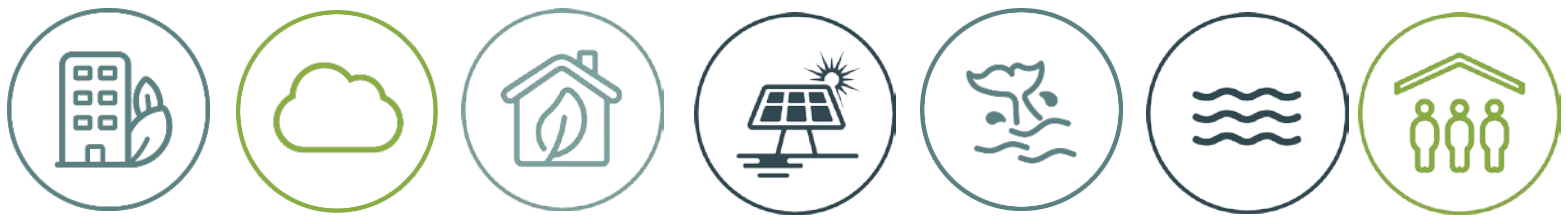


Transport Canada

2017-2020 Departmental Sustainable Development Strategy

2018-2019 Update



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2017-2020 Departmental Sustainable Development Strategy (DSDS) – 2018-2019 Update

From [Transport Canada](#):

The Departmental Sustainable Development Strategy reflects our efforts towards a more sustainable transportation system in Canada. It outlines the actions that the department will undertake over the next three years. The strategy supports the Government of Canada’s broader [Federal Sustainable Development Strategy](#).

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Executive summary

Transport Canada seeks to promote a safe, secure, efficient and environmentally responsible transportation system in Canada. Our departmental vision aligns closely with the social, economic and environmental pillars of sustainable development, which is defined as ‘our ability to meet the needs of the present without compromising the ability of future generations to meet their own needs’¹.

Our national transportation system – by land, water and air – links Canadians to each other and Canada with the world. Transportation moves goods to markets and people to their destinations, provides jobs, and supports economic growth. However, transportation activities can sometimes have negative impacts on the environment, for example - through the release of air pollutants from vehicles which can contribute to poorer air quality, or accidental oil spills in the marine environment which can affect water quality and marine species.

Of increasing importance, climate change and extreme weather-related events can disrupt the movement of both freight and people, putting the economy and Canadians at risk. Given the complex nature of sustainable transportation issues and its shared jurisdiction, strong and effective partnerships are required with other federal departments, other levels of government, industry, other stakeholders and individual Canadians. A number of our departmental actions, as set out in [Section 3](#), will be undertaken in partnership with others.

At the federal level, a whole-of government [Federal Sustainable Development Strategy](#) (FSDS) is prepared every three years. The 2016-2019 FSDS is the federal government’s third strategy since the coming into force of the [Federal Sustainable Development Act](#), and it serves as our primary vehicle for sustainable development planning and reporting – both to Parliament and Canadians.

The 2016-2019 FSDS centres on [13 new aspirational goals](#), with supporting targets and actions, which seek to promote clean growth, ensure healthy ecosystems and build safe, secure and sustainable communities. Furthermore, the FSDS demonstrates federal leadership towards implementing the environmentally-related global [United Nations Sustainable Development goals](#).

¹ World Commission on Environment and Development. (1987). “Our common future”. Oxford: Oxford University Press.

Transport Canada remains committed to contributing to the FSDS and to supporting Canada's vision for sustainable development. The 2017-2020 Departmental Sustainable Development Strategy (DSDS) describes how Transport Canada will continue to contribute to the FSDS, including: our sustainable development context and vision; the actions we will undertake over the next three years to support the FSDS; and, the ways we have integrated a sustainable development approach into our policies, plans and decision-making.

Key areas of action presented within this DSDS include: initiatives to reduce greenhouse gas and air pollutant emissions from the transportation sector, including in support of the [Pan-Canadian Framework on Clean Growth and Climate Change](#); programs such as the [Northern Transportation Adaptation Initiative](#), which will facilitate an improved understanding of the challenges and opportunities for a transportation system that is increasingly resilient to the changing climate; actions under the newly announced [Oceans Protection Plan](#) to protect our coasts and oceans and keep them healthy for future generations; as well as activities to lead by example in improving our own operations through increasing efficiencies in how we do business and reducing the energy consumption of the facilities and fleet of vehicles that we own and operate.

Section 1: Context for the Departmental Sustainable Development Strategy

The [2016-2019 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 objectives of the Act to integrate environmental, social and economic considerations into decision-making, and to make decisions more transparent and increase accountability to Parliament, Transport Canada supports the goals laid out in the FSDS through the activities described in this Departmental Sustainable Development Strategy (DSDS).

Section 2: Sustainable Development in Transport Canada

To preserve and strengthen Canada's transportation system, transportation policy must provide a framework that addresses the three elements of sustainability - social, economic and environmental. It must also give carriers the opportunity to adapt, innovate, compete and serve shippers and travellers in a way that takes into account each of these elements.

Transport Canada is responsible for the Government of Canada's transportation policies and programs. While not directly responsible for all aspects or modes of transportation, the

Department plays a leadership role in ensuring that all parts of the transportation system work together effectively. Our vision is ‘**A transportation system in Canada that is recognized worldwide as safe and secure, efficient and environmentally responsible**’. This vision of a sustainable transportation system reflects social, economic and environmental objectives. Its three guiding principles are to work towards:

- The highest possible safety and security of life and property, supported by performance-based standards and regulations;
- The efficient movement of people and goods to support economic prosperity and a sustainable quality of life, based on competitive markets and targeted use of regulation and government funding; and
- Respect of the environmental legacy for future generations of Canadians, guided by environmental assessment and planning processes in transportation decisions and selective use of regulation and government funding.

In November 2016, the Minister of Transport announced his strategic plan for the future of transportation in Canada, ‘Transportation 2030 – A Strategic Plan for the Future of Transportation in Canada’. Transportation 2030 was prepared with views and ideas from Canadians, stakeholders, provinces and territories and Indigenous groups across the country, and reflects sustainable development in its vision of:

“...a safe, secure, green, innovative and integrated transportation system that supports trade and economic growth, a cleaner environment and the well-being of Canada’s middle class”.

Canadians are invited to visit our [Transportation 2030 website](#) to view our progress in advancing work under the following five key theme areas:

1. Enhancing the experience of the **Canadian traveller**;
2. Building a **safer, more secure** transportation system that earns the confidence of Canadians;
3. Investing in a **greener, more innovative** transportation sector that embraces new technologies to improve Canadians’ lives;
4. Protecting Canada’s **waterways, coasts and the North**; and,

5. Improving Canada's **transportation infrastructure and trade corridors** to get products to global markets more efficiently.

Transport Canada continues to actively participate in and support the [2016-2019 Federal Sustainable Development Strategy](#) (FSDS). Through this Departmental Sustainable Development Strategy (DSDS), the department directly contribute to six² of the 13 long-term goals identified in the 2016-2019 FSDS, as follows:



FSDS Goal: Low Carbon Government - Greening government operations and moving towards a low-carbon government is important to achieving Canada's goals for environmental and sustainable development. Transport Canada is committed to demonstrating leadership in this area through greening our own operations and reducing energy consumption from our facilities and fleet. The Department continues to own and operate several facilities across the country, including some airports and ports, and is responsible for a fleet of vehicles ranging from aircraft, and marine vessels to on-road vehicles.

Transport Canada has identified a number of measures under the Low-carbon government goal to support the Government of Canada's target to reduce greenhouse gas (GHG) emissions from federal operations by 40% by 2030. These measures include: conducting energy audits, renovating facilities to be more energy efficient, developing a plan to reduce emissions from our fleet, incorporating environmental considerations into our procurement processes, and engaging with employees to promote sustainable employee behaviour.

Additionally, Transport Canada's [Transportation Assets Risk Assessment initiative](#) seeks to improve our understanding of climate risks to federal transportation assets and potential adaptation solutions which could be employed. This work also directly supports the "Modern and Resilient Infrastructure" goal.



