Fisheries and Oceans Canada

Departmental Sustainable Development Strategy 2020 to 2023

October 2020

Canada

Published by:
Strategic Policy
Fisheries and Oceans Canada
Ottawa, Ontario
K1A 0E6

DFO/2020-1999 Cat. No. Fs1-85E-PDF
2561-3367

Section 1: Introduction to the Departmental Sustainable Development Strategy

The 2019 to 2022 Federal Sustainable Development Strategy (FSDS) presents the Government of Canada's sustainable development goals and targets, as required by the *Federal Sustainable Development Act*. In keeping with the purpose of this Act to provide the legal framework for developing and implementing a Federal Sustainable Development Strategy that will make environmental decision-making more transparent and accountable to Parliament, Fisheries and Oceans Canada supports the goals laid out in the FSDS through the activities described in this Departmental Sustainable Development Strategy (DSDS).

Section 2: Sustainable Development Vision and Context in Fisheries and Oceans Canada

FSDS Goal: Effective action on climate change

Fisheries and Oceans Canada (DFO) is working closely with Environment and Climate Change Canada (ECCC) and other partners to increase our understanding of climate change impacts and advance a long-term climate strategy for Canada. This includes conducting scientific research and monitoring activities that inform decisions related to the management of fisheries, oceans and coastal infrastructure management, species conservation, and marine safety. For example, scientists are improving our ability to predict changing ocean conditions, increasing our understanding of the state and extent and biological impacts of ocean acidification on marine species, and determining the vulnerability of commercial fish species to climate change impacts.

In addition, the Department is taking additional steps to understand and adapt to climate change that are reflected in support of the FSDS goal of Greening Government.

FSDS Goal: Greening Government

DFO is committed to transitioning to low-carbon, climate resilient, and green operations. The Department will continue to work with the Centre for Greening Government at the Treasury Board of Canada Secretariat towards the Greening Government goal. DFO will incorporate low carbon and climate resilient considerations into departmental decision-making and daily operations. Additionally, the Department will continue to explore opportunities for clean energy and efficiency upgrade projects, which will further support the transition to a low carbon government.

FSDS Goal: Healthy coasts and oceans

DFO is committed to protecting Canada's coasts and oceans by leading the efforts, with support from ECCC and Parks Canada Agency (PCA), to achieve the Government of

Canada's commitment to protect 25% of Canada's oceans by 2025, working towards 30% by 2030.

Work is also moving forward on continued implementation and development of the Sustainable Fisheries Framework (SFF) policies for an ecosystem approach to fisheries management. Implementation of the SFF policies will help ensure that all major fish and invertebrate stocks are managed and harvested sustainably, legally, and applying ecosystem-based approaches.

In partnership with Transport Canada, Natural Resources Canada (NRCan), and ECCC, DFO will be involved in initiatives such as the Ocean Protection Plan (OPP) including:

- developing a world leading marine safety system, this will include a stronger Canadian Coast Guard (CCG) and a coordinated emergency response system to respond to incidents involving search and rescue operations or environmental emergencies involving oil spills and derelict vessels. The CCG will offer training in search and rescue missions, spill report assessments, and emergency spill response working closely with Indigenous and local communities to assess risks and respond quickly to marine emergencies;
- extending CCG icebreaker presence in the Arctic to support mariners earlier and later in the season to make Arctic resupply operation faster, safer and more efficient for remote communities;
- working to protect marine mammals in Canada including studying the locations, movement and abundance of endangered whales in Canada, as well as their food sources and factors threatening their health; and,
- developing a national approach and capacity, in line with international best practices, to respond to marine mammal incidents such as collision with vessels, entanglements in fishing gear, and strandings. This new capacity will bring with it the added benefit of enhancing compliance enforcement and surveillance of marine protected areas.

FSDS Goal: Pristine lakes and rivers

DFO conducts scientific research in freshwater environments across Canada, including the Lake Winnipeg Basin and the Great Lakes-St. Lawrence River Basin. For example, departmental scientists are examining the links between freshwater fish habitat and fish productivity, methods to detect invasive species, and status of species at risk. In addition, DFO provides support to the International Institute for Sustainable Development Experimental Lakes Area and other partners to conduct scientific research that will help us better understand freshwater ecosystems.

FSDS Goal: Healthy wildlife population

The *Species at Risk Act* (SARA) is key federal government legislation. DFO, in cooperation with PCA, supports the management and recovery of listed aquatic species in Canada, and the protection of their critical habitats and residences, with the ultimate goal of preventing the extinction or extirpation (extinction in the wild) of aquatic species.

The Department provides scientific information and advice on species to inform risk status reports of aquatic species produced by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The Species at Risk program draws on sound scientific research and Indigenous and community knowledge and takes into account socio-economic and stakeholder considerations, in carrying out the various activities in the species at risk conservation cycle, including management and recovery planning, and critical habitat protection.

DFO also contributes to: the ECCC-led General Status of Species in Canada measure of species assessed as secure or at-risk, which provides a measure of potential extinction risk and an indicator of the overall state of biodiversity in Canada; and, to the ECCC-led Canadian Environmental Sustainability Indicators Species at Risk Population Trends, which assesses recovery trends of listed species.

FSDS Goal: Sustainable food

Aquaculture is the fastest growing food production sector and provides half of all fish for human consumption in the world. Aquaculture represents around 20% of total seafood production in Canada and about a third of total fisheries value. In the coming decade, a shortfall in fish and seafood is projected, which can be met by increased aquaculture production. DFO contributes to the goal of sustainable food by supporting sustainable aquaculture production which is informed by aquaculture science research, and implemented through science-based decision making, and improved policies and regulations.

DFO also conducts scientific research to increase knowledge of effects from aquaculture on the environment. This research can assist in the implementation of management measures aimed at maintaining ecosystem health.

FSDS Goal: Safe and healthy communities

DFO is committed to fulfilling the long-term target set out in the renewed Federal Contaminated Sites Action Plan, which is to remediate and either close or bring into long-term monitoring 95% of the Department’s current inventory of contaminated sites by 2035. As part of this goal, by 2025, DFO expects to assess 707 suspected sites, implement remediation work or risk management plans at 575 known contaminated sites, and to effectively close 546 sites.

Section 3: Commitments for Fisheries and Oceans Canada

Effective Action on Climate Change: A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius and supports efforts to limit the increase to 1.5 degrees Celsius

Responsible Minister: Minister of Environment and Climate Change; supported by a whole-of-government approach to implementation

Effective Action on Climate Change FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s) Starting point(s) Target(s)**	**Program(s)** in which the departmental actions will occur
By 2030, reduce Canada's total GHG emissions by 30%, relative to 2005 emission levels	Work with partners on climate change	Collect ocean data (temperature and salinity) through Canada's network of Argo ocean array floats and advance commitments made during Canada's 2018 G7 presidency, including up to $5.6 million to support the Argo ocean array.	DFO contributes to the Argo global collaborative project, an array of over 4,000 free-drifting floats that collects data on ocean temperature and salinity. These data provide valuable information on changes to the Earth's climate and hydrological cycle. Continuous global coverage is needed in order to accurately quantify longer-term changes happening in the ocean. Argo data is publically available for free and is used for a variety of purposes such as assessing climate change, improving weather forecasts and developing ocean models. http://www.meds-sdmm.dfo-mpo.gc.ca/isdm-gdsi/argo/index-eng.html **SDG:** 13 – Climate Action (13.2; 13.3)	**Performance indicator:** From fiscal year 2020-21: Number of new Biogeochemical (BGC) Argo and Argo floats deployed by DFO. **Starting point:** In 2019-20, 33 floats in support of the Argo ocean array were deployed. **Target:** 20 floats will be deployed by March 31, 2023.	Oceans and Climate Change Science
	Develop a solid base of scientific research and analysis on climate change	Conduct scientific research, modelling and analysis to build knowledge of climate change and its impacts. Collect data through the Department's ocean chemistry monitoring activities.	Through the Aquatic Climate Change Adaptation Program, DFO is: • conducting the science, research and monitoring necessary to identify climate change impacts and vulnerabilities; and,	**Performance indicator:** From fiscal year 2020-21: Percentage of planned aquatic climate change research projects completed.	Oceans and Climate Change Science

