



2021 Climate Change Accountability Report

Supporting Material

The following includes tables that provide supporting material to the 2021 Climate Change Accountability Report.

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Mitigation Table

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
CLEANER TRANSPORTATION				
1	Implementation of Zero-Emission Vehicle (ZEV) supply standard (On track)	<ul style="list-style-type: none"> The <i>Zero-Emission Vehicles Act</i> (ZEVA) passed in May 2019. Requires automakers to meet an escalating annual % of new light-duty ZEV sales and leases reaching: <ul style="list-style-type: none"> 10% by 2025 30% by 2030 100% by 2040 	<ul style="list-style-type: none"> The ZEV Regulation was brought into force in July 2020. ZEV compliance requirements start for model year 2020. <ul style="list-style-type: none"> The first compliance date is September 30, 2021. ZEV Reporting System (a ZEV credit issuance and compliance reporting tool for regulated parties) went online in January 2021. 	<ul style="list-style-type: none"> Regulatory guidance document published. Work on information bulletins pertaining to implementation of the <i>ZEV Act</i>.
2	CleanBC Go Electric Vehicle (EV) Rebate Program (On track)	<ul style="list-style-type: none"> Program offers up to \$3,000 in rebates on light-duty EVs with an MSRP below \$55,000. The federal government also has a rebate of up to \$5,000, allowing British Columbians to receive up to \$8,000 on the purchase of a new EV. 	<ul style="list-style-type: none"> The CleanBC Go Electric Fleets Program launched in February 2021. The EV Rebate Program continues to offer up to \$3,000 in rebates on EVs with an MSRP below \$55,000. In 2020, 9.4% of new light-duty vehicle sales in B.C. were ZEVs (less than 1% in 2011). 54,469 EV registrations (97 in 2011). 	<ul style="list-style-type: none"> Ongoing implementation of rebates. Continuing to explore areas where incentives could be more targeted and/or income tested, such as used light duty ZEVs and expanding uptake of medium/heavy duty ZEVs.



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3	Active Transportation (On track)	<ul style="list-style-type: none"> ■ Help people get around with a long-term strategy to increase active transportation and look at better commuting solutions ■ The Province's first active transportation strategy, <i>Move. Commute. Connect.</i> was launched in 2019. ■ The overarching goal of <i>Move. Commute. Connect.</i> is to double the number of active transportation trips by 2030. 	<ul style="list-style-type: none"> ■ Provided infrastructure grants to 44 projects for communities under the Active Transportation Grant Program. ■ Through StrongerBC funding, the Province funded over 45 projects that focus on active transportation safety and access improvements on provincial rights of way. This includes multi-use pathways and rail trails, highway crossings, transit stop improvements, sidewalks installations, lighting enactments and shoulder widening for pedestrians and cyclists. ■ Provided funding toward provincial active transportation education and encouragement campaigns: <ul style="list-style-type: none"> – Fall Go by Bike events – Everyone Rides Grade 4-5 in schools in Metro Vancouver, Kelowna, and the Capital Regional District – Active School Travel planning and programming ■ Released the first active transportation report card and a new website. ■ Collaborated with local governments on a pilot project on electric kick scooters to inform future amendments to the <i>Motor Vehicle Act</i>. ■ Launched the UBCM Planning Grant program to support local governments to incorporate or enhance active transportation formal planning documents. 	<ul style="list-style-type: none"> ■ Launched the cargo e-bike micro-hub pilot project with the City of Vancouver in May 2021. ■ Released the Active Transportation in Transit Oriented Development Guidelines to be used in pilot properties. ■ Provided funding toward active transportation education and encouragement campaigns: <ul style="list-style-type: none"> – Spring Go by Bike events (fall events Sept 27 to Oct 10, 2021) – Everyone Rides Grade 4-5 in schools in Metro Vancouver, Kelowna, and the Capital Regional District – Active School Travel planning and programming ■ Eight communities are participating in the active transportation electric kick scooter pilot project. Province anticipates launching a second pilot project.
4	CleanBC Heavy-Duty Vehicle Efficiency Program (On track)	<ul style="list-style-type: none"> ■ Consists of a driver education and purchase incentives program for fuel-saving devices. Launched in October 2019 to help lower fuel costs and GHG emissions in the commercial trucking sector. ■ A three-year program, but annual renewal is dependent upon a positive review of effectiveness after each year. 	<ul style="list-style-type: none"> ■ The program ran for a second year in 2020-2021 with slight changes to accommodate COVID-19 physical distancing requirements and new equipment. ■ In 2020-2021, the BC Trucking Association provided training to 49 participants across 39 companies. Of these participants, 42 companies were new to the training program. Through the 'train the trainer' model, these companies have 3,163 company drivers that now have access to knowledge and strategies to reduce fuel consumption and related GHG emissions. ■ Annual cumulative impact of the program across year-one and year-two (2019-2021) is that it has removed 20.5 ktCO₂e emissions provincially (and 41.5 ktCO₂e emissions across North America), equivalent to removing more than 4,500 passenger vehicles from our roads provincially (and more than 8,800 passenger vehicles across North America). 	<ul style="list-style-type: none"> ■ In 2021-22, the BC Trucking Association provided fuel-efficient driving and management training to 122 participants across 110 companies. In this second year of the program, 1,800 fuel-saving devices and 24 LNG trucks were subsidized, which are lower emitting than diesel options. ■ The third year of the program is set to begin in September 2021.

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5	Port Pilots (Lower Mainland freight trucks and port operations) (On track)	<ul style="list-style-type: none"> ■ Pilot of zero-emission vehicles and other low-carbon fuels within Vancouver Fraser Port Authority (VFPA) and drayage operators. 	<ul style="list-style-type: none"> ■ The Vancouver Fraser Port Authority (VFPA) is restructuring pilot goals to fit better within new COVID-19 health restrictions. ■ Discussions are ongoing with a handful of projects that have been narrowed down out of the RFP process, and a slight restructuring of the pilot is being done to accommodate COVID-19 and other barriers. 	<ul style="list-style-type: none"> ■ Signed agreement with Seaspan to trial 100,000 litres of biodiesel in dual-fueled marine vessel. ■ Project being finalized to deploy one or two, battery electric class-eight yard tractors with Seaspan. ■ Finalize potential lease terms with agents to secure the use of zero- and low-carbon drayage trucks. ■ Deployment of 12 vehicles expected to start in late 2021-2022, dependent upon lease terms and vehicle availability. <ul style="list-style-type: none"> – Three distinct pilots: a renewable diesel pilot expected to start late-2021, a renewable gas pilot expected to start in late-2021, and a battery electric pilot expected to deploy vehicles in 2022.
6	CleanBC Go Electric Commercial Vehicle Programs (On track)	<ul style="list-style-type: none"> ■ Purchase rebates and support for fleet ZEVs and infrastructure. ■ Supports B.C.-based businesses, non-profits and public entities looking to deploy commercial zero-emission vehicles, including medium- and heavy-duty on-road vehicles, rail, marine, aircraft and off-road equipment, along with supporting infrastructure. 	<ul style="list-style-type: none"> ■ The CleanBC Go Electric Commercial Vehicle Pilots (CVP) Program was launched in January 2021. ■ CVP provides up to one third funding support for vehicle and infrastructure costs of successful applicants through a competitive application process. ■ CVP call for applications will continue to run while program has funds remaining. ■ CleanBC Go Electric Speciality-Use Vehicle Incentive (SUVI) Program continues to offer a variety of post-purchase rebates for commercial vehicles. SUVI received additional funding through StrongerBC. ■ Go Electric School Bus Program's first order of 17 electric school buses arrived in Spring 2021 for 13 school districts. ■ School Bus Program completed an arrangement with Canada Infrastructure Bank for school districts to have access to financing to cover the remaining difference of costs between a diesel and a zero-emission bus. 	<ul style="list-style-type: none"> ■ CVP, SUVI, continue to receive and review applications ■ 18 school districts were approved, funded, and ordered a total of 34 electric school buses, expected to arrive spring 2022.
7	Charging stations in public rest areas and B.C. Government buildings (On track)	<ul style="list-style-type: none"> ■ Expand public charging infrastructure across the province. 	<ul style="list-style-type: none"> ■ The Government of B.C. installed four new EV charging stations at provincial highway rest areas. ■ Since 2018, government has installed fast charging stations at 22 sites. 	<ul style="list-style-type: none"> ■ Government is installing four new sites in fall 2021, for a total of 26 sites. ■ An RFP is underway for the development of a five-year plan to determine the future potential costs of the program.

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8	CleanBC Go Electric Public Charging (Expand Charging Network – public and fast charging) (On track)	<ul style="list-style-type: none"> Cost-share investments in public charging stations selected through a competitive RFP process. The CleanBC Go Electric Public Charger Program launched in Fall 2020 with a target of 80 additional DC fast charging stations plus 60 co-located Level 2 stations across the province. The program offers up to 50% of the cost of public charging stations, and up to 90% if owned by an Indigenous community. 	<ul style="list-style-type: none"> Continued funding agreement with Natural Resources Canada to provide top up funding. There are over 2,127 public Level 2 charging stations, 205 public fast charging sites, with 480 fast charging stations as of December 2020. 	<ul style="list-style-type: none"> Publication in May 2021, of B.C. Light-Duty Public Zero-Emission Vehicle (ZEV) Infrastructure Study, outlining number/location of DC fast charging and hydrogen refuelling stations needed to meet legislated ZEV targets. Ongoing implementation of public charger funds.
9	CleanBC Go Electric Hydrogen Program (Expand Hydrogen Network – public hydrogen fueling) (On track)	<ul style="list-style-type: none"> The CleanBC Go Electric Hydrogen Fuelling and Fleet Program builds on existing hydrogen refuelling stations (HRS) to expand the hydrogen fuelling network in B.C., further reducing one of the key barriers to market adoption of hydrogen vehicles: fuelling infrastructure. 	<ul style="list-style-type: none"> Three public hydrogen-fuelling stations are operating in the province in Vancouver, Burnaby and North Vancouver. Another three stations are under development in Saanich, Kelowna and Burnaby, and are expected to be finished by the end of 2021. Support for implementation of the partnership entity, called Hydrogen BC. Development and implementation of tools to support market adoption including station location map. The program will complement the Province's Hydrogen Strategy (released July 2021) and the federal government's hydrogen strategy. 	<ul style="list-style-type: none"> Released B.C. Light-Duty Public Zero Emission Vehicle Infrastructure Study in May 2021 (combining public fast charging study and hydrogen study). Release of funding call to support continued deployment of Hydrogen Refuelling Stations in B.C. The Province released its hydrogen strategy in July 2021.
10	CleanBC Go Electric Charger Rebates (expanded charging network – home & workplace charging incentives) (On track)	<ul style="list-style-type: none"> Rebates for purchase and installation of Level 2 charging stations at single-family homes, multi-unit residential buildings (MURB), businesses, and workplaces, delivered in partnership with BC Hydro and FortisBC. 	<ul style="list-style-type: none"> Over 4,000 charging stations have been installed in homes and workplaces since September 2019. EV Charging Advisor services will continue to be offered. Planned new additions: <ul style="list-style-type: none"> Rebates for MURBs to complete an EV Ready plan, which provides a strategy for MURBs to make at least one parking space per residential unit EV Ready. Customers can receive 75% of costs up to a maximum of \$3,000. Infrastructure upgrades: rebates for MURBs to do electrical modifications. Customers may be able to receive rebates for 50% of costs up to a maximum of \$600 per energized stall and a maximum of \$80,000 per site. 	<ul style="list-style-type: none"> Targeting Spring 2022 to integrate federal funds and offer increased rebates for MURBs and workplaces.

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11	Enable private and utility investment in charging/hydrogen fueling stations (On track)	<ul style="list-style-type: none"> Private entities will be exempt from certain requirements under the <i>Utilities Commission Act</i>, making it easier for them to invest in charging stations in B.C. Amendments were made to the Greenhouse Gas Reduction (Clean Energy) Regulation to allow utilities to recover costs to build public fast charging infrastructure that meet specified criteria. 	<ul style="list-style-type: none"> Amendments to the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) in force June 2020, for installations before December 31, 2025. Conducting further analysis on measures to enable private and utility investments in hydrogen infrastructure. 	<ul style="list-style-type: none"> Policy work and stakeholder consultation on other clean transportation prescribed undertakings under GGRR for utility investment (e.g., hydrogen fuelling stations, medium- and heavy-duty ZEV investments, targeting Spring 2022).
12	CleanBC Go Electric Advanced Research and Commercialization (ARC) program (On track)	<ul style="list-style-type: none"> Cost-share investments in ZEV and related technologies research, development and business growth in B.C. based on a competitive RFP process ARC project submissions are evaluated on the positive economic benefits they provide to B.C. (e.g., job creation, export growth, manufacturing of ZEVs or ZEV components) – among other criteria (GHG reductions, investment attraction, adoption potential, etc.) 	<ul style="list-style-type: none"> Second funding call was launched on July 9, 2020. The Expression of Interest stage closed on August 14, 2020. Invitations for full proposals (RFP) in Fall 2020, with final project decisions made June 2021. Funding provided through StrongerBC for a new Commercial Vehicle Innovation Challenge to be run under the ARC Program. 	<ul style="list-style-type: none"> Release updated Economic Opportunities Assessment. Receive Commercial Vehicle Innovation Challenge report from contractor on industry consultation. Commercial Vehicle Innovation Challenge launch expected in Fall 2021. Announce second round of successful ARC projects (expected in Fall 2021).



