites, remediation/risk management activities at 256 sites and the closure of 230 sites.
- DFO strengthened its portfolio planning and management through the development of building condition reports and management plans for its top custodial sites and added rigor to its real property financial management processes through the establishment of an accountability structure, and bi-weekly monitoring and reporting on expenditures. These initiatives have enabled DFO to stabilize the percentage of custodial buildings rated in poor or critical condition.
- DFO implemented year two of the Budget 2016 Federal Infrastructure Initiative, which resulted in the completion of 70 of a total of 85 planned new infrastructure and restoration projects. Work is ongoing on the remaining projects.
- The Department surpassed its target of 80% of facilities at core fishing harbours in fair or better condition, contributing to the long-term sustainability of the Small Craft Harbours Program.
- DFO continued to advance real property portfolio optimization by pursuing opportunities to right-size the departmental real property footprint to gain efficiencies, ensure real property holdings meet current and future program demand and support the delivery of departmental programs and services.
- The Department continued to advance work to upgrade and renew salmon hatcheries and spawning channel infrastructure operated by the Salmonid Enhancement Program including through water supply upgrades and the ongoing major facility rebuild of the Snootli hatchery.
- The Coast Guard completed its 2017 Fleet Renewal Plan and supported the delivery of the National Shipbuilding Strategy through its participation on governance committees at various executive levels.

Taken together, the mitigations described above have been effective in contributing to the maintenance of the Department's infrastructure, which reduces the risk associated with supporting the required levels of service delivery.

[Link to the Department's Programs](#)

1.1 Integrated Fisheries Management	3.1 Search and Rescue Services
1.5 Aquatic Animal Health	3.2 Marine Communications and Traffic Services
1.6 Biotechnology and Genomics	3.3 Maritime Security
1.8 Marine Navigation	3.4 Fleet Operational Readiness
1.9 Small Craft Harbours	3.5 Shore-based Asset Readiness
1.10 Territorial Delineation	3.6 Canadian Coast Guard College
1.11 Climate Change Adaptation Program	3.7 Hydrographic Products and Service
2.1 Compliance and Enforcement	3.8 Ocean Forecasting
2.4 Environmental Response Services	

[Link to Mandate Letter Commitments and any Government-wide or Departmental Priorities](#)

MANDATE LETTER COMMITMENTS:

- Work with the Minister of Public Services and Procurement to meet the commitments that were made for new Coast Guard vessels as part of the National Shipbuilding Strategy;
- Work with the Minister of Transport and the Minister of Environment and Climate Change to improve marine safety;
- Re-open the Maritime Rescue Sub-Centre in St. John's, Newfoundland and Labrador and the Kitsilano Coast Guard Base in Vancouver, British Columbia;
- Work with the provinces, territories, Indigenous peoples, and other stakeholders to better co-manage our three oceans; and
- Act on recommendations of the Cohen Commission on restoring sockeye salmon stocks in the Fraser River.

DEPARTMENTAL PRIORITIES:

- Improved marine safety and ocean protection;
- Investments in science in support of evidence-based decision-making; and
- Operational improvements to support priorities.

[Information Technology](#)

There is a risk that critical Information Technology (IT) assets supporting departmental business activities could be threatened, compromising their confidentiality, integrity, and availability.

[Mitigating Strategy and Effectiveness](#)

- The Department continued to protect web transactions with external-facing websites through additional security that blocks/flags malicious websites.
- Quarterly reports on IT Security vulnerabilities were provided to the National Informatics Advisory Committee.
- All items identified in the Management Action Plan for the 2016 Internal IT Security Audit were implemented.

- All IT Security practitioners received Communication Security Establishment Canada approved training on Government of Canada IT security policies, directives, guidelines and best practices, which provided participants with access to the government network of IT Security Specialists.
- As part of its Cyber Security Awareness Program, the Department continued to educate employees on IT security related matters through various initiatives including email “phishing” scenarios. There has been a downward trend in the number of ‘clicks’, indicating that the campaign has reduced the risk of exposure due to phishing.
- The Department participated in recruitment initiatives including the Treasury Board of Canada Secretariat’s ConneCSion Recruitment event, which identified new talent to address human resource gaps in IT.

Altogether, these mitigations have been effective in contributing to the protection of critical IT assets supporting departmental business activities.

[Link to the Department’s Programs](#)

This risk relates to all programs, as the failure to treat risks to IT systems, data and infrastructure may affect DFO's ability to deliver on its mandate and priorities.

[Link to Mandate Letter Commitments and any Government-wide or Departmental Priorities](#)

This risk relates to all of the mandate letter commitments and departmental priorities as the failure to treat risks to IT systems, data and infrastructure may affect DFO's ability to deliver on its mandate and priorities.

Results: What We Achieved

Programs

Program 1.1 – Integrated Fisheries Management

Description

The Integrated Fisheries Management program administers Canada’s fisheries in consultation with Aboriginal groups, federal departments, and other levels of government, private industry and non-governmental stakeholders. The program promotes sustainability, allocating harvestable resources amongst commercial harvesters, recreational anglers, and Aboriginal groups as well as aquaculture for seed, spat² and broodstock³. It derives authority from the [Fisheries Act](#)^{xiv}, the [Species at Risk Act](#)^{xv} and related regulations and relies on scientific assessments to develop tools such as Integrated Fisheries Management Plans and Rebuilding Strategies.

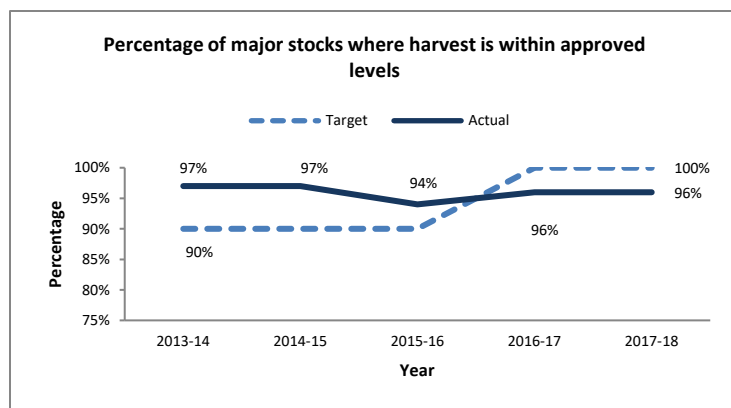
In 2017-18, the Integrated Fisheries Management program was delivered through two sub-programs:

- 1.1.1 Commercial Fisheries
- 1.1.2 Recreational Fisheries

Results

In 2017-18, the Department continued working towards its goal of developing Integrated Fisheries Management Plans (IFMP) for all major fish stocks. To date, approximately 76% of the major stocks (170) are covered by an IFMP. The remainder are managed using other types of fishing plans. The benefit of an IFMP compared to other harvesting plans is that an IFMP is a more comprehensive, rigorous plan that covers all gear types and/or fisheries on a specific group of stocks and includes fishery objectives and measures based on the Department’s core sustainable fisheries policies. In 2017-18, DFO published a work plan, [Sustaining Canada's Major Fish Stocks](#)^{xvi}, which addresses the timeline for the development of IFMPs for those major stocks not currently covered by one.

Of the 170 major fish stocks tracked through the Sustainable Fisheries Survey, 163 (96%) were harvested at or within approved levels. Established harvest limits can



² The term ‘spat’ refers to an oyster or similar bivalve mollusk in the juvenile stage.

³ The term ‘broodstock’ refers to a group of sexually mature individuals of a cultured species that is kept separate for breeding purposes.

be exceeded due to a number of factors, including short-time-frame competitive fisheries⁴, delayed reporting of catches, and unforeseen bycatch. DFO has quota reconciliation protocols in place for many of the stocks to manage such overharvesting over time. Carry-forward provisions are in place in some fisheries to allow harvesters the ability to carry small amounts of unused quota from one fishing year to the next. Consistent with the Minister's mandate letter commitment to use scientific evidence and the precautionary principle⁵, the Department uses the best available scientific data to apply the Precautionary Approach (PA) policy to harvest decisions. This assists the Department in ensuring that the harvest of major stocks is within approved levels. Implementing this policy takes time, as it requires extensive consultations with stakeholders, scientific advice, and, in some cases, the collection of new scientific data. In accordance with this policy, and in response to the 2016 audit on fisheries by the Commissioner of the Environment and Sustainable Development, DFO committed to developing rebuilding plans for 19 priority stocks, on a staggered basis, by 2021. In 2017-18, DFO developed 3 of the 19 rebuilding plans and determined that a rebuilding plan for one other stock was not required as its abundance had increased out of the critical zone.

In 2017-18, DFO placed a renewed emphasis on ensuring that Indigenous traditional knowledge, when available, is appropriately considered in fisheries management assessments and decisions. The Department also continued efforts to better incorporate information on recreational, food, social, and ceremonial harvests, as well as bycatch, in fisheries management assessments and decisions. This builds on the successes of Indigenous co-management projects in Canada's Arctic.

DFO also ensured that its management of fisheries contributed to the protection of critical species at risk. In 2017, in the Atlantic, at least 18 endangered North Atlantic Right whales were found dead — 12 in Canadian waters and 6 in U.S. waters. Scientists estimate only 450 are left in the world, so last year's deaths represent a staggering loss to a species that is already critically endangered. As the right whale situation unfolded in the summer of 2017, the Canadian government put in place a number of urgent measures to try to prevent more deaths from occurring. Snow crab and other fixed gear fisheries in the area were shut down to minimize gear entanglements, surveillance hours were increased, and a mandatory slowdown on certain vessels to avoid collisions was implemented. In the Pacific, efforts to recover the Southern Resident Killer Whale continued with extensive consultations during the fall and winter with partners, experts, stakeholders and Indigenous groups that led to additional measures being identified to support their recovery. These measures continue to be implemented in 2018, including fishery management measures for reducing Chinook harvest to increase prey availability for the whales.

On the East Coast, DFO made important progress on its commitment to review [Canada's Wild Atlantic Salmon Conservation Policy](#)^{xvii}; the revised policy received ministerial approval and the Department began work on the plan associated with implementing the policy. On the West Coast, in support of the Minister's mandate letter commitment to act on recommendations of the Cohen Commission on restoring sockeye salmon stocks in the Fraser River, the Department

⁴ The term 'short-time-frame competitive fisheries' refers to fisheries in which licensed individuals or enterprises compete to harvest the total allowable catch during a short fishing season.


⁵ The precautionary principle recognizes that in the absence of scientific certainty, conservation measures can and should be taken when there is knowledge of a risk of serious or irreversible harm to the environment and/or resources using best available information.

completed consultations with Indigenous peoples, stakeholder consultations, and key partner engagement activities on a five-year implementation plan for [Canada's Policy for Conservation of Wild Pacific Salmon](#)^{xviii}.

ATLANTIC FISHERIES FUND


- Announced on March 10, 2017, the [Atlantic Fisheries Fund \(AFF\)](#)^{xix} is a cost-shared federal-provincial program that will contribute over \$400 million over seven years to support Canada's fish and seafood sector.
- The AFF will promote innovation to better meet market demands for sustainably sourced, high quality fish and seafood products, and to address the challenges posed by changing oceanographic conditions.
- Projects supported under the fund focus on innovation, infrastructure, and science partnerships to advance a more sustainable and prosperous fish and seafood sector.
- On August 31, 2017, DFO declared the AFF officially open for business and started accepting applications from proponents across the Atlantic Provinces.
- The first announcements of approved AFF projects were made in January 2018 in [PEI](#)^{xx} and [Newfoundland and Labrador](#)^{xxi}.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Stocks are managed with a view to long-term sustainability	Percentage of major stocks ⁶ where harvest is within approved levels	100%	March 31, 2018	96%	96%	94%
	Harvest decisions are guided by principles of conservation	Percentage of harvests directed by management or conservation plans	100%	March 31, 2018	100%	100%	n/a

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.


Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	147,811,981	147,811,981	191,708,157	185,181,168	37,369,187

Note: The difference is mainly due to year-end carry forward from previous years, funding to support the implementation of the Atlantic Fisheries Fund program, and funding for the signing of collective bargaining agreements.

⁶ Major fish stocks generally refers to, but is not limited to, fish stocks with an annual landed value of greater than \$1 million or an annual landed weight of greater than 2,000 tonnes.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	1,018	1,138	120

Note: The difference is mainly due to growth under the Comprehensive Review, Oceans Protection Plan investments in science, Atlantic Fisheries Fund, and hiring for short-term projects.

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase^{xxii}](#).

Program 1.2 – Aboriginal Strategies and Governance

Description

The Aboriginal Strategies and Governance program serves to build and maintain strong and stable relations with Aboriginal groups and promotes fisheries-related economic opportunities for Aboriginal communities; both of which are instrumental to maintaining a stable fisheries management regime with common and transparent rules for all. The program does this by supporting the involvement of Aboriginal groups in the fishery; where Fisheries and Oceans Canada manages the fishery and where land claims agreements have not been concluded. This has three purposes: management of food, social and ceremonial fisheries; collaborative management, by building the capacity required to engage in fishery management processes; and, conservation, by supporting fisheries, monitoring and reporting. This work is achieved through: Aboriginal fisheries contribution agreements, treaty fisheries negotiations and mandate development, strategic advice for the ongoing management of Aboriginal rights, Aboriginal programs and policies renewal; allocation policies, frameworks for the implementation of treaties, and, fisheries-related consultation and engagement. This program uses funding from the following transfer payments: Aboriginal Fisheries Strategy, Aboriginal Aquatic Resource and Oceans Management program, Aboriginal Fund for Species at Risk program, Atlantic Integrated Commercial Fisheries Initiative, Pacific Integrated Commercial Fisheries Initiative and Treaty Related Measures.

In 2017-18, the Aboriginal Strategies and Governance program was delivered through three sub-programs:

- 1.2.1 Aboriginal Fisheries Strategy
- 1.2.2 Aboriginal Aquatic Resource and Oceans Management
- 1.2.3 Strategies and Governance

Results

The key activities in the delivery of the Aboriginal Strategies and Governance program include:

- Indigenous fisheries and oceans related contribution agreements;
- the negotiation of treaty and reconciliation fisheries agreements;
- the implementation of departmental obligations under agreements;
- the provision of strategic advice on addressing Indigenous rights issues and interests; and
- the development of Indigenous fisheries access and allocation policies.

These activities form the basis of relationship building and how the Department addresses Indigenous and treaty rights issues and interests.

On February 14, 2018, Prime Minister Justin Trudeau announced that the Government of Canada will develop a [Recognition and Implementation of Rights Framework](#)^{xxiii} in full partnership with First Nations, Inuit, and Métis peoples. The contents of the framework will be determined through national engagement activities led by the Minister of Crown-Indigenous Relations and Northern Affairs. The Government of Canada expects engagement to continue throughout the spring of 2018, with the framework introduced later in 2018 and implemented before October 2019.

To better support Indigenous groups to grow and maintain the capacity to manage aquatic resources and to participate in commercial fisheries and food, social, and ceremonial fisheries, DFO partnered with Indigenous groups to review its Indigenous programs. The review of the Aboriginal Aquatic Resource and Oceans Management (AAROM) program and Atlantic and Pacific Integrated Commercial Fisheries Initiatives was completed and DFO began to implement improvements to the program. These will continue to roll out over the next few years. The review of the Northern Integrated Commercial Fisheries Initiative and the Aboriginal Fisheries Strategy (including Aboriginal Fisheries Guardians program) was extended into 2018-19.

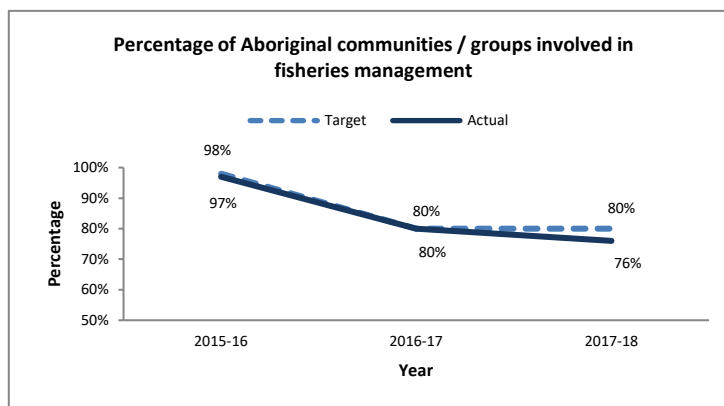
The program followed through on its commitment to deliver Indigenous fisheries and oceans-related contribution agreements.

All 135 Aboriginal Fisheries Strategy Allocation Transfer Program agreements and all 36 AAROM agreements were negotiated, processed, and ratified. Furthermore, development progressed on treaty and reconciliation fisheries negotiations. DFO now


participates at over 50 negotiation tables nationally to advance these negotiations. DFO also worked towards negotiating and implementing departmental obligations under agreements. The complex interaction between negotiation and implementation involves federal, provincial, and territorial governments and Indigenous groups.

In 2017-18, 382 contribution agreements were successfully negotiated, involving over 300 First Nations and/or Indigenous organizations to support participation in the management of an integrated fishery.


The program aligns with the Minister's mandate letter commitments for a renewed, nation-to-nation relationship with Indigenous peoples and for working with the provinces, territories, Indigenous peoples, and other stakeholders to better co-manage our three oceans.



Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Aboriginal communities participate in the management of an integrated fishery	Percentage of Aboriginal communities / groups involved in fisheries management	80%	March 31, 2018	76%	80%	97% ⁷

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	55,786,486	55,786,486	106,576,498	91,312,342	35,525,856

Note: The difference is mainly due to funding for the renewal of Atlantic and Pacific Commercial Fisheries Initiatives, funding for the enhancement and expansion of the Indigenous fisheries program suite, and funding to continue the negotiation and implementation of comprehensive land claims, as well as treaty, non-treaty and self-government agreements.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	105	132	27

Note: The difference is mainly due to funding for the enhancement and expansion of the program, including the renewal of the Atlantic and Pacific Commercial Fisheries Initiatives, and to additional resources under the Oceans Protection Plan.

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{xxiv}.

Program 1.3 – Sustainable Aquaculture Program

Description

The goal of the Sustainable Aquaculture Program is to contribute to an environmentally, economically and socially sustainable Canadian aquaculture sector. Canada's aquaculture sector operates under one of the most stringent regulatory frameworks in the world which is designed to ensure the sector's environmental sustainability. Fisheries and Oceans Canada's regulatory mandate for the program is derived from the [Fisheries Act](#)^{xxv} and the [Oceans Act](#)^{xxvi}. The Department has the lead regulatory role in British Columbia and Prince Edward Island. Fisheries and Oceans Canada implements the Sustainable Aquaculture Program in a horizontal and

⁷ The target was changed in 2016-17 in light of the results of a recalculation of the number of eligible groups.

integrated way with other federal departments and agencies to create optimal conditions for science-based sustainable management of the sector. The Department works collaboratively with industry, provinces and territories, Aboriginal groups, and others to ensure the success and long-term sustainability of Canada's aquaculture sector.

In 2017-18, the Sustainable Aquaculture Program was delivered through three sub-programs:

- 1.3.1 Aquaculture Management
- 1.3.2 British Columbia Aquaculture Regulatory Program
- 1.3.3 Sustainable Aquaculture Science Program

Results

In 2017-18, the Fisheries and Aquaculture Clean Technology Adoption Program (FACTAP) was successfully launched and the Sustainable Aquaculture Program was renewed for two years. Budget 2018 announced the renewal of the Sustainable Aquaculture Program (2018-2020), with existing program elements and resources to deliver on: regulatory reform and governance, regulatory science, and regulatory reporting. The FACTAP, which was successfully launched in December 2017, resulted in disbursements of over \$1.2 million to eight projects (including some funding for 2018-19) supporting the adoption of clean technologies by the aquaculture, fisheries, and processing sectors.

DFO and its partners also began exploring the potential for a new federal legislative framework for aquaculture, including the possibility of a new federal Aquaculture Act, aimed at providing economic sustainability to the industry while ensuring environmental protection and the creation of new jobs. Starting in late 2017 and continuing into early 2018, DFO held approximately 40 engagement sessions, inviting a broad array of stakeholders and Indigenous groups to understand their key priorities that may be addressed by a federal aquaculture act. Over 300 participants, including a large number of Indigenous representatives, attended sessions that took place across Canada. Balance between economic and environmental interest was one of the subjects discussed.

DFO is also working to amend four Fisheries Act regulations: Section 56 of the [Fishery \(General\) Regulations](#)^{xxvii}, the [Maritime Provinces Fishery Regulations](#)^{xxviii}, the [Atlantic Fishery Regulations \(1985\)](#)^{xxix}, and the [Management of Contaminated Fisheries Regulations](#)^{xxx}. Aquaculture regulatory amendment engagement sessions were held alongside the approximately 40 engagement sessions on aquaculture legislative reform, discussed above, from late 2017 to early 2018. Additionally, DFO received nearly 200 responses to a Notice of Intent to amend the Fishery (General) Regulations Section 56 (License to Release or Transfer Fish), which the Department is currently analyzing with respect to modernizing and clarifying the provisions.

The Department also undertook a number of research initiatives in 2017-18 in support of regulatory reform activities. A key area of focus was the conduct of scientific research and risk assessments with respect to the risk of salmon farms in the Discovery Islands area to migrating Fraser River sockeye salmon. Targeted regulatory research in areas such as fish pest and pathogen interactions, characterizing the cumulative effects of aquaculture on the environment, ecosystem management, and interactions with wild populations was undertaken. The Department continued its long-term monitoring of aquaculture impacts on the environment in areas neighbouring aquaculture farms and further afield. Finally, collaborative research to enhance environmental performance and optimize cultured fish health was conducted. The

program received nearly double the typical number of proposals, indicating an increase in interest in collaborative aquaculture research.