FSDS Goal: Effective Action on Climate Change – The transportation sector is Canada's second largest source of greenhouse gas (GHG) emissions, accounting for 173 Mt³ or 24% of the national total. Reducing these emissions is a key priority of the federal government, as outlined in the set of ambitious and collaborative areas of action under the [Pan-Canadian Framework on Clean Growth and Climate Change](#). Transport Canada leads a suite of regulatory and voluntary measures to reduce greenhouse gas emissions from the aviation, marine, and rail

² 2018-2019 DSDS Update: Adjustments made to re-align activities from the "Modern and Resilient Infrastructure" goal to the "Effective Action on Climate Change" goal, to reflect a better fit of Transport Canada's work, and to add new departmental contributions to the "Clean Growth" goal.

³ Mt = Megatonnes = 1,000,000,000 kilograms

sectors, and also supports emission reductions from the on-road sector. The department represents the Government of Canada at the [International Civil Aviation Organization](#) and the [International Maritime Organization](#) to develop approaches for the international aviation and marine sectors. We also test clean transportation technologies, so that they may be introduced in a safe, effective and timely manner.

Impacts associated with a changing climate and extreme weather are already damaging and disrupting transportation systems, services and operations across all modes and in all regions of Canada. In Northern Canada in particular, climate impacts can threaten the efficiency, safety and resilience of transportation, and consequently, the ability of Northerners and industry to maximize social and economic development.

To support more climate resilient transportation infrastructure, Transport Canada's [National Trade Corridors Fund](#) supports trade and transportation infrastructure investments that strengthen the efficiency and reliability of Canada's trade corridors. Additionally, through the continuation of the [Northern Transportation Adaptation Initiative](#), the department seeks to enable the enhancement of the resilience of existing and future Northern transportation infrastructure and operations to a changing climate.



FSDS Goal: Clean Growth – Investments in clean technology and innovation contribute to clean growth and the transition to a low-carbon economy, resulting in both economic and environmental benefits. Recognizing this, Transport Canada's "Core Clean Transportation Research, Development and Demonstration – Aviation, Marine and Rail Transportation Program" will address GHG and air pollutant emissions from the aviation, marine and rail transportation sectors through targeted research on emerging technologies and innovative practices.



FSDS Goal: Healthy Coasts and Oceans – Transport Canada is committed to protecting Canada's coasts and oceans and keeping them healthy for future generations. The department develops and administers policies, regulations and programs to protect the marine environment from ship source pollution.

On November 7, 2016, the Prime Minister announced the [Oceans Protection Plan](#) (OPP): a whole-of-government, comprehensive strategy to build a world-leading marine safety system and protect Canada's marine ecosystems. The OPP includes a number of innovative and transformative initiatives being implemented by five federal organizations under four main priority areas, namely, prevention and response measures related to marine safety,

preservation and restoration of marine ecosystems and habitats, building and strengthening partnerships with Indigenous and coastal communities, and ensuring Canada's marine safety system is built on a stronger evidence base that is supported by science and local knowledge.



FSDS Goal: Pristine Lakes and Rivers – Canada has one of the longest navigable coastlines in the world, from the St. Lawrence Seaway and Great Lakes to the Atlantic, Arctic and Pacific Oceans. A significant increase in worldwide shipping traffic, and the corresponding amount of ballast water discharged by these vessels, has resulted in an increase in alien invasive species introductions.

The introduction and spread of alien invasive species is a serious problem that has ecological, economic, health and environmental impacts, including loss of native biological diversity. Transport Canada's key actions in this area include updating the current [Ballast Water Control and Management Regulations](#) to reflect the recent worldwide coming into force of the [Ballast Water Convention](#); and, ongoing inspections of all vessels entering the Great Lakes for compliance with ballast water management regulations.



FSDS Goal: Safe and Healthy Communities – Transport Canada is committed to doing its part to ensure that Canadians live in clean, safe environments that contribute to their health and well-being. Pollutant emissions from transportation have fallen significantly, largely due to regulatory changes introduced by the federal government. That being said, further action is required to ensure this trend continues in the transportation sector. Key departmental initiatives under this goal include: regulatory, voluntary and complementary efforts to improve air quality through the reduction of air pollutant emissions from transportation sources; the prevention of environmental emergencies or mitigating their impacts if they do occur; and taking action to remediate our contaminated sites.

This DSDS builds on our accomplishments and lessons learned in previous strategies and charts our course of action for the next three years. In the spirit of the 'evergreen' approach of the 2016-2019 FSDS, we will update the interactive [FSDS e-Strategy](#) and this DSDS as new policy decisions, programs and initiatives that support the FSDS goals or broader [United Nations Sustainable Development goals](#) emerge. Detailed information about the initial commitments that Transport Canada has made to contribute to the 2016-19 FSDS can be found in [Section 3](#) of this DSDS.

Section 3: Commitments for Transport Canada

Low-Carbon Government: The Government of Canada leads by example by making its operations low-carbon

Responsible Minister: All ministers

| Low-Carbon Government FSDS target(s) | FSDS Contributing Action(s) | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|---|--|---|---|--|
| Reduce greenhouse gas (GHG) emissions from federal government buildings and fleets by 40% below 2005 levels by 2030, with an aspiration to achieve this reduction by 2025 | Improve the energy efficiency of our buildings/operations | Reduce GHG emissions from Transport Canada buildings through renovations at identified facilities, which will include the following energy efficient upgrades: <ul style="list-style-type: none"> • Lighting upgrades (LED lighting) • Central heating/cooling • Effective space utilization • Reduce plug-load demand | Renovating facilities to include energy efficient upgrades will reduce the demand for energy usage, leading to a reduction in GHG emissions from Transport Canada's real property portfolio | Performance Indicator: <ul style="list-style-type: none"> • Percentage (%) change in GHG emissions from facilities from fiscal year 2005-06 to fiscal year 2019 - 20 Starting Point: GHG emissions from facilities in fiscal year 2005–06 (base year) = 1.523 ktCO₂e⁴ GHG emissions from facilities in fiscal year 2016-17 = 2.574 ktCO₂e Percentage (%) change in GHG emissions from facilities from fiscal year 2005-06 to fiscal year 2016-17 = 69% increase | Environmental Stewardship of Transportation ⁵ |
| | Modernize our fleet | Conduct a thorough review and analysis of the current on-road vehicle fleet to determine feasibility of including more low-emission vehicle options, including zero-emission vehicles, where operationally appropriate; and to align with government-wide efforts on zero-emission vehicle targets for future fleet acquisitions | Explore research and development options that aim to reduce the amount of fuel consumed for fleet operations will help the department to create a strong plan of action to reduce GHG emissions from our fleet inventory Starting in 2019-20, 100% of new light-duty administrative fleet purchases will be zero-emissions | Performance Indicators: <ul style="list-style-type: none"> • Percentage (%) change in GHG emissions from fleet from fiscal year 2005-06 to fiscal year 2019-20 • Percentage (%) of new light-duty administrative fleet vehicles that are ZEV • By March 31, 2019, data collected from telematics devices installed on Transport | Environmental Stewardship of Transportation |

⁴ ktCO₂e = kilotonnes of carbon dioxide emissions

⁵ 2018-19 DSDS Update: All of the Programs in the Departmental Sustainable Development Strategy have been updated to reflect Transport Canada's new Departmental Results Framework.