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13	Public Transit in B.C. (On track)	<ul style="list-style-type: none"> In Metro Vancouver, this includes Skytrain extensions, new train cars, new buses and infrastructure improvements that support low-emission or zero-emission public transportation options. By 2050, TransLink's goal is to run its fleet with 100% renewable energy. BC Transit committed to a fully electric bus fleet by 2040. 	<p>BC Transit</p> <ul style="list-style-type: none"> In Victoria, additional new bus priority lanes were completed as part of the Highway 1 McKenzie Interchange project. In 2020-2021, BC Transit deployed 95 additional CNG buses to reduce GHG emissions in Victoria, the Central Fraser Valley and other communities. <p>TransLink</p> <ul style="list-style-type: none"> TransLink rolled out an additional 52 Skytrain and Canada Line cars in 2020. Continued to implement 10-year vision for Metro Vancouver (2017-2027) including new SkyTrain line, extending SkyTrain's Millennium line, expanding bus service by 25% and improving cycling and walking infrastructure. Continued planning and development for new SkyTrain line to service south of the Fraser River. Continue to build regional cycling facilities, pedestrian infrastructure and transit priority projects. The Province, local governments and TransLink will continue to work to implement the 'Supportive Policies Agreements' for SkyTrain projects to encourage transit-oriented development that reduces reliance on vehicles and associated GHG emissions. 	<p>BC Transit</p> <ul style="list-style-type: none"> BC Transit will deploy 21 additional CNG buses to reduce GHG emissions in the Central Fraser Valley and Victoria. BC Transit will award a contract for its first 10 electric buses, for deployment in Victoria in 2022-2023. <p>TransLink</p> <ul style="list-style-type: none"> In 2021, TransLink is investing funding into upgrading, maintaining, or building new regional walkways, cycling paths and roads to benefit pedestrians, cyclists, drivers and transit users in all 23 local governments in Metro Vancouver. 131 projects are being funded to improve active and clean transportation options. New on-demand bike parking facilities are being piloted at six of TransLink's transit hubs around the region in 2021 to make it easier for people to combine cycling and transit into their everyday travel. In 2021, TransLink awarded a contract for 15 additional battery-electric buses, that will support TransLink's first fully electric bus route. The zero-emission buses are expected to arrive and begin rolling into service in 2022. In 2021, TransLink was approved to replace all 57 retiring diesel buses in 2023 with battery-electric buses. TransLink will also purchase charging infrastructure for the Port Coquitlam Transit Centre to support the deployment of battery-electric buses. TransLink plans to undertake a pilot project to develop and test different approaches to Vanpool services for employees to use to travel to work in places that are difficult to access by walking, cycling, and transit. Construction on the Broadway Subway Project started in May 2021 (5.7 km extension of the Millennium Line) with contributions from local, provincial and federal governments.
14	PST-free E-bikes (Complete)	<ul style="list-style-type: none"> Announced in <i>Budget 2021</i>, electric bicycles and tricycles are now exempt from provincial sales tax. 	<ul style="list-style-type: none"> Effective April 21, 2021, electric bicycles and tricycles were provided with a full provincial sales tax exemption. The exemption also applies to purchases and leases, as well as conversion kits, and parts and services for electric bicycles and tricycles. 	<ul style="list-style-type: none"> No future work is required.

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15	BC Air Access Program (BCAAP) (On track)	<ul style="list-style-type: none"> ■ BCAAP provides funding to assist B.C. aviation facilities, including airports, heliports and water aerodromes, to improve infrastructure and environmental performance. ■ Through this cost-sharing program, facility operators can invest in safety, social improvements and climate/environmental projects. 	<ul style="list-style-type: none"> ■ 29 agreements are in place. In 2020/21, additional BCAAP StrongerBC funds were allocated to support applicant airports affected by COVID-19, which resulted in funding for a greater number of projects. ■ Climate projects can range from greenhouse gas (GHG) audits to equipment electrification, including charging stations; while environmental projects can include mitigation works affecting run-off and operational projects such as recycling initiatives. 	<ul style="list-style-type: none"> ■ A comprehensive evaluation of BCAAP is being planned, which will result in recommendations to make the program stronger and more environmentally responsive to the needs of the airport community. ■ BCAAP continues to improve its consideration of climate/environmental projects.
INDUSTRY				
16	CleanBC Industry Fund (On track)	<ul style="list-style-type: none"> ■ Fund for large industrial emitters to implement projects to reduce emissions. 	<ul style="list-style-type: none"> ■ The 2020 Emissions Performance RFP closed June 19, 2020. ■ In FY 2020-2021, Fund implemented a second year of Emissions Performance projects. ■ 20/21 Agreements are finalized and underway. ■ The 2020 CleanBC Industry Fund invested funding from carbon tax revenue in 22 emission-reduction projects. 	<ul style="list-style-type: none"> ■ A new funding stream called the Innovation Accelerator was added, to pilot clean technologies or processes with potential to reduce industry emissions. ■ The 2021 temporary changes to the emission performance funding call (up to 90% funding to a maximum of \$25M) resulted in double the intake of the previous year with 82 proposals from 45 different companies.
17	CleanBC Industrial Incentive Program (On track)	<ul style="list-style-type: none"> ■ Directs a portion of B.C.'s carbon tax paid by industry into incentives for cleaner operations. ■ Supports competitiveness by reducing carbon tax costs for operators that demonstrate they are among the cleanest in the world. ■ Currently in third year of operations, with world-leading emissions performance benchmarks implemented across sectors. Benchmarks will be reviewed by 2025 to better reflect global best practices. 	<ul style="list-style-type: none"> ■ Through smart user research and partnering with industry, the program built custom open-source business intelligence software to significantly improve and accelerate data collection and analysis. ■ 171 Emissions Reduction Plans were received and reviewed; they were used to promote future emissions reductions and inform government policy on how to best support industry in a transition to cleaner operations. ■ Program results suggest that 237 facilities are already performing at or better than the world-leading benchmarks for their sectors, while 65 facilities showed poor emissions intensity performance. ■ Overall B.C. industry's average emissions performance was 65.1% of the way to meeting the world-leading benchmarks. B.C. sector-based average performance to meeting each benchmark was as follows: <ul style="list-style-type: none"> – Oil and gas: 64.1% – Mining: 73.9% – Cement/Lime/Gypsum: 96.4% – Wood/Pulp and paper: 45.5% – Others: 86.1% ■ Since 2012, total reported emissions from large B.C. facilities that emit more than 10,000 tonnes of CO₂e per year have decreased by 8% to 17.7 Mt CO₂e (19.2 Mt in 2012). 	<ul style="list-style-type: none"> ■ Work with the Climate Solutions Council and relevant industrial sectors to enhance CleanBC's Program for Industry so that additional funding is available to support mines, pulp mills, oil and gas processing plants, and other industrial facilities in their efforts to reduce GHG emissions and move to cleaner operations. ■ Continued systems development will expedite the application processing and enhance the quality of emissions applications review. ■ Data collection software will be updated using the lessons learned during the application process and results of user experience surveys.

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18	Reduce upstream methane – 45% (On track)	<ul style="list-style-type: none"> ■ The Province brought in new regulations in 2018 to reduce methane emissions in the upstream production of natural gas by 45% by 2025. ■ This includes annual reporting of regulation implementation progress to the federal government. 	<ul style="list-style-type: none"> ■ New methane regulations came into effect on Jan. 1, 2020 and are designed to reduce methane emissions by 10.9 megatonnes of carbon dioxide equivalent over a 10-year period. ■ Equivalency agreement with federal government finalized April 2020. Federal Order in Council was advanced to stand down the federal regulation in B.C. ■ Advanced the research strategy and implementation of research projects to fill the methane emission reductions knowledge gap. ■ The Province finalized operational guidelines for oil and gas operations to reduce methane. ■ Projects led by the Methane Emissions Research Collaborative (MERC) will provide additional data. ■ In December 2020, the first annual information sharing report was submitted to the federal government on implementation and effectiveness of the provincial regulations in reducing methane emissions, and on compliance and enforcement activities. 	<ul style="list-style-type: none"> ■ Guidelines (venting and flaring, fugitive emissions management) posted to BC Oil and Gas Commission website for industry use. ■ Data gathered for the first annual leak detection and repair data report. ■ Advancement of research strategy and implementation of research projects under the MERC.
19	InBC Investment Fund (On track)	<ul style="list-style-type: none"> ■ InBC will invest in high-growth potential businesses in British Columbia and leverage investments from the private and public sectors to help businesses grow. InBC will have a “triple bottom line” investment mandate, aiming to: <ul style="list-style-type: none"> – establish B.C. as a globally competitive low-carbon jurisdiction; – promote values that make life better for people in B.C., including job creation, advancing reconciliation with Indigenous peoples, promoting diversity and inclusion; and – achieve a financial return on investment. 	<ul style="list-style-type: none"> ■ N/A 	<ul style="list-style-type: none"> ■ The InBC Investment Fund was announced in April 2021 after the <i>InBC Investment Corp Act</i> was passed by the B.C. legislature. ■ A board of directors was appointed in May 2021.

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20	CleanBC Industrial Electrification Rates and Fund	<ul style="list-style-type: none"> ■ BC Hydro will provide new CleanBC industrial electrification rates that offer a discount on BC Hydro's standard industrial rates to: <ul style="list-style-type: none"> – new clean industries setting up or expanding operations in B.C., including hydrogen and biofuels; – eligible existing customers that install new equipment that uses electricity rather than fossil fuels; and – eligible new customers that can demonstrate they could have used fossil fuels rather than electricity to power their facilities. 	<ul style="list-style-type: none"> ■ In January 2021, the Government of Canada, the Province and BC Hydro announced they are reducing rates and lowering the costs of connecting to the electricity grid to help industries, public transportation agencies and neighbourhood energy systems reduce greenhouse gas emissions. ■ The new CleanBC Industrial Electrification Rates will help reduce the cost of using BC Hydro electricity to make it more competitive with other more carbon intensive fuels. ■ B.C. has directed funding from the Investing in Canada Infrastructure Program to create a new CleanBC Facilities Electrification Fund that will provide support to customers to reduce the costs of connecting to the electricity grid or upgrading their connections to use more electricity and reduce air pollution. 	<ul style="list-style-type: none"> ■ BC Hydro is currently accepting applications for the CleanBC Facilities Electrification Fund.
LIVE AND WORK				
21	Energy Efficiency Standards (On track)	<ul style="list-style-type: none"> ■ Increased <i>Energy Efficiency Act</i> standards for residential and commercial gas boilers, and residential windows. ■ New standards will deliver on CleanBC commitments and support the joint federal-provincial-territorial Market Transformation Roadmap for Energy Equipment in the Building Sector. 	<ul style="list-style-type: none"> ■ Amendment 7 to the Energy Efficiency Standards Regulation (EESR) passed Feb 16, 2021, which included new and updated energy efficiency standards for gas boilers, residential fenestration (windows and doors), and computers and monitors. ■ These regulations will save 1.72 million gigajoules of electricity in 2030 – as much as is consumed by 16,000 B.C. homes. ■ Since 2007, residential energy use has decreased by 7%, even as the amount of floor space increased by 21%. In commercial buildings, energy use has decreased by 16% while floor space increased by 10%. 	<ul style="list-style-type: none"> ■ Analysis on Amendment 8 to the EESR currently underway, which will include improving efficiency in water heaters.
22	Net Zero Energy Ready by 2032 (On track)	<ul style="list-style-type: none"> ■ Improve the BC Building Code in phases to ensure all new buildings are "net-zero energy ready" by 2032. ■ BC Energy Step Code will be mandatory in 2022, and is already mandatory in municipalities that require it in their communities. ■ Province has expanded BC Energy Step Code to apply to public sector buildings and is working with partners to develop associated energy performance targets. 	<ul style="list-style-type: none"> ■ Development of compliance tools and resources. ■ Supporting implementation of the Step Code through local government peer network. ■ Developing technical requirements for 20% energy efficiency improvement to minimum code for all buildings in 2022, effective December 2022. ■ 52 communities including City of Vancouver have voluntarily referenced energy efficiency 'Steps' in advance of Provincial requirements. Estimates are that communities referencing the Energy Step Code represents 72% of new housing starts in British Columbia. 	<ul style="list-style-type: none"> ■ Continue stakeholder consultation on 20% improvement in the 2022 BC Building Code and propose changes to the national code development system for consideration in the model national codes. ■ The next edition of the BC Building Code is anticipated in December 2022. ■ The Attorney General is considering changes to the next edition of the BC Building Code to address overheating risks in new construction, based on future climate projections.