A new research program to investigate the long-term ecosystem effects of aquaculture was initiated, with the vision, framework, and priorities developed in 2017-18. Understanding the interactions between aquaculture and the environment is key to providing advice on mitigating negative effects and designing strategies that optimize positive interactions. Investigating ecosystem-level effects, including those between species and communities beyond a single aquaculture site, benefits Canadians by improving the assessment and long-term sustainability of aquaculture in marine and freshwater ecosystems.

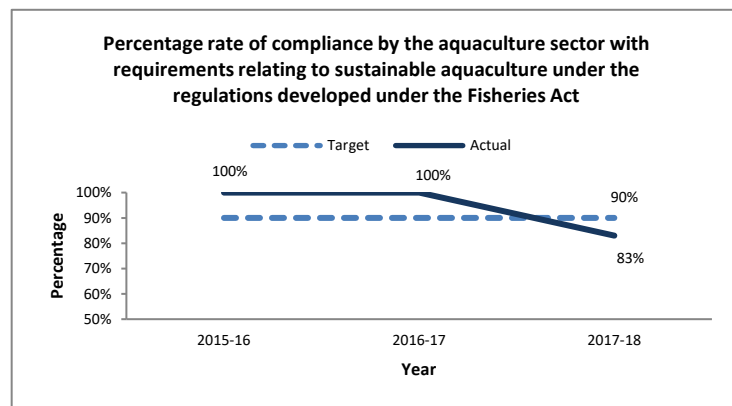
Budget 2018 assigned \$22 million over two years to support regulatory aquaculture science, regulatory reform and governance, and public reporting on the environmental and economic performance of Canada's aquaculture sector. These investments also add to our work started in 2017:

- Restoring lost protections and implementing modern safeguards in the Fisheries Act: \$284.2 million over five years to provide better certainty for Canadian industry, strengthen the role of Indigenous peoples in decision-making, ensure the long-term sustainability of marine resources and provide strong and meaningful protection for all of Canada's fish and fish habitat.
- Supporting marine assessments and spatial plans: \$67.1 million over five years to support the renewal of Canada's environmental impact assessment regime.


The level of aquaculture production was 200,565 tonnes in 2016, the last year for which national data is available. This represents a slight increase from 2015 production for both the finfish and shellfish aquaculture sectors.

The percentage rate of compliance by the aquaculture sector with requirements relating to sustainable aquaculture under the regulations developed under the Fisheries Act was 83%, a decline from previous years' results. Compliance by the aquaculture sector, relating to sustainable aquaculture under the regulations developed under the

[Fisheries Act](#)^{xxxii}, was measured by calculating the percentage of site visits by Fishery Officers when they detected no regulatory violations for which charges should have been laid. In 2017-18, 43 charges were laid and are pending review. The bulk of these new charges are a result of expanded inspection activities in the shellfish sector in the Pacific region. It is expected that this number will stabilize and eventually decrease as a result of direct enforcement action. Additionally, 22 warnings were issued for minor violations in the Pacific region where aquaculture management is governed by the relatively new [Pacific Aquaculture Regulations](#)^{xxxiii}.



Results Achieved

Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
				2017-18	2016-17	2015-16
 Environmentally, economically and socially sustainable Canadian aquaculture sector	Level of Canadian aquaculture production that provides economic opportunities and social benefits for Canadians while safeguarding the environment	> 172,000 tonnes ⁸	March 31, 2018	200,565 tonnes	187,374 tonnes	133,000 tonnes
	Percentage rate of compliance by the aquaculture sector with requirements relating to sustainable aquaculture under the regulations developed under the Fisheries Act	90%	March 31, 2018	83%	100%	100%

Note: The decline in the Actual Results for the second Performance Indicator (Percentage rate of compliance by the aquaculture sector with requirements relating to sustainable aquaculture under the regulations developed under the Fisheries Act) is due primarily to expanded inspection in the shellfish sector in the Pacific region in 2017-18. See the [Results](#) section, above, for more information.

Program Evaluation


An evaluation of the Sustainable Aquaculture Program was completed in 2017-18. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{xxxiii}.

The evaluation found that the program supports DFO's obligations and provides information to support aquaculture-related decision-making and policy development. The Aquaculture Activities Regulations (AAR) helped to strengthen DFO's regulatory framework, however, it did not result in a streamlined regulatory framework. There is an ongoing need for aquaculture-related research, and the evaluation identified an unmet and emerging need for research in the fields of biological effects (i.e. toxicology) and fate (i.e. distribution and degradation) of contaminants (pesticides and drugs used in aquaculture in the marine environment). The Compliance and Enforcement program (C&E) established key elements required for the enforcement of the AAR.


The evaluation recommended that the program better articulate its objectives; secure access to research in the fields of fate and biological effects of contaminants; assess risk of non-compliance to develop a proposal for enhanced enforcement of aquaculture; establish regional working agreements to ensure access to critical information for C&E; and review siting decision-making process (for locations where there are aquaculture activities) to clarify roles and responsibilities and define clear criteria for decision-making.

⁸ Results are reported for information collected on the previous year.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	30,475,056	30,475,056	29,650,338	29,198,486	-1,276,570

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	204	188	-16

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{xxxiv}.

Program 1.4 – Salmonid Enhancement Program

Description

The Salmonid Enhancement Program (SEP) supports achievement of Departmental fisheries management objectives by producing salmon for harvest, stock assessment and conservation purposes. In addition, SEP engages communities, schools, Indigenous communities and the public broadly in salmon stewardship through education and community involvement activities, and through collaborative projects aimed at restoring and maintaining key salmon habitat in British Columbia and the Yukon. The program contributes to economically valuable salmon fisheries by producing fish that directly support Pacific Commercial and Recreational Fisheries. Through targeted enhancement efforts on key stocks, SEP helps Canada meet its enhancement obligations under the [Canada-United States Pacific Salmon Treaty](#)^{xxxv} and supports secure international market access for Canadian salmon products. SEP works closely with the Integrated Fisheries Management Program, the British Columbia Aquaculture Regulatory Program and the Aquatic Animal Health and Biotechnology and Genomics programs. In addition, components of SEP are coordinated with the Canadian Food Inspection Agency as well as provincial, territorial, and municipal governments.

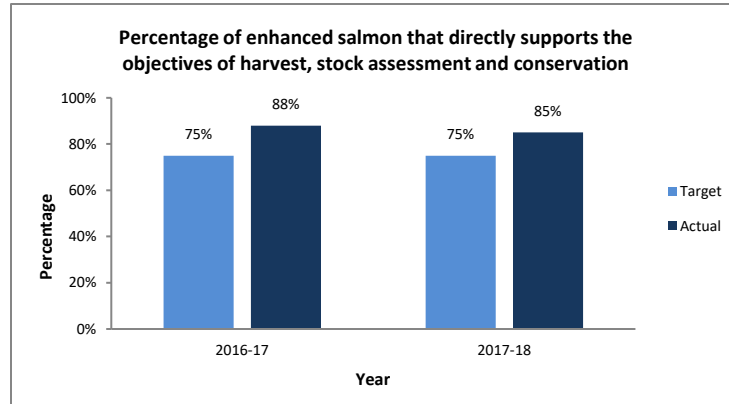
In 2017-18, the Salmonid Enhancement Program was delivered through two sub-programs:

- 1.4.1 Salmonid Enhancement Operations
- 1.4.2 Salmonid Enhancement Contributions Programs

Results

The Salmonid Enhancement Program produces and releases over 300,000,000 salmon a year that directly support the commercial fishing and processing sectors; a dynamic and high value recreational fishery; Indigenous access for food, social and ceremonial purposes; and Canada's obligations under the Pacific Salmon Treaty.


SEP again exceeded its target with respect to the percentage of salmon produced that directly support harvest, stock assessment, and conservation purposes. This success can be attributed to both the effectiveness of the SEP-led annual integrated production planning process undertaken with regional fisheries management and science programs, and the tracking, monitoring, and analysis of salmon production data.



Hatchery infrastructure upgrades are an essential ongoing commitment that help to maintain and protect Canada's investment in salmon production to support a strong Canadian economy. Canada's investment in SEP helps sustain \$90 million per year in Gross Domestic Product (GDP) (representing a 3 to 1 return on the investment), and almost 1,600 jobs for the Canadian economy. SEP infrastructure upgrades and improvements protect the life of key asset holdings to strategically maximize and maintain flexibility, adaptability, and diversity to align and deliver salmon production for current and future generations.


In 2017-18, the Department continued to make significant progress on key initiatives to upgrade and renew SEP's salmon hatcheries and spawning channel infrastructure. In support of government-wide environmental objectives, DFO upgraded lighting and heating systems to be more energy efficient, and made significant progress on related initiatives, such as improved insulation. DFO also upgraded security and alarm systems, replaced gravel at four major spawning channels, replaced inefficient water pumps, and completed or continued the drilling of new wells at various SEP facilities. Although the Department made significant progress on the comprehensive refit of SEP's Snootli Creek hatchery on British Columbia's central coast, the completion date has been extended from 2017-18 to 2020. After noting that the lengthy timelines required to establish key construction and supply contracts can delay facility refit work, SEP has improved its work prioritization process to better incorporate procurement timelines.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Enhanced salmon populations provide economic, cultural and social harvest opportunities, stock assessment information and restored salmon populations	Percentage of enhanced salmon that directly supports the objectives of harvest, stock assessment and conservation	75%	March 31, 2018	85%	88%	n/a

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	29,195,310	29,195,310	31,948,291	30,964,881	1,769,571

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	199	204	4

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{xxxvi}.

Program 1.5 – Aquatic Animal Health

Description

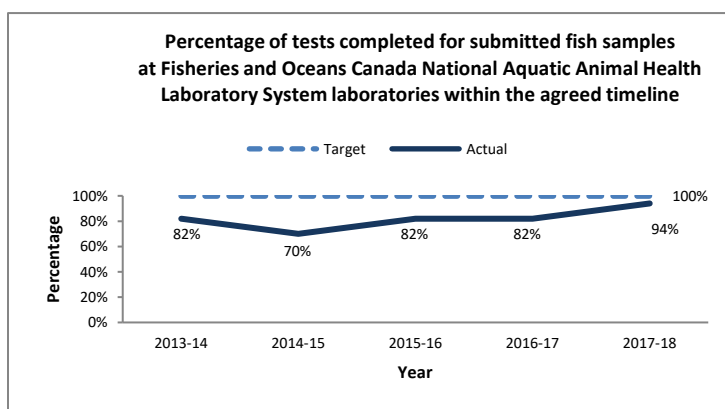
In collaboration with the Canadian Food Inspection Agency, the Department co-delivers Canada's National Aquatic Animal Health Program (NAAHP). The objective of the program is to protect against the introduction or spread of serious infectious diseases of national and international importance, in both wild and cultured aquatic animals. This protection is critical to safeguarding the health of Canada's aquatic resources and both Canada's domestic and export markets for fish and seafood products. In doing so, NAAHP provides greater economic stability and potential for growth of the industries and regions that depend on these resources. The Department provides the scientific advice, diagnostic testing and research which inform the

certification of aquatic animal health status and support the delivery of federal responsibilities under the [Health of Animals Act](#)^{xxxvii} and the [Fisheries Act](#)^{xxxviii}. The program also supports the delivery of other Fisheries and Oceans Canada programs, such as the Salmon Enhancement Program, Biotechnology and Genomics, and the Sustainable Aquaculture Science Program.

Results

In 2017-18, DFO exceeded its target of 90% of research project milestones completed as planned, with 30 milestones fully met out of 33 identified (91%), and 3 partially met (9%) due to human resources vacancies or delays in procuring raw material. However, partially met milestones are on track to be completed in the upcoming year and there will be no impact on decision-makers' access to the required information.

The Department completed, within the agreed timelines, 94% of the diagnostic tests requested by the Canadian Food Inspection Agency (CFIA). Although the target of 100% was not met, this year's results are a significant increase over 82% the previous year, and the Department also encountered a significant increase in volume. For example, the total number of test results reported to the CFIA for 2017-18 was 23,344, compared to 15,867 in the previous year.




With this achievement, DFO delivered on its commitment to increase diagnostic testing for pathogens and diseases. This increase was made possible by a reinvestment of funding for aquatic animal health. This investment allowed for the recruitment and training of three new staff and the acquisition of eight state of the art thermal cyclers, as well as more effective coordination of testing between the program's three laboratories.


This significant improvement was made despite a number of external and internal challenges. In the first three quarters of 2017-18, the National Aquatic Animal Health Laboratory System received a significant number of high priority submissions for testing in the response to a notification category, which impacted the laboratories' ability to function at full capacity. Due to the detection, for the first time in Canada, of whirling disease in the previous year, and the associated priority testing, a significant number of lower priority surveillance samples were carried forward to 2017-18. Finally, in 2017-18, the Aquatic Animal Health Laboratory at the Pacific Biological Station in Nanaimo, B.C. closed for renovation for five months.

To mitigate such challenges and to further increase efficiency, the Department is exploring options to purchase additional modern equipment for high-throughput analysis and to continue improving coordination and reporting in the coming year.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Decision-makers have access to diagnostic test results for the regulation of aquatic animal health	Percentage of tests completed for submitted fish samples at Fisheries and Oceans Canada National Aquatic Animal Health Laboratory System laboratories within the agreed timeline	100%	March 31, 2018	94%	82%	82%
	Decision-makers have access to scientific knowledge and advice to support the regulation of aquatic animal health	Percentage of research project milestones completed as planned	90%	March 31, 2018	91%	95%	91%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		6,114,231	6,114,231	7,742,414	7,742,414

Note: The difference is mainly due to realignment of budgets to match where the associated expenditures or assets reside.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		51	52

Program 1.6 – Biotechnology and Genomics

Description

The Department is responsible for developing the knowledge that is required for the regulation and risk assessment of fish products derived from innovations in biotechnology and genomics. Biotechnology and genomics can provide leading-edge techniques and strategies for the sustainable development of aquatic resources. The Department's use of these tools improves Canada's ability to protect species at risk, manage the opening and closing of fisheries, prosecute poachers, improve aquaculture practices, control disease outbreaks, and remediate contaminated sites.

Results

DFO achieved its target of responding to all requests for biotechnology knowledge and advice from decision-makers within the required timeline specified by the client. For the sole request received in 2017-18, DFO conducted an environmental risk assessment of a genetically engineered tropical aquarium fish and collaborated with Health Canada (HC) to conduct an indirect human health risk assessment. DFO provided its advice to Environment and Climate Change Canada (ECCC) and HC in the form of a [Science Advisory Report](#)^{xxxix}. Additional risk assessments for such fish are anticipated in the near future.

DFO also delivered funding to scientists for genomics research and development to build capacity for innovative, advanced science within the Department. The resulting precise and cost-effective scientific evidence supports sustainable resource management and conservation decisions. Five new Genomics Research and Development Initiative (GRDI) projects funded in 2017-18 are planned to continue next fiscal year. Six previously-funded projects provided genomics knowledge and advice to decision-makers. However, the program was only able to fund 29% of requested projects, given the available research funds. During 2017-18, DFO scientists developed new innovations, such as a remote in-field environmental DNA (eDNA⁹) sampling device and a genetic tagging system for Pacific salmon hatcheries. DFO's research in the Arctic expanded greatly with new aquatic biodiversity investigations using eDNA, genomic analysis of the iconic Arctic charr populations, and a project on [Narwhal](#)^{xl}. A study was initiated to investigate the population structure and connectivity of Atlantic Cod in the western Atlantic using new generation sequencing. Whole genome sequencing of important fishery species enhanced the Department's ability to assess stock structure and biodiversity associations with changing environments. The knowledge gained by these genomics tools and studies has been transferred through broad reaching networks of international partners (e.g. International Council for the Exploration of the Sea) and Canadian communities (e.g. Indigenous communities, northern communities, provincial governments, other government departments).


In March 2018, the program held a workshop (with participation from research scientists and resource managers) to review a State of Knowledge report on eDNA and to identify priority research areas for a DFO eDNA research plan. This promising new technique offers a sensitive, low-cost alternative to monitoring for the presence and abundance of aquatic organisms; eDNA

⁹ Environmental DNA (eDNA) refers to molecules of DNA shed from organisms that are found in the environment and can be detected in a simple water or sediment sample.


provides fast, non-destructive identification of species to improve the detection of large-scale biodiversity shifts associated with climate change, habitat disturbance, or invasive species.

Also in 2017-18, DFO actively participated in the multidepartmental EcoBiomics (metagenomic-based ecosystem biomonitoring) GRDI shared priority project on the impacts of human activities on Atlantic Salmon and renewed a Memorandum of Understanding with ECCC and HC that enables DFO to provide regulatory risk assessment for novel fish products under the [Canadian Environmental Protection Act](#)^{xi}. The Department made progress toward the development of the next ten-year Biotechnology and Genomics Program Strategy, including completing an analysis of genomics capacity in collaboration with the National Biotechnology Advisory Committee and scientists in all areas of Canada.


Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Fisheries and Oceans Canada and Environment and Climate Change Canada decision-makers have access to biotechnology knowledge and advice for the regulation of fish products of biotechnology	Percentage of responses to requests for biotechnology knowledge and advice completed and provided to decision-makers within the required timeline specified by the client	100%	March 31, 2018	100%	100%	100%
	Fisheries and Oceans Canada decision-makers have access to genomics knowledge and advice for the management of fisheries and oceans	Percentage of Genomics Research and Development Initiative projects that provided genomics knowledge and advice to decision-makers	100% within 3 years following completion of a project	March 31, 2018	100%	100%	100%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	3,192,457	3,192,457	3,547,489	3,544,414	351,957

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	23	22	1

Program 1.7 – International Engagement

Description

The International Engagement program ensures access for Canadians to fish resources managed internationally, promotes sustainable fisheries management and healthy global marine ecosystems, and contributes to a stable international trade regime for Canadian fish and seafood products. The program advances its goals via multilateral and bilateral engagements, and coordinated strategies with international partners.

Results

Canada is a member of many bilateral and multilateral organizations, including eight regional fisheries management organizations (such as the Northwest Atlantic Fisheries Organization, the International Commission for the Conservation of Atlantic Tunas, and the North Pacific Anadromous Fish Commission) as well as four bilateral treaties (such as the Pacific Salmon Treaty). In 2017-18, Canadian goals and strategic intentions were reflected in all international fisheries management agreements and quota decisions.

Canada continued to play an active and important role in the Northwest Atlantic Fisheries Organization (NAFO) in 2017 and early 2018. Beyond its participation in a number of intersessional and working group meetings, including the NAFO Standing Committee on International Control (STACTIC), Risk-Based Management Strategies, and Ecosystem Approach Framework to Fisheries Management, Canada hosted NAFO's 39th Annual Meeting in Montreal. At this time, Canada also assumed the role of chair of the Scientific Council, a key NAFO body. Canada also attended meetings of the Observer Working Group and Catch Estimation Strategy Advisory Group, where it continues to advance and defend its position. In addition, Canada continues to play a key role in NAFO's Second Performance Review, which will be presented to the 2018 annual meeting in September 2018.

In late 2017, Canada and a group of eight states and the European Union successfully concluded negotiation of the agreement to prevent unregulated fishing in the high seas portion of the Central Arctic Ocean. A signing ceremony for the agreement will take place in October 2018. Canada was instrumental in the successful negotiation of this agreement and will serve as the depository government (i.e. the official keeper of relevant documents). The Department continues to pursue support of a science-based, precautionary approach¹⁰ to fisheries in the high seas portion of the Arctic Ocean, including through the joint program of scientific research and monitoring established by this agreement.


¹⁰ The precautionary approach recognizes that in the absence of scientific certainty, conservation measures can and should be taken when there is knowledge of a risk of serious or irreversible harm to the environment and/or resources using best available information.

Substantial progress was made towards renegotiating the [Pacific Salmon Treaty](#)^{xlii} with the United States in 2017-18. Some additional work is required in 2018-19, however, this additional work is not expected to have negative consequences on ratification timing, and will contribute to the strength of the bilateral commitments to jointly manage Pacific salmon over the next 10 years.

Canadian interests were also represented at United Nations (UN) negotiations and assemblies. The preparatory conference for a new treaty on [Biodiversity Beyond National Jurisdiction](#)^{xliii} came to a close during 2017-18. A formal negotiation to develop such a treaty will begin in 2018-19. The Department continues to represent Canada in informal negotiations at the UN on two annual resolutions, the [Convention on the Law of the Sea](#)^{xliv}, and sustainable fisheries.

The Department participated in key, high profile, international trade shows on fish and seafood, including Seafood Expo Global (April 2017 in Brussels, Belgium), China Fisheries and Seafood Expo (November 2017 in Qingdao, China), and Seafood Expo North America (March 2018 in Boston, United States). These shows highlighted the Canadian fish and seafood sector’s high quality, environmentally sustainable, and socially responsible products to potential importers and foreign buyers. At the same time, departmental officials were present to engage with Canadian exporters, and various government representatives to discuss and address common bilateral and multilateral fisheries regulatory issues.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	International fisheries management agreements and quota decisions reflect Canada’s positions	Percentage of decisions that reflect overall Canadian goals and strategic intentions	100%	March 31, 2018	100%	100%	n/a
	Fisheries and Oceans Canada’s influence in relevant free trade agreements support access to international markets for Canadian fish and seafood products	Percentage of ongoing trade negotiations and/or newly completed free trade agreements that incorporate Fisheries and Oceans Canada’s positions	100%	March 31, 2018	100%	100%	100%

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.

Program Evaluation


An evaluation of the International Engagement program was completed in 2017-18. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{xlv}.



The evaluation found that a renewed emphasis on international collaboration within the Department has increased demands and expectations of the program. The program supports international priorities and is achieving its expected outcomes, though there was some concern regarding the challenges of measuring gains in influence and relationship building. There is an opportunity for more formalized coordination and collaboration of international activities across the Department, as well as a need to establish an overall departmental vision of international activities.