| Low-Carbon Government FSDS target(s) | FSDS Contributing Action(s) | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--|--|--|---|--|
| | | | <p>vehicles (ZEVs), where operational needs permit</p> <p>Where ZEVs are not available or suitable for operational needs, new light-duty administrative fleet purchases will be lower-emission options</p> <p>Transport Canada will examine if there are opportunities to broaden this approach to other departmental fleet purchases</p> | <p>Canada's administrative fleet will be analyzed to inform future fleet purchases⁶</p> <p>Starting Points:</p> <p>GHG emissions from fleet in fiscal year 2005–06 (base year): = 60.758 ktCO₂e</p> <p>GHG emissions from fleet in fiscal year 2016-17 = 57.132 ktCO₂e</p> <p>Percentage (%) change in GHG emissions from fleet from fiscal year 2005-06 to fiscal year 2016-17 = 5.96 % decrease</p> <p>Zero percent (%) ZEV purchases in fiscal year 2016-17</p> | |
| | Support the transition to a low-carbon economy through green procurement | <p>Support the reduction of GHG emissions through procurement processes by undertaking the following activities:</p> <ul style="list-style-type: none"> • Train specialists in procurement and acquisition cardholders on green procurement using the Canada School of Public Service Green Procurement course, or equivalent • Purchase copy paper from the Standing Offer that contains a minimum 30% recycled content and that is certified to a recognized environmental standard to reduce the environmental impact of its production | <p>Training procurement specialists and acquisition cardholders on green procurement allows for more informed decision making on including green criteria in contracts for both commodities and services required by the department</p> <p>Making use of standing offers with green criteria already in place is an efficient way for the department to reduce the impact of common purchases such as copy paper</p> | <p>Performance indicators:</p> <ul style="list-style-type: none"> • Percentage of specialists in procurement and materiel management who have completed training on green procurement • By March 31, 2018, 100% of copy paper purchases will contain a minimum of 30% recycled content and be certified to a recognized environmental standard to reduce the impact of its production <p>Starting Point:</p> <p>As of 2016-17, 135 procurement specialists and acquisition cardholders at Transport Canada have been trained on green procurement; and 100% of copy paper was purchased from the Standing Offer</p> | Internal Services |

⁶ 2018-19 DSDS Update: Addition of new a performance indicator. Transport Canada has partnered with Natural Resources Canada to install telematics devices on our administrative fleet to help with the review and analysis of the current usage of our vehicles, in order to determine which vehicles would be good candidates to replace with zero-emission vehicles or other low emission options.

| Low-Carbon Government FSDS target(s) | FSDS Contributing Action(s) | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--|---|---|---|--|
| | Promote sustainable travel practices | <p>Address GHG emissions from business travel through the following activities:</p> <ul style="list-style-type: none"> • Update and promote Transport Canada’s Green Meeting Guide and Green Meetings webpage to reduce the need for business travel • Update Transport Canada’s Green Commute webpage and promote sustainable commuting options for employees through various outreach initiatives such as: <ul style="list-style-type: none"> - Lobby displays - Publishing information articles on our “myTC” intranet - Highlighting a commuter challenge - Environment Week | <p>Updating the Green Meeting Guide will encourage employees to take advantage of available green meeting options within the department, therefore reducing the overall need for business travel and GHG emissions</p> <p>Updating the Green Commute Program webpage will help to encourage employees to consider sustainable commuting options, therefore lowering GHG emissions from employees’ daily commute</p> | <p>Performance Indicators: ⁷</p> <ul style="list-style-type: none"> • By March 31, 2018, Green Meeting Guide updated • By March 31, 2019⁸. Green Commute Program webpage updated and promotion of sustainable commuting options <p>Starting point:</p> <p>In 2016, Transport Canada launched the Guide to Green Meetings, an easy how-to manual to help employees organize green meetings, and in turn help the department to reduce its GHG emissions from unnecessary business travel</p> <p>Transport Canada has had a Green Commute Program in place for many years to encourage and promote sustainable commuting options (e.g. cycling, transit, walking, carpooling etc.) for departmental employees</p> | Environmental Stewardship of Transportation |
| | Understand climate change impacts and build resilience | <ul style="list-style-type: none"> • Identify and understand climate change risks and vulnerabilities to Canada’s transportation system that could potentially affect Transport Canada’s mandate, policies, assets, programs, services and overall operations • Integrate climate change considerations into Transport Canada’s departmental | The integration of climate change considerations into policies, programs, services and overall operations is one of the most important ways the government can adapt to a changing climate and is consistent with the government’s risk management approach of enhancing the protection of public | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • Transport Canada’s climate risk scan updated by March 31, 2018 • Transport Canada’s next adaptation plan developed by Fall 2018 | Climate Change and Clean Air |

⁷ 2018-19 DSDS Update: Due to a focus on other priorities related to Low-Carbon Government and the Greening Government Strategy, the Green Meetings webpage was not updated by the end of March 2018.

⁸ 2018-19 DSDS Update: Adjusted the target date for the performance indicator as the department will be creating a Low-Carbon Government Communications Strategy with an internal Low-Carbon Government webpage, followed by an updated Green Commute webpage and other complementary webpages.

| Low-Carbon Government FSDS target(s) | FSDS Contributing Action(s) | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--------------------------------|---|---|--|--|
| | | <p>planning, policies, programs, services and overall operations</p> <ul style="list-style-type: none"> Continue to incorporate climate change considerations into Transport Canada's corporate risk planning process | <p>assets and resources and strengthening planning and decision-making</p> | <ul style="list-style-type: none"> Corporate risk and business continuity plans integrate climate change considerations, on an ongoing basis <p>Starting Point:</p> <p>In 2012, Transport Canada completed a climate risk scan which informed the development of the department's first departmental adaptation plan (2013-16). This plan had a key focus on improving Transport Canada's integration of climate change into decision making</p> | |
| | | <p>Implement the Transportation Assets Risk Assessments initiative to⁹:</p> <ul style="list-style-type: none"> Support risk assessments of federally-owned transportation infrastructure Support research and analysis on risk assessments and adaptation solutions that directly link to federally-owned infrastructure Share information and analysis with the broader transportation sector to aid in spurring action and increasing the understanding of risks and potential solutions that can be employed | <p>Climate risk assessments, research, and analysis will provide those responsible for federal transportation assets with information and tools to strengthen decision-making and asset management, helping to support the increased resiliency of our transportation systems</p> | <p>Performance Indicators:</p> <ul style="list-style-type: none"> Number of studies, tools, datasets, information and guidance products funded through the program to support adaptation decision-making in the sector Number of federal transportation assets for which risk/vulnerability assessments have been completed <p>Targets:</p> <ul style="list-style-type: none"> Six per year (number of studies, tools, data sets, information and guidance products funded)* (**target shared with the Northern Transportation Adaptation Initiative) At least 20 federal transportation assets assessed by 2022 | <p>Climate Change and Clean Air</p> |

⁹ 2018-19 DSDS Update: Addition of the new Transportation Assets Risk Assessment initiative as announced in Budget 2017.

| Low-Carbon Government FSDS target(s) | FSDS Contributing Action(s) | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--------------------------------|---|--|--|--|
| | | | | Starting Point: Budget 2017 announced investments of up to \$16.35 million over five years, beginning in 2017-18, to better understand climate risks to federal transportation assets. Work under the Transportation Assets Risk Assessment initiative directly supports the Pan-Canadian Framework on Clean Growth and Climate Change | |

| Additional departmental sustainable development activities and initiatives | Starting point(s) where available, and applicable performance indicators for each departmental action | Program(s) in which the departmental actions will occur |
|---|--|--|
| Departmental action: Improve the accuracy of greenhouse gas (GHG) data collection through the following activities: <ul style="list-style-type: none"> • Analyze Transport Canada’s existing GHG inventory to ensure it is as comprehensive as possible with the most up-to-date facility and fleet information • Develop national guidance and a reporting template to simplify the process for collecting TC facility data to ensure accuracy and consistency across all regions | Performance Indicators: <ul style="list-style-type: none"> • By March 31, 2018, TC’s GHG inventory complete and up-to-date • By March 31, 2018, national guidance and reporting template developed and tested in one region for effectiveness¹⁰. | Environmental Stewardship of Transportation |

¹⁰ 2018-19 DSDS Update: The new guidance document and reporting template have been developed and tested with one Region, but will not be deployed to all Regions until a call out from Treasury Board is issued to start the 2017-18 GHG data collection process. Until that time, Transport Canada will continue to fine tune the guidance and template in preparation for a national roll-out.