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23	Introduce an Alterations Code for Existing Buildings by 2024 (On track)	<ul style="list-style-type: none"> ■ Implement alterations to existing buildings code by 2024 to address climate change mitigation (energy efficiency and GHG emissions) and adaptation (wildfire and wildfire smoke, water conservation, floods, heat waves, extreme weather events). ■ The project will: <ul style="list-style-type: none"> – Clarify the applicability of technical requirements to existing buildings; – Update provincial and local government authorities, as necessary; – Create a regulatory system that is adaptable to local needs, future-oriented, and outcome-based; and – Support housing affordability, equity, community resilience, and economic resilience. ■ Provincial codes will harmonize with federal standards, align where appropriate with the City of Vancouver, and consider impacts on other code objectives. 	<ul style="list-style-type: none"> ■ Continued collaboration with all levels of government, academic research institutions, Crown corporations, and other relevant stakeholders. ■ Continued work with federal government to incorporate future climate design files into building codes and assess the risk and possible strategies to address overheating in existing buildings. 	<ul style="list-style-type: none"> ■ Phase 2 engagement and technical research on options and impact analysis. ■ Engagement with Indigenous communities and organizations. ■ Continued Gender-Based Analysis+, economic, and outcome analysis of preferred option(s). ■ Finalize policy as part of the Buildings Roadmap development in Fall 2021 and the broader Existing Buildings Renewal Strategy.
24	Building Energy Labelling (On track)	<ul style="list-style-type: none"> ■ Improve building energy information available to buyers and renters. ■ Province continues to assess the feasibility of energy labels for homes and buildings, similar to ratings for vehicles and major appliances. 	<ul style="list-style-type: none"> ■ In November 2020, the Minister of Finance was mandated to support the Minister of Energy, Mines and Low Carbon Innovation (EMLI) to require realtors to provide energy efficiency information on listed homes to incent energy-saving upgrades and let purchasers know what energy bills they can reasonably expect. 	<ul style="list-style-type: none"> ■ EMLI is developing policy and information technology (IT) options to implement a home energy rating requirement.
25	CleanBC Communities Fund (On track)	<ul style="list-style-type: none"> ■ Federal, provincial, local government and Indigenous community investment in clean infrastructure. ■ Provincial and federal governments are investing as part of the Investing in Canada Infrastructure Program (ICIP), supporting infrastructure projects for public use. ■ The projects will lead to increased capacity to manage renewable energy, increased access to clean energy transportation, increased energy efficiency of buildings, and increased generation of clean energy. 	<ul style="list-style-type: none"> ■ 16 projects approved and underway from the first intake from combined federal and provincial (StrongerBC) funding. ■ The provincial and federal governments committed funding for second intake of projects under CleanBC Communities Fund. ■ Second intake of applications for CleanBC Communities Fund opened in Summer 2020. 	<ul style="list-style-type: none"> ■ Continued construction underway for projects approved under the first intake. ■ Federal approvals planned for the second intake of projects for Fall 2021.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
26	Energy Retrofits for Social Housing (On track)	<ul style="list-style-type: none"> ■ Funding for energy efficiency component of Capital Renewal Fund for public housing. ■ In Budget 2018, B.C. committed funding over 10 years to upgrade social housing, including retrofitting 51,000 units of publicly owned social housing, making them cleaner, more comfortable and more energy efficient. ■ BC Housing activities on this initiative through Capital Renewal Fund projects have been ongoing since 2018. ■ Projects receive upgrades that improve their seismic safety, energy efficiency, and overall condition. BC Housing's Facility Condition Index target is 16% to 21%.¹ 	<ul style="list-style-type: none"> ■ In 2020-2021, 221 projects improved the condition of over 11,000 units of publicly funded housing. ■ BC Housing Design Guidelines and Construction Standards have been updated to include a 50% GHG emission reduction target in line with CleanBC requirements. ■ 58% of these projects contain scope that will help improve energy performance and lower GHG emissions. ■ An average GHG reduction of 46% is estimated on projects completing this fiscal. Retrofits include full building envelope/building enclosure, window and roof replacement on multiple projects, heating, make up air, and domestic hot water system upgrades. ■ Projects will include some life safety and seismic upgrades, improved overall facility condition, and additional upgrades such as elevator modernization and interior renovations. 	<ul style="list-style-type: none"> ■ In 2021-2022, 271 projects are planned or underway improving the condition of over 12,000 units of publicly funded housing. Energy audits are planned on 20 projects undergoing major energy retrofits. ■ Activities to align BC Housing standards with provincial GHG savings targets is anticipated as implementation continues over the initiative's ten-year term.
27	CleanBC Better Homes and Better Buildings (On track)	<ul style="list-style-type: none"> ■ Incentives to make heat pumps affordable and make homes and buildings more comfortable through building envelope upgrades. ■ CleanBC enabled further expansion of program offerings, with details of the program available here. 	<ul style="list-style-type: none"> ■ Launched low-interest financing program for homeowners switching from a fossil fuel heating system to heat pump (June 2020). ■ Introduced new incentives for residential new construction. ■ Funded pilot program for rental apartments. ■ Introduced new incentives for small- and medium-sized commercial customers. ■ Number of Energy Coach services in FY 20-21: 11,597 citizens took advantage of energy coaching services provided for free from CleanBC (a 50% increase in volume compared to FY 2019-2020). ■ Number of residential incentives in FY 20-21: 11,578 incentives; an average of 965 per month (an increase of 74% from previous fiscal year). ■ Participant satisfaction in residential program: 90% overall satisfaction rating, with 94% of participants saying they would recommend the program. ■ Participant satisfaction in commercial program: 100% overall satisfaction rating, with 78% of participants saying they would recommend the program. ■ Number of commercial incentive approvals: 61 energy studies and 79 capital projects for businesses and public sector organizations. 	<ul style="list-style-type: none"> ■ Launched CleanBC Better Homes Income-Qualified Program (Fall 2021). ■ Portfolio-wide program evaluation. ■ Piloted program for rental apartments in development. ■ Continuing to explore ways to ensure these programs are targeted to those that need the most help.

¹ The Facility Condition Index (FCI) is a key performance indicator used to objectively quantify and evaluate the current physical condition of a facility based on a facility condition assessment. The FCI value is an indication of the condition of the building – a lower value corresponds to a better building condition.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
28	CleanBC Building Innovation Fund (On track)	<ul style="list-style-type: none"> ■ Encourage the development of innovative and cost-effective low-carbon building solutions in the B.C. building industry. 	<ul style="list-style-type: none"> ■ In the second intake funded through StrongerBC (November 2020 – January 2021), the program drew 85 applications. ■ 21 projects were awarded funding through a second intake, with the selected projects distributed across the province, focussing on technology ready for commercialization. ■ The second intake of the CleanBC Building Innovation Fund differed from the first intake in the following ways: <ul style="list-style-type: none"> – Program streams were revised with a greater focus on technology categories; – The minimum technology readiness level for eligible projects was increased to place a greater emphasis on commercialization and demonstration projects with near-term economic impacts; – Evaluation criteria were updated to reflect COVID-19 economic recovery objectives and government priorities such as equity and Indigenous reconciliation; – The scope of eligible projects was expanded to include advancement of B.C. wood products that help achieve GHG reduction goals through low-embodied carbon products. 	<ul style="list-style-type: none"> ■ Funding recipients will report on progress on a quarterly basis in 2021-2022. ■ The third intake is being planned for Fall 2021 and will incorporate lessons learned from the first two intakes. ■ Final reports and deliverables are due at the end of the program term (March 31, 2023).
29	CleanBC Government Buildings Program (On track)	<ul style="list-style-type: none"> ■ Retrofits for core government buildings so they use less energy and emit less greenhouse gases. ■ Target: By 2030, 50% reduction of GHG emissions in government buildings over 2010 levels and 80% reduction by 2050. 	<p>Significant headway to the 2030 target since the launch of the program in June 2019:</p> <ul style="list-style-type: none"> ■ Initiated 28+ energy retrofits at existing government buildings; ■ Implementation of one net-zero energy major retrofit project underway; ■ Assessed opportunities for switching from fossil fuels to clean energy sources at government buildings; ■ Applied smart building technologies to conserve energy such as Wi-Fi building sensors to regulate lighting; ■ Installed 121 electric vehicle charging stations to date; ■ 2020 Building emissions have decreased by more than 40% from the 2010 baseline. 	<ul style="list-style-type: none"> ■ Planning for 2022/23 CleanBC Government Building Program investments. ■ Continuing with low-carbon electrification studies at three more sites. ■ Developing guidelines for new construction for core government buildings to use clean energy.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
30	Property Assessed Clean Energy (PACE) (On track)	<ul style="list-style-type: none"> ■ Property Assessed Clean Energy (PACE) is a form of on-title financing, repaid through property taxes, for property owners to implement building energy retrofits. ■ PACE will integrate current and proposed building decarbonization initiatives in alignment with the CleanBC Better Homes and Better Buildings programs. ■ Details of the specific delivery model will be based on lessons learned from other jurisdictions, recommendations from our stakeholders and local government partners, our consulting team and provincial staff. 	<ul style="list-style-type: none"> ■ A draft Roadmap has been completed, and a pilot was approved through StrongerBC funding. ■ Stakeholder engagement with PACE BC and two broader stakeholder workshops took place Dec 2020-Feb 2021. 	<ul style="list-style-type: none"> ■ Development of PACE enabling legislation and detailed program design.
31	Wood First Initiative (On track)	<ul style="list-style-type: none"> ■ Funding to encourage the forest industry, researchers and design professionals to explore innovation in B.C.'s built environment and through value-added wood products, helping to grow local and global markets, while promoting climate-friendly construction and supporting our forest-dependent communities. 	<ul style="list-style-type: none"> ■ Through StrongerBC funding, Office of Mass Timber Implementation and Forestry Innovation Investment (FI) funded a contract with the Athena Sustainable Materials Institute to: <ul style="list-style-type: none"> – update and advance their Impact Estimator for Buildings [the leading tool for whole-building lifecycle assessment (LCA)]; – create new Environmental Product Declarations (EPDs) for B.C.-based wood products; – and to create a new, simplified Embodied Carbon Pathfinder tool. 	<ul style="list-style-type: none"> ■ Work completed summer of 2021 <ul style="list-style-type: none"> – Created new Environmental Product Declarations (EPDs) for B.C.-based wood products – Created a new, simplified Embodied Carbon Pathfinder tool – Harmonized data within and modernize its Impact Estimator for Buildings (LCA tool) – Created a new micro-credential in whole-building LCA via BCIT. ■ Other work planned includes summarizing the state of forest carbon modelling, advancing LCA tools to better account for end-of-life impacts, and undertaking a benchmark study on the environmental impacts of B.C. buildings.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
ENERGY AND FUELS				
32	Renewable fuels – clean portfolio standard (On track)	<ul style="list-style-type: none"> Government is considering updating the Greenhouse Gas Reduction Regulation as an interim measure, while longer term legislation and regulation under the Clean Portfolio Standard is developed and implemented. Legislation will require natural gas utilities to reduce emissions in their operations by a prescribed amount. This will ensure that the B.C. Utilities Commission retains oversight and that the standard does not impose a significant impact on rate payers. This encourages the development of new technology, and alternative/ flexible compliance pathways to complement existing opportunities in different sectors of the economy, including the forest sector. 	<ul style="list-style-type: none"> Due to supply constraints and the potential for significant impacts on ratepayers, the Ministry of Energy, Mines and Low Carbon Innovation proposed a Clean Portfolio Standard that would meet the GHG reduction equivalent (in megatonnes) of the CleanBC 15% renewable natural gas target. The ministry has had regular ongoing consultations with utilities, the B.C. Utilities Commission (BCUC) and legal counsel. 	<ul style="list-style-type: none"> Continue to engage with gas utilities and BCUC. Continue to engage internally with the Climate Action Secretariat. Amendments to the Greenhouse Gas Reduction Regulation (GGRR) in spring 2021 to further enable renewable gas supply.
33	Increase supply of cleaner fuels (On track)	<ul style="list-style-type: none"> Increase the supply of cleaner fuels by ramping up new production in B.C. of 650 million litres of renewable gasoline and diesel by 2030. 	<ul style="list-style-type: none"> Co-funding the front-end engineering of a first-of-its-kind commercial facility to produce synthetic fuels from Direct Air Capture/Carbon Capture processes. Supporting a local government in a pilot project to convert municipal sewage into renewable fuel. Working with B.C. refineries to co-process lipids (fats, oils and greases) with fossil crude into low carbon fuels Supporting the development of technologies to convert biomass feedstock into renewable fuels. In 2020, Part 3 Agreements were signed as part of the Low Carbon Fuel Standard to support industry investment in 22 projects for the production and supply of low-carbon fuels, including five agreements supporting production and supply of hydrogen. Seven other projects will lead to the annual production of 884 million litres of low-carbon renewable fuel in B.C. by 2025. 	<ul style="list-style-type: none"> Companies are moving forward in accordance with their agreements. Evaluation of opportunities to increase supply even further.