The evaluation recommended the implementation of a process to improve existing coordination and collaboration efforts regarding bilateral and multilateral activities, as well as the establishment and implementation of a strategic vision for international activities across the Department.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	13,127,462	13,127,462	17,359,848	17,196,875	4,069,413

Note: The difference is mainly due to funding to maintain mission-critical services to Canadians.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	44	49	4

Program 1.8 – Marine Navigation

Description

The Canadian Coast Guard Marine Navigation program provides Canadian and international commercial marine transportation sectors, fishers, and pleasure craft operators with information and services to facilitate the safe, economical and efficient movement of ships. Program services include providing survey and forecast information on commercial channels to identify water depth, restrictions, or hazards to navigation; dredging services; marine structures to maintain certain ship channel waterways; aids to navigation, for example short-range marine aids such as buoys, fixed aids to navigation, the Differential Global Positioning System, and information to mariners; assistance to vessels stuck in ice; maintaining tracks through ice-infested channels; breaking out ice in commercial and fishing harbours; providing ice routing advice and information and escorting ships in ice-covered waters; and monitoring and breaking up ice jams to prevent flooding on the St. Lawrence River. Program services also contribute to the development of the Arctic by transporting goods and supplies to northern communities and by maintaining a visible Canadian marine presence in the North. The program is delivered in coordination with the Coast Guard’s Fleet Operational Readiness and Shore-based Asset

Readiness programs, Canadian Hydrographic Services, Public Services and Procurement Canada, and Environment and Climate Change Canada. The program's legal basis derives from the [Constitution Act, 1867](#)^{xlvi}, the [Oceans Act](#)^{xlvii} and the [Canada Shipping Act, 2001](#)^{xlviii}.

Results


In support of the Minister's mandate letter commitment to work with the Minister of Transport and the Minister of Environment and Climate Change to improve marine safety, the Marine Navigation program continued work on its Four Season Lighted Buoy initiative, which will deploy 185 four-season, lighted, severe-ice navigation buoys in the St. Lawrence shipping channel between Quebec City and Montreal by 2021. During the winter, over 300 lighted buoys marking this shipping channel are removed due to severe ice conditions and are replaced by approximately 100 unlighted buoys. The absence of lighted buoys during winter navigation conditions contributes to the unique navigation challenges faced by mariners in this part of the river. The Request for Proposal was issued in April 2018, and the first buoys are expected to be deployed in the fall of 2018. The staged deployment of these four-season, lighted buoys will be an important additional tool to assist mariners.

Under the Oceans Protection Plan (OPP), the Coast Guard strengthened relationships, established linkages, and negotiated agreements to co-manage waterways in order to address the marine safety priorities of Indigenous communities in all regions. The [Reconciliation Framework Agreement](#)^{xlix} on Bioregional Oceans Management and Protection was negotiated with the Coastal First Nations on behalf of Pacific North and Central Coast First Nations, and was finalized on March 15, 2018 followed by First Nations and Government of Canada approvals on April 30, 2018. In addition, several other arrangements are being negotiated.


The Coast Guard contributed to the development of the Northern Marine Transportation Corridors by providing platforms for the Canadian Hydrographic Service to produce hydrographic surveys. This will significantly enhance how departmental services, such as navigational systems and environmental response services, are delivered. Under the OPP's "Northern Marine Transportation Corridors and Governance for the Arctic Shipping Regime" project, the Coast Guard has permanently staffed an Arctic Strategies and Engagement Team to coordinate Arctic Policy.

In January 2018, the Coast Guard and the marine industry signed an agreement called the [Icebreaker Requirements 2017-2022](#)^l, in which the Department committed to the availability of icebreakers in specific maritime zones and in specific time periods. OPP funding will allow for the increase in the number of sea-days for Coast Guard icebreakers in the Arctic by up to an additional 49 days by 2022. Progress is being tracked and will be reviewed as the agreement finalizes. In addition, the Increased Presence in the Arctic project under the OPP exceeded its 2017-18 baseline target of increasing the Coast Guard's operating season up to 21 additional sea days. The fleet extended the Arctic season by 13 days and 34 additional sea days.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Contribute to safe and efficient Canadian marine transportation	Five year average of total annual international and domestic tonnage handled	Maintain or improve 5-year average of 453,100,000 tonnes (most recent available period - 2008-2012)	March 31, 2018	Data not available ¹¹	473,000,000 tonnes	476,200,000 tonnes

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	46,011,571	46,011,571	63,758,383	60,259,187	14,247,616

Note: The difference is mainly due to Coast Guard year-end reallocation.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	247	261	14

Program 1.9 – Small Craft Harbours

Description

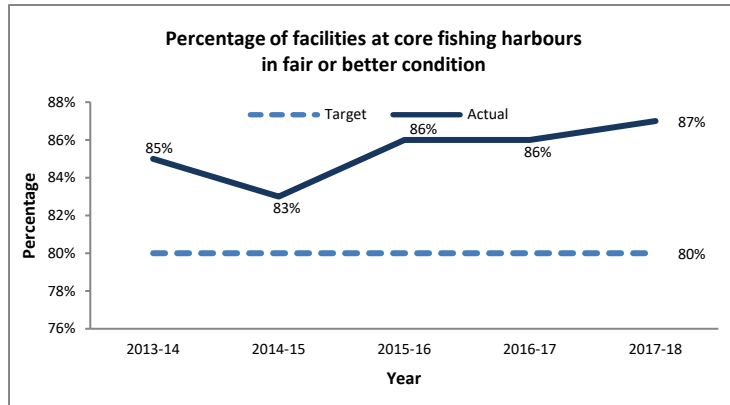
Under the authority of the [Fishing and Recreational Harbours Act](#)¹¹ and its regulations, the Small Craft Harbours program operates and maintains a national network of harbours in support of the principal and evolving needs of the commercial fishing industry and the broader interests of coastal communities. Investment in small craft harbour infrastructure supports the economic prosperity of Canada's fisheries and maritime sectors and contributes to public safety. The Small Craft Harbours program focuses its resources on keeping fishing harbours that are critical to the commercial fishing industry in good repair. The program is delivered in cooperation with Harbour Authorities, local not-for-profit organizations representing the interests of both

¹¹ Transport Canada recently revised their calculation method for marine tonnage statistics to improve accuracy. As a result, the raw data and parameters required to calculate this result are not available. For marine tonnage statistics, please refer to Table M17 of [Transport Canada's Annual Reports](#).

commercial fish harvesters and the broader community, who manage the harbours under lease agreements with Fisheries and Oceans Canada. In line with the program’s mandate to support the commercial fishing industry, low activity fishing harbours and recreational harbours are divested to third parties. The Small Craft Harbours program is funded through an annual appropriation which includes two transfer payment programs: the Small Craft Harbours Class Grant Program and the Small Craft Harbours Class Contribution Program.

Results

In 2017-18, DFO implemented the second year of the two-year Federal Infrastructure Initiative (FII). Of the 85 major capital construction projects on wharves, floats, breakwaters, shore protection, and other assets scheduled for completion at 78 core fishing harbours, all but 15 were completed. Work is ongoing on these remaining 15 projects. These projects will




support commercial fisheries by improving safety and operating conditions at the harbours and are consistent with the Department’s priority of improved marine safety. Temporary funding measures, such as the FII, have been critical to improving the quality of facilities at core harbours, resulting in a decrease of facilities that are in poor or unsafe condition from 27% in 2010-11 to 13% in 2017-18.


In addition to the abovementioned construction, the Department continued to accelerate maintenance and repair projects to address asset deterioration. In 2017-18, approximately 130 projects were completed.

As part of the Oceans Protection Plan, DFO continued to work alongside other departments to support the clean-up of priority small abandoned, derelict, and wrecked vessels that pose risks to local communities, including small craft harbours. In 2017-18, the Abandoned and Wrecked Vessel Removal Program removed and disposed of nine vessels.


Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Network of safe and accessible harbours that contribute to the commercial fishing industry	Percentage of facilities at core fishing harbours in fair or better condition	80%	March 31, 2018	87%	86%	86%
	Activities at small craft harbours result in economic benefits	Gross domestic product generated by Small Craft Harbours activities	\$80M	March 31, 2018	\$81M	\$78M	\$73M
	Harbour Authorities operate and manage core fishing harbours	Percentage of core fishing harbours that are operated and managed by Harbour Authorities	>90%	March 31, 2018	97%	97%	96%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		213,252,617	213,252,617	242,085,400	211,082,435

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		189	183

Program 1.10 – Territorial Delineation

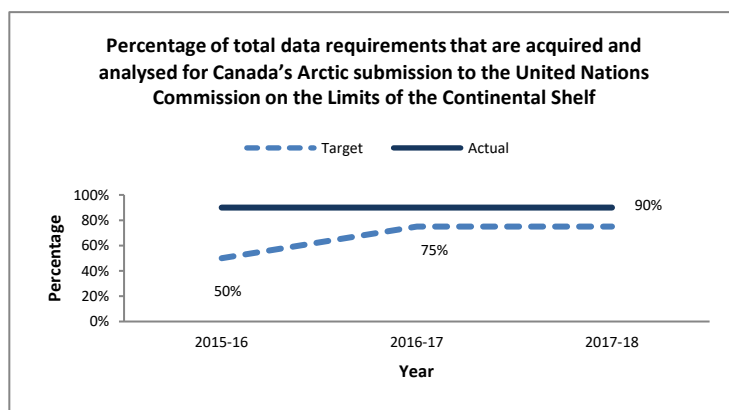
Description

The definition and description of Canada's maritime boundaries is reliant on hydrographic data and nautical geodetic expertise. Fisheries and Oceans Canada's Canadian Hydrographic Service (CHS) is responsible for the provision of hydrographic and nautical data and nautical geodetic expertise. The program's technical experts define the geographic positions for all Canadian offshore maritime limits and boundaries and provide the nautical geodetic evidence to resolve boundary disputes (e.g., Beaufort Sea, Hans Island) and prosecutions related to the violation of

international maritime law (e.g., foreign fishing) as well as other infractions in Canadian waters. Through the international recognition of these limits and boundaries, Canada is able to assert its sovereign rights to resources, and to secure its maritime boundaries. Canada ratified the [United Nations Convention on the Law of the Sea](#)ⁱⁱⁱ (UNCLOS) and in 2013 submitted evidence to the United Nations Commission on the Limits of the Continental Shelf (the Commission) in support of the establishment of the outer limits of Canada's continental shelf beyond the current 200 nautical mile Exclusive Economic Zone. Canada also submitted a preliminary report indicating that an Arctic submission would be forthcoming after further data collection. The Department works closely in this endeavour with Global Affairs Canada and Natural Resources Canada to prepare the second submission to present and defend Canada's evidence submission to the Commission.

Results

In 2017-18, DFO worked on processing, integrating, and analyzing bathymetric (depth) data collected in the Arctic to prepare, in collaboration with Natural Resources Canada (NRCan), the scientific evidence required to support Canada's Arctic submission to the UN Commission on the Limits of the Continental Shelf under Article 76 of UNCLOS. This



included integrating the approximately 30,000 kilometres of multibeam sonar data collected during 2014 to 2016 ship-based surveys with 2007 to 2011 data from a variety of sources and survey methods. The work is on schedule and will continue into the coming year.

The Department also provided scientific support to Global Affairs Canada (GAC) with the presentation, interpretation and defence of the scientific evidence included in Canada's Atlantic and Arctic submissions. The goal is to secure international recognition of the outer limits of Canada's continental shelf, and, in turn, confirm, with precision, the geographic extent of Canada's existing sovereign rights over the natural resources of the seabed and subsoil of the continental shelf beyond 200 nautical miles. With NRCan, DFO successfully prepared the scientific elements and supported GAC at Canada's February 6, 2018 presentation on Canada's Atlantic Ocean Extended Continental Shelf Submission to the UN Commission.


In addition, DFO provided an atlas of baseline points (a collection of carefully measured reference points) to GAC. Under GAC's direction, modifications and new calculations continue to be incorporated into the atlas. The aim is to update Canada's Territorial Sea baselines to reflect our improved knowledge as a result of advances in technology since the last update.

In 2017-18, DFO also contributed to the development of a new international standard for maritime limits and boundaries that will be compatible with electronic nautical chart displays and provide a mechanism for states to fulfill their due publicity obligations (i.e. requirements to publicize certain information) under UNCLOS. The development of the standard is on track to be approved in 2018-19.

The program received and responded to 25 requests for maritime limits and boundaries and geodetic services, thereby ensuring that appropriate expertise, knowledge, and evidence was available to decision makers and regulators. In addition to these technical requests, the program also responded to five requests for expert advice related to potential and active prosecutions related to alleged violations under the Fisheries Act.


In addition, DFO worked with Transport Canada, NRCan, and Environment and Climate Change Canada to formalize the moratorium on crude oil tanker traffic on British Columbia's North Coast, including the Dixon Entrance, Hecate Strait, and Queen Charlotte Sound. The Territorial Delineation program contributed expertise and maps to this work. [Bill C-48, An Act respecting the regulation of vessels that transport crude oil or persistent oil to or from ports or marine installations located along British Columbia's north coast^{liii}](#), had its first reading on May 9, 2018. The Department is also preparing for chart modification following the Bill being passed to accommodate the changes.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Canada's National and International maritime limits and boundaries are well defined and maintained in accordance with international standards for use in charts, UN submissions and legal applications	Percentage of total data requirements that are acquired and analysed for Canada's Arctic submission to the United Nations Commission on the Limits of the Continental Shelf	75%	March 31, 2018	90%	90%	90%
		Percentage of required data that is acquired and analyzed to update and maintain Canada's baselines that define Canada's national and international maritime limits and boundaries	75%	March 31, 2018	90%	90%	n/a
		Percentage of advice, expert and evidentiary reports and testimonies accepted for defining or defending the geographic description of Canada's maritime limits and boundaries	100%	March 31, 2018	100%	100%	100%

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		1,182,400	1,182,400	888,900	888,900

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	10	6	-4

Note: The difference is mainly due to contingency funding that was no longer deemed necessary because the program was able to complete field surveys prior to 2017-18.

Program 1.11 – Climate Change Adaptation Program

Description

Fisheries and Oceans Canada contributes to the growth and sustainability of numerous maritime sectors and has infrastructure assets in the billions of dollars. It needs to have the capacity to adjust its decisions and activities based on the impact of climate change. The Climate Change Adaptation program assesses risk, develops science knowledge and adaptation tools, which facilitate the integration of climate change considerations and adaptive management strategies into its decision making. Whether it is managing the fisheries resource, small craft harbours, or marine navigation, decision making must take into account climate change to ensure that Canada continues to benefit socially and economically from its oceans and inland waters. This program is one element of a much larger horizontal program which includes nine federal departments, including Environment and Climate Change Canada, Natural Resources Canada, and the Public Health Agency of Canada.

Results

DFO had three key activities under the Climate Change Adaptation Program for 2017-18.

First, the Department performed research to better understand the impacts of ocean acidification on priority species as well as on coastal and offshore waters. DFO is undertaking activities to understand the state and extent of changes in ocean chemistry associated with climate change, such as ocean acidification and hypoxia¹², and the consequences on marine ecosystems and commercial fisheries.

Second, the Department worked to advance understanding of the vulnerability of commercial species and their prey to the impacts of climate change, and to develop a strategy to incorporate this knowledge into fisheries stock assessments and fisheries management decisions. DFO is undertaking research to identify which fish species or stocks are the most vulnerable to changing climate and aquatic conditions, as well as undertaking research to address knowledge gaps associated with climate change impacts and the vulnerability of fisheries and coastal ecosystems.

Finally, the Department also worked to improve its ocean modelling, which it uses to predict changing ocean conditions. The improved models will help fisheries managers better understand the movement of commercial fish species and species at risk.

¹² The term hypoxia refers to a low level of oxygen, which results in a body of water being unable to support life.

The results of this work support the Pan-Canadian Framework on Clean Growth and Climate Change and is aligned with the Minister’s mandate letter commitments to use scientific evidence and the precautionary principle, as well as take into account climate change when making decisions affecting fish stocks and ecosystem management, and to work with the Minister of Environment and Climate Change and the Minister of Science to examine the implications of climate change on Arctic marine ecosystems.


ADAPTING TO THE IMPACTS OF CLIMATE CHANGE

In the fall of 2017-18, the Commissioner of the Environment and Sustainable Development (CESD) released an Audit report entitled [Adapting to the Impacts of Climate Change](#)^{iv}. The CESD made the following comment about DFO:

Through its Aquatic Climate Change Adaptation Services Program, the Department conducted 38 research projects and developed 22 adaptation tools to monitor and study the impacts of climate change on Canada’s fisheries, aquatic ecosystems, coastlines, and coastal infrastructure. While departmental research projects built knowledge, associated tools helped integrate climate change considerations into programs and policies.


The new website for the [Aquatic Climate Change Adaptation Services Program](#)^{iv} was completed and the launch was accompanied by a [video](#)^{vi} about ocean acidification. This initiative ensures that program information, tools, and research findings are available to Canadians online, and will improve access to, and visibility of, the work of the program. The Department also completed a National Science Advisory process aimed at developing a conceptual framework for including climate change considerations into fish stock assessments. The final science advisory report is underway and is expected to be published on the [Canadian Science Advisory Secretariat](#)^{vii} website in the coming months.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Target audiences have access to information, expertise and tools to support adaptation measures	Program information, tools and research findings are available on the DFO website	Launch of new DFO Climate Change website	March 31, 2018	100%	n/a	n/a
	Adaptation measures have been identified by target stakeholders to address risks and opportunities arising from climate change	Develop methodology for including climate change considerations into stock assessments	Methodology is developed for considering climate change in stock assessments	March 31, 2018	Yes	n/a	n/a


Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	2,385,497	2,385,497	2,895,965	2,895,965	510,468

Note: The difference is mainly due to additional funding received in fall 2017 under the Pan-Canadian Framework for Clean Growth and Climate Change.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	8	18	10

Note: The variance between planned and actual full-time equivalents is a result of additional determinate staff (term, casual employment) being hired as project work was undertaken.

Program 2.1 – Compliance and Enforcement

Description

The Compliance and Enforcement program ensures the conservation and sustainable use of Canada's aquatic resources and the protection of species at risk, fish habitat, and oceans. The program is delivered through a regulatory management and enforcement approach. It uses a number of tools to achieve its goals, including promoting compliance with legislation, regulations and management measures through education and shared stewardship; monitoring, control, and surveillance activities; and the management of major cases and special investigations. The National Fisheries Intelligence Service and Program and Operational Readiness sub-programs support the carrying out of Enforcement Operations. The program works closely with the Fisheries and Harbours Management Sector, the Royal Canadian Mounted Police, various domestic and international partners including industry, to ensure peaceful and orderly fisheries. It makes a significant contribution, with the Canadian Coast Guard, to the protection of Canadian sovereignty and assists the Department of National Defence with identifying potential marine security threats. It also plays a key administrative role, along with Ecosystems and Fisheries Management, Environment and Climate Change Canada, and the Canadian Food Inspection Agency, in the Canadian Shellfish Sanitation Program to help ensure that the public is protected from contaminated fisheries products.

In 2017-18, the Compliance and Enforcement program was delivered through three sub-programs:

- 2.1.1 National Fisheries Intelligence Service
- 2.1.2 Enforcement Operations
- 2.1.3 Program and Operational Readiness

Results

In support of the Government of Canada's priorities of keeping Canadians safe, protecting the environment, and growing the economy, the Compliance and Enforcement (C&E) program had three operational priorities in 2017-18:

- intelligence-led enforcement operations;
- program excellence through people management; and
- modernization and national standards.

Under the first priority, advancing the intelligence-led enforcement operations, DFO worked towards transforming C&E into a modern intelligence-led organization. The National Fisheries Intelligence Service (NFIS) was established in 2012. It provides intelligence to managers and Fishery Officers who assist in the enforcement of the [Fisheries Act](#)^{lviii} and associated Acts and Regulations, which contributes to the conservation of Canadian fish stocks and the overall health of our oceans. In 2017-18, DFO expanded the NFIS through funding committed to eight new positions. Five positions were filled and three more are in the hiring process to ensure that DFO has the capacity to manage high-level fisheries crimes. These expansions to the NFIS will result in increased protection of Canada's fisheries and aquatic ecosystems from unlawful exploitation and interference.

Under the same operational priority, DFO developed a national Strategic Threat and Risk Assessment (STRA) methodology to assess, rank, and prioritize the threat caused by individuals, groups, or organizations involved in suspected organized, high-profile fisheries-related crimes, and the risk these activities present to our fisheries, waterways, aquatic resources and ecosystems. STRA entities for the Eastern zone were developed throughout 2017 and C&E enforcement operations have been presented with the outcomes for consideration of investigation. In the Western zone, a similar process evolved, and these entities will undergo additional intelligence investigation. STRA had a successful launch. It was a complex and intensive effort for the organization, and the Department will employ timely, actionable intelligence products to inform enforcement operations of the greatest threats and risks to fisheries.

Under the second operational priority of program excellence through people management, DFO ran a successful recruitment drive that saw over 1,300 applications for the Fishery Officer Career Progression Program. Three planned training sessions will be held in 2018-19 for the successful candidates.

Under the third operational priority, DFO expanded the resources of the NFIS. The Department developed a Request for Proposal for aerial surveillance. DFO also strengthened catch monitoring by:

- developing an action plan to improve the quality of data from the [At-Sea Observer](#)^{lix} and Dockside Monitoring programs;
- upgrading the Vessel Monitoring System by drafting a new hardware standard; and
- moving towards the replacement of paper-based reporting in priority fisheries by developing the tools to convert to electronic logbooks.

In addition, a Mobile Office solution, consisting of a ruggedized laptop and mobile phone, has begun to be rolled out to Fishery Officers. All of these achievements will help streamline DFO's


operations and support the NFIS and its protection of Canada's fisheries and aquatic ecosystems.