Effective Action on Climate Change FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s) Starting point(s) Target(s)**	**Program(s)** in which the departmental actions will occur
			• developing adaptation tools, and improving ocean forecasting in vulnerable coastal regions to inform departmental decisions related to adapting fisheries and oceans management and coastal infrastructure. **SDG:** 14 – Healthy Coasts and Oceans (14.2)	**Starting point:** In 2019-20, 100% of planned aquatic climate change research projects were completed (2/2). **Target:** Greater than or equal to 80% annually.	

Greening Government: The Government of Canada will transition to low-carbon, climate resilient, and green operations

Responsible Minister: All ministers

This goal captures commitments from the Greening Government Strategy, as well as reporting requirements under the Policy on Green Procurement.

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Reduce GHG emissions from federal government facilities and fleets by 40% below 2005 levels by 2030 (with an aspiration to achieve this target by 2025) and 80% below 2005 levels by 2050 (with an aspiration to be carbon neutral)	All new buildings and major building retrofits will prioritize low-carbon investments based on integrated design principles, and life-cycle and total-cost-of ownership assessments which incorporate shadow carbon pricing	Develop a Carbon Neutral Portfolio Strategy that will include: • analysis of current greenhouse gas (GHG) emissions from the Department's real property holdings; • a series of measures to reduce emissions and their associated reduction in tonnes of CO2e and the percentage of total departmental emissions its represents; • the opportunities, limitations, and cost associated with each measure; and, • a proposed timeline to achieve carbon neutrality. Replace old Marine Communications and Traffic Services and Aids to Navigation power generation equipment, with cleaner, low-carbon energy solutions. Consider opportunities to implement building automation and commissioning for new construction or major renovation / upgrade, during project proposal and planning phase. Adopt updated National Energy Code for Buildings for new construction and major	Development of DFO's Carbon Neutral Portfolio Strategy will provide DFO with a solid basis for investment decision-making and will lead to reductions in GHG emissions from building operations. New power generation units burn less fuel and produce less emissions. Building automation will minimize human error and enhance information datasets which will assist the Department to more efficiently manage building operations. Adopting updated National Energy Code for Buildings and building all new construction and major renovation projects to net-zero carbon unless a lifecycle cost-benefit analysis indicates net-zero carbon ready construction, will ensure DFO achieves a high level of environmental performance within its custodial facilities. A significant portion of greenhouse gas emissions are the result of heating and cooling needs of a building. A large reduction of these emissions will be offset utilizing clean energy infrastructure projects that have a reasonable return on investment and a longer project lifespan. **SDG:** 13 – Climate Action (13.1; 13.2; 13.3)	**Performance indicator:** GHG emissions in [current reporting fiscal year]: • Facilities = [X] ktCO2e • Fleet = [X] ktCO2e • Total = [X] ktCO2e Percentage change in GHG emissions from fiscal year 2005-06 to [current reporting fiscal year]: • Facilities = [X] percentage • Fleet = [X] percentage • Total = [X] percentage **Starting point:** GHG emissions in fiscal year 2005–06 (base year): • Facilities = 34.8 ktCO2e • Fleet = 9.6 ktCO2e • Total = 44.4 ktCO2e **Supporting indicators:** Carbon Neutral Portfolio Strategy to be completed by March 31, 2021.	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		renovations projects as well as review programs, assets, facilities, and base building equipment to identify / inventory sources of departmental real property greenhouse gas emissions and quantify climate change impacts and vulnerabilities. Explore opportunities to achieve a high level of environmental performance for new construction, major renovations, and existing building projects, by using industry-recognized assessment and verification tools. Explore clean energy infrastructure implementation opportunities for identified departmental sites, prioritizing by emissions, specifically aiming to reduce greenhouse gas emissions from heating and cooling needs.			
	Departments will adopt and deploy clean technologies and implement procedures to manage building operations and take advantage of programs to improve the environmental performance of their buildings	Pursue multiple initiatives to inform, and improve employee behaviour, such as: • identify and assess building operator training. The current program of choice is delivered by Algonquin College; and, • identify energy efficiency alternatives targeting inefficient DFO assets. Develop Best Management Practices targeting employee behavioural changes to contribute towards a lower carbon footprint.	Replacing ageing, non-efficient building systems will reduce the overall carbon footprint of an asset and improve its environmental performance as well as deliver on cost savings which can be reinvested into the asset. Identifying and implementing a program of building operator training will provide the necessary information to facility managers who can manage their assets to increase efficiency and minimize waste. **SDG:** 12 – Responsible Consumption and Production (12.7)	[Number] of clean energy projects implemented at DFO assets in [current reporting fiscal year]. [Number] training courses delivered in [current reporting fiscal year].	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
	Fleet management will be optimized including by applying telematics to collect and analyze vehicle usage data on vehicles scheduled to be replaced	Maintain or improve sustainable motor vehicle fleet management. Review of operational requirements to ensure vehicle fleet is optimized for program and sustainability. Installation of telematics modules in all on-road fleet vehicles to promote motor vehicle operator behavior changes. Purchase or replace vehicles with reduced carbon intensity, where operationally feasible. Utilize the Departmental Vehicle Acquisition Plan process to identify motor vehicles for replacement based on available telematics data analysis. All new executive vehicle purchases will be zero-emission vehicles or hybrids. 75% of new light-duty unmodified administrative fleet vehicle purchases will be zero-emission vehicles or hybrids.	GHG emissions will be reduced by: • rationalization of fleets via retirement of older vehicles and replacing with vehicles that produce lower GHG emissions through improved emission control technology; or, • replacing with hybrids, plug-in hybrid electric vehicles, or zero-emissions vehicles where operationally feasible. Using telematics data to assist in identification of opportunities to replace higher emission vehicles with lower emission producing options such as hybrids or zero-emissions vehicles will reduce emissions. **SDG:** 12 – Responsible Consumption and Production (12.7)	[Number] vehicles in the Fleet on March 31, 2021. Percentage of vehicles identified for replacement in [current reporting fiscal year].	Internal Services
	Other	Develop baselines for in-service Coast Guard vessel performance to compare advances in performance in GHG reduction and carbon redirection.	The Department will seek to obtain, and use equipment to monitor GHG emissions from Coast Guard vessels, as well as continue to equip vessel with fuel monitoring tools and shaft torque transducers.	Baseline data will be reported through a future quantitative analysis. One tool for conducting such analysis is ISO 19030 Ships and	Marine Engineering