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34	Hydrogen Strategy (On track)	<ul style="list-style-type: none"> Research and launch of roadmap to increase adoption of hydrogen and fuel cell technologies in the province. 	<ul style="list-style-type: none"> Developed the B.C. Hydrogen Strategy to increase adoption of hydrogen and fuel cell technologies in the province. In partnership with the Canadian Hydrogen and Fuel Cell Association (CHFCA), created HydrogenBC (HyBC), the regional chapter of the CHFCA. HyBC supports the Province's hydrogen energy ecosystem by coordinating the deployment of hydrogen infrastructure and applications province-wide. HyBC has an initial mandate to promote the rollout of fuel cell electric vehicles and hydrogen fuelling stations. 	<ul style="list-style-type: none"> Released the B.C. Hydrogen Strategy at the beginning of July 2021. Begin implementation of the 63 policy actions contained within the strategy to kickstart hydrogen deployment in B.C. RFP for new hydrogen fuelling stations. Participation in the federal government's strategic steering committee on hydrogen and associated working groups. Received funding to further develop policy on reducing the carbon intensity of fuel and developing the hydrogen economy in B.C.
35	CleanBC Remote Community Energy Strategy (On track)	<ul style="list-style-type: none"> The CleanBC Remote Community Energy Strategy (RCES) aims to reduce diesel generation of electricity province wide by 80% by 2030 through three streams of coordinated action: capacity building, efficient and low-carbon buildings, and clean electricity generation. The CleanBC Remote Community Energy Strategy is a 10-year initiative, with a 2030 target. 	<ul style="list-style-type: none"> In Winter 2021, the second intake of the Renewable Energy for Remote Communities program funded three projects in remote Indigenous communities to transition from diesel to cleaner energy sources. In Spring 2021, conducted engagement to support the development of Remote Community Energy Strategy and associated programs. Remote Community Working Group established Spring 2021. 	<ul style="list-style-type: none"> Ongoing engagement on RCES and associated programs. Funding for RCES capacity building, energy efficiency and renewable energy generation Will be going to RFPs for external delivery agents for two new programs.
36	BC Indigenous Clean Energy Initiative (BCICEI) (On track)	<ul style="list-style-type: none"> The BCICEI provides support and capacity-building funds to Indigenous communities working on the development of clean energy projects. 	<ul style="list-style-type: none"> Program delivery agent New Relationship Trust (NRT) worked with communities to implement projects under Intake 4 (2019-2020) and Intake 5 (2020-2021). First program evaluation complete. Benefits include improved power/heat reliability, cost savings for residents and communities, stimulating economic activity, improving local air quality, hiring and training local community members, and expanding local economies. 	<ul style="list-style-type: none"> New Relationship Trust (NRT) is working with communities to implement projects from funding Intake 6. NRT is also supporting unsuccessful applicants with pathfinding for alternative funding sources. NRT is soliciting RFPs for independent program evaluation focused on community impact. NRT is pursuing re-capitalization of the fund, as well as alternative endowment investment for First Nations Clean Energy Legacy Fund.
37	Carbon Capture and Storage regulations (On track)	<ul style="list-style-type: none"> Ensure a regulatory framework for safe and effective underground CO₂ storage from the oil and gas industry in B.C. 	<ul style="list-style-type: none"> The Province continued exploring legislative and regulatory options to improve the regulatory framework for effective underground carbon dioxide storage and provide industry with greater certainty to advance potential projects. 	<ul style="list-style-type: none"> Develop a regulatory framework for effective underground carbon dioxide storage and provide industry with greater certainty to advance potential projects. Policy work advancing on review of long-term liability and open access provisions. Participate in development of the federal carbon capture utilization and storage strategy.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
38	Low Carbon Fuel Standard (LCFS) (On track)	<ul style="list-style-type: none"> Make our fuel cleaner by increasing the LCFS to 20% by 2030. The <i>Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act</i> has been in effect since January 1, 2010. Carbon intensity targets become more stringent every year to 2030. Part 3 Agreements² can be used to support development of production capacity in renewable fuels to support the CleanBC goal to develop capacity to produce 650 million litres of renewable fuel every year by 2030 (see commitment 33 above). This support includes developing capacity at refineries in Burnaby and Prince George to refine blends of fossil crude and bio-crude derived from variety of waste and renewable sources. 	<ul style="list-style-type: none"> The LCFS regulation was amended in July 2020 to require suppliers to decrease average life-cycle carbon intensity of transportation fuels to achieve a 9.1% reduction in 2020 increasing 1.09% per year to achieve a 20% reduction in 2030. In 2020, Part 3 Agreements were signed to support industry investment in 22 projects for the production and supply of low carbon fuels, including five agreements supporting production and supply of hydrogen. Seven other projects will lead to the annual production of 884 million litres of low carbon renewable fuel in B.C. by 2025. This exceeds the 2030 target of producing 650 million litres a year in B.C., five years early. 	<ul style="list-style-type: none"> The <i>Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act</i> will be updated significantly to strengthen its authority and enable a broader scope of GHG reductions.
39	Centre for Innovation and Clean Energy (On track)	<ul style="list-style-type: none"> B.C., Canada and private partners (starting with Shell Canada) are each committing funding toward the new B.C. Centre for Innovation and Clean Energy and collaborating to decarbonize the economy and scale up clean energy. The centre's initial focus areas for funding and project delivery will include: <ul style="list-style-type: none"> Carbon capture, utilization, and storage; Production, use and distribution of low-carbon hydrogen; Biofuels and synthetic fuels (including marine and aviation fuels); Renewable natural gas; Battery technology, storage and energy management systems. The centre will also initiate new technology pathways to accelerate larger reductions on the path to net-zero emissions by 2050. 	<ul style="list-style-type: none"> Supported development for the Centre for Innovation and Clean Energy for clean-tech investments to accelerate technology development to help transition to a low-carbon future through StrongerBC funding. 	<ul style="list-style-type: none"> Deliver a Phase 1 start-up of the Centre for Innovation and Clean Energy in 2021.

² Fuel suppliers can obtain credits by entering into Part 3 Agreements to undertake actions that increase the use of low carbon fuels sooner than would occur without the agreed-upon actions.

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WASTE AND CIRCULAR ECONOMY				
40	Waste reduction and circular economy strategy (On track)	<ul style="list-style-type: none"> The Waste Reduction and Circular Economy Strategy is two-pronged: <ol style="list-style-type: none"> 1) supports the reduction, reuse and diversion of organic waste thereby reducing methane emissions and 2) considers overarching circular economy approaches in the development of initiatives. The Organics Infrastructure Program facilitates the investment of more than \$30 million towards organics processing infrastructure in British Columbia. 	<ul style="list-style-type: none"> In 2020/21, the Organics Infrastructure Program (OIP) announced two additional recipients to receive funding for the building/expansion of organic processing infrastructure across the province. In total, 14 new organics processing facilities will be built. These projects will reduce greenhouse gas (GHG) emissions by diverting increased amounts of organic waste from material that is currently being sent to landfills. Government also announced actions under the CleanBC Plastics Action Plan in September 2020 that respond to what we heard from our public engagement to reduce plastics pollution and improve recycling in B.C. Nine municipal bylaws banning single-use plastics have been approved. A circular economy strategy for plastics is in progress. As a partner of the <i>Love Food Hate Waste</i> initiative, the Province has, through the development of a provincial partnership model, rolled the program out across B.C. by providing local governments and communities with access to a range of useful resources to reduce residential food waste. 	<ul style="list-style-type: none"> Currently, OIP projects are under construction, with many expected to be completed and operational by March 31, 2022. It is anticipated that additional projects will be announced under this program. A new Minister's Regulation was finalized July 2021 to enable authority for municipalities to implement single-use item bylaws without seeking Ministerial approval. Work is underway to enable the legal authority for the province wide phase-out of single-use items, as well as coordination with the federal government on bans and the development of recycled content standards and regulation. The summary report for expansion of the <i>Recycling Regulation</i> was posted in June 2021, with a commitment to release a multi-year plan for extended producer responsibility programs in Fall 2021. Detailed research and data collection from the industrial, commercial, and institutional (ICI) sector is planned to inform additional next steps for enabling a circular economy for plastics and packaging from this sector. The current agreement with the <i>Love Food Hate Waste</i> national campaign ends in June 2021. The Province will facilitate information sharing to promote food waste prevention and reduction activities with local governments.
41	CleanBC Organics Infrastructure Collection Program (On track)	<ul style="list-style-type: none"> The CleanBC Organics Infrastructure and Collection Program (OICP) will invest in new/expanded, organic waste processing infrastructure and residential organic waste collection programs. 	<ul style="list-style-type: none"> OICP was announced in September 2020. These projects will reduce greenhouse gas (GHG) emissions by diverting increased amounts of organic waste from material that is currently being sent to landfills. The application phase was open from October 2020 to February 2021. 	<ul style="list-style-type: none"> In Fall 2021, successful recipients of the OICP are expected to be announced, with projects commencing shortly afterwards.

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42	Clean Coast, Clean Waters Initiative Fund – Shoreline and derelict vessel clean-up (On track)	<ul style="list-style-type: none"> The Clean Coast, Clean Waters Initiative Fund provides funding for projects to clear B.C.'s shores of marine debris and derelict vessels. The projects will create jobs and support coastal communities as they recover from the COVID-19 pandemic. 	<ul style="list-style-type: none"> Clean Coast, Clean Waters Initiative Fund (CCCW) for marine shoreline and derelict vessel clean-up announced in Dec 2020, through StrongerBC funding. Two shoreline cleanup projects were funded in 2020: <ul style="list-style-type: none"> Small Ship Tour Operators Association (SSTOA), and Coastal First Nation-Great Bear Initiative (CFN-GBI) Over 127 tonnes of marine debris were removed from 401 sites. Remaining funding to be administered by PricewaterhouseCoopers (PwC) for shoreline and derelict vessel clean-up projects. 	<ul style="list-style-type: none"> Successful projects announced April 28, 2021. CFN-GBI and PwC-administered projects will be completed by December 31, 2021. Additional funding announced April 2021 to support youth engagement under the StrongerBC Future Leaders Programs, including to CFN-GBI to support youth employment, and funding to be administered by PwC for additional shoreline clean-up projects (three new projects announced August 5, 2021). All work to be completed by December 31, 2021.
43	CleanBC Plastics Action Fund – Increase the use of recycled plastics (On track)	<ul style="list-style-type: none"> The CleanBC Plastics Action Fund will turn used plastics into new products, support the circular economy of plastics, increase local processing capacity for recycling and create new jobs. Funded projects will replace or recycle over 20,000 tonnes of plastic per year. 97 jobs created; majority are permanent full-time. 	<ul style="list-style-type: none"> Launched the CleanBC Plastics Action Plan Fund (formerly called Recycled Plastics Manufacturing Stimulus Fund) for circular economy approaches to plastics approved through StrongerBC funding. Managed by third-party administrator (Alacrity) selected via RFP process. Funding program launched Dec 2020. Fund was oversubscribed. In total nine projects were selected to receive the \$5M in funding. 	<ul style="list-style-type: none"> Nine successful projects were announced publicly in May 2021. Projects include processing of automotive plastics, local plastic circular economy projects, plant upgrades to produce food grade recycled plastic, development of artificial intelligence to aid robotic sorting for plastics, and production of first to market child-safe 100% recycled plastic cannabis containers. All projects will be completed by Dec 31, 2021.
PUBLIC SECTOR LEADERSHIP				
44	Public Sector Leadership (On track)	<ul style="list-style-type: none"> Establish high performance buildings and fleet policies for Public Sector Organizations. Five-year plan to reduce emissions from core government fleet vehicles, including signing onto the West Coast Electric Fleet Pledge with Pacific Coast Collaborative partners. Across B.C., all new public sector buildings will be net-zero energy ready by 2032. Based on 2010 levels, by 2030: <ul style="list-style-type: none"> Emissions from public sector fleet vehicles will decrease by 40%. Emissions from public sector building operations will decrease by 50%. 	<ul style="list-style-type: none"> Additional funding over three years to the Carbon Neutral Capital Program (CNCP) and funding for broader public sector and government ZEV adoption efforts. School districts received an additional amount of funding for CNCP in 2020-2021 to reduce greenhouse gas emissions and provide operating cost savings from energy efficiencies. For 2020-2021, health authorities and post-secondary institutions received CNCP funding. 13 school districts ordered a total of 18 electric school buses; 17 of which received program funding. Ongoing installation of charging stations at government buildings and purchase of zero emission fleet vehicles. Projects funded by this program are anticipated to reduce carbon output by 238,000 tonnes of CO₂e over their lifespan. 	<ul style="list-style-type: none"> Modelling for fleet policy to be finalized. ZEV first purchasing policy for light-duty vehicles. Multi-year fleet plans for all PSOs with over 20 fleet vehicles. Continue to explore linkages between mass timber implementation and Phase 1 buildings proposals, which will apply to new public sector buildings. Draft Order in Council for Phase 1 Public Sector Leadership requirements (new buildings and light-duty fleet). Begin development of Climate-Ready Public Sector Buildings Strategy (i.e., strategy to address decarbonization and climate resilience of the existing buildings stock).

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
45	Carbon Neutral Government (CNG) Reporting (On track)	<ul style="list-style-type: none"> Public sector organizations (PSOs) in B.C. have been carbon neutral since 2010, as committed in the <i>Climate Change Accountability Act</i> (CCAA). Under B.C.'s Carbon Neutral Government program – legislated under the CCAA – all provincial public sector organizations (PSOs) follow a five-step process to achieve carbon neutrality: measure, reduce, offset, report and verify. 	<ul style="list-style-type: none"> The 2020 reporting year marked the eleventh consecutive year of public sector carbon neutrality in B.C. In 2020, public sector organizations invested in carbon offsets and retired 632,204 tonnes of carbon offsets in June 2021. PSO emissions in 2020 were 12.1 % lower than they were in 2010. PSOs are working towards accelerating emissions reductions, developing capacity to prepare for climate change and increasing the use of low-carbon and renewable materials. 	<ul style="list-style-type: none"> Continue to support and empower PSOs to take ownership for their climate action and streamline CNG reporting processes for the 2021 reporting year. Customer service survey planned for 2021/22 to establish baseline and solicit input on areas of strength and opportunities for improvement on customer service and enhanced functionality.
CROSS CUTTING MEASURES				
46	CleanBC Accountability Framework (Complete)	<ul style="list-style-type: none"> Roll out associated programs and enabling legislation for CleanBC, including the <i>Climate Change Accountability Act</i>. 	<ul style="list-style-type: none"> Interim emission target set Dec. 16, 2020 of 16% reduction below 2007 levels by 2025. Sectoral targets set March 26, 2021. Target ranges for each sector: <ul style="list-style-type: none"> – transportation – 27 to 32%; – industry – 38 to 43%; – oil and gas – 33 to 38%; and – buildings and communities – 59 to 64% First legislated Climate Change Accountability Report released Dec. 16, 2020, and will continue to issue reports every year as required by the legislation. 	<ul style="list-style-type: none"> This is now complete and no further action is required.
47	Business Council of BC (BCBC) Memorandum of Understanding/ Low Carbon Industrial Strategy (Delayed due to COVID-19)	<ul style="list-style-type: none"> In November 2018, B.C. and business leaders signed an MOU with the BCBC to establish the province as a world leader in delivering low-carbon goods and services to domestic and global markets, and establish a Low-Carbon Industrial Strategy (LCIS) to address competitiveness and market B.C. low-carbon products and services. 	<ul style="list-style-type: none"> COVID-19 prevented further work during 2020. Government and the BCBC remain committed to the process that has been started and will continue to work on the LCIS. 	<ul style="list-style-type: none"> While the government and the BCBC remain committed to the process that has started, this work has now developed into a review of the CleanBC Program for Industry, which is a key commitment in the 2020 mandate letter for Ministry of Environment and Climate Change Strategy.
48	Future Workforce Readiness Framework (Delayed to incorporate broader strategies related to B.C.'s COVID-19 recovery and economic plan)	<ul style="list-style-type: none"> Develop a framework to guide government investments in post-secondary education and training to ensure British Columbians have the skills required for potential job opportunities expected to arise as B.C. transitions to a low carbon economy and initiatives align with B.C.'s economic plan and recovery strategies. 	<ul style="list-style-type: none"> Industry reports submitted to government in 2020 included initial labour market forecasts and industry recommendations. Preliminary internal report prepared to identify potential workforce implications of current and planned government initiatives that support the workforce needs of the clean economy. 	<ul style="list-style-type: none"> Future Workforce Readiness Framework under development.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
49	Go Electric Training (On track)	<ul style="list-style-type: none"> Investments to support electrician and automotive technician skill development on electric vehicles (EVs) and infrastructure maintenance. Investments in training will create high-value jobs, support the province in attracting business opportunities and economic development related to EVs, and support recruitment of a diverse workers, including students. 	<ul style="list-style-type: none"> Electrical Joint Training Committee enterprise training: due to COVID-19 course offerings are moving online. Pacific Institute for Climate Solutions: Opportunity Project funding call opened for proposals on April 30, 2020 and closed on August 4, 2020. Notification of adjudication decisions were made by December 1, 2020. 	<ul style="list-style-type: none"> Projects are expected to start on or before April 1, 2021. Marketing for the Electric Vehicle Infrastructure Training Program to a wider audience in B.C.
50	Climate Action Revenue Incentive Program (To be completed at end of 2021)	<ul style="list-style-type: none"> The Climate Action Revenue Incentive Program (CARIP) provides an annual conditional grant to eligible local governments. CARIP refunds 100% of corporate carbon tax expenditures to local governments that report on their climate action progress through an annual survey. 	<ul style="list-style-type: none"> Due to the ongoing pandemic, the only CARIP reporting requirement for 2020 is the carbon tax calculation form. As a result, there is no data on corporate emissions or carbon neutrality for 2020. 	<ul style="list-style-type: none"> CARIP wraps up in 2021. A new program to support local government climate action is in development.
51	B.C. Tailpipe Standards (On track)	<ul style="list-style-type: none"> CleanBC commits B.C. to develop tailpipe standards for 2026-2030, if the federal government does not strengthen the national standard for that time period. 	<ul style="list-style-type: none"> B.C. is monitoring federal government progress to increase tailpipe emission standards for vehicles sold after 2025 before finalizing decisions. 	<ul style="list-style-type: none"> B.C. continues to work with the federal government to understand next steps for tailpipe standards.
52	Analytical Capacity for Climate Action (On track)	<ul style="list-style-type: none"> Development of an evaluation toolkit for B.C.'s climate policies. 	<ul style="list-style-type: none"> Requested funding from Treasury Board for developing an evaluation toolkit for B.C.'s climate policies. 	<ul style="list-style-type: none"> B.C. will issue contracts to: <ul style="list-style-type: none"> Develop and utilize evaluation methodology/ methodologies to assess environmental and other benefits of B.C. climate policies; Identify data gaps to assess climate policies.
53	Expand Connecting British Columbia (On track)	<ul style="list-style-type: none"> The Connecting British Columbia program helps pay for infrastructure required to deliver high-speed internet connectivity to rural and remote areas of the province. The grant supports expanding and improving connectivity to 200 rural and Indigenous communities, 140 km of new cellular coverage, 14 rest areas and four roadside call boxes. 	<ul style="list-style-type: none"> In Fall 2020, the Connecting British Columbia Program was expanded with a one-time grant as part of StrongerBC. As of March 2021, funding has been committed to 37 projects. Projects funded through this grant will also leverage funding from the federal Universal Broadband Fund. 	<ul style="list-style-type: none"> As of May 30, 2021, funding has been committed to 54 projects that are scheduled to be completed by either October 2021 or October 2022. Northern Development Initiative Trust to fully allocate remaining StrongerBC – Economic Recovery Intake funding to approved connectivity projects. As of April 2021, it is anticipated that the grant will benefit 200 rural and Indigenous communities when approvals for B.C.-based projects jointly funded with the federal Universal Fund are finalized. 27 rest areas with new internet connectivity and 429 km of new cellular coverage along highways.