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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|--|--|--|--|---|
| By 2030, reduce Canada's total greenhouse gas (GHG) emissions by 30%, relative to 2005 emission levels | Use regulations to limit GHG emissions | Under the Aviation Sector Regulatory Initiative , address GHG emissions from aviation by supporting the International Civil Aviation Organization's (ICAO) development of new international standards and recommended practices and through the development and implementation of new domestic standards, and the monitoring of Canada's voluntary Action Plan in collaboration with the Canadian aviation sector ¹¹ | Through a range of regulatory and voluntary measures, Transport Canada supports the domestic and international reduction of GHG emissions from the aviation sector | <p>Performance indicators:</p> <ul style="list-style-type: none"> • % of regulatees who comply with the regulations¹² <p>Targets:</p> <ul style="list-style-type: none"> • 100% compliance (ongoing once regulations come into force) <p>Starting point:</p> <p>100% of instruments are currently aligned with domestic legislation or international standards</p> <p>Transport Canada actively leads the Government of Canada's participation at ICAO on the development of environmental standards and on topics related to reducing the impact of aviation on the environment, including contributing to the creation of a Carbon Offsetting and Reduction Scheme for International Aviation, agreed to at ICAO in fall 2016</p> <p>Building on the success of the world's first voluntary agreement to address GHG emissions from aviation, the Government and the Canadian aviation industry released Canada's Action Plan to Reduce Greenhouse</p> | Climate Change and Clean Air |

¹¹ 2018-19 DSDS Update: The Aviation Sector Regulatory Initiative's scope has been revised to reflect the consolidation of Transport Canada's research, development and demonstration activities for aviation, marine and rail under a new Core Clean Transportation Research, Development and Demonstration – Aviation, Marine, and Rail Transportation Program. Performance indicators and targets have also been adjusted to reflect the Climate Change and Clean Air Program's Performance Information Profile. The name of the initiative has been added for easier reference.

¹² Canada will be developing regulations to implement ICAO's Carbon Dioxide standard for new airplanes and Carbon Offsetting and Reduction Scheme for International Aviation.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|-----------------------------|--|--|--|---|
| | | | | Gas Emissions From Aviation . Progress is reported in an annual report | |
| | | <p>Under the Marine Sector Regulatory Initiative, address GHG emissions from maritime shipping by working with the International Maritime Organization (IMO) in the development of new international standards and recommended practices for marine vessels, as well as through the implementation of new Canadian regulations¹³</p> <p>*this departmental action also contributes to the reduction of air pollutant emissions, which supports the Federal Sustainable Development Strategy's (FSDS) 'Safe and Healthy Communities' goal</p> | <p>Transport Canada actively participates in the International Maritime Organization's Marine Environment Protection Committee and the Sub-Committee on Pollution Prevention and Response to develop a comprehensive strategy to reduce GHG emissions from ships, and agree on related measures</p> <p>For example, in 2016-17:</p> <p>Transport Canada continued to lead the Government of Canada's participation at the IMO, and worked with member states to:</p> <ul style="list-style-type: none"> • Agree to develop a comprehensive IMO strategy to reduce GHG emissions from international shipping as well as to confirm 2020 as the coming into force date of a more stringent cap on the maximum allowed sulphur content in marine fuel (from 3.5% to 0.5% mass/mass); | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • Progress in negotiations at IMO • Percentage of instruments that are aligned with domestic legislation or international standards • % of regulatees who comply with the regulations¹⁴ <p>Targets:</p> <p>By March 31, 2018:</p> <ul style="list-style-type: none"> • 100% of instruments are aligned with domestic legislation or international standards • 100% compliance (ongoing once regulations come into force) <p>Starting point:</p> <p>During 2016-17:</p> <p>85% of instruments were aligned with domestic legislation or international standards</p> <p>Vessels were 83% in compliance with vessel emissions regulations (based on minor deficiencies observed)</p> | Climate Change and Clean Air |

¹³ 2018-19 DSDS Update: The Marine Sector Regulatory Initiative's scope has been revised to reflect the consolidation of Transport Canada's research, development and demonstration activities for aviation, marine and rail under a new "Core Clean Transportation Research, Development and Demonstration – Aviation, Marine, and Rail Transportation Program". Performance indicators and targets have also been adjusted to reflect the Climate Change and Clean Air Program's Performance Information Profile. The name of the initiative has been added for easier reference.

¹⁴ Canada will be developing regulations to implement the IMO's fuel oil data collection system for international shipping.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|-----------------------------|---|---|---|---|
| | | | <ul style="list-style-type: none"> • Agree on a timeline for the completion of the black carbon work plan; and • Adopt a mandatory ship fuel oil data collection system for international shipping | | |
| | | <p>Under the Support for Vehicle GHG Emissions Regulations, support Environment and Climate Change Canada's development and implementation of GHG emission regulations for light-duty vehicles (for model years 2017–25) and heavy-duty vehicles (for model years 2014–18) under the Canadian Environmental Protection Act, 1999, which will align with regulations in the United States</p> | <p>Transport Canada supports Environment and Climate Change Canada in the development of GHG emission regulations for light- and heavy-duty vehicles through work aimed at ensuring the safe introduction of new clean technologies in Canada. This includes a range of activities, such as:</p> <ul style="list-style-type: none"> • analyzing initiatives and scenarios to assess the environmental benefits of complementary measures directed at reducing GHG emissions from on-road transportation; and • Continued involvement in national and global safety standards development for zero-emission vehicles (electric and hydrogen) and alternative fuel vehicles will ensure that a wide range of zero and low emissions | <p>Performance Indicator:</p> <ul style="list-style-type: none"> • Change in transportation emissions intensity as measured in grams per unit of activity (e.g.: tonnes-km, passenger-km) <p>Target:</p> <ul style="list-style-type: none"> • Continuous improvement in emissions intensity by March 31, 2020 <p>Note: it will only be possible to set an absolute value if the transportation sector's share of the Government of Canada's reduction targets are established and published</p> <p>Starting point:</p> <p>Environment and Climate Change Canada published the phase 2 Heavy-Duty Vehicle and Engine Greenhouse Gas Emissions Regulations in Canada Gazette, Part I in March 2017</p> <p>From 2005 to 2016 (latest year for which data is available):</p> <ul style="list-style-type: none"> • GHG emissions intensity decreased by 14% for passenger transportation, not including off-road equipment | <p>Climate Change and Clean Air</p> |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | <p>Under the ecoTECHNOLOGY for Vehicles Program, address GHG emissions through testing and evaluations of advanced technologies to support the development of regulations and industry codes and standards in order to ensure that new technologies that reduce GHG emissions can be introduced in Canada in a safe and timely manner¹⁶</p> <p>*this departmental action also contributes to the reduction of air pollutant emissions, which supports the FSDS' 'Safe and Healthy Communities' goal</p> | <p>vehicles are available for sale in the Canadian market</p> <p>Test results from Transport Canada's ecoTECHNOLOGY for Vehicles program support the development of the codes and standards that are required by industry to commercialize new clean technologies in Canada</p> | <p>• GHG emissions intensity increased by 1% for freight transportation, due mainly to the increasing use of trucks to move goods¹⁵</p> <p>Performance Indicator:</p> <ul style="list-style-type: none"> • Number of technologies/vehicles tested/evaluated <p>Target:</p> <ul style="list-style-type: none"> • Greater than, or equal to, five technologies/vehicles tested or evaluated per year¹⁷ <p>Starting Point:</p> <ul style="list-style-type: none"> • In 2016-17, the program conducted 25 testing and evaluation activities. This included testing the fuel economy and aerodynamic benefits of connected and automated truck platooning technologies – a first of its kind test globally | Climate Change and Clean Air |
| | Work with partners on climate change | <p>Under the Heavy-Duty Vehicle Retrofit Requirements Program, work with other federal departments, provinces, territories and industry to develop new requirements for heavy-duty trucks to install fuel-saving devices¹⁸</p> <p>*this departmental action also contributes to the reduction of air pollutant emissions, which</p> | Work under this action will improve the efficiency of heavy-duty vehicles that are already on the road by increasing the uptake of fuel-saving devices. This action will complement current initiatives that address the efficiency of new heavy-duty vehicles | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • Progress in federal-provincial-territorial discussions • Development of a work plan <p>Targets:</p> <p>In 2018-19:</p> <ul style="list-style-type: none"> • Establish a federal-provincial-territorial working group | Climate Change and Clean Air |

¹⁵ 2018-19 Departmental Sustainable Development Strategy (DSDS) Update: Transportation emissions intensity for both passenger and freight have been updated to reflect the most recent data available from Environment and Climate Change Canada's National Inventory Report and Transport Canada's most recent activity data. The name of the initiative has been added for easier reference.