In 2017-18, DFO also collected and shared intelligence, surveillance, and reconnaissance to effectively safeguard Canadians and our waters, responding to over 620 requests for information from partner agencies. Going forward, NFIS will improve its information-sharing activities with Marine Security Operations Centre partners to improve operational support to the Coasts.


The Department also continued development of a national Indigenous engagement strategy with a National Restorative Justice component made up of procedures that are consistent across the country, guidelines, and training. A National Restorative Justice Working Group was formed to build on the success of an already established Restorative Justice program in the Pacific Region that has shown positive results for re-offending rates, cost-savings, and relationship-building with Indigenous communities. The group is proposing to organize Awareness Sessions led by trained facilitators to enhance understanding of the process and improve communication and relations with Indigenous communities in the regions. The Department has also developed a National Aboriginal Fishery Guardian (AFG) Program Committee. Terms of reference, a work plan, and Governance Charter template have been developed.

Finally, DFO performed 90 audits of Canadian-issued fish and seafood export certificates, ensuring that the necessary safeguards are in place to keep Canadian fish and seafood products eligible for export to international markets.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Those that impact the resource comply with domestic, international and/or trade partner requirements and agreements that govern the resource	Maintain rate of compliance of Fisheries and Oceans Canada's regulated community within 5% of baseline	At or above 90%	March 2018	96%	94%	95%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	102,351,038	102,351,038	114,530,156	113,940,334	11,589,296

Note: The difference is mainly due to funding to maintain mission-critical services to Canadians, Coast Guard year-end reallocation, and funding for the signing of collective bargaining agreements.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	738	675	-63

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{lx}.

Program 2.2 – Fisheries Protection

Description

The Fisheries Protection program exists to ensure that commercial, recreational and Aboriginal fisheries are productive and sustainable. As part of its core business, the Fisheries Protection Program is responsible for the administration of the fisheries protection provisions of the [Fisheries Act](#)^{lxi} including the establishment of guidelines and regulations. The program undertakes the review and authorization of proposed works, undertakings and activities that may affect fish and fish habitat and fulfills its legislative responsibilities in relation to federal environmental assessment regimes and addresses its [Section 35 Constitution Act, 1982](#)^{lxii} duty to consult relative to authorization decisions. The program also provides science-based advice to federal custodial departments to support contaminated site management through the Federal Contaminated Sites Action Plan. Sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries is best achieved when partners and stakeholders with a common interest work together to conserve and protect fish and fish habitat. The Fisheries Protection program has established partnering arrangements with some federal agencies and provinces which allow them to conduct initial reviews of projects, to determine if they require advice or review by the Fisheries Protection program under the [Fisheries Act](#)^{lxiii}. The Recreational Fisheries Conservation Partnerships program encourages a partnership-based approach through the provision of funding to recreational fisheries and conservation groups to undertake habitat restoration activities. Finally, the Fisheries Protection program helps to address the issue of aquatic invasive species through federal-provincial/territorial cooperation and the development of regulatory tools to prevent the introduction and spread of aquatic invasive species.

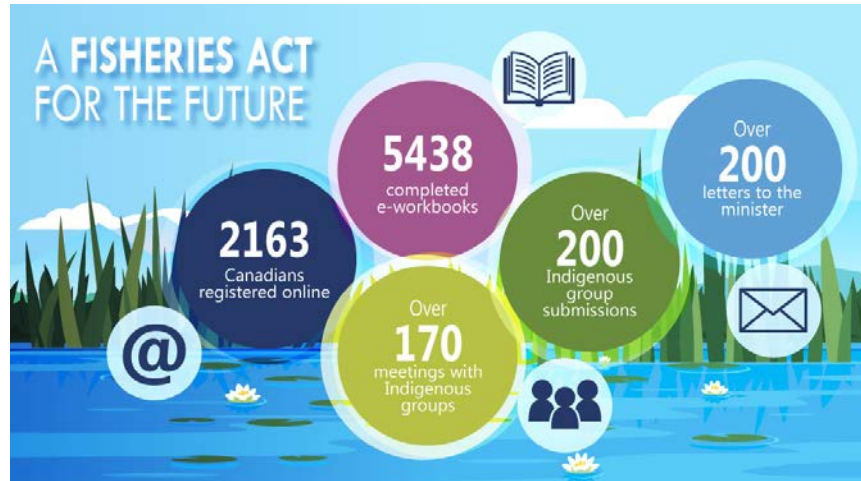
In 2017-18, the Fisheries Protection program was delivered through three sub-programs:

- 2.2.1 Regulatory Reviews, Standards and Guidelines
- 2.2.2 Partnerships and Regulatory Arrangements
- 2.2.3 Aquatic Invasive Species

Results

In 2017-18, DFO made significant progress in support of its mandate letter commitment to work with Transport Canada to review the previous government's changes to the [Fisheries Act](#)^{lxiv} and the Navigable Waters Protection Act (which is now called the [Navigation Protection Act](#)^{lxv}). On February 6, 2018, the Government introduced [Bill C-68, An Act to amend the Fisheries Act and other Acts in consequence](#)^{lxvi}, in

Parliament. Upon introduction of Bill C-68, Canadians were informed of the proposed changes to the Act. The Bill introduces modern safeguards to support the conservation and protection of fish and fish habitat and supports reconciliation with Indigenous



peoples. It aims to provide better certainty for Canadian industry and ensure the long-term sustainability of aquatic resources. Leading to the introduction of Bill C-68, the Government considered the recommendations of the Standing Committee on Fisheries and Oceans and input received during departmental consultations with Canadians including targeted consultation with Provinces, Territories, and Indigenous peoples. More information is available on [DFO's website](#)^{lxvii}.

DFO also contributed to the preparation of [Bill C-69, An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts](#)^{lxviii}, which was tabled by the Minister of Environment and Climate Change Canada on February 8, 2018. DFO worked with the Canadian Environmental Assessment Agency and Natural Resources Canada to review the assessment processes under the [Canadian Environmental Assessment Act, 2012](#)^{lxix} (CEAA 2012). Bill C-69 proposes to:

- repeal and replace CEAA 2012 with a new Impact Assessment Act;
- repeal and replace the current [National Energy Board Act](#)^{lxx}; and
- amend the [Navigation Protection Act](#)^{lxxi}.

In addition to these proposed legislative amendments and in response to the evaluation of the program in 2016-17 ([see next page](#)), DFO accomplished other new initiatives. A national program has been created to implement the Aquatic Invasive Species Regulations and to act on scientific and other advice according to the four international Aquatic Invasive Species (AIS) pillars of: prevention, early detection, response, and control and management. The national program is focused on protecting Canadian freshwater and marine ecosystems from the introduction and spread of AIS and mitigating the negative impacts of established AIS populations to benefit Canada's biodiversity, economy and society.

DFO reviews all applications for authorization of proposed works, undertakings and activities that may affect fish and fish habitat. Regulations under the Fisheries Act set out timelines by which DFO must deem applications complete or incomplete. Meeting these timelines ensures that Canadians receive regulatory advice from DFO in a consistent and timely manner. The Department met these timelines for all applications but one in 2017-18. See the Results Achieved table below.


Advancements have been made to modernize monitoring of development and to enhance the analysis and reporting of ongoing compliance and effectiveness monitoring results. Going forward, work will be undertaken to finalize and implement monitoring tools and processes. This includes standardized national procedures to track and analyze information provided by proponents, a framework and process for development of regional strategic monitoring plans, enhancements to the national Fisheries Protection program information system (PATH) to improve data collection and quality, and templates for proponent-led monitoring and reporting. A national monitoring working group continues to provide technical expertise, oversight, and direction for these various activities. New monitoring tools and processes will be implemented in 2018-19.

As part of the Department's work under the Oceans Protection Plan to preserve and restore marine ecosystems vulnerable to increased marine shipping and development, DFO funded 32 [Coastal Restoration Fund](#)^{lxxii} projects across Canada.

DFO scientists provided science advice to the Fisheries Protection program and related programs through regional processes and a National Peer Review Meeting of the Canadian Science Advisory Secretariat (CSAS). Science advisory processes are used to address questions about the management of Canadian oceans and the conservation of marine freshwater resources. The 2017-18 regional review processes provided advice on projects related to the Canadian Environmental Assessment Act, the Fisheries Act, or the Species at Risk Act in the form of science responses that are available on DFO's searchable [CSAS database](#)^{lxxiii}. The [national peer review meeting](#)^{lxxiv} was held to provide further information on the development of scaled-down monitoring programs; results are forthcoming.

In 2017-18, DFO also completed its two-year contribution agreement with the International Institute for Sustainable Development (IISD) on behalf of the Experimental Lakes Area (ELA), which supported scientific research projects relevant to freshwater fish and fish habitats in the unique ELA of Kenora District, Ontario. A new agreement between DFO and IISD has been put in place to continue progress on the Minister's mandate letter commitment to restore annual federal funding for freshwater research and make new investments in Canada's Experimental Lakes Area.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Canadians receive regulatory advice from the Fisheries Protection Program in a consistent and timely manner in an effort to avoid, mitigate and offset impacts to fisheries	Percentage of applications that are deemed complete or incomplete as per the timelines set in regulation	100%	March 31, 2018	99% (60 day)	100%	n/a
			100%	March 31, 2018	100% (90 day)	100%	n/a

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.


Program Evaluation

An evaluation of the Fisheries Protection Program (FPP) and its Aquatic Invasive Species (AIS) component was completed in 2016-17. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{lxv}.

The evaluation noted that the performance of the FPP has been impacted by a substantial reduction in its workforce and the consolidation of DFO offices in the regions. The AIS component partially responds to an ongoing need to prevent the introduction, establishment and spread of AIS into Canadian waters. There is an opportunity to address AIS-related issues on a broader scale across Canada; however, the current governance and funding model and lack of clear national objectives restrict the AIS component from achieving impact outside of the Great Lakes.


The evaluation recommended that required standards and guidelines be developed and met, adequate oversight and monitoring of projects on or near water be provided, and that clear national objectives be identified for the AIS component.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	71,359,349	71,359,349	93,230,788	84,492,068	13,132,719

Note: The difference is mainly due to additional funding for the Oceans Protection Plan.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	434	451	16

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{lxxvi}.

Program 2.3 – Species at Risk

Description

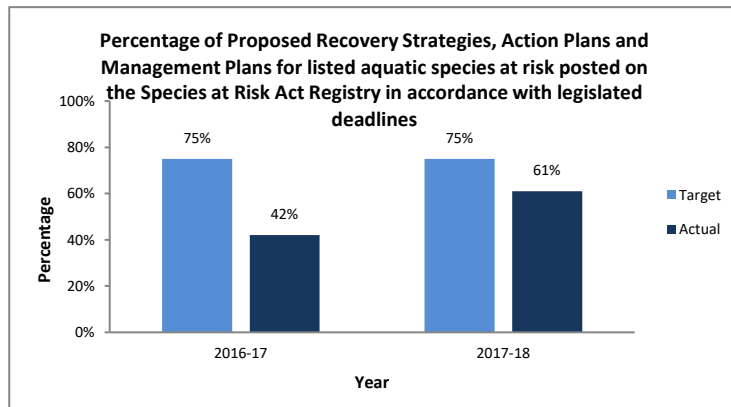
The [Species at Risk Act](#)^{lxxvii} is the federal legislative tool for protecting listed wildlife species at risk. It establishes a process for conducting scientific assessments of the status of wildlife species, by an arm's length organization, and for listing species assessed as extirpated, endangered, threatened and of special concern. The Species at Risk Act also includes provisions for the protection, recovery and conservation of listed wildlife species and their critical habitats and residences. The Minister of Fisheries, Oceans and the Canadian Coast Guard is the competent Minister for all aquatic species at risk in Canada (except those in, or on federal lands administered by Parks Canada). The program is managed according to key principles in the Act, such as stewardship, engagement, consultation, cooperation, compliance, and enforcement. The program is informed by scientific research, social and economic research, and stakeholder and community views. This information then supports the assessment and listing of species; the recovery and protection of listed species at risk through recovery strategies, action plans and management plans; the identification and protection of species' critical habitats; the implementation of recovery measures; and reporting on progress. The Species at Risk program helps improve the ecological integrity of aquatic ecosystems so that they remain healthy and productive for future generations of Canadians.

Results

The Species at Risk (SAR) program supports the government priority of a clean environment and a strong economy, as well as the departmental priority of investments in science in support of evidence-based decision making. DFO held consultations and conducted outreach at all stages of the SAR conservation cycle, from species assessment, protection, recovery planning, implementation of recovery measures, to ongoing monitoring and evaluation. Included in these consultations and outreach were federal departments, provincial, territorial, and municipal governments, Indigenous groups, environmental and other non-governmental organizations, industry associations, academic institutions, and the Canadian public.

DFO improved its overall results for the posting of proposed recovery strategies, action plans, and management plans for listed aquatic species at risk to the [Species at Risk Public Registry](#)^{lxxviii} in accordance with legislated timelines in the Species at Risk Act (from 42% in 2016-17 to 61% in 2017-18). This is due to the streamlining of processes to ensure efficiency. The breakdown of the 2017-18 results consists of the following:

- 72 of 96 recovery strategies have been posted to the registry;
- 34 of 49 management plans have been posted to the registry;
- 36 of 88 action plans have been posted to the registry.




DFO also improved its overall results for listed aquatic species that have critical habitat identified either partially or completely. At the end of 2017-18, DFO had 72 endangered or threatened aquatic species listed under SARA. Of those 72 species, 51 have critical habitat identified in a proposed or final recovery document that has been posted to the registry. This represents a 4% improvement over the previous year. The Department is implementing changes to streamline processes to mitigate risks of being overdue in posting documents, and expects to see improved results going forward.

The results of the 2016-17 tri-departmental evaluation of the programs and activities in support of the Species at Risk Act were expected in 2017-18, but were delayed and received in early 2018-19. DFO will partner with Environment and Climate Change Canada and Parks Canada in addressing the recommendations in 2018-19.


[Budget 2018](#)^{lxxix} assigned \$35 million over five years to better protect, preserve, and recover endangered whale species in Canada. This includes funding to better understand the factors affecting the health of these whales, and actions to address threats arising from human activities. For more information on DFO's work with endangered whales, see [program 1.1 Integrated Fisheries Management](#).

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Government authorities, individuals and organizations have the necessary information and direction to make decisions and guide behaviour in relation to the conservation of listed aquatic species at risk and their critical habitat	Percentage of Proposed Recovery Strategies, Action Plans and Management Plans for listed aquatic species at risk posted on the Species at Risk Act Registry in accordance with legislated deadlines	75%	March 31, 2018	61%	42%	n/a
		Percentage of listed aquatic species that have critical habitat identified either partially or completely	75%	March 31, 2018	71%	67%	n/a

Note: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		22,354,201	22,354,201	21,108,073	21,094,635

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		133	135

Program 2.4 – Environmental Response Services

Description

The Canadian Coast Guard is the lead federal agency for ensuring an appropriate response to all ship-source and unknown mystery pollution spills in Canadian waters and waters under international agreements. The Environmental Response Services program minimizes the environmental, economic, and public safety impacts of marine pollution incidents. Through the program, the Canadian Coast Guard establishes an appropriate and nationally consistent level of preparedness and response services in Canadian waters; monitors and investigates all reports of marine pollution in Canada in conjunction with other federal departments; and maintains communications with the program's partners, including Transport Canada and Environment and Climate Change Canada, to ensure a consistent coordinated approach to the response to marine pollution incidents. The Coast Guard's Fleet Operational Readiness program contributes to the delivery of this program. The program is delivered in coordination with other federal departments for surveillance information and scientific advice and with ship owners and commercial Response Organizations to support response efforts. The program's legal basis derives from the [Oceans Act](#)^{lxxx}, the [Canada Shipping Act, 2001](#)^{lxxxi}, and the [Constitution Act, 1867](#)^{lxxxii}.

Results

The Environmental Response Services program is aligned with the departmental priorities and the Minister's mandate letter commitments related to improved marine safety and ocean protection, a cleaner and sustainable environment, and reconciliation with Indigenous peoples. The program is also aligned with the Government of Canada's Agenda, Results and Communications Committee's priority to improve the quality, timeliness, and efficiency of federal government service delivery and improve relationships with, and outcomes for Indigenous peoples.

In 2017-18, the Coast Guard participated in a number of initiatives and projects through the Oceans Protection Plan (OPP) to enhance environmental response, ship-source pollution response, emergency towing, and icebreaking.

The Coast Guard delivered Indigenous Community Response Training, which offers education and support in search and rescue, environmental response, and incident management to First Nations in British Columbia. The first training session was completed in October 2017 in Bamfield, British Columbia. The project achieved its one-year mandate with the completion of the second official training session, a coastal nation search and rescue course also held in Bamfield, in February 2018, with participation from nine First Nations. Early and consistent coordination with various Coast Guard programs such as environmental response, search and rescue, and incident management was integral to the success of the program.

Primary Environmental Response Teams (PERTs) are being established across Canada, located within each region based on risk and operational requirements. As 2017-18 was the first year in establishing the PERTs, the Coast Guard undertook a scoping exercise to ensure that each region has the appropriate infrastructure, equipment, and human resources.

The Coast Guard is also increasing its towing capacity through three initiatives: installing two emergency towing kits on major vessels in the Western and Arctic regions; engaging with Indigenous peoples, industry, and stakeholders to complete a West Coast towing needs assessment to identify risks in emergency towing and to develop potential recommendations to mitigate those risks (expected to be completed in 2018-19); and leasing two emergency off-shore towing vessels capable of towing large vessels in distress off the West Coast. The contract to lease these off-shore towing vessels has been initiated, and these vessels will be operational by fall 2018. Thirty additional towing kits will be delivered and installed in 2018-19.

The Coast Guard advanced the development of a legislative and regulatory framework, operational policies and procedures, and scientific studies to support informed decision-making on the use of alternative response measures (ARMs). The Coast Guard did this by studying similar legislative regimes and collaborating with partners, including the Multi-Partner Research Initiative, which funds studies on ARMs, with an aim to aligning with the Frontier and Offshore Regulatory Renewal Initiative. The Coast Guard also continues to make progress on a legal and operational framework, supported by science, to allow the use of ARMs as possible oil spill response options. The Coast Guard noted positive public interest in learning about the science behind oil spill clean up and about ARMs. The public indicated a desire to be engaged in a transparent manner that highlights linkages with other OPP initiatives and the environmental response regime as well as their role in the process.

In 2017-18, the Coast Guard committed to ensuring that the newly re-opened Kitsilano Coast Guard Base included environmental response capacity and training for regional Indigenous peoples, stakeholders, and operators. The station has significantly increased its response capacity with the addition of two 24-hour crew members. Crews are multi-mission capable, and will have a dedicated role for marine pollution incidents. Physical renovations are also underway, and the base's new environmental response equipment is in the process of being procured. The Environmental Response training program has already delivered many Oil Spill Response courses to Coast Guard personnel, response partners, and regional stakeholders. Current curriculum updates and expansion will form the basis of a national training standard for the new environmental response coordination function established in these new centres.

This past year, work was advanced to establish 24/7 operations in Regional Operation Centres (ROCs) in all three regions (Atlantic, Western, and Central and Arctic) as well as in the National Command Centre in Ottawa. All centres will accommodate new staff to conduct 24/7 operations and emergency response. The Coast Guard began a year-long hiring campaign that is expected to be completed by fall 2018.

The Coast Guard also worked to advance the national strategy on vessels of concern. The Department, in consultation with partners, has developed a comprehensive plan that focuses on prevention and removal, including a robust, polluter-pay approach to future vessel cleanup. On October 30, 2017, [Bill C-64, An Act Respecting Wrecks, Abandoned, Dilapidated or Hazardous Vessels and Salvage Operations](#)^{lxxxiii}, was tabled in the House of Commons, and work advanced to develop a national vessel of concern inventory and risk assessment methodology. Feedback was solicited from industry stakeholders on the development of a risk assessment methodology in November 2017, followed by a briefing for industry participants in February 2018. The Coast Guard also engaged international counterparts, who shared their knowledge, experience, and networks, and recommended best practices to inform the implementation of the national

strategy on vessels of concern. In 2017-18, the Manolis L oil removal operations began and are expected to be completed by fall 2018.


The Coast Guard worked collaboratively with Indigenous communities and key stakeholders to successfully develop a methodology for risk-based response planning in four areas that have the highest level of tanker traffic: Southern British Columbia (Straits of Georgia and Juan de Fuca); St. Lawrence (Montreal to Anticosti Island, Quebec); Port Hawkesbury and the Strait of Canso (Nova Scotia); and Saint John and the Bay of Fundy (New Brunswick). Although the Area Response Planning initiative has concluded, work continues in the pilot areas to inform environmental response planning, which is deliberate planning for response to marine oil pollution spills. DFO continues to collect biological, physical, and socio-economic data that will help inform decision-makers and responders during a marine incident. The Coast Guard continues environmental response planning and will use the [Area Response Planning Lessons Learned Final Report](#)^{lxxxiv} to inform marine environmental response planning activities across Canada.

Lessons learned from the Area Response Planning initiative are informing the implementation of a Regional Response Planning pilot project under the OPP which, along with risk-based response planning, is a method for achieving environmental response planning. This pilot project began in 2017-18 in British Columbia's Northern Shelf bioregion. Led by the Coast Guard, the project aims to implement a holistic, risk-based, and collaborative approach to marine environmental response planning while taking into account regional, ecological, geological and socio-economic factors. The scope for the pilot project has been collaboratively defined with First Nations, the Province of British Columbia, and federal partners, including DFO, Environment and Climate Change Canada, and Transport Canada. Throughout 2017-18, the Coast Guard held engagement sessions with its partners in the pilot area, working closely with provincial counterparts, First Nations from the central and northern Pacific coast, local communities, and industry. A governance structure was established and discussions on response plan development with partners are continuing. The plan will clarify roles and responsibilities in the region and include alerting and notification procedures to ensure better coordination so that if a marine pollution incident occurs, all parties are aware and engaged effectively.