#	CleanBC Commitment	Details	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
54	Forest Carbon Initiative (FCI) (On track)	<ul style="list-style-type: none"> Across the seven years of the Low Carbon Economy Leadership funding for the FCI, it is estimated that the program will result in a carbon benefit of approximately 9 Mt CO₂e. 	<ul style="list-style-type: none"> Over 39 million trees planted in areas impacted by natural disturbances such as wildfires, insects, and other pathogens, where they will sequester more carbon over their lifetime than leaving the disturbed areas to recover naturally. More than 18,000 hectares of nutrient deficient forests have been fertilized to increase growth and sequester more carbon. Over 1.8 million cubic metres of fibre were diverted from burning and utilized for bioenergy and other wood products, resulting in an immediate reduction of greenhouse gas emissions. 	<ul style="list-style-type: none"> Ongoing reforestation, fertilization, tree improvement, road rehabilitation, and fibre utilization investments through the FCI, funded by the Low Carbon Economy Leadership Fund.
55	Conservation Economic Stimulus Initiative (On track)	<ul style="list-style-type: none"> Funding shovel-ready species and ecosystem conservation projects across B.C. and creating employment opportunities for British Columbians, administered by the Habitat Conservation Trust Foundation. The projects, which are being completed through partnerships with Indigenous communities, environmental groups, universities and local stewardship organizations, help ensure B.C.'s unique species and ecosystems stay healthy, vibrant and resilient, reducing the impacts and risk caused by floods, droughts, and wildfires. 	<ul style="list-style-type: none"> The Conservation Economic Stimulus Initiative was announced March 2021, funded by StrongerBC. As of July 30, 2021, there are 66 projects that are in progress with grant agreements in place. 	<ul style="list-style-type: none"> Projects are required to be completed by December 31, 2021 with a final report expected in March 2022.
56	Carbon Pricing (On track)	<ul style="list-style-type: none"> B.C.'s carbon tax puts a price on carbon pollution, providing a signal across the economy to reduce emissions while encouraging sustainable economic activity and investment in low-carbon innovation. In 2008, the province implemented North America's first broad-based carbon tax. The carbon tax applies to the purchase and use of fossil fuels and covers approximately 70% of provincial greenhouse gas emissions. 	<ul style="list-style-type: none"> To help provide relief during the COVID-19 pandemic, a previously scheduled increase was postponed in 2020. 	<ul style="list-style-type: none"> On April 1, 2021, B.C.'s carbon tax rate rose from \$40 to \$45 per tCO₂e. The rate is scheduled to increase to \$50 per tonne on April 1, 2022.

Climate Preparedness and Adaptation Table

B.C.'s 2021 [draft Climate Preparedness and Adaptation Strategy](#) includes actions to help the province prepare for the impacts of climate change now and into the future. These actions are grouped into 4 Pathways to build climate resilience:

1. Strengthen foundations for success, including expanding data, monitoring, education and partnerships;
2. Enhance community climate resilience;
3. Foster resilience of species and ecosystems in a changing climate; and
4. Advance a climate-ready economy and infrastructure.



What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
PATHWAY 1: STRENGTHEN FOUNDATIONS – DATA, MONITORING, EDUCATION AND PARTNERSHIPS	
Planning and Capacity Building	
<p>Ministry of Environment & Climate Change Strategy</p> <p>Climate Action Secretariat:</p> <ul style="list-style-type: none"> Released the draft Climate Preparedness & Adaptation Strategy (CPAS) for public engagement. Supported the Adaptation Learning Network: Inspiring Climate Action project, which increases the Province's capacity to adapt to climate change by enhancing the knowledge and skills of professionals through climate change adaptation, continuing professional development and participation in a professional learning community. Consulted with public sector organizations to inform policy development on requirements for PSOs to assess, manage and report on climate risks to public sector buildings. PSO-informed policy decisions on climate risk management, accountability reporting and buildings will support progress towards a climate-ready public sector. <p>Environmental Sustainability Division:</p> <ul style="list-style-type: none"> Worked to identify and prioritize new station locations to monitor groundwater, hydrometric and water quality data as part of a network maintained by the Province. Worked across ministries and with Indigenous Nations and partners to determine the priority, location and provincial distribution of water data stations to support better long-term management of natural resources. Worked with federal and provincial partners to support national hydrometeorological standards and share best practices for climate data analysis and modelling. <p>B.C. Parks:</p> <ul style="list-style-type: none"> Promoted protected areas as places to learn about climate change and manage its impacts through the Living Lab Program. Eight new projects were funded this fiscal period and touched on a variety of important topics such as yellow cedar decline, glacier mass balances in Kokanee Glacier Provincial Park and impacts of climate change and forest disturbances on pollinators. 	<p>Climate Action Secretariat:</p> <ul style="list-style-type: none"> Incorporate feedback obtained through engagement to finalize the CPAS for the years 2022 through 2025. Implementation of the Strategy will provide the framework through which B.C. can prepare for the impacts of a changing climate. Develop a monitoring and evaluation framework for the CPAS actions to track the Province's progress on climate adaptation, and decision-making on future climate risk management initiatives. Continue consultation with PSOs and responsible ministries to inform policy and regulation development on requirements to assess, manage and report on climate risks to public sector buildings and public service delivery. In partnership with the Pacific Climate Impacts Consortium, develop guidance materials and training for practitioners and professionals on the use and interpretation of climate science data and scenarios in climate risk assessment, adaptation planning and decision making. Continue to support the Adaptation Learning Network: Inspiring Climate Action project, led by Royal Roads University, who is investigating the creation of an adaptation-related micro-credential. Work with federal partners, and the Ministries of Municipal Affairs and Transportation and Infrastructure, to develop a "climate resilience lens" for infrastructure funding programs. <p>B.C. Parks:</p> <ul style="list-style-type: none"> Conduct a climate risk assessment of BC Parks facilities and cultural sites.

	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Ministry of Forests, Lands, Natural Resources Operations & Rural Development	<p>Took a number of actions to better integrate the changing climate into ministry processes and improve natural resource management. These actions include:</p> <ul style="list-style-type: none"> ■ Development and release of guidance/standards on climate change scenarios, models and timeframes for use in different types of natural resource decision-making. This work is ongoing. ■ Development and release of guidance on integrating climate change into <i>Land Act</i> decisions. ■ Developing an updated 2021-2025 Climate Change Strategy for the ministry. ■ Continuing work on water and forage modelling under climate change scenarios, to improve management of resources for <i>Range Act</i> authorizations 	<p>Plan to continue work to ensure that climate change is integrated into FLNRORD operations, decision-making processes, natural resource stewardship, and daily business:</p> <ul style="list-style-type: none"> ■ Integrate climate into the Ministry's daily business: ■ Release an updated 2021-2025 Climate Change Strategy for the ministry and have all FLNRORD regions and business areas review and refresh their Climate Action Plans to ensure integration of climate change into ministry daily business. This will provide a shared vision for the ministry, as well as goals, objectives, and strategic actions to guide priorities and work within the Ministry. ■ Design and implement a new FLNRORD Climate Change Performance Scorecard process to monitor and track ministry progress in meeting the goals outlined in the updated climate change strategy. <p>Improve climate change data, resources, and guidance:</p> <ul style="list-style-type: none"> ■ Update core guidance for newly released climate change projections, timeframes and models to use for different types of natural resource decision making. This will also include specialized tools for data visualization and selection to ensure the best and most appropriate model use. ■ Develop guidance on integrating climate change into <i>Range Act</i> and <i>Water Sustainability Act</i> decisions. ■ Work to develop climate data and science resources that fill information gaps. ■ Continue water and forage modelling and policy work around management of resources for <i>Range Act</i> authorizations, to better respond and plan under a changing climate.

	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Ministry of Health	<ul style="list-style-type: none"> ■ Conducted preliminary engagement and environmental scan of health sector climate adaptation in B.C., which improved the understanding of current initiatives, partner priorities, and opportunities for collaboration and knowledge exchange. ■ Conducted preliminary analysis on the Heat Vulnerability Index according to the Lancet Commission for Climate Change Monitoring Framework and presented the results to a provincial working group. ■ Initiated work to support embedding climate change health risk assessment in population health surveillance. Work included: <ul style="list-style-type: none"> – jointly hosting a Public Health Officer from the Public Health Agency of Canada with BC Centre for Disease Control, who is evaluating the health impacts of wildfire-related air pollution in B.C. – developing a project plan for assessing population health risk attributed to environmental exposures including climate factors. 	<ul style="list-style-type: none"> ■ Develop a roadmap to assess, build, and monitor the climate resilience of B.C.'s health system. Expected outcomes of this action include the following: <ul style="list-style-type: none"> – The Province, health authorities and other partners will have shared understanding of the needs, priorities and next steps for assessing and building the climate resilience of the B.C.'s health system; – Increased knowledge, participation, and collaboration in climate adaptation across and beyond the health system; – Improved coordination of health sector adaptation efforts across the province, in alignment with the provincial government and Indigenous priorities, and; – Improved access to data and resources for health vulnerability assessment and adaptation. ■ Prepare data and methodology for quantifying mortality attributed to extreme heat and wildfire.
Ministry of Municipal Affairs		<ul style="list-style-type: none"> ■ Implement CPAS Phase 1 actions focused on work to inform the development of future programs or initiatives to support community resilience.