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
			This equipment will be used to monitor a vessel's emissions, fuel consumption, shaft torque and a number of secondary parameters (e.g., wind speed, water speed). **SDG:** 12 – Responsible Consumption and Production (12.7)	marine technology — Measurement of changes in hull *and propeller performance*.	
		Develop a supply arrangement for the provision of underwater hull cleaning services to the Canadian fleet.	For several years, DFO and the Department of National Defence (DND) have been collecting samples of marine species on vessels (DND), and on plates hanging on buoys near along Canada's coast lines (DFO) and at DND ports (DND). The CCG will be joining this effort to better understand the degree of fouling of its vessel hulls, and the degree to which it is a vector for the propagation of aquatic invasive species (AIS). Fouled hulls are not only a vector for the transmission of AIS, they result in significantly greater resistance of the movement though water. The result increased fuel consumption leading to increased fuel cost and GHG emissions. Even lightly fouled hulls can result if losses of efficiency in the four to eight per cent. More heavily fouled hulls can result in even greater losses of efficiency. **SDG:** 12 – Responsible Consumption and Production (12.7)	The CCG is in the beginning stages of undertaking this work. A separate effort to develop a baseline on aspects of the fleet's performance is described above.	Marine Engineering
Divert at least 75% (by weight) of non-hazardous	Other	Conduct waste audits to identify waste production of DFO assets.	Conducting waste audits of DFO assets will support the Department to improve the diversion rate of non-hazardous operational waste and provide additional benefits such as:	**Performance indicator:** From fiscal year 2020-21:	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
operational waste from landfills by 2030		Track and disclose waste diversion rates by 2022: • Four sites are planned to have waste audits in fiscal year 2020-21. Trial technologies that will remove contaminants from Coast Guard vessel water systems.	• Identifying and quantifying waste production of multiple DFO assets; • Establishing baselines; • Reducing emissions for the production, transport and disposal of material; • Increasing diversion and reclamation of waste; • Reducing load / reliance on the local waste collection infrastructure; and, • Reducing overall operational footprint of DFO assets. Waste audits at Canadian Coast Guard College and Saint Andrew's Biological Station were completed at the end of fiscal year 2019-20. Trialing the new-generation Terragon Wastewater Electrochemical Treatment Technology oily water separator will: • use new processes; • use less power; • produce cleaner water • capture heavy metal; and, • does not rely on chemical agents, biological treatment, and / or disposable filters (which reduces embodied carbon). The result is carbon sequestration of waste streams from CCG vessels. A first, ongoing trial, through Innovative Solutions Canada's Testing Stream, is currently under way on the CCG ship *Earl Grey*. **SDG:** 12 – Responsible Consumption and Production (12.4; 12.5)	• Mass of non-hazardous operational waste generated in the year = [X] tonnes • Mass of non-hazardous operational waste diverted in the year = [Y] tonnes Percentage of non-hazardous operational waste diverted = [Y/X] percentage **Supporting indicator** From fiscal year 2020-21: Number of completed waste audits = [Number]	

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Divert at least 75% (by weight) of plastic waste from landfills by 2030	Other	Conduct waste audits to identify waste production of DFO assets. Track and disclose waste diversion rates by 2022. Eliminate the unnecessary use of single-use plastics in government operations, events and meetings. When procuring products that contain plastics, promote the procurement of sustainable plastic products and the reduction of associated plastic packaging waste.	Conducting waste audits of DFO assets will support the Department to improve diversion rates of plastic waste and provide additional benefits such as: • reducing reliance on plastics and identify alternatives; • establishing baselines; • identifying and quantifying waste production of multiple DFO assets; • reducing emissions for the production, transport and disposal of material; • increasing diversion and reclamation of waste; • reducing load/reliance on the local waste collection infrastructure; and, • reducing overall operational footprint of DFO assets. **SDG:** 12 – Responsible Consumption and Production (12.4; 12.5; 12.7)	**Performance indicator:** From fiscal year 2020-21: • Mass of plastic waste generated in the year = [X] tonnes • Mass of plastic waste diverted in the year = [Y] tonnes Percentage of plastic waste diverted in [current reporting fiscal year] = [Y/X] percentage **Supporting indicator:** From fiscal year 2020-21: Number of completed waste audits = [Number]	Internal Services
Divert at least 90% (by weight) of all construction and demolition waste from landfills (striving to achieve 100% by 2030)	Other	Track and disclose waste diversion rates of construction and demolition waste by 2022. Conduct waste audits in addition to implementing procedures to track on-going construction and demolition waste as part of overall project management. Promote re-use and salvage opportunities regarding material such as steel at demolished infrastructure sites.	Conducting waste audits for DFO construction and demolition projects will support the Department to improve diversion rates of construction and demolition waste and provide additional benefits such as: • identifying and quantifying waste production of multiple DFO assets; • reducing emissions for the production, transport and disposal of material; • increase diversion and reclamation of waste; • reduce load/reliance on the local waste collection infrastructure; and, • reduce overall operational footprint of DFO assets.	**Performance indicator:** From fiscal year 2020-21: • Weight of construction and demolition waste generated in the year = [X] tonnes • Weight of construction and demolition waste diverted in the year = [Y] tonnes Percentage of construction and renovation waste diverted = [Y/X] percentage	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		Identify and utilize local material reclamation programs.	**SDG:** 12 – Responsible Consumption and Production (12.4; 12.5; 12.7)	**Supporting indicator:** From fiscal year 2020-21: Number of completed waste audits = [Number]	
Our administrative fleet will be comprised of at least 80% zero-emission vehicles by 2030	Fleet management will be optimized including by applying telematics to collect and analyze vehicle usage data on vehicles scheduled to be replaced	The Departmental Vehicle Acquisition Plan (DVAP) will be used to determine the opportunities and number of administrative vehicles to be replaced to meet the 2030 target. Each year, an evaluation of requirements for new light-duty unmodified administrative fleet vehicle purchases for hybrid, plug-in hybrid electric vehicles, or zero-emission vehicles will be performed under the DVAP. All new executive vehicle purchases will be zero-emission vehicles or hybrids. 75% of new light-duty unmodified administrative fleet vehicle purchases will be zero-emission vehicles or hybrids. Use telematics data analysis to identify opportunities to optimize use of the vehicle fleet.	As conventional vehicles are replaced over their lifetimes with zero-emission vehicles, and / or the size of the fleet is reduced, a greater proportion of the fleet will be zero-emission vehicles and will reduce emissions. **SDG:** 12 – Responsible Consumption and Production (12.7)	**Performance indicator:** From fiscal year 2020-21: [Number] of hybrids, plug-in hybrid electric vehicles, or zero-emissions vehicles purchased. **Supporting indicator** From fiscal year 2020-21: [Number] of vehicles logged by telematics.	Internal Services
By 2022, departments	Increase training and support on assessing climate	Establish an Intradepartmental Working Group on Climate Adaptation to examine	Climate change is a horizontal issue that cuts across regional and sectoral lines. A strong governance regime established through an Intradepartmental Working Group	**Performance indicator:**	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
have developed measures to reduce climate change risks to assets, services and operations	change impacts, undertaking climate change risk assessments and developing adaptation actions to public service employees, and facilitate sharing of best practices and lessons learned	how to undertake the following departmental actions: • conduct a departmental risk assessment to understand the wide range of climate change impacts, risks and opportunities to DFO assets, services and operations; • develop a departmental climate adaptation plan to identify measures to reduce climate change impacts; • integrate the impacts of climate change in business continuity and departmental risk planning; • conduct asset-level climate change risk assessments; • consider current and future climate change conditions in policy, programs and operations; and, • consider climate change impacts in investment planning.	on Climate Adaptation will facilitate and drive internal connections and linkages, which will be necessary to effectively respond to climate change issues. Understanding climate change impacts will fulfil diverse objectives, including: • the identification and prioritization of risks to DFO assets, services and operations; • identification of climate change adaptation opportunities; • raising climate change awareness throughout the Department; and, • supporting the monitoring and evaluation of adaptation risks and action. A departmental climate adaptation plan will enable DFO to use its understanding of climate change vulnerabilities to better position itself to take the necessary steps, and make the appropriate resource allocation decisions, to ensure that negative impacts are minimized in the near-term, and that any longer-term opportunities can be realized. Integrating climate change considerations into DFO's corporate risk and business continuity planning will ensure that actions to remain resilient against climate change risks to critical assets, operations and services remain a departmental priority and resolutions are established. DFO maintains a considerable amount of infrastructure. This infrastructure may require significant capital investment for repairing/modifying as environmental conditions change. Understanding potential climate	Departmental climate risk assessment to understand the wide range of climate change impacts, risks and opportunities to DFO assets, services and operations, is underway by December 31, 2020. Climate adaptation plan developed, establishing measures to reduce climate change impacts that could potentially affect DFO assets, services and operations, by December 31, 2021. **Supporting indicators:** Intradepartmental Climate Adaptation Working Group established by December 31, 2020. Risk and business continuity plans have integrated considerations of climate change, by March 31, 2022. Asset based climate change risk assessments conducted on assets identified as critical to operations and services, by March 31, 2023. Investment plans incorporate consideration of climate change adaptation measures, by March 31, 2023.	