Engagement activities on Regional Response Planning within British Columbia's Northern Shelf bioregion did not start until November 2017, due to parallel delays in formally launching the pilot through the Oceans Protection Plan and the Reconciliation Framework Agreement negotiations. Engagement with implicated partners and stakeholders is a complex process which requires sustained dialogue in order to build trust and explore opportunities to collaborate.

As part of the Coast Guard's commitment to innovation, it is actively exploring opportunities with internal and external partner organizations, suppliers, and the academic community to design and trial new technologies to reduce pollution and the negative impacts on the environment, its operations, and its seagoing personnel. Through the application of tools like Gender-Based Analysis Plus, among other policy considerations, the Coast Guard is seeking to update and transform its fleet and operations towards the ultimate outcome of an ever-more inclusive workplace at sea and ashore.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Environmental, economic and public safety impacts of marine pollution events are mitigated	Percentage of reported cases in which the response was appropriate relative to the pollutant, threat and impact	100%	March 31, 2018	100%	100%	100%

Program Evaluation


An evaluation of the Environmental Response Services Program was completed in 2016-17. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{xxxxv}.




The evaluation noted that the program is generally delivering its intended services and meeting its intended outcomes. No clear evidence was found of major gaps in services or of significant shortfalls in terms of marine efficiency or safety. However, some evidence suggests that risks may be increasing due to asset deterioration (for example, aids to navigation and Coast Guard vessels). These risks were identified in the Marine Navigation Risk Profile, and some mitigation actions are being implemented, such as the Vessel Life Extension program.

A recommendation was made concerning the need for nationally consistent, detailed standard operating procedures for the Environmental Response Services program.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	34,918,463	34,918,463	40,740,007	35,408,137	489,674

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	93	177	84

Note: The difference is mainly due to growth under the Comprehensive Review initiative.

Program 2.5 – Oceans Management

Description

The Oceans Management program takes an integrated and evidence based approach to managing oceans issues and collaborates with other federal departments, other levels of government, Indigenous groups, and stakeholders. Building on a foundation of science, the program addresses a number of challenges facing Canada's oceans, such as oceans health, marine habitat loss, declining biodiversity and growing demands for access to ocean space and resources. The program gathers, disseminates and considers ecological, social and economic impacts to ensure the protection, conservation and sustainable use of Canada's oceans. The legal basis for the program derives from the [Oceans Act](#)^{lxxxvi} along with Canada's Oceans Strategy which provides the Department with a framework for managing estuarine, coastal and marine ecosystems.

Results

The Minister's mandate letter includes a commitment to increase the conservation of Canada's marine and coastal areas to five percent by 2017 and ten percent by 2020. To achieve these targets, [Bill C-55, An Act to amend the Oceans Act and the Canada Petroleum Resources Act](#)^{lxxxvii}, was tabled in Parliament in June 2017, and is awaiting Parliamentary approval. Royal assent is anticipated in fall 2018. The proposed legislative changes to the Oceans Act aim to facilitate the interim protection of an area without sacrificing sound science or the public's opportunity to provide input. In October 2017, the interim goal of five percent was achieved and, by December 2017, it was surpassed with a result of 7.75 percent. Meeting the five percent interim target was largely due to significant contributions of marine refuges established under the [Fisheries Act](#)^{lxxxviii}. Fifty-one [marine refuges](#)^{lxxxix} were announced in 2017, contributing approximately 274,800 square kilometres (4.78%) to Canada's marine conservation targets. In 2018, an additional proposed conservation area under the Fisheries Act has been announced in the Eastern Canyons area of offshore Nova Scotia.

Significant progress was made in advancing and establishing Marine Protected Areas (MPAs) throughout Canada. DFO's commitment to establishing large MPAs in offshore areas resulted in the large [Offshore Pacific Area of Interest](#)^{xc} announced in May 2017, which covers approximately 140,000 square kilometres. DFO also [announced two new Areas of Interest](#)^{xcii}, the Eastern Shore Islands and Fundian Channel-Browns Bank. Work has also continued for the previously announced Banc des Américains and Laurentian Channel Areas of Interest. DFO is working to identify additional Areas of Interest in collaboration with its partners; consultations with Federal, Provincial, and Territorial Governments, Indigenous groups, stakeholders, and other partners are ongoing. DFO is contributing to the whole-of-government approach to establishing the [Tallurutiup Imanga \(Lancaster Sound\) National Marine Conservation Area](#)^{xciii}; discussions began in late 2017-18.

DFO also continues to advance MPA network development in five bioregions within Canada's oceans: Pacific Northern Shelf, Western Arctic, Newfoundland-Labrador Shelves, Scotian Shelf, and Estuary and Gulf of St. Lawrence. In each of these bioregions, efforts are currently focused on the creation of MPA network designs (maps which, once finalized, will guide future conservation efforts within the bioregions, including selection of appropriate conservation

measures). Local governments, Indigenous groups, and stakeholders have been engaged in network development to date, and will continue to have opportunities to provide input throughout the process, including the process to finalize MPA network designs.

The Oceans Task Group, a federal-provincial-territorial subgroup of the [Canadian Council of Fisheries and Aquaculture Ministers](#)^{xciii} (CCFAM), completed its report on the use of socio-economic data and cultural information in Canada's MPA network and MPA establishment. The report will be presented at the 2018 CCFAM meeting, expected to take place in the fall of 2018.

Under the Oceans Protection Plan (OPP), two years of funding was provided to develop a strategy to foster better co-management of Canada's oceans with provinces, territories, and Indigenous peoples and to advance a new governance framework in the Pacific North Coast. Negotiations between the Government of Canada (DFO/Coast Guard, Transport Canada, Crown-Indigenous Relations and Northern Affairs Canada, Environment and Climate Change Canada) and North and Central Coast First Nations to establish collaborative governance for oceans management and protection in the Pacific North Coast took place throughout 2017-18. A [Reconciliation Framework Agreement for Bioregional Oceans Management Protection](#)^{xciv} to support this approach was agreed to in principle in 2017-18.

DFO and Parks Canada, representing the Government of Canada, signed a statement of intent with the Nunatsiavut Government to work together on oceans management in northern Labrador. DFO continues to strengthen federal coordination of ocean initiatives through regular interdepartmental meetings. These meetings facilitated discussions of environmental and regulatory reviews, Indigenous reconciliation, and other crosscutting ocean topics, enabling better federal coordination of Canada's oceans issues.

DFO, in collaboration with Transport Canada and other partners under the OPP, began to implement the Marine Environmental Quality initiative to study and manage marine ecological stressors that impact marine mammals and their habitats, including underwater noise.


In addition, the Oceans Management grants and contributions programs were successfully implemented in 2017-18. A total of 42 contribution agreements were signed, supporting 39 stakeholders, including Indigenous, not-for-profit, and academic groups. Multi-year agreements will be put in place to facilitate the continued support of and ongoing relationships with recipients.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Canada's estuarine, coastal and marine ecosystems are protected and conserved while fostering sustainable use	Percentage of coastal and marine territory conserved by Oceans Act Marine Protected Areas and other effective area-based conservation measures within Fisheries and Oceans Canada's mandate	Contributing to the national target of 5% by 2017 and 10% by 2020	Dec. 31, 2017	7.75%	1.14%	Approx. 1.2%


Program Evaluation

An evaluation of the Oceans Management program was completed in 2017-18. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{xv}.

 Current and evolving uses of Canada's oceans have resulted in a more complex marine environment and a greater need for oceans management. Notable progress has been made in meeting certain short-term objectives, such as designating Marine Protected Areas in support of Government of Canada's marine conservation targets. The priority-driven funding structure of the program has redirected attention away from the comprehensive use of all available tools within the Oceans Act. In addition, limited monitoring activities prevent the program from demonstrating progress on long-term objectives. DFO administrative regions divide the ocean space into areas that do not fully align with marine bioregions, creating challenges in the pursuit of an ecosystem-based approach to oceans planning, such as marine spatial plans.


The evaluation recommended that the program enhance long-term sustainability; gather baseline and ongoing information about the marine environment; and examine the constraints of the DFO administrative regions on ecosystem-based approaches to oceans management.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	54,268,898	54,268,898	74,929,074	74,876,142	20,607,244

Note: The difference is mainly due to additional funding for the Oceans Protection Plan.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	336	418	82

Note: The variance is mainly due to additional funding received for the Oceans Protection Plan.

Program 3.1 – Search and Rescue Services

Description

The Canadian Coast Guard's maritime Search and Rescue Services program leads, delivers, and maintains preparedness for the 5.3 million square kilometer maritime component of the federal search and rescue program, with the support of stakeholders and partners, including the Canadian Coast Guard Auxiliary and the Department of National Defence. Through communication, coordination, and the delivery of maritime search and rescue response and operational awareness, the program increases the chances of rescue for people caught in on-water distress situations. The Fleet Operational Readiness and Marine Communications and Traffic Services (MCTS) programs are integral contributors to the delivery of the program. The program's legal basis derives from the [Constitution Act, 1867](#)^{xcvi}, the [Oceans Act](#)^{xcvii} and the [Canada Shipping Act, 2001](#)^{xcviii}.

In 2017-18, the Search and Rescue Services program was delivered through two sub-programs:

- 3.1.1 Search and Rescue Coordination and Response
- 3.1.2 Canadian Coast Guard Auxiliary

Results

To improve response capacity to marine incidents and increase coverage to keep mariners and the environment safe, the Coast Guard worked on introducing seven new lifeboat stations across Canada: four in British Columbia and three in Newfoundland and Labrador, including the former MCTS centre in St. Anthony.

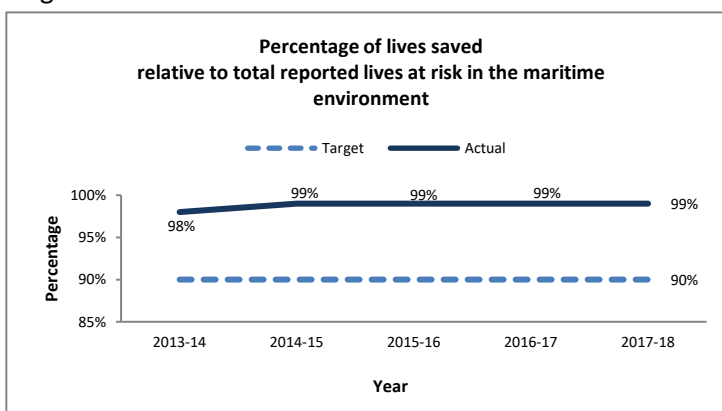
Other achievements in 2017-18 included the identification of locations, development of technical requirements, indigenous engagement, and procurement initiation. Furthermore, a project team and project plan were put in place for all Search and Rescue (SAR) Stations and a contract was awarded and work started on the refurbishment of the St. Anthony MCTS station. Engagement with First Nations on the West Coast relating to the new SAR stations began, including the creation of First Nations liaison positions and staffing them with Indigenous members from three different groups. Equipment/items that would be required for the SAR stations were identified and the procurement process started. In addition, the Project Team liaised with the team involved in the construction of the new Bay Class lifeboats.

The Coast Guard also made progress towards re-establishing the capacity formerly provided by the Maritime Rescue Sub-Centre in St. John's, Newfoundland and Labrador, including the hiring, training and certification of nine new officers. The Maritime Rescue Sub-Centre in St. John's was re-opened in early 2018-19, three months ahead of schedule, and staffed for 24-hour operation


with two Maritime Search and Rescue Coordinators on duty. Trainees were given project support roles as they progressed through the training process and this has produced positive results.

In 2017-18, the Indigenous Community Boat Volunteer Pilot program was successfully launched and implemented in the Arctic with four communities receiving funding for new search and rescue capable boats and equipment. The Community Boat program provides funding to coastal Indigenous communities to buy search and rescue capable boats and search and rescue equipment so they can join or increase their involvement in the Canadian Coast Guard Auxiliary. This program helps to ensure that coastal communities have the tools they need to build on the role they already play in marine safety in local waters. Next year the program will be national, with funding available for coastal Indigenous communities across the country. The Canadian Coast Guard Auxiliaries' reach and capacity were also expanded into the Arctic through the renewal of contribution agreements with Newfoundland and Labrador, Québec, and Central and Arctic Auxiliaries. These new agreements came into effect on April 1, 2018.

In 2017-18, the Coast Guard opened its first permanent seasonal Inshore Rescue Boat Station in the Arctic. Rankin Inlet, Nunavut, was selected as the location to support the increasing need for near-shore search and rescue coverage in the area. The Coast Guard worked with local governments and community leaders to make this selection and the crews will consist of Indigenous students recruited from Arctic communities. The station's inaugural season will be 2018. It will be the first in the Arctic, bringing the number of Inshore Rescue Boat stations the Coast Guard currently operates to 26 across the country, now from coast-to-coast-to-coast.



Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Loss of life to mariners in distress is minimized	Percentage of lives saved relative to total reported lives at risk in the maritime environment	>90%	March 31, 2018	99%	99%	99%

Program Evaluation


An evaluation of the Search and Rescue Services Program was completed in 2016-17. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{cx}.




Overall, the maritime Search and Rescue program is relevant and the need remains for the program. Evidence demonstrates that lives are being saved with the Coast Guard and the Canadian Coast Guard Auxiliary each being both prepared and available to assist people in need of help in the maritime environment. The program is assigning resources to meet the needs and severity of the incident as well as using lower cost service delivery mechanisms, such as the Inshore Rescue Boat Service and the Canadian Coast Guard Auxiliary, in an efficient manner.

The evaluation did identify challenges with respect to the number of exemptions sought to operate Coast Guard vessels without the designated number of rescue specialists on-board. As a result of the evaluation findings, one recommendation was made concerning the increase in the number of operational days where exemptions were sought for Coast Guard Rescue Specialists.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	33,890,834	33,890,834	46,527,900	44,603,059	10,712,225

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	150	185	35

Note: The difference is mainly due to growth under the Comprehensive Review initiative.

Information on Fisheries and Oceans Canada’s lower-level programs is available in the [GC InfoBase](#)^c.

Program 3.2 – Marine Communications and Traffic Services

Description

The Marine Communications and Traffic Services (MCTS) program is delivered by the Canadian Coast Guard. The safety of mariners and marine environmental protection in Canadian waters depend on the efficient and timely communication of information. The program ensures a reliable communication system is available 24 hours a day to contribute to the safety of life at sea, the protection of the marine environment, and the safe and efficient navigation in Canadian waterways. Services include marine distress and general radio communications, broadcasting maritime safety information, screening vessels entering Canadian waters, regulating vessel traffic in selected Canadian waters, providing marine information to other federal departments and agencies, and providing a public correspondence radiotelephone service in areas where mariners don’t have access to public telephone systems. The Shore-Based Asset Readiness and

Canadian Coast Guard College programs are integral contributors to this program. The legal basis for the program derives from the [Constitution Act, 1867](#)^{ci}, the [Oceans Act](#)^{cii}, and the [Canada Shipping Act, 2001](#)^{ciii}.


Results

Through the [Oceans Protection Plan](#)^{civ} (OPP), the Coast Guard hired 20 MCTS Officers. Of the 20 new MCTS Officers, one has completed training, 15 are being trained, and four will begin training before the end of 2018. The hiring of these new officers will contribute to the oversight of vessel traffic in Canadian waters, thereby supporting the Minister's mandate letter commitment to work with the Minister of Transport and the Minister of Environment and Climate Change to improve marine safety, and will help address the under-staffing of MCTS centres noted in a 2016-17 evaluation of the MCTS program.

The Coast Guard implemented and tested E-navigation technology to provide pilots and mariners with real-time marine information to improve the safety of Canadian waters. For example, data from 99 meteorological and 79 hydrographic stations across the country are broadcasted in near real-time on board ships' equipment in a digital format through an Automatic Identification System – Application Specific Message. Other tests broadcasting critical information, such as air gap and ice recommended routes during the winter season, took place. Provision of information, such as the ice recommended route, in a digital format prevents the officers on board having to manually transcribe the route, reducing the risk of error. Virtual Aids to Navigation were also tested to be used as a complementary measure to inform mariners on the presence of whales in the Gulf of St. Lawrence.

In 2017-18, the Coast Guard completed its revitalization of MCTS assets by refurbishing, replacing or updating those assets. The project, which was part of the Federal Infrastructure Initiative, is now complete, with 99 MCTS sites refurbished, 83 of which were completed in 2017-18. These improvements will make MCTS remote sites more reliable, increasing the dependability of MCTS services for Canadians.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Vessels have the marine communications and traffic services support they need to transit Canadian waters safely	Percentage of total number of collisions, strikings, and groundings out of the total vessel movements within vessel traffic system (VTS) zones	<1%	March 31, 2018	0.01%	0.02%	0.04%

Note: As part of its efforts to continually improve the reliability and consistency of its data, the program began using a different data source as of 2016-17. As a result, caution should be used when comparing 2017-18 and 2016-17 Actual Results to those of previous years.

Program Evaluation


An evaluation of the MCTS Program was completed in 2016-17. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{cv}.



The relevance of the MCTS program was confirmed by the strong legislative mandate that supports its role within the Canadian marine safety system. There is an increasing need for a strong marine safety system, given the increased traffic and size of vessels entering Canadian waters. The MCTS program experienced significant changes during the successful completion of the Consolidation and Modernization project and is well positioned to continue to fulfill its key role in the Canadian marine safety system. The Program is using resources in an efficient manner. However, there are several factors affecting efficiency, including the under-staffing of MCTS centres.


The evaluation recommended that the development and implementation of a sustainable staffing strategy identify and address any duplication in weather broadcasting services delivered by MCTS and Environment and Climate Change Canada, and implement a national quality management system to ensure that MCTS operational guidelines and procedures are standardized and applied nationally.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	33,679,329	33,679,329	48,368,804	43,803,924	10,124,595

Note: The difference is mainly due to reallocation of resources for cost associated with operational activities and to realign budgets to match where the associated expenditures or assets reside.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	348	314	-34

Program 3.3 – Maritime Security

Description

The Canadian Coast Guard’s Maritime Security Program supports the work of federal departments and agencies with maritime and national security mandates, including the Royal Canadian Mounted Police, the Canadian Forces, the Canada Border Services Agency, Public Safety Canada, and Transport Canada, by sharing maritime expertise and information and lending vessel support. Fleet Operational Readiness, Marine Communications and Traffic Services as well as Shore-Based Asset Readiness programs, are integral contributors to the delivery of the Maritime Security Program. The program is delivered in coordination with the Department’s Compliance and Enforcement program. The legal basis for the support of other federal departments or agencies is found primarily in the [Oceans Act](#)^{cvi}.

Results

The Maritime Security program contributes to the government-wide priority of safety and security by ensuring that federal law enforcement and intelligence communities have adequate support and information to enhance their awareness of vessel movements and respond to marine activities. The Coast Guard, through its role in the Maritime Security Operations Centres (MSOC), is the leading provider of maritime safety awareness and monitoring.


Over the course of 2017-18, the Coast Guard undertook to reinitialize the MSOC Directors group for the purpose of addressing and clarifying the Coast Guard's maritime security role with other stakeholders and addressing longstanding program authority and information-sharing issues within the MSOC. This effort was supported by all of the partners and the result was an agreement to conduct internal program reviews to clearly identify collective or MSOC activities. This will help the Coast Guard manage operational risks associated with operating alongside security and law enforcement partners. In addition to working with our partners, the Maritime Security (MARSEC) program worked to standardize the delivery of the MSOC program and to enhance integration with other Coast Guard programs and partners.

The Coast Guard expanded the MARSEC program to include support to law enforcement agencies managing large scale events; in 2017-18, MARSEC provided 13 platforms and over 200 personnel to support RCMP-led efforts at the G7 Leaders Summit. MARSEC also provided capacity-building in support of law enforcement agencies in Africa by sending six personnel abroad to provide training on maritime domain awareness and command centre expertise.


In 2017-18, four electronic communications review reports were prepared as part of the Modern Navigation System Initiative under the World Class Tanker Safety System. These reports describe the current Coast Guard Automatic Identification System, the Coast Guard Shore-based Radio communications system, the Long Range Identification and Tracking system, and the Coast Guard Shore-based Radar system capabilities of the Canadian Coast Guard, as well as recommended enhancements.

The Coast Guard continued work on the National Command Centre, which has been operational since July 2016 and will have the last few information technology requirements in place by March 2019 in order to be fully operational. In the meantime, the National Command Centre continued to provide national-level coordination and support of Coast Guard operations.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Federal enforcement and intelligence communities have adequate support and information to enhance their awareness of vessel movements and respond to marine activities	Percentage of requests for information that are actioned within 30 minutes	100%	March 31, 2018	100%	100%	100%
		Percentage of scheduled reports delivered on time	95%	March 31, 2018	100%	100%	100%
		Percentage of satisfaction in response to client needs	75%	March 31, 2018	100%	84%	89%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		8,415,573	8,415,573	10,204,303	9,676,164

Note: The difference is mainly due to Coast Guard year-end reallocation.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		60	74

Note: The difference is mainly due to growth under the Comprehensive Review initiative.

Program 3.4 – Fleet Operational Readiness

Description

The Canadian Coast Guard's Fleet Operational Readiness program provides safe and reliable vessels, air cushion vehicles, helicopters, and small craft with professional crews ready to respond to on-water and maritime-related needs. This program involves fleet management and operations, fleet maintenance, and fleet asset procurement. The program ensures that the federal civilian fleet meets the current and emerging needs and priorities of Canadians and Canada. The program supports Coast Guard programs, the Department's science, fisheries, and aquaculture activities, and the activities of other federal departments that need on-water delivery to support their mandates. The Canadian Coast Guard College contributes to the

delivery of this program. The legal basis for the program is found in the [Constitution Act, 1867](#)^{cvi} and the [Oceans Act](#)^{cvi}.