What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Collaboration with Indigenous and Local Governments	
Ministry of Environment & Climate Change Strategy	<p>Climate Action Secretariat:</p> <ul style="list-style-type: none"> Continued collaboration with Indigenous peoples in development of the Climate Preparedness & Adaptation Strategy to ensure that the Strategy aligns with the B.C. <i>Declaration on the Rights of Indigenous Peoples Act</i>, and advance partnerships between the Province and Indigenous peoples on preparing for and adapting to climate change. Developed the First Peoples Cultural Council Indigenous Cultural Heritage and Climate Change grant guidelines and application forms to enhance understanding of how Indigenous Peoples coped with climate change in the past, braiding Indigenous knowledge and Western science together to support more wholistic adaptive strategies and an improved model to understand risks. <p>The Environmental Sustainability Division took actions with the intention of advancing reconciliation with respect to water management. The Division:</p> <ul style="list-style-type: none"> Implemented a Water Sustainability Plan and a Watershed Governance pilot for the Nicola Valley. Continued work with First Nations Fisheries Council to develop and implement a framework for Indigenous engagement on water policy. Continued to integrate engagement on proactive drought management with ongoing engagement on water policy. <p>The Environmental Protection Division:</p> <ul style="list-style-type: none"> Initiated engagement on proposed policy changes for making contaminated sites climate-ready to protect groundwater under changing climate conditions. Partners including Indigenous nations, industry, and environmental consultants were engaged through webinars. <p>BC Parks:</p> <ul style="list-style-type: none"> Worked to integrate climate change considerations into its planning, policy and infrastructure; and collaborated with Indigenous governments and others to ensure land management decisions are grounded in the best available information. <p>Climate Action Secretariat plans to:</p> <ul style="list-style-type: none"> Continue building climate resilience with Indigenous peoples through research and pilot projects to scope and plan a funding program for Indigenous-led climate monitoring and adaptation initiatives, including Indigenous-led research on understanding and responding to the changing climate; an Indigenous-led community network to share information and successes among Indigenous and non-Indigenous communities; and tools to bring the changing climate into the Province's relationships with Indigenous governments. Continue the development of a grant program and a business case analysis to inform future efforts to protect and preserve Indigenous cultural heritage in a changing climate. <p>The Environmental Sustainability Division plans to take actions with the intention of advancing reconciliation with respect to water management, including:</p> <ul style="list-style-type: none"> Implementation of the framework developed with First Nations Fisheries Council for Indigenous engagement on water policy. Continuing implementation of a Watershed Governance pilot for the Nicola Valley. <p>The Environmental Protection Division plans to continue indigenous engagement to understand indigenous views and interests around risk assessment policies, groundwater protection for future drinking water use and adaptation of remedial approaches to account for impacts of climate change in relation to remediation of contaminated sites.</p>
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<ul style="list-style-type: none"> Reviewed permits and applications in the Haida Gwaii resource district with a climate change lens in collaboration with the Haida Nation. This work is ongoing. The ministry is working with Indigenous peoples to develop a B.C. Flood Strategy, as well as to inform the Marine Plan Partnerships, and modernize land-use planning. This work is ongoing. <ul style="list-style-type: none"> In partnership with Indigenous peoples, develop a framework for respecting Indigenous Knowledge alongside Western science in decision making, operations, and climate adaptation initiatives across government. Continue to develop monitoring and mapping initiatives for other coastal habitats in collaboration with First Nations partners, Hakai Institute, the University of Victoria and the Nature Trust. This will help ensure that climate impacts to coastal habitats are understood and considered in coastal and marine stewardship protection, management, and restoration of sensitive coastal ecosystems.

What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
PATHWAY 2: ENHANCE COMMUNITY CLIMATE RESILIENCE	
Flood	
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<ul style="list-style-type: none"> Continued to work with the federal government to explore a sustainable provincially led floodplain mapping program in B.C. This work is ongoing. Completed projects to develop a database of extreme precipitation and storm events and guidelines to inform infrastructure design and mitigate flood risks. Updated sea level rise guidance in B.C.'s Flood Hazard Area Land Use Management Guidelines, which helps local governments consider the role of flooding in municipal planning. Updated climate change impacts for the Fraser Basin Council's research and engineering work developing a new design flood profile for the lower Fraser River. Initiated Kiskatinaw River maximum flow modelling to better understand climate change in the watershed and inform the City of Dawson Creek's flood risk management and/or climate adaptation initiatives. <ul style="list-style-type: none"> Work towards a sustainable and fully funded floodplain mapping program that meets the needs of B.C.: <ul style="list-style-type: none"> Continue to review the status, inventory, and adequacy of floodplain mapping in B.C. through contract with the Fraser Basin Council (FBC). In addition, FBC will review the ability and efficiency of local government responsibility for floodplain mapping. Continue to make progress on meeting data requirements for hazard mapping through collection of remote sensing data led by GeoBC. Coverage and expanded areas are being considered across B.C. to meet data requirements for floodplain mapping and other hazard assessments and mapping projects. Continue to provide advice to local governments on flood mapping and hydraulic models.
Ministry of Public Safety & Solicitor General – Emergency Management BC	<p>Emergency Management BC assisted First Nations and local authorities in preparing for potential flooding and assessing risk:</p> <ul style="list-style-type: none"> Supported GeoBC in conducting and assisting with Light Detection and Ranging (LiDAR) mapping for Vancouver Island, the Lower Mainland, the Okanagan, and the Kootenays. LiDAR uses a laser scanner mounted on ground, aircraft or satellite to produce highly accurate and dense elevation data which is suitable for flood modelling. EMBC funded LiDAR for developing flood maps for many local authorities and First Nations in the Okanagan basin, culminating in the launch of the website www.OkanaganFloodStory.ca. Advocated for a federally funded floodplain and hazard mapping program.
Cross-ministry collaboration: Ministry of Forests, Lands, Natural Resource Operations & Rural Development and Emergency Management BC	<ul style="list-style-type: none"> Continued work on developing a B.C. Flood Strategy, including completion of a Discussion Paper for engagement with Indigenous peoples and other levels of government in B.C. and federally. The Strategy will provide a vision, principles, and key outcomes for integrated flood management in B.C., and provide a framework for strategic directions on corporate priorities for flood management. Finalize engagement and development of a B.C. Flood Strategy for release in early 2022. The B.C. Flood Strategy will provide a strategic bridge from the present status quo, to a vibrant future of holistic, integrated approaches of living with floods. Once complete, the B.C. Flood Strategy will articulate a provincial vision, outcomes, and guidance on priorities to improve flood resilience. This, in turn, will inform more detailed future planning and implementation. Work with all levels of government to explore a sustainable floodplain mapping program in B.C., the requirements for standardized flood mapping practices across Canada, and cohesive and coordinated flood management across B.C.

What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Ministry of Transportation and Infrastructure (TRAN)	<ul style="list-style-type: none"> Review the TRAN-supported Pacific Climate Impacts Consortium “Climate Explorer” streamflow projection tool pilot for public release. This tool now incorporates streamflow projections of the Upper Fraser River and will help the ministry plan future highway construction, rehab and improvements. Future improvements to tool and other drainage basin inclusion anticipated.
Wildfire	
Ministry of Agriculture, Food and Fisheries	<ul style="list-style-type: none"> AFF actions supporting the Climate Adaptation and Preparedness Strategy include development of initiatives for farmers and ranchers to build resilience to wildfire and other climate-related risks.
Ministry of Forests, Lands, Natural Resource Operations & Rural Development & Emergency Management BC	<p>The B.C. Wildfire Service:</p> <ul style="list-style-type: none"> Initiated development of a new Cultural and Prescribed Fire Program to guide the implementation of prescribed fire strategies to mitigate wildfire threat and improve ecosystem health and vitality. In conjunction with the Union of B.C. Municipalities and First Nations Emergency Services Society, consulted with communities to improve the Community Wildfire Protection Plan process in B.C. This work is ongoing. Refined the 2019 Provincial Strategic Threat Analysis to include Wildland Urban Interface Risk Class Maps. These maps are available on the public website to help inform wildfire risk mitigation awareness and planning. Created over 500 jobs in rural communities through the Community Resiliency Investment program to reduce wildfire risk through FireSmart Community Funding and Supports, Crown Land Wildfire Risk Reduction, and Ecosystem Restoration and Wildfire Risk programs, through StrongerBC funding. <p>The B.C. Wildfire Service:</p> <ul style="list-style-type: none"> Continue research projects tied to presumptive diseases (i.e., wildland firefighter smoke inhalation impacts) and physiological impacts (i.e., wildland firefighter stress and fatigue) to improve understanding of wildfire impacts on responders. Work on the development of a comprehensive wildfire risk reduction strategy. Build on work underway to develop a sustained, comprehensive cultural and prescribed fire program to re-introduce cultural and prescribed fire as an essential part of reducing wildfire risk to communities, sustaining biodiversity, maintaining productive and adaptive ecosystems, and preserving the cultural practices of Indigenous peoples. Invest in fuel reduction and mitigation on Crown land around critical infrastructure or high value assets to minimize the risk of disruption or wildfire damage. This is part of the Community Resiliency Investment program. Work to improve public awareness of wildfires, including communication, engagement and warnings. Work on policy and incentives for local authorities and the private sector to incorporate climate change adaptation into development considerations, particularly siting in areas of high risk.

	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Drought		
Ministry of Agriculture, Food and Fisheries	<ul style="list-style-type: none"> ■ Provided expertise, services and resource materials as a knowledge extension project to current and prospective agricultural dam owners and operators to help increase dam safety regulatory compliance. The dam safety webinars supported producer education and extension on dam safety, maintenance, and surveillance. Providing agricultural dam owners with the training and resources to safely maintain their dams avoids the default pathway of either decommissioning dams or letting them become unsafe, which has the impact of reducing agricultural water storage and reducing the climate resilience of the sector to respond to seasonal droughts. 	<ul style="list-style-type: none"> ■ Scope, assess and develop an agricultural water infrastructure program to address seasonal agricultural drought through the Climate Preparedness and Adaptation Strategy (CPAS).
Ministry of Environment & Climate Change Strategy	<p>Environmental Sustainability Division:</p> <ul style="list-style-type: none"> ■ Continued development of the <i>Water Sustainability Act (WSA)</i> policy and regulatory tools that provide increased flexibility in water management. For example, Water Sustainability Plans under the WSA may be appropriate where there are pressures on water resources, and WSA water objectives for a particular area may address water scarcity and contribute to adaptive water management. Development of related policy and regulations is a multi-year process. ESD is partnering with FLNRORD in watershed planning projects and leading development of WSA water objectives. The expected outcome of this work is increased flexibility with respect to managing water during times of scarcity. ■ Led engagement within government on proposed changes to provincial drought levels, to continuously improve annual drought response. ■ Completed aquifer mapping in the Vanderhoof and Houston areas, providing improved information about groundwater resources and availability in northern B.C. ■ Supported work to refine computer modelling of groundwater flows in the Nicola Watershed. ■ Worked at identifying drought susceptible and drought resilient aquifer-stream systems in British Columbia to continuously improve annual drought response. 	<p>Environmental Sustainability Division:</p> <ul style="list-style-type: none"> ■ Support the Ministry of Forests, Lands, Natural Resource Operations & Rural Development as needed during annual drought response. This may include updates to public or internal guidance related to water allocation and drought response. ■ Monitor <i>Water Sustainability Act (WSA)</i> implementation to identify the need for new WSA provisions or operational policies to support drought response, preparedness, mitigation and recovery. ■ Continue development of <i>Water Sustainability Act</i> policy and regulatory tools that provide increased flexibility in water management. ■ Undertake aquifer mapping in the Okanagan and Northeast B.C., to provide improved information about groundwater resources and availability in B.C.
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<ul style="list-style-type: none"> ■ Initiated work to integrate the Omineca drought risk assessment tool with the Omineca Water Tool and watershed health project, and produced updated drought risk maps for the region. This work will improve drought management and watershed health in the North resource management area. ■ Initiated research focused on ecological effects of drought to better understand climate change risks and impacts, to inform land, environmental, wildlife, habitat, and forest management processes and decision making, including: <ul style="list-style-type: none"> – modelling of wildlife species occurrence in response to drought, and – ecological drought and climate change. (Ecological drought stress will exacerbate hydrological drought.) ■ This project includes development of an operational decision-making tool. 	<ul style="list-style-type: none"> ■ Publish the technical report on modelling of wildlife species occurrence in response to drought.

What We Accomplished in FY 2020-2021		Action in FY 2021-2022 (Underway or Planned)
	Landslides	
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<p>Continued work to increase the Province's ability to understand, detect, and mitigate the impacts from landslide events and geohazard processes affected by climate change to inform land management and decision making. This work included:</p> <ul style="list-style-type: none"> ■ Assessment of post-wildfire landslide risk including updated risk calculations with climate projections. ■ Adding to its remote sensing data collection to further build capacity for landslide hazard identification. ■ Studying landslide hazards in response climate change. In particular, landslide responses to wildfire, rainfall, snowmelt, glacier retreat, and thawing mountain permafrost. ■ Releasing several publications on geohazards, including one on landslide risks in Harrison Lake, B.C. ■ Studying landslide dams and landslide-triggered tsunami potential. 	<ul style="list-style-type: none"> ■ Continue to develop capacity to map and predict geohazards through remote sensing techniques that detect precursor movements. This work will focus on LiDAR change detection, satellite radar analysis, machine learning, landslide susceptibility mapping, and wildfire – debris flow modeling. ■ Continue to study landslide dams and landslide-triggered tsunami potential.
	Source Water Protection	
Ministry of Environment & Climate Change Strategy	<p>Environmental Sustainability Division:</p> <ul style="list-style-type: none"> ■ Completed work mapping the risk of saltwater intrusion in coastal B.C. (Gulf Islands, Mainland coast, Vancouver Island, and Haida Gwaii) to support management of risks related to water availability and sea level rise and to avoid sea water intrusion into coastal aquifers. Saltwater intrusion has the potential to negatively affect drinking water and irrigation water sources. ■ Supported job creation through investments in watershed conservation and restoration projects, administered by the Real Estate Foundation of B.C., through StrongerBC funding. 	<p>Environmental Sustainability Division plans to:</p> <ul style="list-style-type: none"> ■ Implement saltwater intrusion mapping in coastal areas. <p>Environmental Protection Division plans to:</p> <ul style="list-style-type: none"> ■ Perform a review of existing policies and legislation in other jurisdictions on the protection of groundwater and management of impacts of contaminated sites under changing climates. Results of the jurisdictional review will inform a discussion Paper outlining policy intentions to protect groundwater affected by contaminated sites, as well as adaptation of contaminated sites remediation management in future climate conditions. The discussion paper will form the basis for future discussions with Indigenous Nations and stakeholders.