¹⁶ 2018-19 DSDS Update: Performance indicators and targets have been adjusted to reflect the Climate Change and Clean Air Program's Performance Information Profile. The name of the initiative has been added for easier reference.

¹⁷ Target has been adjusted to reflect continuation of the ecoTECHNOLOGY for Vehicles Program.

¹⁸ 2018-19 DSDS Update: Addition of the new Transport Canada's Heavy-Duty Vehicle Retrofit Requirements Program.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | supports the FSDS 'Safe and Healthy Communities' goal | | <ul style="list-style-type: none"> Begin implementation of the work plan Starting Point: A commitment was made in the Pan-Canadian Framework on Clean Growth and Climate Change to develop requirements to retrofit in-use heavy duty vehicles with fuel saving devices | |
| | Support voluntary action to reduce greenhouse gas (GHG) emissions and adapt to climate change | Under the Rail Sector Regulatory Initiative, address GHG emissions from the rail sector by enhancing collaboration with the Railway Association of Canada on issues such as renewable fuels to address emissions ^{19/20} | Transport Canada will address GHG emissions from locomotives by seeking an extension to the existing agreement including annual emissions intensity improvements and enhanced collaboration | Performance Indicators: <ul style="list-style-type: none"> Change in the emissions intensity reported for Class 1 freight, intercity passenger and regional and short line railways Targets: <ul style="list-style-type: none"> To be determined based on further discussion with the rail sector Starting point: A Memorandum of Understanding with the rail industry covering 2011-2016 was extended through to 2017 | Climate Change and Clean Air |
| | | Under the Truck Reservation System Program , address GHG emissions by supporting the deployment of technology projects at port and terminal facilities to improve efficiency in the movement of trucks into and out of terminal facilities at container ports and reduce truck idling* | Improving efficiency in the movement of trucks and reducing truck idling at port and terminal facilities results in site specific reductions in the amount of GHG and air pollutant emissions released, as well as reductions in fuel consumption | Performance indicators: <ul style="list-style-type: none"> Percentage of projects completed Number of clean transportation technology projects implemented Targets: As of March 31, 2018: | Climate Change and Clean Air |

¹⁹ 2018-19 DSDS Update: The Rail Sector Regulatory Initiative's scope has been revised to reflect the consolidation of TC's research, development and demonstration activities for aviation, marine and rail under a new Core Clean Transportation Research, Development and Demonstration – Aviation, Marine, and Rail Transportation Program. Performance indicators and targets have also been adjusted to reflect the Climate Change and Clean Air Program's Performance Information Profile. The name of the initiative has been added for easier reference.

²⁰ Agreement on an instrument with the Railway Association of Canada is under discussion to extend the voluntary approach (the Memorandum of Understanding covering 2011-2016 had been previously extended through to 2017).

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | *this departmental action also contributes to the reduction of air pollutant emissions, which supports the FSDS 'Safe and Healthy Communities' goal | | <ul style="list-style-type: none"> 100% of Truck Reservation System Program projects will be completed 10 clean transportation technologies implemented by March 31, 2018* (*target shared with the Shore Power Technology for Ports Program) Starting point: The Truck Reservation System Program is currently in its last year and will end as of March 31, 2018 <ul style="list-style-type: none"> To date, seven technology projects have been implemented under this Program | |
| | | Under the Shore Power Technology for Ports Program , address GHG emissions from the marine sector by funding the installation of marine shore power facilities at Canadian ports* *this departmental action also contributes to the reduction of air pollutant emissions, which supports the FSDS' 'Safe and Healthy Communities' goal | Shore power installations will result in the reduced idling of ships' auxiliary engines while docked at port – reducing GHG and air pollutant emissions | Performance Indicators: <ul style="list-style-type: none"> Number of clean transportation technology projects implemented Target: 10 clean transportation technologies implemented by March 31, 2019 ^{21*} (*target shared with the Truck Reservation System Program) Starting point: Since the program launch in 2012, four projects have been completed, including: <ul style="list-style-type: none"> Upgrades and enhancements of existing shore power systems at the Port of Vancouver's Canada Place Cruise Terminal; | Climate Change and Clean Air |

²¹ 2018-19 DSDS Update: Target updated because funds under the Shore Power Technology for Ports program have been re-profiled into the 2018-19 fiscal year. This initiative will sunset March 31, 2019.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | | | <ul style="list-style-type: none"> • Installation of a shore power system at the Swartz Bay Ferry Terminal; • Installation of a cruise ship shore power system at the Port of Halifax; and, • Installation and upgrade of shore power systems at several British Columbia Ferry Services terminals | |
| | Work with partners on climate change | Transport Canada and Innovation, Science, and Economic Development Canada, with support from Environment and Climate Change Canada and Natural Resources Canada, are co-leading the development of a Canada-wide strategy to increase the adoption of zero-emission vehicles, working with provincial and territorial governments, industry and other stakeholders. The strategy is to be completed in 2018 | Reduce GHG emissions from the light-duty vehicle sector through increased adoption of zero-emission vehicles | <p>Performance Indicator:</p> <ul style="list-style-type: none"> • The development of a zero emission vehicles strategy <p>Target:</p> <ul style="list-style-type: none"> • A strategy is developed by December 31, 2018 <p>Starting point:</p> <p>A commitment was made in the Pan-Canadian Framework on Clean Growth and Climate Change to develop a Canada-wide strategy for zero-emission vehicles</p> | Climate Change and Clean Air |
| Other | Provide in-kind support and funding for climate resilience | Through the Northern Transportation Adaptation Initiative , Transport Canada supports the research, development and testing of innovative adaptation technologies, and capacity-building efforts (for example, through adaptation outreach and engagement activities) with the goal of increasing capacity to adapt existing and future northern | Through Pan-Canadian Framework on Clean Growth and Climate Change, the Government of Canada and the provinces and territories committed to five common objectives for resilience. Transport Canada's Northern Transportation Adaptation Initiative directly contributes to the "Supporting particularly vulnerable regions" (coasts and the North) commitment | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • Number of working group or network meetings, workshops and/or conferences attended, hosted, facilitated or presented at related to transportation adaptation; • Number of studies, tools, datasets, information and guidance products funded through the program to support adaptation decision-making in the sector | Climate Change and Clean Air |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | transportation infrastructure and operations to climate change ²² | Under the Northern Transportation Adaptation Initiative, Transport Canada will continue to lead federal engagement with the territories and certain provinces that have Northern regions to support the development and testing of innovative technologies and to advance knowledge and build capacity, with a view to strengthening the resilience of existing and future Northern transportation infrastructure and operations to climate change | <p>Targets:</p> <ul style="list-style-type: none"> • Five per year (number of working group or network meetings, workshops and/or conferences attended, hosted, facilitated or presented at) • Six new per year (number of studies, tools, datasets, information and guidance products funded)* <p>(*target shared with the Transportation Assets Risk Assessment initiative)</p> <p>Starting point:</p> <p>Transport Canada has been implementing the Northern Transportation Adaptation Initiative since 2011</p> <p>One of Transport Canada's key outcomes under this initiative has been the engagement of other governments (provincial, territorial), academia and private industry</p> | |
| Other | Provide in-kind support and funding for climate resilience | Implement the National Trade Corridors Fund and support trade and transportation infrastructure investments that strengthen the efficiency and reliability of Canada's trade corridors. Two national calls for proposals will be issued by 2021 ²³ | The National Trade Corridors Fund provides funding to help transportation infrastructure owners and users invest in projects that: <ul style="list-style-type: none"> • Support the flow of goods and passengers by reducing bottlenecks, and address | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • Number of program calls for proposals <p>Target:</p> <ul style="list-style-type: none"> • Two national calls for proposals issued by 2021 | National Trade Corridors |