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
			change impacts and risks at an asset-level can help protect DFO assets and resources, strengthen planning and decision-making, and enhance the resiliency of departmental operations and services offered to Canadians. **SDG:** 13 – Climate Action (13.1; 13.2)		
	By 2021, adopt climate-resilient building codes being developed by National Research Council Canada	The integration of climate change adaptation in the design and construction of buildings and engineering asset projects will be reviewed and considered at each approval gate.	Beyond demonstrating federal leadership in climate resilient buildings, the integration of climate-resilient building codes will promote asset integrity considerations, assist in reducing the risks of climate change to the Department's assets, service, and operations, and exhibit prudent stewardship of DFO's real property portfolio. **SDG:** 13 – Climate Action (13.1; 13.2)	**Performance indicator:** From fiscal year 2020-21: Percentage of buildings constructed in the reporting year that conform to National Research Council Canada's climate-resilient building codes.	Internal Services
Use 100% clean electricity by 2025	Other	Produce or purchase megawatt hours of renewable energy equivalent to that produced by the high-carbon portion of the electricity grid by 2025 in regions with carbon-emitting electricity generation, at a minimum. This includes the use of renewable electricity generated on-site or purchased off-site. Build a data profile of DFO assets and their energy consumption, source of electricity, and GHG emission profile. Identify critical DFO assets in need of electricity purchasing requirements due to	Purchasing or producing clean electricity can reduce the GHG emissions resulting from conventional provincial electricity grids, improve energy security, and demonstrate leadership. **SDG:** 12 – Responsible Consumption and Production (12.2; 12.7)	**Performance indicator:** From fiscal year 2020-21: • [Electricity consumption in [current reporting fiscal year] = [X] kWh • Electricity consumption from non-emitting sources (including renewable energy certificates) in [current reporting fiscal year] = [Y] kWh Percentage of clean electricity = [Y/X] percentage	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		the geographic distribution of the DFO portfolio. Identify opportunities to expand the current portfolio of renewable energy producing assets at top DFO facilities.		**Supporting indicators:** [Number] of renewable energy assets installed (e.g., solar flowers).	
Actions supporting the Goal: Greening Government	Minimize embodied carbon and the use of harmful materials in construction and renovation	Explore potential opportunities with Public Services and Procurement Canada and examine impact on availability and costs (especially in remote locations) to minimize embodied carbon and the use of harmful materials in construction and renovation projects.	Beyond demonstrating federal leadership in green initiatives, this will promote environmental and possibly health and safety considerations and exhibit prudent stewardship of DFO's real property portfolio. **SDG:** 12 – Responsible Consumption and Production (12.7)	**Performance indicator:** Processes are put in place to ensure consideration is given to minimize embodied carbon in future construction and major renovation projects by March 31, 2021.	Internal Services
	The potential use of alternative energy options in national safety and security-related fleet operations will be examined	Drive development of novel solutions for generating emissions-free energy through the operation of marine vessels. Ensure that the future Coast Guard fleet meets the regulations under the amended International Convention for the Prevention of Pollution from Ships (MARPOL). Adopt hybrid propulsion systems where possible. Study the feasibility of using dual fuel (diesel / Liquefied Natural Gas) for program icebreakers and understand its impact on other classes of new vessels.	Increased use of lower carbon alternative energy sources will reduce emissions relative to conventional sources. The CCG, in collaboration with Innovative Solutions Canada, challenged Canadian small and medium enterprises to propose novel solutions for generating electricity aboard marine vessels through harvesting kinetic energy. This challenge signals the Government of Canada's progressive approach to decarbonizing marine vessel operation, and is explicitly intended to yield solutions that can be scaled across the entire maritime sector, generating Canadian intellectual property and jobs, while driving down GHG emissions. The CCG seeks to implement the International Maritime Organization strategy on reduction of GHG emissions for ships and the MARPOL regulations through a mix of technical, operational and innovative solutions applicable	In the absence of validated quantitative data for the emissions level of the existing Coast Guard fleet, qualitative improvements from past technologies will be provided.	Fleet Procurement Marine Engineering

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
			to the future fleet. This includes the adoption of proven technology applicable to CCG operations. The use of diesel electric and hybrid propulsion for new vessels will reduce the use of generators and emissions (unless it is not suitable for the operational profile of the vessel). The CCG will continue to look at alternate fuel (e.g., biofuel) and other synthetic fuels when they are commercially viable to further reduce emissions. **SDG:** 12 – Responsible Consumption and Production (12.2; 12.7)		
	Departments will use environmental criteria to reduce the environmental impact and ensure best value in government procurement decisions	Ensure key officials include contribution to and support for the Policy on Green Procurement objectives in their performance evaluations.	Green procurement incorporates environmental considerations into purchasing decisions and is expected to motivate suppliers to reduce the environmental impact of the goods and services they deliver, and their supply chains. **SDG:** 12 – Responsible Consumption and Production (12.7)	**Performance indicator:** From fiscal year 2020-2021: Percentage of managers and functional heads of procurement and materiel management whose performance evaluation includes support and contribution towards green procurement.	Internal Services
	Departments will adopt clean technology and undertake clean technology demonstration projects	The Department will lead by example through the early adoption of clean technology innovations. DFO has numerous renewable energy projects that are operational (e.g., Canadian Coast Guard College has multiple solar	The departmental actions are targeted to identify opportunities where additional improvements can be implemented. The Department will aim to capitalize on Government-wide initiatives and funds to accelerate capital projects focusing on energy conservation to lower costs that in turn should reduce associated GHG emissions.	**Performance indicator:** From fiscal year 2020-2021: [Number] clean energy projects completed in [current reporting fiscal year].	Internal Services