	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Food Security		
Ministry of Agriculture, Food and Fisheries	<ul style="list-style-type: none"> Reviewed and planned next steps from the Food Security Task Force 2020 report recommendations. Initiated a multi-year applied research project and continued funding for 10 ongoing projects to advance climate change adaptation on B.C. farms and ranches through the Farm Adaptation Innovator Program. Projects support knowledge mobilization and producer learning of on-farm climate adaptation practices that support broader adoption of climate-smart practices in the province through on-farm research, piloting, and knowledge transfer events. Developing climate resilient agricultural practices supports changing food production needs and strengthens food security through growth of food production within B.C. Supported innovation in the agriculture and food sector – including to enhance efforts in clean growth, environment and climate change – through funding for new-to-BC products, practices, processes and technologies through the Ministry's Innovation Program. Funded promising start-up enterprises developing technologies to advance agricultural innovation, climate change mitigation and resilience, and food security through the Agriculture Venture Acceleration Program. Increased the number of Ministry-funded regional food processing and innovation hubs ('food hubs') in the BC Food Hub Network from 1 to 12, supporting an increase in the amount of local food produced and promoting regional food system resilience. 	<ul style="list-style-type: none"> In 2021, AFF created the Regenerative Agriculture and Agri-Tech Team to lead the ministry's approach to supporting regenerative agriculture and agri-tech adoption in order to advance climate action and other ministry priorities, including food security. Held the RegenBC conference (September 27-29), which featured 29 speakers such as keynote speaker Dr. Andrew Weaver. Major themes included climate change, environmental sustainability, regenerative agriculture success stories, innovation, and carbon sequestration. The conference was the launching point for the Regenerative Agriculture and Agritech Network, which will continue to build partnerships to help increase farm profitability and employment opportunities, strengthen the provincial food system, and improve the environmental sustainability of farming in B.C. Supporting the Climate Adaptation and Preparedness Strategy, the Ministry developed actions to support food security through improved water infrastructure, on-farm resilience to extreme weather, strategies to address ocean acidification, enhancement of agricultural weather monitoring capacity, and predictive climate risk mapping. Supporting climate resilient food production and BC's greenhouse gas reduction targets, the ministry will continue to develop and implement strategies including piloting and commercialization of new agri-technologies, farm adoption of beneficial management practices enhancing carbon sinks, and actions to support anaerobic digestion and renewable natural gas.

What We Accomplished in FY 2020-2021		Action in FY 2021-2022 (Underway or Planned)
Ministry of Health & Ministry of Social Development and Poverty Reduction		<ul style="list-style-type: none"> ■ With the Ministry of Health, SDPR is co-chairing a cross-government food security steering committee convened to develop coordinated provincial approach to food security. ■ On behalf of this committee, SDPR received \$100,000 to inform cross-government efforts to improve food security within the context of a changing climate through CPAS Phase I. The intent is to use this funding to support Indigenous engagement. Expected outcomes of the engagement include: <ul style="list-style-type: none"> – identifying food security needs and perspectives of Indigenous partners in the context of a changing climate, – contributing to the development of a coordinated provincial approach to food security that guides cross-government planning and action to support food security in B.C., and – Identifying actions the Province can take to uphold Indigenous food sovereignty and improve food security for Indigenous people and communities.
Disaster Risk Reduction		
Ministry of Public Safety & Solicitor General	<p>Emergency Management B.C.:</p> <ul style="list-style-type: none"> ■ Continued progress towards introducing a modernized <i>Emergency Program Act</i>; the implications of climate change for emergency program legislation and regulation is being considered as part of the modernization. <ul style="list-style-type: none"> – New legislation will address all four phases of the emergency management cycle (mitigation, preparedness, response and recovery), meet commitments in the <i>Declaration on the Rights of Indigenous Peoples Act</i>, reflect lessons learned from the unprecedented 2017 and 2018 flood and wildfire seasons, reflect lessons learned from our COVID-19 response, and place more emphasis on up-front disaster risk reduction so we can prevent events from happening and lessen the impacts when they do. – It will also reflect an “all of society” approach to emergency management as outlined in the United Nations Sendai Framework for Disaster Risk Reduction, which was adopted by the Province in October 2018. 	<p>Emergency Management B.C. plans to:</p> <ul style="list-style-type: none"> ■ Reinitiate engagement with partners and stakeholders and continue development towards a modernized emergency program legislation, implement planning with partners, and seek approvals from government. ■ Continue development and implementation of the Interim Provincial Disaster Recovery Framework to support communities. The Recovery Guide is intended to guide local authorities and First Nations as they plan for post-disaster recovery. Working with the City of Grand Forks, EMBC has supported community-led recovery, which included a significant mitigation component including the use of natural infrastructure.
Ministry of Forests, Lands, Natural Resource Operations & Rural Development		<ul style="list-style-type: none"> ■ Develop a prototype data portal to provide a one stop shop for disaster risk reduction and climate resilience information

What We Accomplished in FY 2020-2021		Action in FY 2021-2022 (Underway or Planned)
PATHWAY 3: FOSTER RESILIENCE OF SPECIES AND ECOSYSTEMS IN A CHANGING CLIMATE		
Cumulative Effects		
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<ul style="list-style-type: none"> ■ Hosted a two-day cross-agency workshop on integrating climate change into cumulative effects and land-use planning in March 2021. The workshop was attended by provincial and federal climate experts. ■ Continued work to integrate quantitative assessment of projected climate change impacts on cumulative effects framework values for grizzly bear assessments. This work will be expanded to aquatic ecosystems, moose and forest biodiversity. New reports and assessments integrating the results of that work will be made available to the public once completed. ■ Produced an interim protocol for assessing cumulative effects to estuary habitats in the North Coast, including assessment of climate change, and implemented an assessment for the Skeena River estuary. The ministry is continuing to monitor key indicators of climate change in estuary habitats in the Skeena River estuary in support of future assessments. 	<p>Continue work to consider climate change and cumulative effects in resource stewardship, land-use planning and decision making. For example:</p> <ul style="list-style-type: none"> ■ Continue to support Environmental Stewardship Initiative and Marine Plan Partnership cumulative effects assessment program in North Coast. ■ Continue work to incorporate climate change into cumulative effects current condition assessments and future forecasting in provincial environmental assessments. ■ Create a portal of information on climate change tools for ministry staff and set up a climate change workshop focussed on the technical science – including cumulative effects – to inform land use planning.
Biodiversity		
Ministry of Environment & Climate Change Strategy	<p>BC Parks:</p> <ul style="list-style-type: none"> ■ Worked with partners to monitor changes in biodiversity and learn how park values (e.g., biodiversity) are being affected over time. BC Parks has a long-term ecological monitoring program for ecosystem change that includes both staff and volunteers. ■ Continued learning about and supporting protected area connectivity through partnerships with UBC and the Cascadia Partner Forum. ■ Worked to build resilient ecosystems by making investments in ecosystem and habitat restoration work, including invasive species removal and collaborative wildfire prevention projects. 	<p>BC Parks:</p> <ul style="list-style-type: none"> ■ Continue supporting a new climate refugia and corridors mapping project for the province of B.C. to help inform priorities for conservation in a changing climate.

	What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<p>Completed work to ensure that ecosystems and riparian areas vulnerable to climate change are protected and rehabilitated and made more resilient to changing conditions. Work completed included:</p> <ul style="list-style-type: none"> ■ Leading the Early Detection and Rapid Response Program, which aims to prevent establishment of invasive species that are new to the province. ■ Monitoring invasive plants in areas burned in 2017 and 2018 wildfires. ■ Developing guidance on invasive management when carrying out ecosystem restoration projects. ■ Funding 49 recipients including non-profit groups, Indigenous Nations and groups, and local governments to conduct invasive species removal and detection projects, creating 90 jobs. This initiative also developed and tested virtual training modules for new hires and for on-ground invasive species control actions, through StrongerBC funding. ■ Continuing to support marine protected area (MPA) network planning to conserve coastal marine habitats and biodiversity and cultural values, including considerations of potential climate change impacts on the MPA network. ■ Publishing the Together for Wildlife Strategy with climate change resilience and adaptation as underpinning themes. Implementation of this strategy will involve a variety of projects that work to ensure climate change impacts on wildlife and habitat are understood and integrated into the planning and delivery of stewardship actions. ■ Ensuring that implementation and management plans for species and ecosystems at risk are done considering multiple species, landscape level connectivity and capturing a mosaic of ecosystem types in managed and designated areas to better ensure ecosystem resiliency as climates change. ■ Continued use of climate models to support biodiversity through the Conservation Lands Partnership Program. ■ Continued work to develop a Fisher Management plan and landscape level modelling tool that considers effects of climate change. ■ Restoration and rehabilitation of riparian areas and protection of vulnerable habitats and species that are or will be impacted by climate change. ■ Research focused on responses of headwater fish populations to climate change, including collection of information on habitat, microclimate bathymetry and fish population data. ■ Completing the Draft Omineca Fisheries Framework for 2020-2026, which will provide guidance and priorities on fisheries management in the Omineca region. 	<p>Continue work to amend management practices and develop guidance on wildlife and habitat decision-making under a changing climate:</p> <ul style="list-style-type: none"> ■ Continue to monitor and verify new invasive plants and threats and prevent establishment of incursions of invasive species through the Early Detection and Rapid Response Program. ■ Initiate work to conduct modelling and risk assessment of invasive species under different climate scenarios. ■ Study the continued suitability of existing bio control agents for knapweed, and Saint John's wort under a changing climate. ■ Launch the <i>Invasives B.C.</i> portal to support the reporting and management of invasive species. ■ Continue to support the StrongerBC-initiated invasive species detection and survey work and public awareness and community science programs which are currently underway, create up to 250 more jobs, and add targeted control efforts on high-risk invasive plant species sites, and school engagement in the near future. ■ Continue to support Nature Trust of British Columbia in assessing sea level rise on estuary salt marsh habitat and species and prioritizing work on restoration and management activities of riparian areas. This work will help ensure that climate impacts to coastal habitats are understood and considered in coastal and marine stewardship and that ecosystems and riparian areas are protected and rehabilitated and made more resilient to climate change. <p>Continue to use climate models to support biodiversity through the Conservation Lands Partnership Program.</p> <ul style="list-style-type: none"> ■ Work on climate change and moose temperature thresholds in 2021. ■ Continue work to determine where and how to establish designations that will build ecosystem resiliency and encompass areas important to climate change refugia. ■ Research responses of headwater fish populations to climate change, and continue collecting information on habitat, microclimate bathymetry and fish population data.

What We Accomplished in FY 2020-2021		Action in FY 2021-2022 (Underway or Planned)
Land-use planning		
Ministry of Environment & Climate Change Strategy		BC Parks: <ul style="list-style-type: none"> Conduct its first regional vulnerability assessment for the West Coast region.
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<ul style="list-style-type: none"> Worked to modernize land-use planning with funding commitment over three years (2018-2019 to 2020-2021) to support reconciliation, economic opportunities, and land and resource management challenges in a changing climate. This included policy direction and development of tools to better integrate climate adaptation into all stages of land use planning and foster shared understanding with Indigenous partners. <ul style="list-style-type: none"> Land-use planning tables have been established for nine projects. These collaborative forums will move forward to plan development and scenario assessment using guidelines and tools developed through this process to define opportunities for climate change integration. Ongoing management of the Land Based Investment Strategy (LBIS), which funds economic and resource stewardship activities across B.C. Project design is expected to integrate consideration of climate change and many are delivered in partnership with First Nations. Reforestation, wildlife management, species at risk, water quality, and forest health are some of the investment categories that leverage LBIS funding. Work is ongoing as funding is distributed annually. 	<ul style="list-style-type: none"> Continue working to modernize land-use planning to support reconciliation, economic opportunities, and land and resource management challenges in a changing climate. This may include further policy direction and development of tools to support integration of climate adaptation into all stages of land use planning and foster shared understanding with Indigenous partners. Continue working with established land use planning tables to plan development and scenario assessment using guidelines and tools developed through this process to define opportunities for climate change integration in the future. Land Based Investment Strategy (LBIS) projects are expected to continue to include climate change considerations in planning and design and many are delivered in partnership with First Nations. Reforestation, wildlife management, species at risk, water quality, and forest health are some of the investment categories that leverage LBIS funding.
PATHWAY 4: ADVANCE A CLIMATE-READY ECONOMY AND INFRASTRUCTURE		
Climate-Ready Society		
Ministry of Children and Family Development	<ul style="list-style-type: none"> Used a custom-designed mapping tool to provide real-time information for areas under evacuation alerts and orders to ensure the safety of children and youth in care, ministry offices and partner agencies. By creating this hazard mapping program, MCFD can act efficiently and respond faster to climate-related emergencies that affect children and youth in care. 	<ul style="list-style-type: none"> Participate in the Health Advisory Committee and support the Ministry of Health's work. Through collaborative partnerships, the committee works to promote the resilience of families and communities regarding the health and social impacts of climate change.
Ministry of Social Development and Poverty Reduction	<ul style="list-style-type: none"> Developed an Extreme Weather Strategy in select offices and monitored how climate changes impact the job market and demand on ministry services. Strengthened the linkage of Business Continuity Plans (BCPs) with risk management – particularly those risks related to climate change such as wildfires. BCPs exist for all Ministry offices across the province, and the plans are activated in the event of an emergency. By linking climate risks to BCPs, climate risk management is mainstreamed into emergency management. 	<ul style="list-style-type: none"> N/A

What We Accomplished in FY 2020-2021	Action in FY 2021-2022 (Underway or Planned)
Climate-Ready Infrastructure & Economy	
Provincial ministries strengthened links between business continuity plans and risk management by incorporating risks posed by a changing climate.	
Ministry of Environment & Climate Change Strategy	<ul style="list-style-type: none"> Collaborate with the Ministry of Citizens' Services Real Property Division to complete the <i>Climate Resilient Public Sector buildings project</i>, which will develop resources which will support decision-making related to climate-ready public sector buildings. This includes a guidebook, cost-benefit estimates for resilient buildings, and recommendations for minimum resilient design guidelines.
Attorney General – Office of Housing and Construction Standards	<ul style="list-style-type: none"> Release a draft Existing Buildings Renewal Strategy that will address energy efficiency, GHG emissions and examine opportunities to address climate resilience, including heat waves, wildfires, water conservation and floods. Continue work with technical experts, including the National Research Council of Canada, to assess the risk of overheating in buildings and possible strategies to address this risk.
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<p>Worked towards a more climate-resilient resource road network and increased understanding on the effects of climate change on B.C.'s resource roads. Work included:</p> <ul style="list-style-type: none"> Leveraging the corporate agreement with FPIInnovations to focus on climate change adaptation for resource roads, Incorporating climate change flood risk considerations in design of forest service road bridges requiring replacement, Development of practical guidance, in a regional context, to integrate the changing climate into resource road considerations by identifying and linking road characteristics to climate variables and projected climate change impacts, and Delivering a webinar series on climate change at a small watershed scale with a focus on resource road stream crossings to internal and external participants.
Ministry of Health	<p>Prepared draft Design Guidelines for Drinking Water Systems in British Columbia ("Design Guidelines") that will:</p> <ul style="list-style-type: none"> Establish a standard set of drinking water system design practices that provide direction to the public health officials, water suppliers, and designers responsible for the planning, design and approval of new drinking water systems and when making changes to existing systems, particularly with respect to the issuance of Construction Permits under the <i>Drinking Water Protection Act</i> and the Drinking Water Protection Regulation; and Provide a framework for identifying and assessing climate risks and developing climate adaptation plans in the planning, design, operation, and maintenance of drinking water systems.