In 2017-18, the Fleet Operational Readiness program was delivered through three sub-programs:

- 3.4.1 Fleet Operational Capability
- 3.4.2 Fleet Maintenance
- 3.4.3 Fleet Procurement

Results

The Fleet Operational Readiness program aligns with the departmental priorities to improve marine safety and ocean protection, a cleaner and sustainable environment, reconciliation with Indigenous Peoples, and operational improvements to support priorities. This program is also aligned with the Government of Canada's Agenda, Results and Communications Committee's priority of modern, sustainable and resilient infrastructure that supports economic growth.

Under the [National Shipbuilding Strategy](#)^{cix}, two new Search and Rescue lifeboats have been received and are being prepared for service and seven medium-lift helicopters have been delivered and put into service. Four additional lifeboats and two Channel Survey and Sounding Vessels (CSSV) are expected to be delivered in the coming year; construction of the first CSSV began in June 2017. The Coast Guard also began plans to lease two vessels that will have the power and equipment required to effectively manoeuvre large disabled ships at risk of running aground or polluting. For more information on the Coast Guard's results related to towing capacity, see [program 2.4 Environmental Response](#).

Two projects related to ship procurement have been delayed. An Offshore Fisheries Science Vessel is expected to be delivered in the coming year rather than in 2017-18 as originally planned, and two more are expected in 2019. Also, construction engineering work is ongoing for the Offshore Oceanographic Science Vessel. While construction was to begin in 2018, it is expected that this will be delayed into mid-2019. Given the scope and complexity of shipbuilding projects, schedule changes and delays are not uncommon. With respect to the Polar Icebreaker, the basic design is complete. The vessel is scheduled to be built following the Offshore Fisheries Science Vessels, the Offshore Oceanographic Science Vessel, and the Joint Support Ships. The achievement of milestones is subject to progress made in those projects.

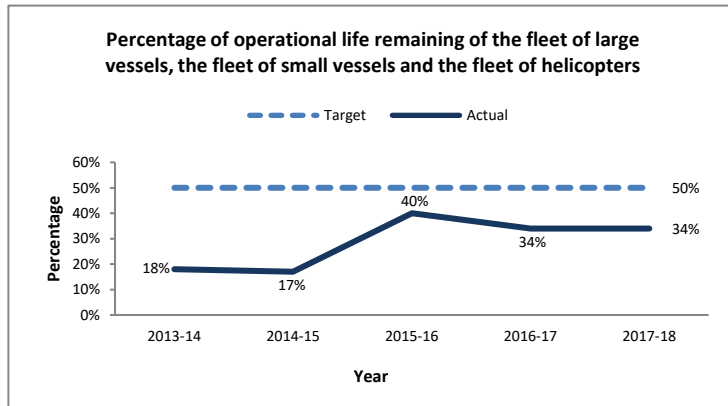
The Coast Guard has also developed an enhanced National Operations Training Plan to identify and prioritize key operational training. The plan has a three-year planning cycle which allows the Coast Guard to establish operational training requirements for the current year and will enable the organization to be better equipped to deliver on its core mandate and priorities in the future. Professional training is necessary for Coast Guard ship officers and crew to engage in continuous learning and professional growth and provide the Coast Guard with a sufficient number of trained and certified ship officers and crew. This training must take place while the Coast Guard maintains a state of readiness to deliver its programs with a full crew complement.

Following an unprecedented investment in Coast Guard programs and infrastructure, the organization launched the Force Generation Initiative. With a goal of enabling recruitment and the development of a diverse, highly trained, engaged, professional, and at-the-ready workforce for today and tomorrow, four key pillars have been identified: recruitment, training, career


management, and wellness. This initiative will develop the frameworks, tools, processes, policies, and procedures necessary to support the Coast Guard’s highly technical and operational programs, as well as supporting its employees throughout their careers with the organization.

The Coast Guard did not meet its target for the percentage of operational days lost due to breakdowns. The target was 3% or less; the Coast Guard’s result for 2017-18 is 6.5%. This is an increase over the previous year’s result and is due to the challenges of keeping an older fleet in working order, as well as longer than expected maintenance time for several vessels, and a shipyard delay that impacted the CCGS Hudson’s return to service for almost a year.

Although the Coast Guard did not meet its target for the percentage of operational life remaining of the fleet of large vessels, the fleet of small vessels and the fleet of helicopters, the result was consistent with that of previous years. The remaining operational life of helicopters improved significantly as new helicopters came into service. The large and small fleet saw minor improvements as one older vessel and one air-cushioned vehicle were taken out of service and two new Search and Rescue lifeboats were received. Over the long term, the target of 50% operational life remaining is not expected to be met for the large vessel fleet for a significant amount of time.



Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
 An operationally capable fleet that responds to the needs and requirements of the Government of Canada		Percentage of client mission completion against client-approved planned	90%	March 31, 2018	90%	83%	89%
		Percentage of operational days lost due to breakdowns	3%	March 31, 2018	6.5%	3.4%	3.6%
		Percentage of operational life remaining of the fleet of large vessels, the fleet of small vessels and the fleet of helicopters	50%	March 31, 2028	34%	34%	40%

Program Evaluation


An evaluation in support of the Canadian Coast Guard's Seafarers Establishment was completed in 2017-18. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{cx}.



The evaluation was designed to support the Coast Guard's Seafarers Establishment Project, which was created to determine the number of operational personnel that are required to deliver Coast Guard programs effectively and sustainably. The evaluation found that the definitions of operational personnel and requirements for marine certification and experience for shore-based operational positions were not well-articulated. Further, current crewing factors (for example, the number of personnel required for operations, taking into account holidays, leave, training, etc.) are not comprehensive and career development support is not meeting the needs of operational personnel. Issues that may impact long-term sustainability of the Coast Guard workforce were also identified, including current shortages in personnel, low morale, and planned departures.

The evaluation recommended that the Coast Guard clarify certification requirements and update its crewing factor; develop and implement a formal career development program; and develop and implement a nationally-coordinated recruitment and retention strategy.


Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	730,802,589	730,802,589	926,958,749	815,795,771	84,993,182

Note 1: The above includes the cost of operating vessels to support Canadian Coast Guard programs, the Department's science, fisheries, and aquaculture activities, and the activities of other federal departments that need on-water delivery.

Note 2: The difference is mainly due to additional funding for the Oceans Protection Plan.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	2,823	2,704	-120

Note: The above includes the human resources associated with operating vessels to support Canadian Coast Guard programs, the Department's science, fisheries, and aquaculture activities, and the activities of other federal departments that need on-water delivery.

Information on Fisheries and Oceans Canada's lower-level programs is available in the [GC InfoBase](#)^{cx}.

Program 3.5 – Shore-Based Asset Readiness**Description**

The Canadian Coast Guard Shore-Based Asset Readiness program ensures that the Canadian Coast Guard's non-fleet assets are available and reliable for delivery of Canadian Coast Guard programs. These non-fleet assets include both fixed and floating aids, such as visual aids (e.g. buoys); aural aids (e.g. fog horns); radar aids (e.g. reflectors and beacons); and long-range marine aids, such as the Differential Global Positioning System; as well as electronic

communication, navigation systems, and over 300 radio towers. The Shore-Based Asset Readiness program ensures the availability and reliability of these assets through life cycle investment planning, engineering, acquisition, maintenance, and disposal services. The Canadian Coast Guard College is an important contributor to the delivery of this program in its provision of technical training. This program is delivered in coordination with Public Services and Procurement Canada. Activities associated with the life-cycle asset management of Canadian Coast Guard shore-based assets are legislated and guided by the [Financial Administration Act](#)^{cxii} and [Government Contracts Regulations](#)^{cxiii}, as well as policies, directives, and guidelines provided by Treasury Board, Treasury Board Secretariat, Innovation, Science and Economic Development Canada, and Public Services and Procurement Canada. The legal basis for this program is found in the [Constitution Act, 1867](#)^{cxiv} and the [Oceans Act](#)^{cxv}.

Results

The Shore-based Asset Readiness program aligns with the departmental priorities to improve marine safety and ocean protection, a cleaner and sustainable environment, reconciliation with Indigenous peoples, and operational improvements to support priorities. The program also aligns with the Government of Canada's Agenda, Results and Communications Committee's priority of economic growth through innovation and clean technology.

The Coast Guard encountered struggles with maintaining infrastructure, but also made progress on several of its goals.

The Coast Guard did not meet its condition rating goals for program assets. The goal is to maintain an average rating of 2 (with 1 being good and 4 being poor). Regarding the condition rating for Marine Communications and Traffic Services (MCTS) program assets, the program achieved a rating of 2.2, from 2.0 in the previous year. The overall condition worsened slightly due to the ongoing deterioration of physical assets such as buildings, towers and power systems. However, the Coast Guard's operational electronic assets, such as radars, radios, and similar equipment, have seen an overall improvement in the condition of the assets in the past three years thanks to the replacement of the Communications Control System and to major updates and improvements to the Vessel Tracking System. This is as a result of the reallocation of funds to replace or refurbish those assets. Continued commitment and investment are required to slow and ultimately reverse the trend of asset deterioration.

Regarding the condition rating for long-range Aids to Navigation program assets, the rating for 2017-18 was 4 (poor), which is the same as the previous year. The Coast Guard is currently assessing the current and future operational need for augmentation of the system, including extensive user consultation and consideration of the United States Coast Guard's decision to terminate their own Directional GPS service. Following this assessment, a detailed options analysis will be conducted in conjunction with other federal departments to compare and assess potential technical solutions.


Regarding the condition rating for short-range Aids to Navigation program assets, the rating was 2.7, a decline from the previous year. This is due in part to a more accurate methodology used for assessment, and partly due to the continued long-term degradation of assets due to lack of resources. Detailed condition surveys were completed and teams are confident that, with continued investment and prioritization of resource allocation, particularly with funding and resources provided by the Comprehensive Review, asset condition will gradually improve.

The Coast Guard made progress towards improved environmental protections in its work. The Department worked towards reducing greenhouse gas emissions by investing in “greener technology” in its Aids to Navigation program and MCTS assets by using low-carbon technology and fossil fuel alternatives through completion of the Federal Infrastructure Initiative. Specifically, older generators were replaced with new, more fuel-efficient generators that greatly reduce greenhouse gas emissions. Where feasible, solar panels and batteries were installed to replace fossil-fuel based generators. The Department is also working to support the various Environmental Response and Search and Rescue Services initiatives through acquisition and lifecycle of maintenance activities for new program assets. The project is in the implementation phase and is continuing to develop specifications, procure required equipment, and staff appropriate positions identified by the project.

The Incident Command System (ICS) Information Management System is undergoing a rigorous quality assurance testing program in advance of acceptance from its vendor. Training of Coast Guard personnel on the new software will then be undertaken in all regions. The ICS System is expected to come into service in June 2019. The ICS System will replace paper-based incident management and thereby enable the Coast Guard to better manage its response to incidents across the country.

The Coast Guard also expanded its asset holdings by preparing to add eight new radar sites (six in British Columbia, one in Newfoundland and Labrador, and one in Nova Scotia) to address gaps in radar coverage and ensure continuous communication coverage in these areas. The Request for Proposal for the radars was issued and the bids are now being evaluated.


Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Reliable shore-based assets ready to respond to the operational needs and priorities of the Government of Canada	Condition rating for MCTS program assets	2	March 31, 2018	2.2	2.0	2
		Condition rating for long-range Aids to Navigation program assets	2	March 31, 2018	4.0	4.0	n/a
		Condition rating for short-range Aids to Navigation program assets	2	March 31, 2018	2.7	2.1	n/a

Note 1: n/a indicates that the performance indicator was not in effect at that time, and therefore, data is not available.


Note 2: The targets are based on a rating scale of '1' to '4', with '1' being good and '4' being poor, and a goal of replacement before reaching '4'. As assets should be replaced at a constant rate, the target is an average rating of '2'.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	121,188,483	121,188,483	165,118,017	158,693,929	37,505,446

Note: The difference is mainly due to funding to maintain mission-critical services to Canadians.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	743	1,184	441

Note: The difference is mainly due to growth under the Comprehensive Review initiative.

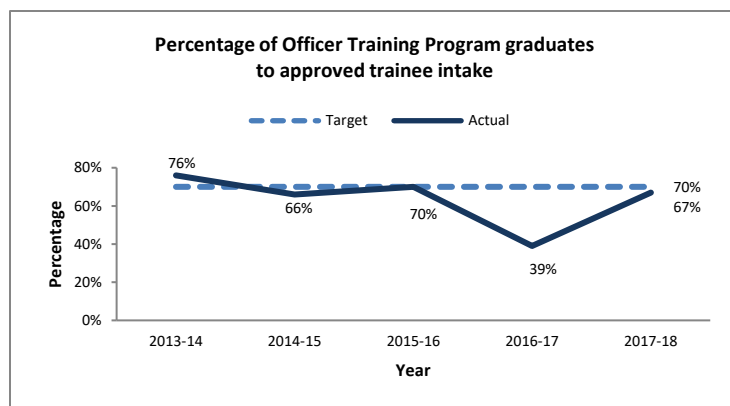
Program 3.6 – Canadian Coast Guard College

Description

The Canadian Coast Guard College, the Coast Guard’s national, bilingual, degree-conferring training institution, educates the marine professionals necessary to deliver programs in support of Coast Guard’s mission and mandate in marine safety, security, and environmental protection. Coast Guard’s Fleet Operational Readiness, Shore-Based Asset Readiness, Marine Communications and Traffic Services, Search and Rescue, and Environmental Response programs are integral contributors to the delivery of this program. The legal basis for this program is found in the [Constitution Act, 1867](#)^{cxvi} and the [Oceans Act](#)^{cxvii}.

Results

The Canadian Coast Guard College (the College) showed a considerable improvement in the percentage of Officer Training Program graduates to approved trainee intake, up from 39% in 2016-17 to 67% in 2017-18. There was also a slight improvement in the percentage of Marine Communications and Traffic Services Officer graduates to approved trainee intake, up from 88% in 2016-17 to 91% in 2017-18.



The Coast Guard looked into many areas for potential improvement in the College, with promising results. The Department took on additional recruitment activities, worked towards

providing a much larger training capacity to meet the increasing needs of the Coast Guard in the coming years, and considered Gender-Based Analysis Plus in developing a national strategy for hiring, training, and retaining employees. All vacancies in the Marine Engineer and Marine Navigation areas were filled, with a strong pool of qualified candidates remaining. The College staffed nine new instructors, one sea training officer, and a Superintendent of Navigation. The Superintendent of Operational Training position was also created and temporarily staffed to address the needs of professional training. Dedicated efforts in staffing proved to be productive in attracting new instructors to deliver training. Efforts continue in the establishment of pools to ensure that a sustainable human resources plan is in place.

The Coast Guard also worked towards changing and adapting its training and training delivery methodology to support the evolving professional maritime learning needs and certification of Coast Guard personnel. A thorough needs assessment was conducted and priorities identified to meet the demands of the organization. The College is currently developing training to meet the certification requirements in electrical high voltage endorsement, higher certification training for Marine Engineers (propulsion plant simulator training level 2), polar code training to meet International Maritime Organization regulations, an Emergency Response curriculum, and leadership and development training. All courses are ready for delivery in the coming year. Establishing a solid governance framework is essential to ensure that organizational training needs are identified and prioritized to meet the needs and certification levels of Coast Guard personnel.


With respect to the onboarding of cadets, the Coast Guard is committed to engaging and empowering new employees early in their career by providing them with the necessary resources, knowledge, and skills to be effective Officers for the Canadian Coast Guard. To achieve this, the College improved the Orientation/Onboarding process by refocusing the Orientation Week to provide a stronger introduction and understanding of the Coast Guard while clearly defining the roles and responsibilities of Officer Cadets. The week also emphasizes team building with the objective of creating a stronger sense of camaraderie amongst the Officer Cadets. In addition to the Orientation Week, the College has added a two-week practical orientation to the areas of specialization before starting the classroom learning. As the structure of the program does not include sea time until the second year, the practical orientation at the beginning of the program allows Officer Cadets to spend time in the Machine Shop (for Engineers) or at the Waterfront Facility (for Navigators), giving them a clearer understanding of the work they will do as Engineering or Navigation Officers with the Coast Guard. This helps Officer Cadets understand the objective of the training program and develop a stronger appreciation for how the classroom learning supports their practical training.

To further ensure the long-term success of the program and its graduates, the Coast Guard also worked towards developing a system of measuring post-graduate performance effectiveness by introducing quality assurance into the training. Over the last year, the Department of Quality Assurance at the College has made progress with preparing a post-training assessment (PTA) strategy and deployment system. The purpose of PTA is to gauge the effectiveness and success of the programs offered by the College by surveying recent graduates (6-12 months following graduation) and their workplace supervisors. The intention is to identify and remedy any shortcomings that may persist in the training that is delivered at the College. The College is preparing to distribute surveys to the upcoming graduates and their supervisors in the fall of 2019 using a survey tool. This will be the first time the College will employ a post-training

assessment tool for the Officer Training Program and it will enhance the feedback mechanism and strengthen training.

In addition, the Coast Guard is examining ways to modernize the learning platform, increase simulation technology, and update instruction techniques. Simulators on Ice management, High Voltage, Joint Rescue Coordination, and Lifeboat were installed at the College. They will be used to provide a more modern instructional platform.

Results Achieved

	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Trained operational personnel are ready to respond to the operational needs and requirements of the Government of Canada	Percentage of Officer Training Program graduates to approved trainee intake	70%	March 31, 2018	67%	39%	70%
		Percentage of MCTS Officer graduates to approved trainee intake	90%	March 31, 2018	91%	88%	79%

Program Evaluation


An evaluation of the Canadian Coast Guard College was completed in 2017-18. The evaluation can be found on the [Fisheries and Oceans Canada website](#)^{cxviii}.



The evaluation found the College fills a unique role in developing the next generation of Coast Guard marine personnel. Graduates are satisfied with their training and are well-prepared for a career in the Coast Guard upon graduation. The evaluation found that the College has opportunities to improve its performance by strengthening its governance; modernizing information management and communication; providing career management and counselling to cadets; improving program content; and putting more focus on recruitment of cadets.


The evaluation recommended that the College: be recognized as a Centre of Expertise for marine training through strengthened strategic direction and governance; improve training quality through its standardized Quality Assurance system and performance feedback from trainees and managers; strengthen recruitment; review course material and update content and/or alternative delivery, where needed; establish communication practices to more effectively share information; and improve access to mental health resources for cadets and trainees.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	12,946,128	12,946,128	19,407,426	19,397,194	6,451,066

Note: The difference is mainly due to reallocation of resources for cost associated with operational activities and to realign budgets to match where the associated expenditures or assets reside, Coast Guard year-end reallocation, and proceeds from the sale of surplus crown assets.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	290	297	7

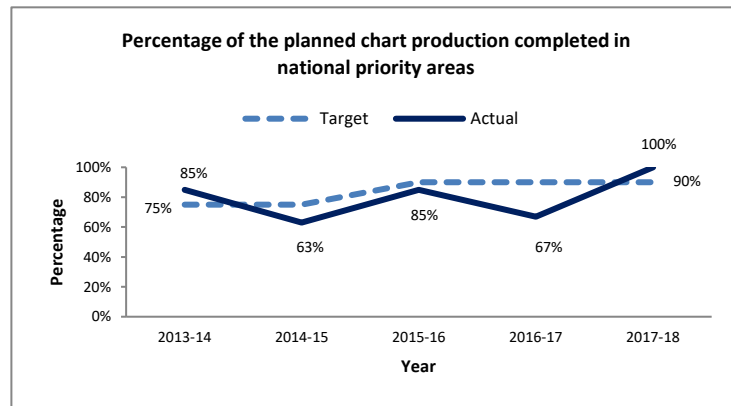
Program 3.7 – Hydrographic Products and Services

Description

The safe use of Canadian waterways requires knowledge of the physical limitations to navigation. The Canadian Hydrographic Service (CHS) contributes to safety on Canadian waterways by undertaking hydrographic surveys from primarily Canadian Coast Guard vessels to measure, describe, and chart the physical features of Canada's oceans and navigable inland waters. As Canada's hydrographic authority, the Canadian Hydrographic Service uses these data to produce up-to-date, timely and accurate nautical charts and publications in support of domestic and international marine transportation in accordance with the requirements of the [Canada Shipping Act, 2001](#)^{cxix} and the International Maritime Organization's Safety of Life At Sea Convention. In addition to supporting Safe and Secure Waters strategic objectives, hydrographic information is used in a number of research and development applications in engineering, ocean research, maritime security, marine navigation, ocean management, ecosystem science and the renewable and non-renewable energy sectors.

Results

DFO was successful in completing all of the planned chart production in national priority areas in 2017-18, surpassing the target of 90%. 133 new edition charts were produced in 2017-18, consisting of 94 electronic navigational charts and 39 paper charts. New investments from the World-Class Tanker Safety System and Oceans Protection Plan initiatives contributed to this success.



The Department improved slightly over the previous year with respect to the program's second performance indicator: the percentage of CHS's publicized levels of service that are met or near met. DFO fell short of meeting this target primarily due to the ramp-up of capacity required to deliver on the modern hydrography and charting objectives of the World-Class Tanker Safety System and the Ocean Protection Plan (OPP).

Examples of publicized levels of service include how long it takes to publish a Notice to Mariners on a nautical chart and how often certain nautical publications are reviewed and updated. These levels of service are currently under review and will be updated to reflect changes underway in the world of hydrography. More information on CHS levels of service can be found on [DFO's website](#)^{CXX}.