Greening Government FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		flowers as demonstration projects). The Department will look to identify additional opportunities for renewable energy implementation, and continue to identify alternative procurement options prioritizing efficiency and energy savings. Implement projects associated with the Greening Government Fund: • proposal in-development for next cycle targeted towards conducting building automation & commissioning assessments to identify automation opportunities for top DFO assets. ○ one project is currently underway at Canadian Coast Guard College.	The project underway at Canadian Coast Guard College will aim to automate data collection from important building systems for state-of-the-art monitoring and response capabilities. **SDG:** 12 – Responsible Consumption and Production (12.2; 12.7)		
	Support for green procurement will be strengthened, including guidance, tools and training for public service employees	Ensure decisions makers, materiel management and specialists in procurement have the necessary training and awareness to support green procurement.	Green procurement incorporates environmental considerations into purchasing decisions and is expected to motivate suppliers to green their goods, services and supply chain. **SDG:** 12 – Responsible Consumption and Production (12.7)	**Performance indicator:** From fiscal year 2020-2021: Percentage of specialists in procurement and materiel management who have completed training on green procurement.	Internal Services

Healthy Coasts and Oceans: Coasts and oceans support healthy, resilient and productive ecosystems

Responsible Minister: Minister of Fisheries, Oceans and the Canadian Coast Guard

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
By 2020, 10% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures	Protect and manage marine and coastal areas	Continue to work with Indigenous peoples, provinces, territories, and stakeholders in pursuit of future marine conservation targets: • design conservation networks; • establish and manage new *Oceans Act* Marine Protected Areas (MPAs) and Other Effective Area-Based Conservation Measures (OECMs); • establish new and maintain existing mechanisms for Federal/Provincial/Territorial, Indigenous and stakeholder collaboration to support ocean management and marine conservation activities, including the Canadian Council of Fisheries and Aquaculture Ministers and the Oceans Management Contributions Program.	DFO, in collaborating with other federal departments, has surpassed the marine conservation target of conserving 10% of coastal and marine areas by 2020. The target was achieved through the implementation of a five-point plan that included the establishment of MPAs and OECMs, such as marine refuges. Canada's approach was guided by three foundational principles – science-based decision-making, transparency, and advancing reconciliation with Indigenous groups. Collaboration and coordination with partners and stakeholders is a vital component of achieving Canada's marine conservation target, sustaining healthy relationships, and supporting information sharing and communication amongst key partners and stakeholders. In April 2019, the Government of Canada announced new protection standards for federal MPAs and federal marine OECMs, including marine refuges. All future federal MPAs are subject to new federal standard that prohibits oil and gas activities, mining, dumping as well as commercial and recreational bottom trawling. Federal marine OECMs will continue to be assessed on a case-by-case basis to ensure that risks to the area are avoided or mitigated effectively. DFO developed operational guidance on marine OECMs to provide a science-based framework for determining	**Performance indicator:** Percentage of marine and coastal area that is conserved. **Starting point:** In 2013, less than 1% of Canada's coastal and marine area was conserved. As of August 1, 2019, 13.81% of Canada's coastal and marine area has been conserved. **Target:** A new international target is undergoing negotiation by Parties to the UN Convention on Biological Diversity (CBD) and is expected to be 30% of marine and coastal areas protected by 2030. This is in line with the Department's 2019 mandate commitment to work with Environment and Climate Change Canada and Parks Canada Agency to develop a plan to	Marine Planning and Conservation

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
			contributions to the target. DFO is currently updating its 2016 guidance to demonstrate alignment with 2018 Convention on Biological Diversity (CBD) voluntary guidance on OECMs, and to implement the federal marine OECM protection standard. **SDG:** 14 – Life Below Water (14.2; 14.5)	conserve 25% of Canada's oceans by 2025, working towards 30% by 2030. An update will be provided through DFO's Departmental Plan.	
	Build our knowledge of coastal ecosystems, marine protected areas and fisheries	Conduct scientific research and monitoring and provide science advice to support marine conservation. Conduct scientific assessments (biophysical and ecological overviews) to: • move forward with the establishment of existing Areas of Interest (AOIs) as *Oceans Act* MPAs; and, • identify Areas of Interest (AOIs) that will progress to *Oceans Act* MPA establishment. Advance Other Effective Area-based Conservation Measures (OECMs) based on science-based guidance and advice. Develop State of the Ocean Reports for each of Canada's three oceans.	Identification and description of ecologically significant areas informs marine conservation measures. **SDG:** 14 – Life Below Water (14.2; 14.5)	**Performance indicator:** From fiscal year 2020-21: Percentage of approved science advisory processes on aquatic ecosystems that were completed. **Starting point:** In 2019-20, 77% of approved science advisory processes on aquatic ecosystems were completed. **Target:** 90% annually.	Aquatic Ecosystem Science Oceans and Climate Change Science

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
	Use legislation and regulations to protect coasts and oceans	Continue to improve and use relevant laws and regulations to protect Canada's coastal and ocean territory and to ensure fisheries are sustainable. • use the amendments to the *Fisheries Act* that provide protection and long-term sustainability of our marine resources, including measures to rebuild depleted fish stocks and new regulatory tools to provide long-term protection to marine biodiversity. • develop Marine Spatial Plans in five marine areas to better coordinate how we use and manage marine spaces to achieve ecological, economic, and social objectives.	Ocean regulators and users use information relating to the conservation and management of the marine environment to make decisions that protect Canada's coasts and oceans. **SDG:** 14 – Life Below Water (14.2; 14.5)	**Performance indicator:** From fiscal year 2020-21: Number of conservation and / or management plans developed. **Starting point:** In 2019-20, marine spatial planning was initiated in five marine areas, to culminate in five Marine Spatial Plans by 2024. At the end of fiscal year 2019-20, zero plans had been fully developed. **Target:** Five Marine Spatial Plans will be developed by 2023-24. Note: Regulators and users are involved in the process of decisions and use information in development of plans.	Marine Planning and Conservation
By 2020, all fish and invertebrate stocks and aquatic plants are managed and	Build our knowledge of coastal ecosystems, marine protected areas and fisheries	Conduct scientific monitoring and research activities for aquatic species.	Peer-reviewed science advice of fisheries resources improves our knowledge of fisheries resources, their productivity and factors affecting them to support sustainable fisheries management. **SDG:** 14 – Life Below Water (14.4)	**Performance indicator:** From fiscal year 2020-2021: Percentage of approved requests for science advice on fisheries	Fisheries Science

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
harvested at levels considered to be sustainable, from a baseline of 96% harvested within established ecosystem limits in 2016				resources, completed within required time. **Starting point:** In 2019-20, 85% of approved client requests for science advice to support management decisions on fisheries resources were completed in the time required. **Target:** 90% annually.	
	Use legislation and regulations to protect coasts and oceans	Implement limit reference points and harvest control rules for major fish stocks. Prescribe major stocks in regulation, thus making them subject to the new Fish Stocks provisions (s. 6.1-6.3) in the recently amended *Fisheries Act*.	Ensuring that limit reference points and harvest control rules are in place will help with the sustainable management and harvest of all major fish and invertebrate stocks. By prescribing major stocks in regulation and making them subject to the Fish Stocks provisions, there will be binding legal obligations to manage these stocks sustainably. These provisions require prescribed major fish stocks above their limit reference point to be maintained at levels necessary to promote sustainability, and to rebuild prescribed major fish stocks that are at or below their limit reference point. To facilitate this, the development of limit reference points and harvest control rules will be accelerated. **SDG:** 14 – Life Below Water (14.2; 14.4)	**Performance indicator:** From fiscal year 2020-2021: Percentage of major fisheries that have limit reference points and harvest control rules. **Starting point:** Based on the results of the 2018 Sustainability Survey for Fisheries, of the 177 major stocks assessed in 2018, 70 stocks (39.5%) had limit reference points and harvest control rules. **Target:**	Fisheries Management