²² 2018-19 DSDS Update: The Northern Transportation Adaptation Initiative has been moved from the Modern and Resilient Infrastructure Goal to the Effective Action on Climate Change Goal to reflect the closer alignment with the latter Goal as it is presented in the FSDS. Performance indicators and targets have also been adjusted to reflect the Climate Change and Clean Air Program's Performance Information

²³ The National Trade Corridors Fund action has been moved from the Modern and Resilient Infrastructure Goal to the Effective Action on Climate Change Goal to reflect the closer alignment with the latter goal as it is presented in the FSDS. One of the four objectives of the NTCF is to invest in strategic projects that help the transportation system withstand the effects of climate change and make sure it is able to support new technologies and innovation.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | | <p>capacity and performance issues;</p> <ul style="list-style-type: none"> • Help the transportation system withstand the effects of climate change and make sure it is able to support new technologies and innovation; • Address the unique transportation needs in Canada's territorial North to improve safety and foster economic and social development; and • Build on investments made by a variety of public and private sector partners | <p>Starting point:</p> <p>The National Trade Corridors Fund program was launched by the Minister of Transport in July 2017. The first round of project proposals will be evaluated in the fall of 2017</p> | |

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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| Other | Work with partners to protect and restore coastal ecosystems | <p>Implement the Oceans Protection Plan – Pillar I: A State-of-the-Art Marine Safety System</p> <p>Initiatives involved in enhancing the prevention of marine incidents include:</p> <ul style="list-style-type: none"> • New information-sharing systems - the Government of Canada will work with Indigenous and coastal communities to | The Government of Canada will create a world-leading marine safety system that improves responsible shipping and protects Canada's waters. By world-leading, this means that the system will meet or exceed the best practices in the world | <p>Performance Indicator:</p> <ul style="list-style-type: none"> • The number of marine safety incidents and spills from vessels in Canada's waters <p>Target:</p> <ul style="list-style-type: none"> • By 2022, a reduction in the number of small oil spills and marine incidents | Protecting Oceans and Waterways |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | <p>Work with partners to protect and restore coastal ecosystems</p> <p>Work with partners to protect and restore coastal ecosystems</p> <p>Use legislation and regulations to protect coasts and oceans</p> <p>Protect and manage marine and coastal areas</p> <p>Protect and manage marine and coastal areas</p> | <p>design new information-sharing systems and platforms so they have access to real-time information on marine shipping activities to support safer navigation in local waters (TC and DFO/CCG)</p> <ul style="list-style-type: none"> • Proactive Vessel Management - allow those involved in the marine safety system – governments, communities, Indigenous groups – to inform local traffic management (TC) • Safer resupply in Arctic communities – funding new tools and equipment to unload essential goods in northern communities (TC) • Stronger polluter-pay principle – remove the per-incident limit of liability on Canada's domestic compensation fund for ship-source oil spill response (TC and DFO/CCG) <p>Initiatives involved in strengthening of responses to marine incidents include:</p> <ul style="list-style-type: none"> • A stronger Canadian Coast Guard – The Canadian Coast Guard's command systems will be strengthened where gaps have been identified. The Coast Guard will be given greater power to intervene directly to prevent marine incidents, such as where ship operators have been reluctant to act (TC and DFO/CCG) • Increased towing capacity – towing kits will be added to major Canadian Coast Guard vessels on the East and West to | <p>Initiatives under this pillar aim to better position Canada's marine safety system to prevent and respond to marine safety and pollution incidents</p> | <p>relative to the number of vessel trips, compared with the average of the previous five years [specific target to be determined by April 2020 following establishment of baseline]</p> <p>Starting point:</p> <p>On November 7, 2016, the Prime Minister announced the Oceans Protection Plan: a whole-of-government, comprehensive strategy to build a world-leading marine safety system and protect Canada's marine ecosystems</p> | |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | <p>Work with partners to protect and restore coastal ecosystems</p> <p>Protect and manage marine and coastal areas</p> | <p>improve the capability to take swift action. Two new vessels will be leased with the ability to tow large commercial ships in distress (TC and DFO/CCG)</p> <ul style="list-style-type: none"> • Risk-Based Response Planning – building upon the lessons learned from the Area Response Plan initiative pilot project that previously took place, this new initiative will support the development of a national approach to response planning (TC, DFO/CCG, ECCC) • Alternate response measures – research and policy on alternate response measures – such as dispersants and in-situ burning – that could be used only when there is an environmental benefit to do so (TC, DFO/CCG, ECCC) | | | |
| | <p>Build our knowledge of coastal ecosystems, MPAs, and fisheries</p> <p>Protect and manage marine and coastal areas</p> | <p>Implement the Oceans Protection Plan – Pillar II: Preservation and Restoration of Marine Ecosystems</p> <p>Initiatives under this pillar include:</p> <ul style="list-style-type: none"> • Collection of baseline data and cumulative effects assessment - working closely with Indigenous and coastal communities, the Government of Canada will create a pilot baseline program to better understand the cumulative effects of shipping on coastal ecosystems (TC and DFO/CCG) • Protect aquatic ecosystems - new measures will be funded that implement a real-time whale detection system to alert | <p>Marine ecosystems will be preserved and restored using new tools and research, as well as taking measures to address abandoned and derelict vessels and wrecks</p> <p>These measures will include: new legislation and strengthened owner accountability; improving owner identification; education and outreach; and, the Abandoned Boats Program</p> <p>Initiatives under this pillar aim to protect and restore marine habitats and ecosystems in key strategic areas</p> | <p>Performance Indicators:</p> <ul style="list-style-type: none"> • The introduction of new legislation; • The number of vessels of concern addressed <p>Targets:</p> <ul style="list-style-type: none"> • By December 31, 2017, new legislation that prohibits vessel abandonment, enables proactive action to deal with problem vessels, and includes the Nairobi Convention, will be introduced • By 2022, a reduction in the number of abandoned, derelict and wrecked vessels present in Canadian waters, compared with a 2019 baseline | Protecting Oceans and Waterways |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | Protect and manage marine and coastal areas | <p>mariners to the presence of whales, which will help them avoid interactions and vessel strikes (TC and DFO/CCG)</p> <ul style="list-style-type: none"> • Addressing abandoned vessels - The Government is implementing a national strategy that focuses on the prevention and removal of these problem vessels (TC, DFO/CCG) | | <p>[specific target to be determined by April 2020 following assessment of vessels of concern]</p> <p>Starting point:</p> <p>On November 7, 2016, the Prime Minister announced the Oceans Protection Plan: a whole-of-government, comprehensive strategy to build a world-leading marine safety system and protect Canada's marine ecosystems</p> <p>On May 31, 2017, the new \$6.85 million Abandoned Boats Program was launched. This Program will facilitate the removal of existing smaller high priority abandoned vessels and wrecks, assist in educating vessel owners about their responsibilities including end-of-life vessel management, and provide support for research on environmentally responsible vessel design and recycling of end-of-life vessels</p> | |
| | Work with partners to protect and restore coastal ecosystems | <p>Implement the Oceans Protection Plan – Pillar III: Indigenous Partnerships</p> <p>Initiatives under this pillar include:</p> <ul style="list-style-type: none"> • Active role - the Government will create opportunities for Indigenous communities to participate and play an active role in responsible shipping and the marine safety regime (TC and DFO/CCG) | The Government will look to build local capacity, and for Indigenous groups to play a meaningful role in emergency response and waterway management | <p>Performance Indicator:</p> <ul style="list-style-type: none"> • The number of Indigenous groups that participate in Canada's marine safety system <p>Target:</p> <ul style="list-style-type: none"> • By 2027, an increased number of interested Indigenous groups are active partners in Canada's marine safety system [specific target to be determined by April 2018 following engagement with Indigenous partners] | Protecting Oceans and Waterways |