In 2017-18, DFO committed to delivering modern hydrography, including dynamic products and charting in key areas across the country, including high-traffic commercial ports and waterways. This activity has been accelerated under the OPP, with 35 surveys completed to date, covering 10 key ports, Arctic waters, and nearshore areas. The development of dynamic products, namely real-time tide and water-level information, which are both key components in supporting the development and implementation of a modern marine navigation system, is on track and linked to international efforts at the [International Hydrographic Organization](#)^{CXXI} (IHO) level. The IHO commits to ensuring that navigable waters worldwide are surveyed and charted, and DFO contributed to this work. The Department also worked towards completing electronic navigational charts from previous surveys. This is also incorporated into the CHS's OPP implementation plan.

Under the OPP, DFO also worked to provide up-to-date products and services for safe navigation in Canadian waterways, in the North in particular. Recent investments in the CHS through the OPP are helping in the acquisition of new data and incorporation of this information into nautical charts and products.

The OPP is enabling a transformation in the way the Department collects, manages, and disseminates information and products. The Department was committed to experimentation in 2017-18 and, through the OPP, invested in new approaches and new and emerging technologies to enhance our understanding of Canadian waters and acquire data to provide high quality

navigational products, including Laser Airborne Hydrography (LiDAR – Light Detection and Ranging) techniques coast to coast, and Automated Hydrographic Surface Vehicles.

DFO focused efforts on southern Canadian waters and on identifying priority areas that require updated hydrographic surveys and charting. Considerable effort has gone into the development of a Geographic Information System (GIS)-based tool, which has helped to identify areas in need of updated surveys and charts and helps with identifying influencing factors and prioritization.


In 2017-18, the Department supported the development of standards to ensure that modern electronic nautical charts meet current and future needs. DFO also continued its work on leading and coordinating the implementation of a Marine Spatial Data Infrastructure (MSDI) to ensure navigation data is widely accessible, through several IHO and United Nations working groups and training activities. The Department is also active in the fields of crowd-sourced bathymetry and satellite-derived bathymetry. DFO is preparing to host the first IHO-supported workshop on remote sensing in hydrography in September 2018.

DFO worked with Transport Canada and consulted with Northern communities to develop the concept of Low Impact Shipping Corridors to significantly enhance how departmental services, such as charting, navigational systems, and environmental response services, could be delivered in the future. In 2017-18, an annual maintenance process was developed for the corridors. A marine shipping corridor is an area that contains a measurable amount of marine transportation.


DFO also made progress on its work with the Canadian Space Agency (CSA) to experiment with satellite-based technology to generate bathymetric measurements for improved nautical charts, especially in remote areas such as the Canadian Arctic. The new investments from the CSA projects are dedicated to test the potential and limitations of this technology. Research-oriented work has resulted in practical applications and peer-reviewed published papers. The main objectives of the CSA project are to extract shoreline and satellite-derived bathymetry to update CHS charts. Under these projects, DFO released its first chart with the use of remote sensing data as a source of bathymetry.

The Hydrographic Products and Services program supports the Government of Canada's priority for growth in Canada's economy as well as the Minister's mandate letter commitment for improved marine safety. The program supports these priorities through the provision of up-to-date products and services for safe navigation in Canadian waterways, in particular the North.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Users of Canada's waterways have the products and services they need for safe navigation on Canada's waterways	Percentage of the planned chart production completed in national priority areas	90%	March 31, 2018	100%	67%	85%
		Percentage of Canadian Hydrographic Service's publicized levels of service that are met or near met	90%	March 31, 2018	69%	63%	80%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		34,556,501	34,556,501	44,675,808	44,407,124

Note: The difference is mainly due to additional funding for the Oceans Protection Plan.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		254	263

Program 3.8 – Ocean Forecasting

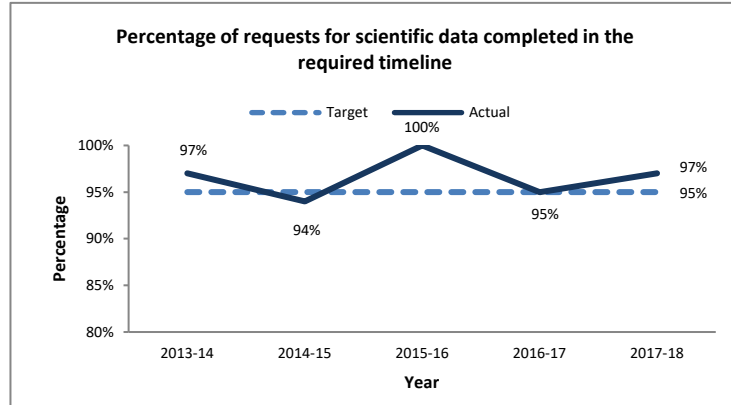
Description

As a maritime nation bordered by three oceans, Canada has an obligation to understand ocean processes and their influence on our environment, ecosystems, and coastal communities. To this end, the Department conducts research, long-term monitoring of key ocean parameters (temperature, sea level, nutrients, tides, salinity, etc.) and manages the resulting data to ensure integrity and accessibility. In turn, the generation of new knowledge allows the Department to provide advice, products and services that support ecosystem management decisions, adaptation to climatic change, emergency preparedness (e.g. tsunami warnings, storm surges), search and rescue, the mitigation of oil spills, and at-sea operations such as fisheries and offshore energy exploration. Clients of the program include the Canadian Coast Guard, other

federal government departments and agencies (e.g., Environment and Climate Change Canada, Department of National Defence, Transport Canada, Public Safety Canada), various maritime industries (e.g., commercial shipping, off-shore energy exploration, commercial fishing), the Canadian and international marine science community and Canadians.

Results

DFO exceeded its targeted percentage of requests for scientific data completed in the time required. The Department received 238 public requests through the Oceans Science Branch Request System, and 231 (97%) were completed within 20 business days. With respect to the program's first target, the percentage of approved requests for science advice on ocean




forecasting that are completed within the required timeline, DFO did not receive any requests for science advice on ocean forecasting in 2017-18.

DFO conducted science activities throughout Canada in support of:


- ocean observation and monitoring;
- research/analysis, modelling;
- management and stewardship of scientific data; and
- provision of advice, products and services.

The Department provides scientific advice, ocean-monitoring and data management activities to provide tools and products to assess and forecast the state and health of Canada's oceans, as well as the productivity of marine ecosystems to aid in decision making, and to prepare to respond to emergencies. The results of this work supports DFO's investment in science in support of evidence-based decision making and improved marine safety and ocean protection. For instance, the Department received and responded to over 200 requests for scientific data (ocean temperature and other environmental variables such as salinity, nutrient concentration, wave height, and water levels) from academia, engineering firms, non-governmental agencies, other federal departments/agencies, and other government organizations.

Results Achieved


	Expected Result	Performance Indicator	Target	Date to Achieve Target	Actual Results		
					2017-18	2016-17	2015-16
	Canadians are informed on current and future physical and biochemical state of Canada's oceans and waterways	Percentage of approved requests for science advice on ocean forecasting that are completed within the required timeline	90%	March 31, 2018	No requests for advice	No requests for advice	No requests for advice
		Percentage of requests for scientific data completed in the time required	95%	March 31, 2018	97%	95%	100%

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
		16,390,301	16,390,301	22,325,817	22,280,671

Note: The difference is mainly due to additional funding for the Oceans Protection Plan.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
		105	107

Internal Services

Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct service categories that support Program delivery in the organization, regardless of the Internal Services delivery model in a department. The 10 service categories are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services;

Information Technology Services; Real Property Services; Materiel Services; and Acquisition Services.

Results

Internal Services support the Department's priority of advancing management and operational excellence to modernize and continue to improve the design and delivery of programs and services.

DFO has been recognized as one of Canada's top employers for young people in 2017 and 2018 and as one of Ottawa's top employers in 2018. At the beginning of 2017-18, the Department committed to a strategy to improve recruitment in understaffed fields and prioritize gender-based analysis in hiring, enhance the onboarding process for new employees, increase student hiring, and better retain employees.

To support this strategy and to expedite staffing due to the exceptional growth under the Federal Infrastructure Initiative, the renewal of the Climate Change Adaptation Program, the Oceans Protection Plan, and Comprehensive Review, the Human Resources and Corporate Services Enablers Readiness Office (HERO) and Human Resources ran collective processes and recruitment initiatives. These collective efforts have resulted in over triple the average number of appointments when compared to the number of appointments made in single processes.

Approximately 1,000 jobs were staffed, and all new employees were accommodated through expedited mechanisms that addressed internal services requirements (such as Information Technology (IT) needs, security clearances and space allocation) in one submission thereby reducing the time to staff.

Furthermore, DFO acquired additional space in several regions, including the National Capital Region, Gulf, Maritimes and Pacific Regions, and optimized and modernized workspaces in several regions.

In addition, new initiatives were pursued and existing programs were expanded with the help of strategic partners, such as the Your Professional Network (YPN), to better serve the Department's growing employee base. These included the delivery of student onboarding initiatives such as speed mentoring, training, on-site visits, and career coaching with senior management; workplace wellness and mental health outreach through Deputy Minister town halls and armchair meetings, blog posts, internal messages on available resources and training, and a new Mental Health Consultative Committee; onboarding events for new employees, along with the creation of a 'welcome center' to support new hires and networking opportunities with senior executives; and advancing the Government of Canada's public service renewal strategy, Blueprint 2020, through the Take Me With You campaign, which encourages the attendance of junior staff in meetings related to their interests.

Training and information sessions were provided to all Human Resources advisors and managers on the new staffing flexibilities available under the New Direction in Staffing. In addition, reference documents and a video on this subject were distributed to all managers with staffing authority.

The Department also worked on implementing a new process to address job classification priorities to better support programs and encourage the use of standardized classifications,

while managing fewer vacant positions, deputy-directed decisions, and unique job descriptions. This strategy will ensure equal pay for equal work and that the organizational structures are maximized to attain results.

DFO deferred the plan to carry out a departmental transition to the Government of Canada's new Human Resource (HR) system (MyGCHR) until 2020 at the earliest, or until the Canadian public service pay system (Phoenix) has been stabilized. To better address pay issues, DFO augmented its internal capacity to support employees and further explored collaborative opportunities with Public Services and Procurement Canada (PSPC). Some pay transactions have been repatriated within the Department and a team has been put in place to address employee concerns and pay issues, and to interact with PSPC on an employee's behalf. In addition, a comprehensive communications framework has been developed and employees are kept aware of training tools, support, and information through ongoing messages and a newly redesigned website.

In the area of Information Management and Information Technology, DFO worked towards aligning with Government of Canada transformation initiatives, such as implementing the Directive on Open Government, preparing for the implementation of the Electronic Document Records Management Enterprise Solution (GCDocs), and streamlining and consolidating the Department's portfolio of applications. Implementation of the [Directive on Open Government](#)^{cxvii} continues with the release of 48 datasets to the public, the addition to the internal and the public Data Inventories, and the planning for the next stage of Open Information. GCDocs is available to most DFO employees, and support documentation, such as business rules, has been developed. As of March 31, 2018, DFO had 8,365 user accounts created.

Regarding streamlining and consolidating the Department's portfolio of applications, DFO has several projects underway. The first project in the Ecosystems and Fisheries Management System Integration portfolio, the Commercial Fisheries Authorization project, which will lead to the consolidation of over 60 applications, is on schedule to be completed in March 2021. The science application rationalization project has begun with the Multidisciplinary Ocean Data Integration Project, which will be completed in 2018-19 and will replace five applications related to oceans science.

In the area of policy services, DFO provided leadership through policy and economic analysis, integration and a challenge function on policy issues that have critical or cross-cutting implications for the Department. DFO provided effective and timely policy and economic advice in support of evidence-based decision making, responding to more than 225 requests for detailed economic analyses, and more than 320 requests for statistical advice and information.

In 2017-18, the Department expanded its online communications activities to ensure a digital-first approach. DFO and the Coast Guard steadily increased their social media following, with nearly 100,000 users across all departmental accounts. This milestone was achieved by expanding DFO's and the Coast Guard's social media presence on their existing Twitter and YouTube accounts as well as by launching Facebook pages in July 2017. Through their respective accounts, DFO and the Coast Guard shared with followers how they manage Canada's fisheries, safeguard Canadian waters, and advance research on aquatic species and oceans. By leveraging their growing number of followers, both organizations continued to increase their presence and influence while demonstrating transparency when dealing with issues and incidents, such as

North Atlantic right whale entanglements and deaths, fishery closures, search and rescue operations, environmental responses, and icebreaking. In 2017-18, DFO and the Coast Guard also improved their engagement with followers by becoming more responsive to comments and questions. To ensure the Department reached as many Canadians as possible, DFO/Coast Guard explored new creative and proactive approaches for social media, such as livestreams, Twitter chats, polls, and special campaigns (Whale Week, Shark Week, World Water Day, pride parades, Bell Let's Talk). A variety of digital, graphic-based content, including still images, animations, photo collages, and short videos, were produced to offer dynamic, engaging experiences for online users.


Although collaboration has been a longstanding tactic, in 2017-18, DFO/Coast Guard focused on fostering new relationships across government and the stakeholder community to ensure greater visibility and reach across all platforms. Collaboration via social media was key to sharing information about departmental activities and priorities, including sharing content created by partners, involving colleagues in DFO's work, jointly coordinating campaigns on government-wide initiatives, and running the Coast Guard's first digital advertising recruitment campaign.

Finally, DFO successfully implemented the new Treasury Board [Policy on Results](#)^{cxiii}. The new policy aims to improve the achievement of results across government and enhance the understanding of the results the Government seeks to achieve, along with the resources used to achieve them. Strong engagement began last year, and in 2017-18, DFO successfully completed the transition. This included receiving Treasury Board approval of the Department's Departmental Results Framework, Treasury Board Secretary approval of the Department's Program Inventory, and Deputy Minister approval of Performance Information Profiles. These structures will improve understanding of the results the Department achieves and the resources used to achieve them. In addition, the Department's senior management began to review and discuss its results using these new structures as part of the Performance Measurement and Evaluation Committee.

DIVERSITY AND INCLUSION


The Coast Guard is committed to being a leader in gender and diversity among uniform services and is undertaking a number of activities and initiatives to meet this commitment. A dedicated team was established in 2017-18 to act as an enabler of change and to lead initiatives in the areas of diversity and inclusion; gender equality and gender based analysis plus (GBA+); recruitment; employee wellness; psychological safety; as well as develop innovative workforce and workplace policies to solidify these efforts.

Budgetary Financial Resources (dollars)

	2017-18 Main Estimates	2017-18 Planned Spending	2017-18 Total Authorities Available For Use	2017-18 Actual Spending (Authorities Used)	2017-18 Difference (Actual minus Planned)
	375,300,173	375,300,172	538,036,697	491,728,149	116,427,977

Note: The difference is mainly due to funding to maintain mission-critical services to Canadians and net year-end carry forward from previous years.

Human Resources (full-time equivalents)

	2017-18 Planned	2017-18 Actual	2017-18 Difference (Actual minus Planned)
	1,791	1,877	86

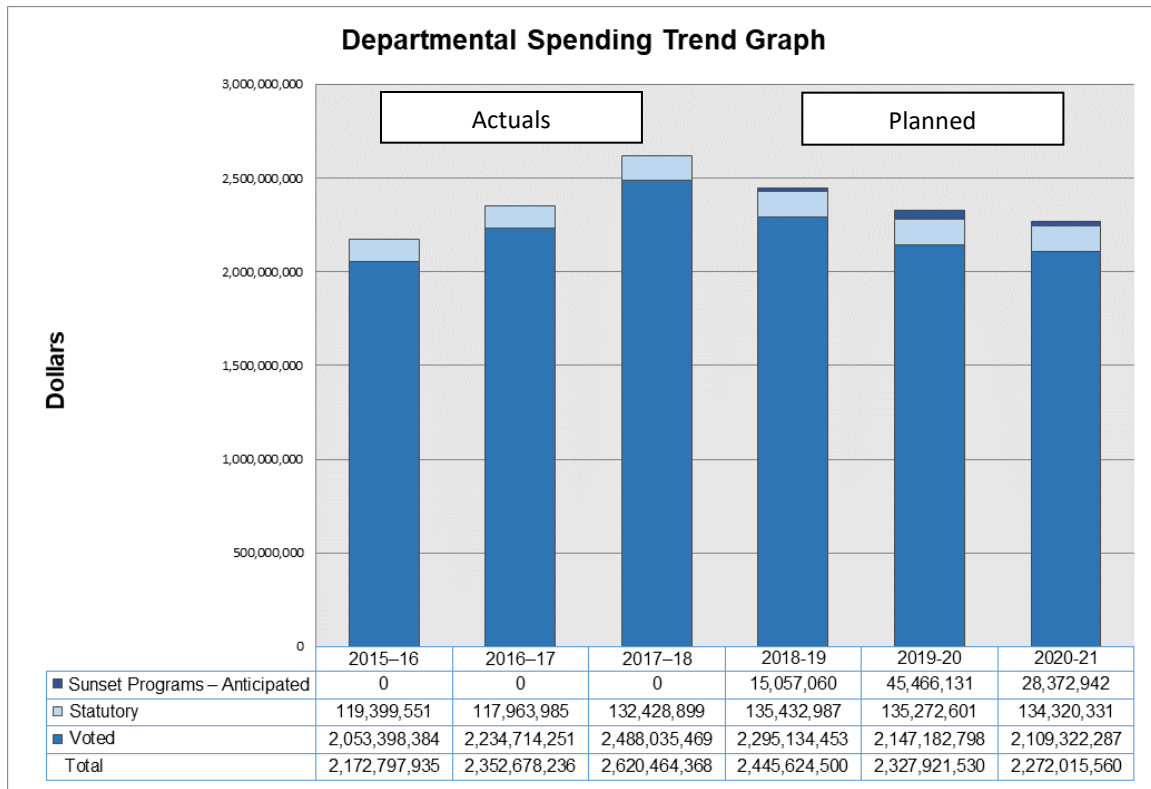
Analysis of Trends in Spending and Human Resources

Actual Expenditures

The Department's total actual spending for 2017-18 was \$2,620.5 million. This represents an increase of 11.4% compared to the total actual spending for 2016-17 (\$2,352.7 million).

This increase is mainly attributed to an increase in total authorities approved by Parliament and allocated by Treasury Board. The increase in funding relates to items such as the mission-critical services to Canadians and the Oceans Protection Plan.

Departmental Spending Trend Graph



Budgetary Performance Summary for Programs and Internal Services (dollars)

Programs and Internal Services	2017-18 Main Estimates	2017-18 Planned Spending	2018-19 Planned Spending	2019-20 Planned Spending	2017-18 Total Authorities Available for Use	2017-18 Actual Spending (Authorities Used)	2016-17 Actual Spending (Authorities Used)	2015-16 Actual Spending (Authorities Used)
1.1 Integrated Fisheries Management	147,811,981	147,811,981	n/a	n/a	191,708,157	185,181,168	142,012,966	131,253,481
1.2 Aboriginal Strategies and Governance	55,786,486	55,786,486	n/a	n/a	106,576,498	91,312,342	82,171,410	86,077,797
1.3 Sustainable Aquaculture Program	30,475,056	30,475,056	n/a	n/a	29,650,338	29,198,486	25,029,237	23,961,078
1.4 Salmonid Enhancement Program	29,195,310	29,195,310	n/a	n/a	31,948,291	30,964,881	30,192,628	29,496,542
1.5 Aquatic Animal Health	6,114,231	6,114,231	n/a	n/a	7,742,414	7,742,414	6,798,111	5,764,048
1.6 Biotechnology and Genomics	3,192,457	3,192,457	n/a	n/a	3,547,489	3,544,414	3,259,849	3,778,332
1.7 International Engagement	13,127,462	13,127,462	n/a	n/a	17,359,848	17,196,875	16,621,761	14,210,564
1.8 Marine Navigation	46,011,571	46,011,571	n/a	n/a	63,758,383	60,259,187	53,786,293	43,632,492
1.9 Small Craft Harbours	213,252,617	213,252,617	n/a	n/a	242,085,400	211,082,435	296,174,686	217,947,740
1.10 Territorial Delineation	1,182,400	1,182,400	n/a	n/a	888,900	888,900	1,324,037	1,329,507
1.11 Climate Change Adaptation Program	2,385,497	2,385,497	n/a	n/a	2,895,965	2,895,965	2,162,247	2,208,729
2.1 Compliance and Enforcement	102,351,038	102,351,038	n/a	n/a	114,530,156	113,940,334	103,263,746	99,549,696
2.2 Fisheries Protection	71,359,349	71,359,349	n/a	n/a	93,230,788	84,492,068	65,069,916	61,653,577
2.3 Species at Risk Management	22,354,201	22,354,201	n/a	n/a	21,108,073	21,094,635	20,609,733	21,092,704
2.4 Environmental Response Services	34,918,463	34,918,463	n/a	n/a	40,740,007	35,408,137	35,116,786	17,819,882
2.5 Oceans Management	54,268,898	54,268,898	n/a	n/a	74,929,074	74,876,142	52,853,121	47,134,443
3.1 Search and Rescue Services	33,890,834	33,890,834	n/a	n/a	46,527,900	44,603,059	32,349,621	31,104,607
3.2 Marine Communications and Traffic Services	33,679,329	33,679,329	n/a	n/a	48,368,804	43,803,924	38,928,370	42,256,838
3.3 Maritime Security	8,415,573	8,415,573	n/a	n/a	10,204,303	9,676,164	7,533,825	7,111,947
3.4 Fleet Operational Readiness	730,802,589	730,802,589	n/a	n/a	926,958,749	815,795,771	756,142,070	778,918,291
3.5 Shore-based Asset Readiness	121,188,483	121,188,483	n/a	n/a	165,118,017	158,693,929	117,228,739	103,264,378
3.6 Canadian Coast Guard College	12,946,128	12,946,128	n/a	n/a	19,407,426	19,397,194	16,779,983	15,612,170
3.7 Hydrographic Products and Services	34,556,501	34,556,501	n/a	n/a	44,675,808	44,407,124	31,007,114	28,200,785
3.8 Ocean Forecasting	16,390,301	16,390,301	n/a	n/a	22,325,817	22,280,671	18,158,045	15,077,397
Subtotal	1,825,656,755	1,825,656,755	n/a	n/a	2,326,286,605	2,128,736,219	1,954,574,294	1,828,457,025
Internal Services	375,300,173	375,300,172	n/a	n/a	538,036,697	491,728,149	398,103,942	344,340,910
Total	2,200,956,928	2,200,956,927	2,445,624,500	2,327,921,530	2,864,323,302	2,620,464,368	2,352,678,236	2,172,797,935

Note: Due to the change to the new Policy on Results and the new Departmental Results Framework, planned spending information for 2018-19 and 2019-20 is not available at the program level.