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				Greater than or equal to 50% by 2023. Note: 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.	
	Implement policies for sustainable fisheries	Take concrete steps to implement an ecosystem approach to fisheries management through refined advice to take account of environmental factors in stock assessments and the continued implementation of the Sustainable Fisheries Framework (SFF) policies in Canada's fisheries. Continue to develop SFF policies, where required.	The continued implementation of the SFF policies will help ensure that all major fish and invertebrate stocks are managed and harvested sustainably, legally and taking into account ecosystem factors. **SDG:** 14 – Life Below Water (14.2; 14.4)	**Performance indicator:** From fiscal year 2020-21: Percentage of the major fish stocks that are harvested at sustainable levels. **Starting point:** Based on the results of the 2018 Sustainability Survey for Fisheries, of the 177 major stocks assessed in 2018, 170 stocks (96%) were harvested at sustainable levels. **Target**: Greater than or equal to 96% by 2023.	Fisheries Management

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Actions supporting the Goal: Healthy Coasts and Oceans	Build our knowledge of coastal ecosystems, marine protected areas and fisheries	Measure the state and extent of ocean acidification in Canadian waters.	As an Intergovernmental Oceanographic Commission (IOC) Member State, Canada, through DFO, contributes to annual ocean acidification data collection. Ocean acidification due to rising CO_2 levels, affects organisms and ecosystems, as well as coastal areas (reefs). Increasing acidification decreases the oceans ability to store CO_2, thereby decreasing the ocean's role in regulating climate change. Regular observations and measurements of ocean acidification improve our understanding of these negative effects and enables modelling and predictions to inform mitigation and adaptation strategies. **SDG:** 14 – Life Below Water (14.3)	**Performance indicator:** From fiscal year 2020-21: Number of measurements provided to the IOC on the average pH for each of the three oceans (Atlantic, Pacific and Arctic). **Starting point:** In 2019-20, data were provided to the IOC on the average pH for each of Canada's three oceans (Atlantic, Pacific and Arctic). **Target:** Canada's data is provided annually.	Oceans and Climate Change Science
		Establish baselines for Underwater Radiated Noise (URN) for Coast Guard vessels.	The CCG is supporting Transport Canada's Innovative Solutions Canada challenge on marine vessel URN. Certain frequencies of URN are harmful to marine mammals, and the CCG is actively seeking opportunities to baseline URN signatures (acoustic emissions) from Coast Guard vessels, and participate in collaborative efforts to drive down URN via a spectrum of measures, from modifications to vessel systems to hull-grooming and propeller maintenance. **SDG:** 14 – Life Below Water (14.1)	This is a new action and performance metrics will be provided in a future update.	Marine Engineering

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
	Work with partners to protect and restore coastal ecosystems	Support the development of novel solutions to reduce plastic pollution.	The CCG collaborated with Transport Canada to develop an Innovative Solutions Canada challenge to Canadian industry innovators, targeting recycling Glass Fiber Reinforced Plastics, which comprise a large proportion of Vessels of Concern hulls. The Government of Canada has committed to address this issue under the Oceans Protection Plan. The challenge was met by numerous innovator teams across Canada, and the CCG participated in evaluations of proposals and Phase 1 Proofs of Concepts, yielding funded prototype development, which is underway. This collaborative work targets novel solutions for processing Glass Fiber Reinforced Plastic hulls and retaining reusable material without emitting GHGs. **SDG:** 14 – Life Below Water (14.1)	This is a new action and performance metrics will be provided in a future update.	Marine Engineering
	Other	Address hydrographic information gaps in the North through enhanced modern hydrography and charting to improve electronic navigational chart (ENC) coverage of areas that have not yet been sufficiently surveyed within the proposed Low Impact Shipping Corridors in the Arctic. Conduct highly intensive modern hydrographic surveying and charting activities to generate Electronic Navigation Charts (ENCs) for highly critical areas (near-shore, high risk coastal and inland	These actions will advance efforts towards the development of a world-leading marine safety system in Canada and will: • enhance the prevention of marine incidents through improved navigation tools for the safe and efficient operations of commercial shipping and marine transportation sectors; • strengthen navigational safety and the prevention of marine incidents; and, • deliver modern marine surveys and enhanced electronic navigation charts, supporting integrated information about water levels, tides, currents.	**Performance indicator:** From fiscal year 2020-21: Number of official navigational products created and / or updated from incorporation of new and / or archived modern hydrography per year in key areas. **Starting point:**	Hydrographic Services, Data and Science

Healthy Coasts and Oceans FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		water zones) across the country, including 23 of Canada's highest priority commercial ports and waterways.	**SDG:** 9 – Industry, Innovation and Infrastructure (9.1)	In 2019-20, 669 official navigational products were created and / or updated from incorporation of new and / or archived modern hydrography in key areas. **Target:** 200 annually**.** **Performance indicator:** From fiscal year 2020-21: Number of Canada's highest priority commercial ports that are covered by modern hydrographic information, products and charts. **Starting point:** In 2019-20, 10 of the 23 ports have been fully surveyed and charted. **Target:** 23 of the highest priority commercial ports have been surveyed and charted by March 31, 2022**.**	

Pristine Lakes and Rivers: Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians

Responsible Minister: Minister of Environment and Climate Change

Pristine Lakes and Rivers FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Actions supporting the Goal: Pristine Lakes and Rivers	Provide support and funding for projects	Support external scientific research and monitoring activities to better understand freshwater ecosystems.	Results of scientific activities will provide information and advice to inform decisions related to the protection and restoration of Canadian freshwater ecosystems. **SDG:** 6 – Clean Water and Sanitation (6.6)	**Performance indicator:** From fiscal year 2020-21: Percentage of the Freshwater Habitat Science Grants & Contributions fund providing support for freshwater research. **Starting point:** In 2019-20, 100% of funds for contribution agreements supported freshwater research. **Target:** 100% annually.	Aquatic Ecosystem Science
	Better understand lake and river ecosystems	Conduct scientific research and analysis to better understand lake and river ecosystems, monitor their health, and provide information to support stakeholder decision making and help Canadians monitor the state of lakes and rivers.	Freshwater research contributes to improved understanding of lake and river ecosystems and in turn the development of management measures for their sustainable management. The Department undertakes targeted research on the effectiveness of management measures and produces science advice on monitoring programs, and assists in the interpretation of monitoring results.	**Performance indicator:** From fiscal year 2020-21: Number of published Science Advisory Reports, Canadian Science Advisory Secretariat (CSAS) Research Documents or Science Responses related to	Aquatic Ecosystem Science

Pristine Lakes and Rivers FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
			SDG: 6 – Clean Water and Sanitation (6.6)	freshwater habitat or effectiveness of relevant management measures. **Starting point:** In 2019-20, four CSAS publications were completed; two relevant research documents were also published in the primary literature. **Target:** Four publications annually.	
	Use legislation and regulations to protect lake and river ecosystems	Administer the fish and fish habitat protection provisions of the *Fisheries Act* to minimize or avoid impacts to freshwater aquatic ecosystems.	Efforts to conserve and protect freshwater fish and fish habitat will result in improved health of Canada's lakes and rivers. **SDG:** 6 – Clean Water and Sanitation (6.6)	**Performance indicator:** From fiscal year 2020-21: Percentage of development projects occurring in or near water that effectively avoid, mitigate or offset impacts to fish and fish habitat. **Starting point:** In 2019-20, 93% of development projects occurring in or near water effectively avoided, mitigated or offset impacts to fish and fish habitat. **Target:** 100% annually.	Fish & Fish Habitat Protection