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| | | | | <p>Starting point:</p> <p>On November 7, 2016, the Prime Minister announced the Oceans Protection Plan: a whole-of-government, comprehensive strategy to build a world-leading marine safety system and protect Canada's marine ecosystems</p> | |
| | Build our knowledge of coastal ecosystems, MPAs and fisheries | Implement the Oceans Protection Plan – Pillar IV: A Stronger Evidence Base and Increased Community Participation and Public Awareness | <p>The OPP includes important new work to ensure that Canada's marine safety system is built on a stronger evidence base, supported by science and local knowledge</p> <p>This includes investing in oil spill cleanup research and methods to ensure that decisions taken in emergencies are evidence-based</p> <p>Initiatives under this pillar aim to increase knowledge of the behaviour and impacts of oil, and to engage local communities and increase public confidence in Canada's marine safety system</p> | <p>Performance Indicator:</p> <ul style="list-style-type: none"> The percentage of policies and operational response plans developed through the OPP that are supported by scientific, local/traditional, and other relevant information and knowledge <p>Target:</p> <ul style="list-style-type: none"> By 2022, 100% of policies and operational response plans are supported by scientific, local/traditional, and other relevant information/knowledge <p>Performance Indicator:</p> <ul style="list-style-type: none"> The percentage of Canadians who are confident in Canada's marine safety system <p>Target:</p> <ul style="list-style-type: none"> By 2022, an increased percentage of Canadians are confident in Canada's marine safety system [specific target to be determined by April 2020 following establishment of baseline | Protecting Oceans and Waterways |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | | | <p>Starting point:</p> <p>On November 7, 2016, the Prime Minister announced the Oceans Protection Plan: a whole-of-government, comprehensive strategy to build a world-leading marine safety system and protect Canada's marine ecosystems</p> | |
| | Use legislation and regulations to protect coasts and oceans | Set the legal and regulatory frameworks through domestic legislation and international conventions that govern the protection of the marine environment from pollution, and advance Canadian positions on reducing and managing global marine pollution from ships | For vessels in Canadian waters and Canadian vessels travelling internationally, the Vessel Pollution and Dangerous Chemicals Regulations set restrictions on vessel pollution from emissions. These restrictions will be harmonized with International Maritime Organization (IMO) rules | <p>Performance Indicator:</p> <ul style="list-style-type: none"> Proposal of an update to the Vessel Pollution and Dangerous Chemical Regulations to reflect new international standards <p>Target:</p> <p>By March 2020 :</p> <ul style="list-style-type: none"> Publication of proposed regulations in Canada Gazette, Part I, to update the Vessel Pollution and Dangerous Chemicals Regulations to reflect new international standards <p>Starting point:</p> <ul style="list-style-type: none"> Since 2006, and as amended in 2012, the Vessel Pollution and Dangerous Chemicals Regulations implement standards set out under the International Convention for the Prevention of Pollution from Ships (MARPOL) to prevent pollution from vessels | Protecting Oceans and Waterways |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| | | | | <p>This includes pollution from oil, chemicals, sewage, garbage, air emissions and greenhouse gas emissions</p> <p>The Regulations also set controls for paints used to prevent marine growth on hulls that have been found to be harmful and greywater discharges from large passenger vessels</p> | |
| | Use legislation and regulations to protect coasts and oceans | Contribute to reducing pollution from vessels by monitoring compliance of marine transportation firms with Canadian legislation, such as the Canada Shipping Act, 2001, through the National Aerial Surveillance Program (NASP), inspections, audits, monitoring and enforcement | Transport Canada's NASP deters pollution by providing a presence in the skies above potential polluters and collecting critical evidence from those who are caught polluting | <p>Performance Indicator:</p> <ul style="list-style-type: none"> • Rate of marine spills <p>Target:</p> <ul style="list-style-type: none"> • The rate of spills into Canada's oceans and marine environment is declining over time in relation to the level of activity <p>Starting point:</p> <p>In 2016-17, NASP performed 2,068 patrol hours of aerial surveillance over waters of Canadian jurisdiction</p> <p>Air crews detected or identified 246 marine pollution incidents, which consisted of:</p> <ul style="list-style-type: none"> • 26 pollution incidents confirmed as ship source spills (a 48% decrease from 2015-16); and • 220 pollution sightings reported as "mystery", which means the origin of the incident could not be linked directly to a source (a 33% decrease from 2014-15) | Protecting Oceans and Waterways |

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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
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| Other | Use legislation and regulations to protect lake and river ecosystems | Update the regulatory framework for protecting the marine environment from the introduction and spread of aquatic invasive species by ships, including the relevant provisions of Annex 5 of the Great Lakes Water Quality Agreement | A strong regulatory framework will address the risk that ships will introduce and/or spread aquatic invasive species in Canada's lakes and rivers as well as on Canada's coasts. In the long-term, fewer invasive species will be released into Canadian waters | <p>Performance Indicator:</p> <ul style="list-style-type: none"> Updated Ballast Water Control and Management Regulations <p>Target:</p> <ul style="list-style-type: none"> In 2019, Canada will update the Ballast Water Control and Management Regulations to ensure that they reflect the requirements of the Ballast Water Convention that came into force worldwide in September of 2017. All vessels entering the Great Lakes will continue to be inspected for their ballast water management to protect the Great Lakes ecosystems <p>Starting point:</p> <p>Transport Canada established ballast water requirements in 2006</p> <p>Ballast tanks will be inspected on 100% of the ships entering the Seaway from outside Canada's exclusive economic zone for compliance with the agreed regulatory requirements</p> | Protecting Oceans and Waterways |
| | Use legislation and regulations to protect lake and river ecosystems | Contribute to reducing the harmful effects of aquatic invasive species from vessels by monitoring the compliance of marine transportation firms and vessels with the | Transport Canada inspects vessels that are at risk of carrying foreign and invasive species into our waters | <p>Performance Indicator:</p> <ul style="list-style-type: none"> Compliance with the Ballast Water Control and Management Regulations | Protecting Oceans and Waterways |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--------------------------------|--|---|---|--|
| | | invasive species provisions within Canadian legislation, such as the Canada Shipping Act, 2001 , including cooperative enforcement with the U.S. in accordance with Annex 5 of the Great Lakes Water Quality Agreement | All vessels entering our waters must inform Transport Canada of their ballast water management processes, and Transport Canada validates this information through inspection Transport Canada does not currently report on the number of viable organisms in samples of ballast water, however, the Department of Fisheries and Oceans (DFO) does measure the number of viable organisms in samples of ballast water from a research and scientific advice point of view | and ballast water management standards Target: <ul style="list-style-type: none"> 100% of vessels will be compliant or they will be requested to manage their ballast water in a manner that is not a threat to the Canadian Ecosystem Starting point: Transport Canada receives completed ballast water reporting forms on methods used by ships to comply with ballast water management regulations (Ballast exchange or via a Ballast Water Management System) | |

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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|---|--|--|--|--|--|
| Other | Demonstrate leadership on assessing and remediating contaminated sites | Implement the Federal Contaminated Sites Action Plan and complete remediation and risk management activities at known high-priority federal contaminated sites | Transport Canada's participation will contribute to reduced risk to the environment and human health from federal contaminated sites | Performance indicator: On an annual basis, Transport Canada will continue to report on its efforts through the Federal Contaminated Sites Action Plan Starting point: Annual reports can be found at: | Environmental Stewardship of Transportation |

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|---|--|--|---|--|
| | Prevent environmental emergencies or mitigate their impacts | Emergency Prevention, Preparedness and Response - In accordance with its mandated transport-related responsibilities, Transport Canada oversees regulatory programs and provides advice related to: preventing incidents; ensuring preparedness and response to incidents; and determining liability arising from incidents | Ongoing regulatory, oversight and emergency response efforts under Transport Canada's Transportation of Dangerous Goods (TDG) Program will contribute to the prevention of environmental emergencies or mitigate their impacts | https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/publications.html Performance Indicator: <ul style="list-style-type: none"> Rate of reportable releases of dangerous goods per year Target: <ul style="list-style-type: none"> A 2% decrease from the previous year's rate Starting point: <ul style="list-style-type: none"> Transport Canada's data set lags by one year. As such, the Department is moving from fiscal year to calendar year reporting For 2017-18, the Department will be using the reported annual rate of 166.0 from 2015 as a baseline against which to report on 2016 calendar year release rates | TDG Regulatory Framework TDG Oversight TDG Technical Support |
| | Use legislation and regulations to address outdoor air pollutant emissions and harmful substances | Under the Aviation Sector Regulatory Initiative , address air pollutant emissions from aviation by supporting the International Civil Aviation Organization's (ICAO) development of new international standards and recommended practices and through the | Through a range of regulatory and voluntary measures, Transport Canada supports the domestic and international reduction of air pollutant emissions from the aviation sector | Performance indicator: <ul style="list-style-type: none"> The percentage of regulatees who comply with the regulations²⁵ Targets: <ul style="list-style-type: none"> 100% compliance (ongoing once regulations come into force) | Climate Change and Clean Air |