What We Accomplished in FY 2020-2021		Action in FY 2021-2022 (Underway or Planned)
Ministry of Municipal Affairs	<ul style="list-style-type: none"> ■ Partnered with the federal government to invest in climate mitigation and adaptation infrastructure projects through StrongerBC funding and the Investing in Canada Infrastructure Program – Covid19 Infrastructure Resilience Stream. 	
Ministry of Transportation and Infrastructure	<ul style="list-style-type: none"> ■ Collaborated with Engineers and Geoscientists B.C. to finalize the next version of the Climate Change Practice Manual and decision support tool, helping ensure climate change will be considered in ministry engineering infrastructure designs. ■ Completed work making upgrades to provincial highways and roads to make them more resilient to climate change, through StrongerBC funding. Maintenance and hired equipment contracts used local lists and operators, supporting economic recovery for communities. 	<ul style="list-style-type: none"> ■ Use the ministry's decision support report to provide an understanding of interdependence of infrastructure and how to assess benefits and costs of adaptation projects. Draft report can be found here. ■ Use a climate-vulnerable culvert identification tool to develop a database and map of climate-vulnerable provincial culverts and prioritize those for rehabilitation.
Climate-Ready Agriculture		
The Ministry of Agriculture, Food and Fisheries	<ul style="list-style-type: none"> ■ Funded 175 projects to help build adaptive capacity and encourage the adoption of effective farm practices through StrongerBC funding. ■ Funded the completion of one regional adaptation strategy for Vancouver Island, and the implementation of eight regional adaptation strategies, 43 regional adaptation projects and continuation of 15 farm-level projects, ■ Completed a new B.C. Agriculture and Climate Change Regional Adaptation Plan for Vancouver Island. Four climate issues were identified as top concern to producers, and 11 strategies were developed to respond to these issues. Cost-share support was provided to implement priority projects identified in the plan. ■ Managed the Environmental Farm Plan Program and Beneficial Management Practices Program, which support the completion of plans and the implementation of on-farm practices that include those that help reduce GHG emissions, sequester carbon and adapt to climate change. ■ Through the Environmental Farm Plan (EFP) Program, updated the EFP Planning Workbook and Reference Guide to enhance the integration of adaptation and mitigation in EFP planning. This will make climate adaptation resources more accessible to producers enrolled in the Environmental Farm Plan Program with on-farm extension that includes climate risk reduction considerations. 	<ul style="list-style-type: none"> ■ Develop a climate change accountability governance framework to ensure the mainstreaming of climate action across business areas. This will include climate risks assessments and GHG emissions tracking where appropriate. ■ Work towards enhancement of the provincial agricultural weather monitoring network to assist producers with on-farm decision making in light of increases in weather variability. ■ Lead the development of a Fisheries and Aquaculture Ocean Acidification and Hypoxia Action Plan/Needs Assessment. This work will involve completing a climate risk assessment, identifying climate strategies to fast-track the development of subsequent climate plans, and developing an inter-agency coordinating body to address ocean acidification and hypoxia issues and coordinate actions.

What We Accomplished in FY 2020-2021	Climate-Ready Forestry	Action in FY 2021-2022 (Underway or Planned)
Ministry of Forests, Lands, Natural Resource Operations & Rural Development	<p>Completed significant work towards improved understanding of regional forest health and better forest management under a changing climate. A summary of actions is presented below.</p> <p>Forest Resource Management:</p> <ul style="list-style-type: none"> ■ In partnership with forestry contractors, planted almost 300 million seedlings, more than any other year in B.C.'s history, while maintaining worker safety during the COVID-19 pandemic. ■ Saw 57% of all seedlings ordered annually for Crown land reforestation through the updated <i>Seed Planning and Registry</i> application opt to use <i>Climate Based Seed Transfer</i> as per the Chief Forester Standards for Seed Use. ■ Continued to work towards creating standard climate change trends and projections for all of B.C.'s timber supply areas and tree farm licenses to integrate climate change information into forest management decisions. ■ Worked on updating Forest Health Strategies for multiple FLNRORD regions, including background and advice for forest health management under a changing climate. ■ Continued development of Climate Change Informed Species Selection (CCISS) tool to assess suitability of species to inform planting recommendations and silvicultural prescription. The tool is already being used in multiple FLNRORD resource districts. ■ Completed amendments to <i>Forest and Range Practices Act</i> to include forest landscape planning which will address climate change mitigation and adaptation. <p>Research:</p> <ul style="list-style-type: none"> ■ Continued work to develop a stand-level drought risk assessment tool, which provides guidance on the risk of tree mortality from moisture stress in future climates to inform forest management practices. ■ Conducted research on: <ul style="list-style-type: none"> – climate change influence on post fire succession in the Coast Area and developed a plan to conduct field work to obtain pre-treatment measurements and experimental planting treatments using climate change informed species selection. – climate change and evaporation response of young stands and how that affects water supply. ■ Conducted a Douglas fir establishment trial in the BC Timber Sales Peace-Liard District to test response of different seed sources to climatic stressors like frost and chinook events. ■ Continued collaborating with University of B.C., University of Northern B.C., and Canadian Forest Service to monitor carbon fluxes and net ecosystem productivity through various stages of MPB impacts. ■ Completed and published work on recovery of tree- and stand-level carbon storage in a lodgepole pine. 	<p>Continue building towards management of healthy and resilient forests, plans to:</p> <ul style="list-style-type: none"> ■ Release updated Forest Health Strategies for multiple FLNRORD regions, including background and advice for forest health management under a changing climate. ■ Expand development of the Climate Change Informed Species Selection tool to include initiation of policy development for application and use. ■ Incorporate climate change vulnerability assessments into forest landscape plans, several pilots are being initiated this year. ■ Initiate development of a new Provincial Silviculture Strategy. ■ Continue to explore the incorporation of climate change in the Timber Supply Review process. ■ Continue working to implement the Indigenous Forest Bioeconomy Program and advance forest innovation and forest bioproduct research and development. ■ Include climate change mitigation and adaptation in forest landscape planning processes. ■ Initiate quantitative assessment of management actions to guide climate change adaptation and mitigation strategies for timber and nontimber values. ■ Initiate work to develop and evaluate models to understand climate change impacts and management regimes on timber, carbon, fish, wildlife, and other values. ■ Leveraging long-term experimental trials and plot data to determine management effects in the context of historic climate change and the need for adaptation and mitigation.

Engagement Table

A Shared Path with Indigenous Peoples

It is the intention that CleanBC programs and policies are developed in collaboration with Indigenous peoples and advance the Province's commitments to reconciliation.

The Ministry of Indigenous Relations and Reconciliation reports that the Province has, and has plans to continue to:

- Work with partner ministries to advance CleanBC objectives and to help Indigenous communities adapt to the impacts of climate change;
- Create opportunities for Indigenous peoples to be full partners in B.C.'s economy and provide a clear and sustainable path for everyone to work toward lasting reconciliation; and
- Provide financial supports to First Nation communities to develop carbon offset projects, develop and implement community energy plans, and electrify remote and diesel dependent communities through funding from the First Nation Clean Energy Business Fund.

Indigenous peoples have the capacity, knowledge, and skills to capitalize on new market and job opportunities related to climate action and are meaningful contributors and leaders in the low-carbon economy.

TABLE OUTLINING ENGAGEMENT WITH INDIGENOUS PEOPLES

Fiscal Year 2020-2021 Event	Date
The Province hosted 80 individuals from 39 Indigenous Nations and organizations over five virtual sessions, 11 respondents to an online questionnaire, and 5 participants in 1:1 interviews, to share input on the Climate Preparedness and Adaptation Strategy	August 2020
The Province met with six participants representing five Treaty Nations to discuss CleanBC's sectoral and interim targets, the Climate Preparedness and Adaptation Strategy, the Flood Risk Strategy, Remote Community Clean Energy Strategy, and COVID-19 Economic Recovery and CleanBC	August 6, 2020
The Province hosted 68 participants from Indigenous organizations for an information session on the CleanBC Communities Fund and GHG Assessment Methodology	September 16, 2020
B.C. Sectoral Targets Discussion Paper <ul style="list-style-type: none"> ■ Feedback and ideas sought from Indigenous Nations and organizations through the B.C. First Nations Leadership Council's Working Group on Climate Change 	
The Province met virtually with 14 Indigenous youth to discuss climate action and CleanBC	February 28, 2021
The Province hosted 77 individuals from 59 Indigenous Nations and organizations over ten sessions to discuss climate action and CleanBC. Key themes that emerged were energy, food security, funding, self-determination, traditional knowledge, youth, and relationship building	January – March 2021
The Province meets monthly with the B.C. First Nations Leaders Council Climate Action Working Group to engage in dialogue, exchange information and develop recommendations on climate change policy, laws and regulations	Monthly
The Province held regular meetings with staff at Metis Nation BC's Ministry of Environmental Protection to discuss CleanBC and climate adaptation	Throughout fiscal year 2020-2021
The Province continued to meet with individual First Nations and various Indigenous organizations to discuss CleanBC and climate adaptation	Throughout fiscal year 2020-2021

TABLE OUTLINING ENGAGEMENT WITH BRITISH COLUMBIANS

Fiscal Year 2020-2021 Events	Date
Business and Industry	
Permanent virtual site visits under the Greenhouse Gas Emission Reporting Regulation	September – October 2020
<ul style="list-style-type: none"> The Province engaged with industrial operators and verification bodies on permanently allowing virtual site visits 	
CleanBC Industry Fund (CIF) Stakeholder Engagement Sessions	April 2020 – March 2021
<ul style="list-style-type: none"> Various webinars presenting information on all three CIF funding calls, as well as information sessions on funding agreements Between 50 – 130 participants (companies eligible to apply to the CIF) per each webinar Received feedback from stakeholders on the proposed scope and design of the program 	
BC GHG Verification and Validation Advisory Group	June 2020, January and February 2021
<ul style="list-style-type: none"> Over three sessions, the Province hosted representatives from 12 verification bodies and two accreditation bodies 	
Clean Growth Branch annual workshop	Feb. 2-3, 2021
<ul style="list-style-type: none"> Two-day workshop focused on industrial emission reporting and compliance, carbon offsets program, CleanBC Industry Fund, funding spotlight for emission reduction projects in B.C. and more 556 registrations, 40 surveys completed 	
CleanBC Industrial Incentive Program Workshop	May 26, 2021
<ul style="list-style-type: none"> The Province hosted 167 stakeholders in a virtual workshop to discuss the CleanBC Industrial Incentive Program and the 2021 submission process 	
Local Government	
CleanBC Communities Fund	August 19, 2020
<ul style="list-style-type: none"> In partnership with Local Government Management Association, the Province hosted a virtual engagement session with 45 participants via BE Prepared – Access Investing in Canada Infrastructure Program Funding 	
Remote Community Energy Strategy	June and August 2020
<ul style="list-style-type: none"> 12 representatives from seven remote communities met with the Province in 1:1 interviews to discuss clean energy goals, current community projects and challenges 	
CleanBC Communities Fund and GHG Assessment Methodology	September 17, 2020
<ul style="list-style-type: none"> In partnership with Local Government Management Association, the Province hosted a virtual engagement session with 67 participants 	
Remote Community Energy Strategy	December 3, 2020
<ul style="list-style-type: none"> Virtual engagement session with 14 participants representing Indigenous communities, and five participants representing civic communities to discuss ‘What We Heard’ from summer engagement, to discuss challenges and actions, and next steps for engagement 	

Engagement Table

Fiscal Year 2020-2021 Events	Date
Engaging with Interested Parties	
Climate Preparedness and Adaptation Strategy Virtual Engagement via SFU Centre for Dialogue <ul style="list-style-type: none"> 73 online questionnaires completed by stakeholders, eight virtual stakeholder sessions with a total of 260 participants representing youth, federal, academic, NGO, rural, mid-sized and urban local governments, industry 	April – July 2020
Recycling Regulation Policy Intentions Paper <ul style="list-style-type: none"> In total, 165 submissions were submitted from a variety of individuals, stakeholders, and key partners: <ul style="list-style-type: none"> 76 survey responses received; 89 email comments received 	September – November 2020
B.C. Sectoral Targets Discussion Paper <ul style="list-style-type: none"> Feedback sought from stakeholders in the industry, labour, academia, transportation, buildings, business and environmental sectors <ul style="list-style-type: none"> Received 47 submissions from 52 organizations 	December 2020
B.C. Sectoral Targets Webinar <ul style="list-style-type: none"> Virtual engagement for 25 participants representing ENGOs, oil and gas, transportation and building sectors 	March 18, 2021
B.C. Forest Carbon Offsets Protocol Consultation Period <ul style="list-style-type: none"> Through the consultation period, the Province held 11 meetings with interested parties such as industry, First Nations, ENGOs and consultants on the contents of the draft protocol and policy considerations 62 technical submissions were received 	March 30, 2021 – May 31, 2021
B.C. Forest Carbon Offsets Protocol Webinar <ul style="list-style-type: none"> The Province hosted 197 participants for an information session to provide an overview of the draft protocol and discuss next steps 	April 14, 2021



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