Healthy Wildlife Populations: All species have healthy and viable populations

Responsible Minister: Minister of Environment and Climate Change

Healthy Wildlife Populations FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s) Starting point(s) Target(s)**	**Program(s)** in which the departmental actions will occur
By 2020, species that are secure remain secure and populations of species at risk listed under federal law exhibit trends that are consistent with recovery strategies and management plans	Work with partners to implement the Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada	With our partners, strategically focus efforts and resources on shared priority places, species and threats to enable ecosystem-based approaches with multi-species and biodiversity conservation benefits.	DFO is transitioning its approach towards multi-species, place-based and threat-based approaches to species at risk survival and recovery, with identified priorities for collaborative action. DFO is exploring opportunities to transform and modernize its delivery of the *Species at Risk Act* (SARA) by leveraging tools available under other Acts administered by the Department and by supporting multi-species, threat-based, and place-based approaches to SARA delivery. **SDG:** 15 – Life on Land (15.5)	This is a new action and performance metrics will be provided in a future update.	Species at Risk
	Implement, innovate and modernize the regulatory and policy framework and tools to protect species at risk and migratory birds	Identify critical habitat, either partially or completely, for the survival or recovery of species at risk in recovery documents.	DFO, in cooperation with Parks Canada, supports the management and recovery of listed aquatic species in Canada and the protection of their critical habitats and residences, with the ultimate goal of preventing the extinction or extirpation (i.e., extinction in the wild) of aquatic species. DFO is exploring opportunities to transform and modernize its delivery of the *Species at Risk Act* (SARA) by leveraging tools available under other Acts administered by the Department and by supporting multi-species, threat-based, and place-based approaches to SARA delivery. **SDG:** 15 – Life on Land (15.5)	**Performance Indicator:** From fiscal year 2020-21: Percentage of listed Endangered or Threatened aquatic species, with critical habitat identified (either partially or completely) for which a protection order is published on the Species at Risk Public Registry. **Starting Point:**	Species at Risk

Healthy Wildlife Populations FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				In 2019-20, 54% of listed Endangered or Threatened aquatic species had a critical habitat order published on the Species at Risk Public Registry. **Target:** 75% by March 31, 2023.	
	Deliver enhanced conservation action	Promote and enable stewardship actions of partners/stakeholders in species at risk protection and recovery activities through the Habitat Stewardship Program for Aquatic Species at Risk; Aboriginal Fund for Species at Risk; and, Canada Nature Fund for Aquatic Species at Risk.	DFO supports the stewardship and recovery actions of partners from across the country under its grants and contributions funding programs: • the Habitat Stewardship Program (HSP); • the Aboriginal Funds for Species at Risk (AFSAR); and, • the Canada Nature Fund for Aquatic Species at Risk (CNFASAR). The HSP and AFSAR programs offer approximately $5.9M per year to groups in every region of Canada with an interest in aquatic species conservation so they may implement stewardship activities for at risk aquatic species. The CNFASAR, funded as the aquatic arm of the Canada Nature Fund under the Canada Nature Legacy Initiative, provides $55 million over five years to support recovery actions in priority places and to mitigate priority threats to aquatic species at risk. **SDG:** 15 – Life on Land (15.5; 15.A)	**Performance indicator:** From fiscal year 2020-21: Number of signed contribution agreements for projects with partners in support of aquatic species at risk stewardship activities. **Starting point:** In 2019-20, 136 contribution agreements were signed with partners in support of aquatic species at risk stewardship activities. **Target:** Full utilization of grants and contributions funding annually for stewardship activities.	Species at Risk

Healthy Wildlife Populations FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				Note: A numerical target has not been provided as the number of annual signed contribution agreements cannot be planned or predicted.	
	Work with partners to enhance foundational knowledge of species, habitats and ecosystems	Publish recovery or management documents on the public-facing Species at Risk Public Registry.	DFO's Species at Risk program for aquatic species is informed by sound scientific research, Indigenous and community knowledge and takes into account socio-economic and stakeholder considerations, in support of activities in the species at risk conservation cycle. This is reflected in listing and recovery documents published on the Species at Risk Public Registry. **SDG:** 15 – Life on Land (15.5)	**Performance indicator:** From fiscal year 2020-21: Percentage of aquatic species listed under the Species at Risk Act with a recovery strategy or management plan published on the Species at Risk Public Registry. **Starting point:** In 2019-20, 80% of aquatic species listed under SARA had a recovery strategy or management plan published on the Species at Risk Public Registry. **Target:** 85% by March 31, 2023.	Species at Risk
	Build capacity and promote education	Maintain an online aquatic species at risk map that lets Canadians know where	DFO provides a public facing aquatic species at risk map which compiles critical habitat and distribution data for aquatic species listed under the *Species at Risk Act*. It is	**Performance indicator:**	Species at Risk

Healthy Wildlife Populations FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
		aquatic species at risk and their critical habitat are located across Canada.	intended to provide an overview of the distribution of all listed aquatic species at risk and the presence of their critical habitat within Canadian waters. DFO encourages people who are considering a project to visit the National Aquatic Species at Risk Map website to facilitate locating these species and plan their project accordingly. **SDG:** 15 – Life on Land (15.5)	Number of unique page views to the National Aquatic Species at Risk Map. **Starting point:** The National Aquatic Species at Risk Map was launched on September 24, 2018. It is consistently one of the 45 most visited DFO webpages. **Target:** A consistent number of page views (between 400-500 per week).	
	Uphold international commitments related to wildlife	Support work undertaken with international partners to protect and conserve species at risk in particular as it relates to furthering species recovery as defined under Target 2 of the Convention of Biodiversity.	DFO continues to streamline processes and procedures; identify priority areas, threats, and species; and adopt multi-species and ecosystem-based approaches to guide *Species at Risk Act* implementation efforts in line with the Nature Legacy initiative. These steps will help to address a backlog related to commitments for publishing recovery documents and protection requirements for critical habitat. **SDG:** 15 – Life on Land (15.5)	**Performance indicator:** From fiscal year 2020-21: Percentage of listed aquatic species that, when reassessed, have trends consistent with the population and distribution objectives laid out in the recovery strategies or management plans. **Starting point:**	Species at Risk

Healthy Wildlife Populations FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				In 2019-20, 37% of reassessed listed aquatic species have trends consistent with population and distribution objectives laid out in recovery strategies or management plans. **Target:** 75% by March 31, 2023.	