²⁵ Canada is developing regulations to implement ICAO's non-volatile particulate matter mass standard for aircraft engines.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|---|--|--|---|---|
| | | development and implementation of new domestic standards ²⁴ | | <p>Starting point:</p> <p>Transport Canada actively leads the Government of Canada's participation at ICAO on development of emissions standards and on other topics related to reducing the impact of aviation on the environment</p> <p>100% of instruments are currently aligned with domestic legislation or international standards</p> <p>Transport Canada works in collaboration with others, including current work to transition to unleaded aviation gasoline for piston engine aircraft</p> | |
| | Use legislation and regulations to address outdoor air pollutant emissions and harmful substances | Under the Rail Sector Regulatory Initiative , address air pollutant emissions from the rail sector through locomotive regulations aligned with U.S. standards | <p>The Locomotive Emissions Regulations that entered into force in June 2017 will reduce the emissions of air pollutants from new locomotives. Reducing air pollutants will improve the health of Canadians living near rail lines and rail yards</p> <p>The 2011-2017 Memorandum of Understanding with the rail industry also addresses Criteria Air Contaminant (CAC) emissions²⁶</p> | <p>Performance Indicator:</p> <ul style="list-style-type: none"> The percentage of regulatees who comply with the regulations <p>Target:</p> <ul style="list-style-type: none"> 100% compliance <p>Starting Point:</p> <p>Locomotive Emissions Regulations entered into force in June 2017</p> | Climate Change and Clean Air |

²⁴ 2018-19 DSDS Update: The Aviation Sector Regulatory Initiative's scope has been revised to reflect the consolidation of TC's research, development and demonstration activities for aviation, marine and rail under a new Core Clean Transportation Research, Development and Demonstration – Aviation, Marine, and Rail Transportation Program. Performance indicators and targets have also been adjusted to reflect the Climate Change and Clean Air Program's Performance Information. The name of the initiative has been added for easier reference.

²⁶ Agreement with the Railway Association of Canada is being sought to extend the voluntary approach (the Memorandum of Understanding covering 2011-2016 had been previously extended through to 2017). Continued commitment to voluntarily meet CAC emission standards for railways not covered by the Locomotive Emissions Regulations is anticipated as part of ongoing collaboration.

| 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 | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental actions will occur |
|--|-----------------------------|--------------------------------------|--|---|---|
| | | | | A Memorandum of Understanding with rail industry covering the 2011-2016 was extended through to 2017 | |

Clean Growth: A growing clean technology industry in Canada contributes to clean growth and the transition to a low-carbon economy

Responsible Ministers: Minister of Innovation, Science and Economic Development and Minister of Natural Resources

| Clean Growth FSDS target(s) | FSDS Contributing Actions | Corresponding departmental action(s) | Contribution by each departmental action to the FSDS goal and target | Starting point(s) where available, and your choice of performance indicators for departmental actions | Program(s) in which the departmental action will occur |
|---|---|---|---|--|--|
| Foster research and development of new technologies and accelerate innovation | Work with partners on developing and adopting new technologies to reduce greenhouse gas (GHG) and air pollutant emissions | Under the Core Clean Transportation Research, Development and Demonstration – Aviation, Marine and Rail Transportation Program, address GHG and air pollutant emissions from aviation, marine and rail transportation through targeted research on emerging technologies and innovative practices ²⁷ * Given this work contributes to the reduction of GHGs and air pollutants, this departmental action also supports both the Federal Sustainable Development Strategy's (FSDS) "Effective Action on Climate Change" and "Safe and Healthy Communities" goals | Through research, testing, evaluation, and knowledge-sharing of technologies and innovative practices, the results of this Program will be used to inform proactive evidence-based regulatory and policy development and implementation decisions, as well as support Canadian clean transportation research, development and demonstration (RD&D) capacity | Performance Indicator: <ul style="list-style-type: none"> Percentage of the total research budget for scientific, technical, or socio-economic research projects committed or spent Target: <ul style="list-style-type: none"> 100% of total research budget committed or spent Starting Point: <ul style="list-style-type: none"> Since 2011, Transport Canada has invested more than \$17 million in over 120 research, development and deployment projects that have yielded scientific information and data on new technologies to reduce GHG and air pollutant emissions from aviation, marine and rail | Climate Change and Clean Air |

²⁷ 2018-19 DSDS Update: Addition of new departmental action to reflect Transport Canada's Core Technology Research, Development, and Demonstration – Aviation, Marine, and Rail Program

Section 4: Integrating Sustainable Development

At Transport Canada, the successful integration of sustainable development into policies, plans and programs is supported by the use of our internal Sustainable Transportation Assessment Tool (STAT), which, since 2013, has been the cornerstone of the department's Strategic Environmental Assessment (SEA) Process. Replacing the former SEA preliminary scan, Transport Canada's STAT requires all potential policies, plans or programs to consider possible effects on the economy, on society and on the environment. The STAT also includes specific questions to assess possible impacts on Federal Sustainable Development Strategy (FSDS) goals and targets. By asking these kinds of questions early in the design and development of proposals, it is anticipated that risks and opportunities will be better identified and managed, potential impacts across the Department's strategic outcomes will be considered and economic, social and environmental considerations will be better integrated into departmental decision making.

All Memoranda to Cabinet, Treasury Board Submissions and Regulatory Updates (and other proposals seeking Ministerial or Cabinet approval) are required to complete a STAT under departmental policy. Subject matter experts on the initiative complete the STAT in consultation with the Environmental Management Branch contact on SEA.

There are four possible outcomes of the STAT preliminary scan, each requiring written justification and director-level approval before submission to Minister/ Cabinet:

1. **Cabinet exclusion** for situations where SEA is impractical or duplicative:
 - Urgent or emergency situations where time limitations prevent SEA from being completed;
 - Similar assessment has already been conducted:
 - i. Assessment under the [Canadian Environmental Assessment Act, 2012](#)
 - ii. Treasury Board submission for an initiative already assessed under a previous proposal to Cabinet;
 - iii. Transport Canada is contributing to an initiative led and already assessed by another department.
2. **Departmental exemption** for common types of proposals that do not have impacts on the environment:
 - Progress/performance reports to Cabinet or Treasury Board Secretariat;
 - Renewals or extensions of a program (no new elements being introduced);
 - Summaries of program objectives and achievements given through Government response to Standing Committees;
 - Communications strategies;
 - Changes that are administrative in nature; and
 - Changes to governance structure of a program.

3. **Full STAT and formal determination on the need for detailed SEA.** The general areas of consideration are provided below. Impacts to FSDS goals and targets are also considered. Potential impacts are evaluated using Rating Guidelines within the STAT specific to each assessment criteria.

| STAT Areas of Consideration | | |
|------------------------------------|---------------------------------|----------------------|
| Economic | Social | Environmental |
| Movement of goods | Safety | Air |
| Movement of people | Security | Water |
| Financial costs | System access and accessibility | Wildlife and habitat |
| Trade and commerce | Human health | Soil |
| Adaptive capacity | Communities | Natural resources |

4. **A detailed SEA** is required when there is potential for important impacts (positive or negative) on the environment.

Transport Canada's Environmental Management Branch tracks data SEAs for initiatives going forward for Ministerial or Cabinet approval, including the number of approved initiatives for which an SEA has been completed, departmental compliance rate with SEA policy and public reporting on initiatives requiring detailed SEA.