At the outset of 2017-18, Fisheries and Oceans Canada's planned spending was \$2,201 million. Through the Main Estimates and Supplementary Estimates, the Department was allocated total authorities of \$2,864.3 million, whereas the actual expenditures were \$2,620.5 million, resulting in a variance of \$243.8 million.

The \$663.3 million increase from planned spending to total authorities is mainly attributed to Supplementary Estimates such as funding to maintain mission-critical services to Canadians, funding for the Oceans Protection Plan; as well as the operating and capital budget carry forwards from the previous year.

The difference of \$243.8 million between total authorities and actual spending is mainly the result of timeline changes in the completion of projects, which caused funding to be carried forward to the next fiscal year.

Actual Human Resources

Human Resources Summary for Programs and Internal Services
(full-time equivalents)

Programs and Internal Services	2015-16 Actual	2016-17 Actual	2017-18 Planned	2017-18 Actual	2018-19 Planned	2019-20 Planned
1.1 Integrated Fisheries Management	957	993	1,018	1,138	n/a	n/a
1.2 Aboriginal Strategies and Governance	107	107	105	132	n/a	n/a
1.3 Sustainable Aquaculture Program	189	190	204	188	n/a	n/a
1.4 Salmonid Enhancement Program	202	202	199	204	n/a	n/a
1.5 Aquatic Animal Health	48	52	51	52	n/a	n/a
1.6 Biotechnology and Genomics	26	19	23	22	n/a	n/a
1.7 International Engagement	53	51	44	49	n/a	n/a
1.8 Marine Navigation	221	257	247	261	n/a	n/a
1.9 Small Craft Harbours	173	184	189	183	n/a	n/a
1.10 Territorial Delineation	8	10	10	6	n/a	n/a
1.11 Climate Change Adaptation Program	13	10	8	18	n/a	n/a
2.1 Compliance and Enforcement	663	687	738	675	n/a	n/a
2.2 Fisheries Protection	388	403	434	451	n/a	n/a
2.3 Species at Risk Management	134	134	133	135	n/a	n/a
2.4 Environmental Response Services	84	100	93	177	n/a	n/a
2.5 Oceans Management	305	355	336	418	n/a	n/a
3.1 Search and Rescue Services	123	145	150	185	n/a	n/a
3.2 Marine Communications and Traffic Services	330	327	348	314	n/a	n/a
3.3 Maritime Security	46	47	60	74	n/a	n/a
3.4 Fleet Operational Readiness	2,740	2,933	2,823	2,704	n/a	n/a
3.5 Shore-based Asset Readiness	743	623	743	1,184	n/a	n/a
3.6 Canadian Coast Guard College	244	270	290	297	n/a	n/a
3.7 Hydrographic Products and Services	233	235	254	263	n/a	n/a
3.8 Ocean Forecasting	98	95	105	107	n/a	n/a
Subtotal	8,127	8,429	8,607	9,235	n/a	n/a
Internal Services	1,686	1,675	1,791	1,877	n/a	n/a
Total	9,812	10,104	10,398	11,112	11,765	11,739

Note 1: The 2017-18 Planned figure for program 1.1 has been restated to correct an arithmetic error in the 2017-18 Departmental Plan. The Subtotal and Total of that column have been adjusted accordingly.

Note 2: Due to the change to the new Policy on Results and the new Departmental Results Framework, planned full-time equivalents information for 2018-19 and 2019-20 is not available at the program level.

The Department's total full-time equivalents for 2017-18 were 11,112. This represents an increase of just under 10% compared to the total full-time equivalents for 2016-17 (10,104 FTEs).

This increase is mainly attributable to growth under the Oceans Protection Plan and Comprehensive Review initiatives, recruitment in Science, and the hiring of compensation staff to address pay issues further to the transfer of pay files to the Public Service Pay Centre.

Expenditures by Vote

For information on Fisheries and Oceans Canada's organizational voted and statutory expenditures, consult the [Public Accounts of Canada 2017-18](#)^{CXXIV}.

Government of Canada Spending and Activities

Information on the alignment of Fisheries and Oceans Canada's spending with the Government of Canada's spending and activities is available in the [GC Infobase](#)^{CXXV}.

Financial Statements and Financial Statement Highlights

Financial Statements

Fisheries and Oceans Canada's financial statements (unaudited) for the year ended March 31, 2018, are available on the [Fisheries and Oceans Canada^{cxxvi}](#) website.

Financial Statements Highlights

The financial highlights presented within this Departmental Results Report are intended to serve as a general overview of Fisheries and Oceans Canada's Condensed Statement of Operations and Condensed Statement of Financial Position as presented in Fisheries and Oceans Canada's unaudited financial statements. These financial statements are prepared in accordance with accrual accounting principles and, therefore, are different from the figures provided in other sections of this Departmental Results Report and information published in the Public Accounts of Canada, which are prepared on appropriation-based reporting. The complete unaudited financial statements can be found on the [Fisheries and Oceans Canada^{cxxvii}](#) website.

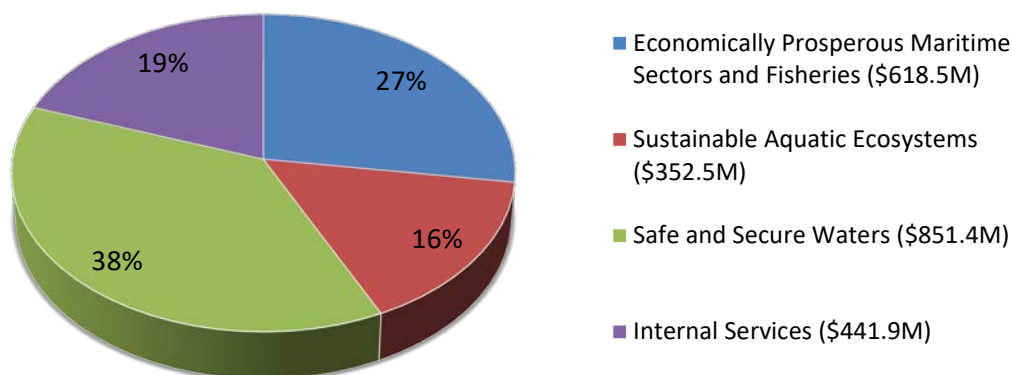
Condensed Statement of Operations (unaudited)

For the year ended March 31, 2018 (dollars)

Financial Information	2017-18 Planned Results	2017-18 Actual Results	2016-17 Actual Results*	Difference (2017-18 actual minus 2017-18 planned)	Difference (2017-18 actual minus 2016-17 actual)
Total expenses	1,823,133,753	2,264,314,860	2,205,996,308	441,181,107	58,318,552
Total revenues	47,914,600	41,445,539	40,650,344	(6,469,061)	795,195
Net cost of operations before government funding and transfers	1,775,219,153	2,222,869,321	2,165,345,964	447,650,168	57,523,357

* Comparative figures have been reclassified to conform to the current year's presentation.

Expenses by Strategic Outcome

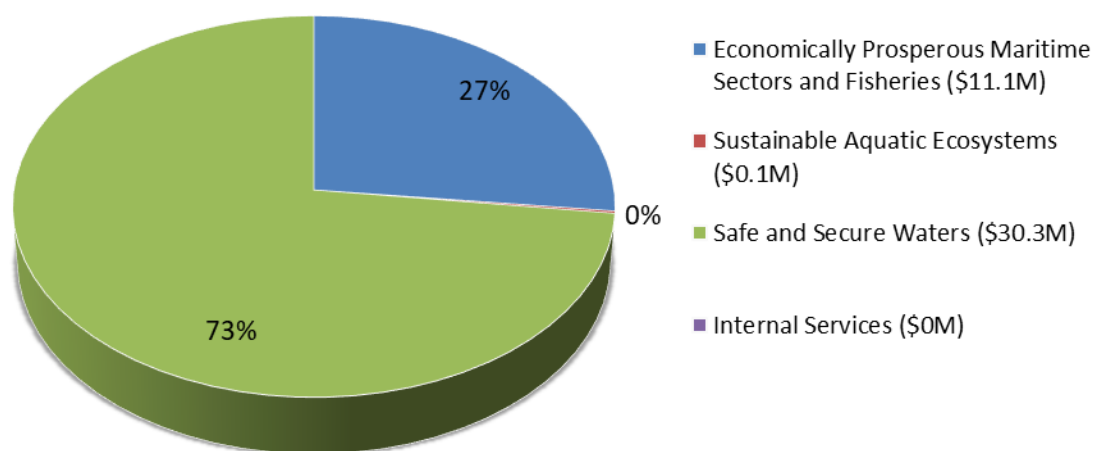


Total expenses were \$441.2 million higher than planned results because of the additional authorities received by Fisheries and Oceans Canada during the year, but not included in the planned results at the time of preparation of the Departmental Plan.

Total expenses in support of Fisheries and Oceans Canada's programs and services were \$2,264.3 million in 2017-18, an increase of \$58.3 million or 2.6% when compared to the previous year's total expenses of \$2,206 million.

This increase is mainly attributed to an increase in salary and benefits of \$209 million, an increase in professional and special services of \$30.9 million, an increase in transfer payments of \$28.1 million, an increase in travel and relocation expenses of \$17.5 million, and an increase in allowance for environmental liabilities for contaminated sites of \$13.5 million, which are offset by a decrease in the provision for claims and litigation of \$254.3 million.

Revenues by Strategic Outcome



The total actual revenues for 2017-18 were lower than the planned results by \$6.5 million because the revenue authorities were not adjusted on time before the preparation of the Departmental Plan.

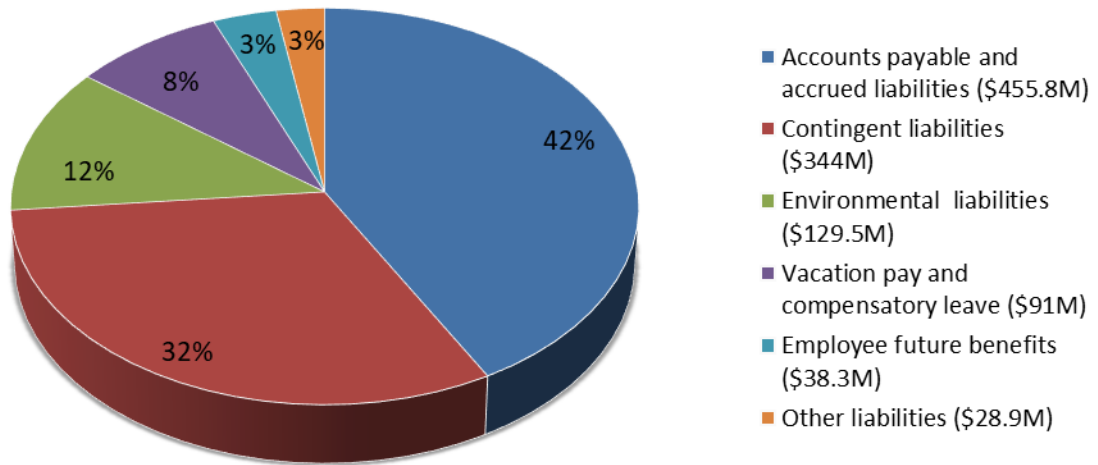
Total actual revenues were \$41.4 million in 2017-18, a slight increase of \$0.8 million or 2.0% when compared to the previous year's total actual revenues of \$40.6 million. These revenues are generated mainly from marine navigation services, icebreaking services, and maintenance dredging services.

Condensed Statement of Financial Position (unaudited)

As of March 31, 2018 (dollars)

Financial Information	2017-18	2016-17	Difference (2017-18 minus 2016-17)
Total net liabilities	1,087,577,188	1,012,512,588	75,064,600
Total net financial assets	484,337,195	472,869,123	11,468,072
Departmental net debt	603,239,993	539,643,465	63,596,528
Total non-financial assets	4,439,907,616	3,853,113,110	586,794,506
Departmental net financial position	3,836,667,623	3,313,469,645	523,197,978

Net Liabilities by Type



Total net liabilities were \$1,087.6 million as at March 31, 2018, an increase of \$75.1 million or 7.4% when compared to the previous year’s balance of \$1,012.5 million. The increase is mainly attributed to an increase in the allowance for contingent liabilities of \$44.5 million, an increase in environmental liabilities of \$17.4 million, and an increase in vacation and compensatory leave of \$15.2 million.

Net Financial Assets

Total net financial assets were \$484.3 million as at March 31, 2018, an increase of \$11.4 million or 2.4% when compared to the previous year’s balance of \$472.9 million.

This is mainly attributed to an increase in net accounts receivables and advances of \$12.2 million, of which \$9.3 million is related to salary overpayment.

Departmental Net Debt

The increase in net debt of \$63.6 million is mainly attributed to an increase in net cost of operations before government funding and transfers.

Non-Financial Assets

Total non-financial assets were \$4,439.9 million as at March 31, 2018, an increase of \$586.8 million when compared to the previous year’s balance of \$3,853.1 million. The increase is mainly due to a net increase in tangible capital assets of \$582.6 million.

Supplementary Information

Corporate Information

Organizational Profile

Appropriate Minister:

The Honourable Jonathan Wilkinson

Institutional Head:

Catherine Blewett, Deputy Minister

Ministerial Portfolio:

Fisheries and Oceans Canada (DFO) and the Canadian Coast Guard (Coast Guard)

Enabling Instruments:

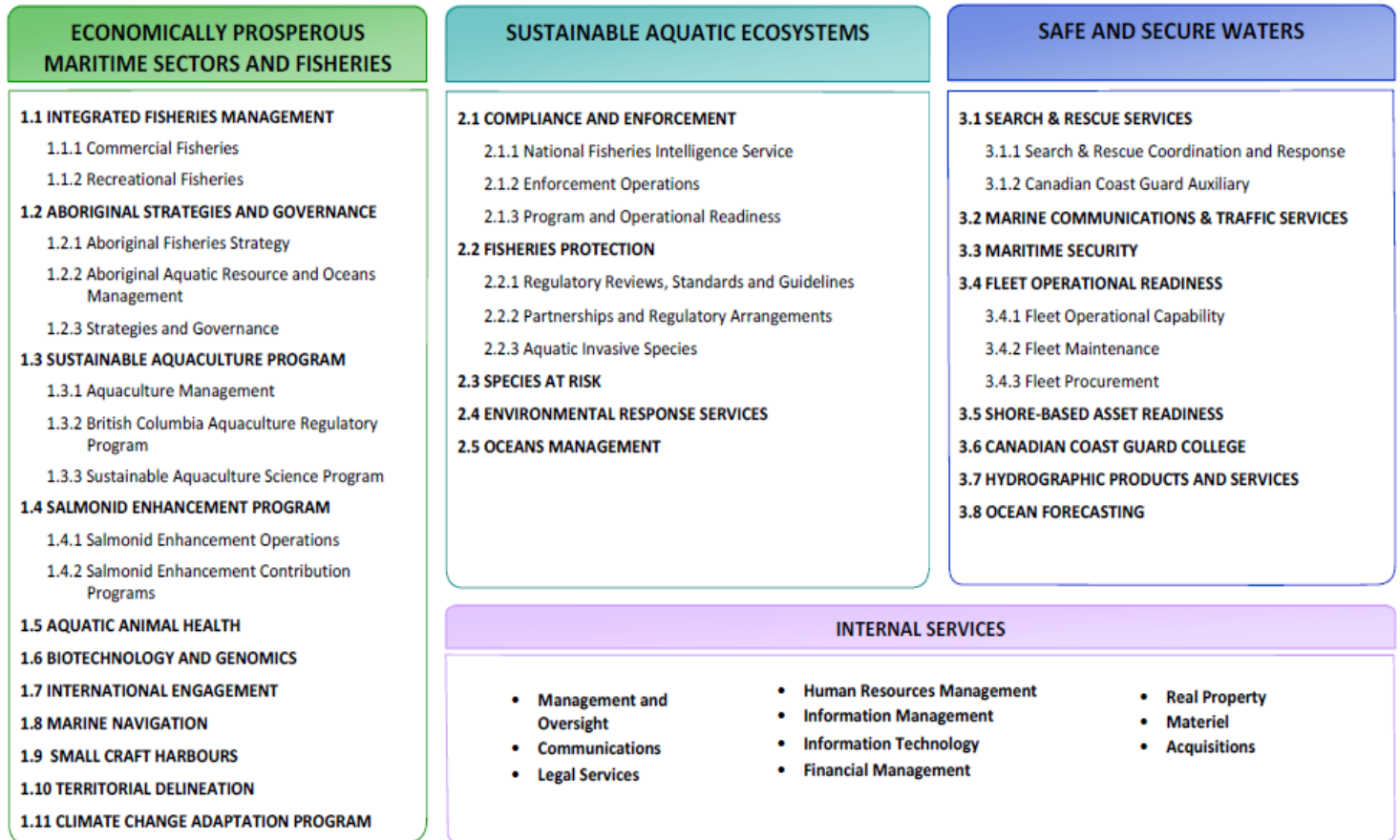
- [Oceans Act](#)^{cxxviii},
- [Fisheries Act](#)^{cxxix},
- [Species at Risk Act](#)^{cxxx},
- [Coastal Fisheries Protection Act](#)^{cxxxi},
- [Canada Shipping Act, 2001](#)^{cxxxii} (Transport Canada-led); and
- [Fishing and Recreational Harbours Act](#)^{cxxxiii}

Year of Incorporation / Commencement:

1979

Reporting Framework

Fisheries and Oceans Canada's Strategic Outcomes and Program Alignment Architecture of record for 2017-18 are shown below:



Supporting Information on Lower-Level Programs

Supporting information on lower-level programs is available on the [GC InfoBase](#)^{cxxxiv}.

Supplementary Information Tables

The following supplementary information tables are available on [Fisheries and Oceans Canada's website](#)^{cxxxv}.

- Departmental Sustainable Development Strategy
- Details on Transfer Payment Programs of \$5 Million or More
- Evaluations
- Fees
- Internal Audits
- Response to Parliamentary Committees and External Audits
- Status Report on Projects Operating with Specific Treasury Board Approval
- Status Report on Transformational and Major Crown Projects
- Up-Front Multi-Year Funding

Federal Tax Expenditures

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures annually in the [Report on Federal Tax Expenditures](#)^{cxxxvi}. This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs. The tax measures presented in this report are the responsibility of the Minister of Finance.

Organizational Contact Information

Fisheries and Oceans Canada
Communications Branch
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Ottawa, Ontario K1A 0E6

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Appendix: Definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Departmental Plan (plan ministériel)

A report on the plans and expected performance of an appropriated department over a three-year period. Departmental Plans are tabled in Parliament each spring.

Departmental Results Report (rapport sur les résultats ministériels)

A report on an appropriated department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

evaluation (évaluation)

In the Government of Canada, the systematic and neutral collection and analysis of evidence to judge merit, worth or value. Evaluation informs decision making, improvements, innovation and accountability. Evaluations typically focus on programs, policies and priorities and examine questions related to relevance, effectiveness and efficiency. Depending on user needs, however, evaluations can also examine other units, themes and issues, including alternatives to existing interventions. Evaluations generally employ social science research methods.

experimentation (expérimentation)

Activities that seek to explore, test and compare the effects and impacts of policies, interventions and approaches, to inform evidence-based decision making, by learning what works and what does not.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

gender-based analysis plus (GBA+) (analyse comparative entre les sexes plus [ACS+])

An analytical approach used to assess how diverse groups of women, men and gender-diverse people may experience policies, programs and initiatives. The “plus” in GBA+ acknowledges that the gender-based analysis goes beyond biological (sex) and socio-cultural (gender) differences. We all have multiple identity factors that intersect to make us who we are; GBA+ considers many other identity factors, such as race, ethnicity, religion, age, and mental or physical disability. Examples of GBA+ processes include using data disaggregated by sex, gender and other intersecting identity factors in performance analysis, and identifying any impacts of the program on diverse groups of people, with a view to adjusting these initiatives to make them more inclusive.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2017–18 Departmental Results Report, those high-level themes outlining the government’s agenda in the 2015 Speech from the Throne, namely: Growth for the Middle Class; Open and Transparent Government; A Clean Environment and a Strong Economy; Diversity is Canada’s Strength; and Security and Opportunity.

horizontal initiative (initiative horizontale)

An initiative where two or more departments are given funding to pursue a shared outcome, often linked to a government priority.

Management, Resources and Results Structure (structure de gestion, des ressources et des résultats)

A comprehensive framework that consists of an organization’s inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

performance indicator (indicateur de rendement)

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting (production de rapports sur le rendement)

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

plan (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

priority (priorité)

A plan or project that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s) or Departmental Results.

program (programme)

A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture (architecture d'alignement des programmes)

A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

result (résultat)

An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

Strategic Outcome (résultat stratégique)

A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision and core functions.

sunset program (programme temporisé)

A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target (cible)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

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