Sustainable Food: Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians

Responsible Minister: Minister of Agriculture and Agri-Food; Minister of Fisheries, Oceans and the Canadian Coast Guard

Sustainable Food FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Achieve 90% compliance with *Fisheries Act* regulations related to aquaculture	Use legislation and regulations to ensure sustainable aquaculture	Inspect aquaculture operations to validate licence reporting, and determine compliance with aquaculture licences, conditions of licence, and other applicable legislation.	Inspections conducted by Fishery Officers validate licence reporting, and determine whether there is compliance with aquaculture licences, conditions of licence, and other applicable legislation. When necessary, Fishery Officers respond to complaints and conduct investigations to ensure aquaculture operations are sustainably managed. **SDG:** 2 – Zero Hunger (2.4)	**Performance Indicator:** From fiscal year 2020-21: Percentage of aquaculture operation inspections where no violations were found; and the percentage of aquaculture operation inspections where no charges were laid with respect to federal aquaculture regulations. **Starting Point:** Of the 141 aquaculture operations inspected in 2018, 96% of inspections did not result in charges and 76% of inspections did not identify any violations. **Target:** 90% of inspections result in no charges laid under *Fisheries Act* regulations related to aquaculture annually.	Aquaculture Management

Sustainable Food FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Actions supporting the Goal: Sustainable Food	Increase knowledge supporting sustainable agriculture, fisheries and aquaculture	Conduct targeted regulatory research on fish pests and pathogens, ecosystem management and interactions with wild fish populations, as well as collaborative research to improve environmental decision making and sustainability of the aquaculture industry.	Targeted regulatory research is conducted to improve the knowledge base that supports the sustainable management of the aquaculture industry. Ensuring that this information is made available to policy and decision-makers facilitates its use in meeting this goal. **SDG:** 2 – Zero Hunger (2.4)	**Performance indicator:** From fiscal year 2020-21: Percentage of sustainable aquaculture research projects which provide information and / or advice to policy and decision makers. **Starting point:** In 2019-20, 96% of sustainable aquaculture research projects provided information and / or advice to policy and decision makers. **Target:** 90% annually.	Aquaculture Science
	Work with partners to address invasive alien species	Conduct science research, monitoring and provide advice to support the Department and partners in addressing aquatic invasive species.	Science advice is provided and made available to Canadians through the Canadian Science Advisory Secretariat (CSAS) peer-reviewed science advisory process. This advice includes the evaluation of risks of species, and pathways through biological risk assessments, evaluation of effectiveness of mitigation measures, and advice on monitoring techniques and tools such as environmental DNA. **SDG:** 15 – Life On Land (15.8)	**Performance indicator:** From fiscal year 2020-21: Percentage of approved requests for science advice on aquatic invasive species that are completed. **Starting point:**	Aquatic Invasive Species

Sustainable Food FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				In 2019-20, 67% of approved requests for science advice on aquatic invasive species were completed. This would have been 100%, but one process was delayed from March 2020 to June 2020 as a result of COVID-19. **Target:** 90% annually.	

Safe and Healthy Communities: All Canadians live in clean, sustainable communities that contribute to their health and well-being

Responsible Minister: Minister of Environment and Climate Change; Minister of Health

Safe and Healthy Communities FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
Actions supporting the Goal: Safe and Healthy Communities	Demonstrate leadership on assessing and remediating contaminated sites	Implement a contaminated sites management plan to enable the Department to meet the Government of Canada's long-term target to bring 95% of the contaminated sites listed in the Federal Contaminated Sites Inventory to the point of closure, or risk management.	The assessment and remediation of contaminated sites helps to effectively mitigate or manage ecological and human health risks, helping Canadians to live in clean, sustainable communities that contribute to their health and well-being. **SDG:** 12 – Responsible Consumption and Production (12.4)	**Performance indicator:** From fiscal year 2020-21: Assess all sites, and remediate and / or implement risk manage plans for 95% of existing contaminated sites and move them to closure or long-term monitoring. **Starting point:** In 2018-19, the Department was responsible for a total of 2,588 sites where contamination may exist and assessment, remediation and / or monitoring are required. **Target:** By 2025, the Department expects to: • assess 707 suspected sites; • implement remediation/risk management activities at 575 known contaminated sites; and,	Internal Services

Safe and Healthy Communities FSDS target(s)	**FSDS contributing action(s)**	Corresponding **departmental action(s)**	**Contribution** by each departmental action to the FSDS goal and target	**Performance indicator(s)** **Starting point(s)** **Target(s)**	**Program(s)** in which the departmental actions will occur
				• either close or implement risk management plans for 546 sites.	

Section 4: Integrating Sustainable Development

Fisheries and Oceans Canada will continue to ensure that its decision-making process includes consideration of FSDS goals and targets through its Strategic Environmental Assessment (SEA) process, a tool used to incorporate environmental considerations into policy, planning or program proposals. When used early in the development of a proposal, SEA contributes to informed decision-making. It provides decision-makers with environmental impact information for modifying the design of policies, plans and programs so that the negative impacts can be minimized or eliminated and the positive impacts optimized.

An SEA for a policy, plan or program proposal includes an analysis of the impacts of the given proposal on the environment, including on relevant FSDS goals and targets. The Department also determines whether specific environmental effects are positive or negative and investigates whether the policy, program, or proposal would affect the environmental footprint of Canadian government operations. By answering these questions the Department fully integrates environmental considerations in the analysis of each option presented before Ministers along with economic and social analysis.

Public statements on the results of DFO's assessments are made public when an initiative that has undergone a detailed SEA (see here). The purpose of the public statement is to demonstrate that the environmental effects, including the impacts on achieving the FSDS goals and targets, of the approved policy, plan or program have been considered during proposal development and decision making.

Marine Conservation Targets

International momentum to expand marine conservation efforts beyond 10 per cent after 2020 is building, as are calls to protect 30 per cent of the global ocean by 2030. A new international target for marine conservation will be formally adopted as part of the Post-2020 Global Biodiversity Framework under the United Nations Convention on Biological Diversity at the 15th Conference of the Parties in 2021. In line with the Department's mandate commitment, DFO, ECCC and PCA, will advocate at international gatherings that countries around the world set a goal of 30 per cent conservation by 2030.

Supporting this ambitious conservation agenda with increasing demand for space with greater potential for cumulative impacts requires an integrated approach to management. Provisions under the *Oceans Act* authorize the Minister of Fisheries and Oceans and Canadian Coast Guard to lead the development of national strategies and integrated oceans management plans, in collaboration with federal, provincial, and territorial authorities, Indigenous groups and stakeholders.

While a foundation for integrated oceans management in some key domestic areas has already been built in some regions of Canada, much can be learned and applied from

recent international experience to improve how Canada manages its three oceans. This includes initiating marine spatial planning (MSP) processes and applying best practices from similar initiatives around the world. In support of the Minister of Fisheries, Oceans and the Canadian Coast Guard's mandate from the Prime Minister, MSP offers a forum to work with partners to align conservation and socio-economic objectives concurrently; to facilitate better co-management of Canada's oceans; and, to support blue growth opportunities for Canada.

Canadian Coast Guard Renewal

The CCG is charting an ambitious path toward becoming a world leader in maritime safety and security. New investment, under the Oceans Protection Plan, is driving change at an unprecedented rate, and with that comes both challenges and opportunities. One of these opportunities vital to well-being is sustainable development.

We are building on a history of excellent marine engineering that has sought fuel and GHG emission savings through creative means. Foresight around future international regulations driving down emissions from marine vessels has already seen the CCG design new vessels around more stringent emissions limits than required. However, there is progress to be made in terms of mainstreaming sustainable development across the CCG.

This challenge runs parallel to mainstreaming sustainable development across Canadian society; it will involve cultural change. The CCG will mainstream sustainable development or 'sustainability' across all lines of business, creating a 'new normal'. In the case of procurement, this will entail establishing means of weighing cost factors against lifecycle factors, including full cost accounting.

This is a new frontier for the CCG, and it will not be easy. However, this is a necessary step toward supporting a national and global transition to first a low-carbon reality, then taking the next step, toward a circular economic model, where resources are recirculated through the production/manufacturing – consumption – use – and remanufacturing loop.

The CCG of the future will drive and support domestic innovation in the maritime sector, leading the way through life-cycle management from a cradle to cradle approach. The CCG will be part of transformative change, not as an observer, but an agent. This includes leveraging opportunities to protect Canada's waters and coastlines while concurrently reducing the carbon footprint of CCG operations and those of the maritime sector.