



# 2022 Climate Change Accountability Report

## *Supporting Material*

This document provides supporting materials to the 2022 Climate Change Accountability Report.

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# Mitigation Table

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)	
<b>CLEANER TRANSPORTATION</b>				
1	<p><b>Implementation of Zero-Emission Vehicle (ZEV) supply standard</b></p> <p><b>Medium- and heavy-duty vehicle targets</b></p>	<ul style="list-style-type: none"> <li>The <i>Zero-Emission Vehicles Act</i> passed in May 2019.</li> <li>Requires automakers to meet an escalating annual percentage of new light-duty ZEV sales and leases reaching:               <ul style="list-style-type: none"> <li>– 10% by 2025</li> <li>– 30% by 2030</li> <li>– 100% by 2040</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Completed first regulatory compliance period under current ZEV Act and Regulation, all automakers in compliance.</li> <li>Industry-wide percentage ZEV sales in B.C. was 13% of all new light-duty vehicle sales.</li> <li>Roadmap to 2030 commits to escalating the percentage of new light-duty ZEV sales and leases reaching:               <ul style="list-style-type: none"> <li>– 26% by 2026</li> <li>– 90% by 2030</li> <li>– 100% by 2035</li> </ul> </li> <li>Roadmap to 2030 commits to introduce medium- and heavy-duty vehicle (M/HDV) targets.</li> </ul>	<ul style="list-style-type: none"> <li>Work on commitment in Roadmap to 2030 to:               <ul style="list-style-type: none"> <li>– Increase ZEV targets for light-duty vehicles.</li> <li>– Develop ZEV targets for M/HDV.</li> </ul> </li> </ul>
2	<p><b>CleanBC Go Electric Vehicle (EV) Passenger Vehicle Rebate Program</b></p>	<ul style="list-style-type: none"> <li>Program offers rebates on light-duty EVs: cars with Manufacturer’s Suggested Retail Price (MSRP) below \$55,000, and larger vehicles with MSRPs below \$70,000.</li> <li>B.C. residents must apply to be income-tested before they are approved for a rebate.</li> <li>The rebate is now income-tested, and currently up to \$4,000 for battery, fuel-cell, and longer-range plug-in hybrid EVs and up to \$2,000 for shorter-range plug-in hybrid EVs. Combined with the federal rebate, customers in British Columbia can receive up to \$9,000.</li> <li>B.C. businesses and organizations can receive a rebate of up to \$3,000 for battery, fuel-cell, and longer-range plug-in hybrid EVs, and \$1,500 for shorter-range plug-in hybrid EVs.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing implementation of rebates.</li> <li>Continuing to explore evolution to rebate program to increase uptake of M/HDV ZEVs.</li> </ul>	<ul style="list-style-type: none"> <li>Transition to income tested rebate program – implemented in August 2022.</li> <li>Increase public awareness with government information campaign.</li> </ul>

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<b>3 Active transportation</b>	<ul style="list-style-type: none"> <li>Help people get around with a long-term strategy to increase active transportation and look at better commuting solutions.</li> <li>The Province's first active transportation strategy, <i>Move. Commute. Connect.</i> was launched in 2019 with the overarching goal of doubling the number of active transportation trips by 2030.</li> <li>Commitment in Roadmap to 2030 to increase mode shift to walking, cycling and transit to 30% by 2030.</li> <li>The Active Transportation Infrastructure Grants program provides guidance and cost-sharing for B.C. communities.</li> </ul>	<ul style="list-style-type: none"> <li>Provided funding toward active transportation campaigns:               <ul style="list-style-type: none"> <li>Spring Go by Bike events (fall events September 27 to October 10, 2021).</li> <li>Everyone Rides Grade 4-5 in schools in Metro Vancouver, Kelowna, and the Capital Regional District.</li> <li>Active School Travel planning and programming with 12 participating schools in the pilot program.</li> <li>Support eight communities in the active transportation electric kick scooter pilot project.</li> </ul> </li> <li>Active Transportation Infrastructure Grants program supported 33 infrastructure projects and 29 active transportation network plans province-wide.</li> <li>Dedicated funding to active transportation infrastructure with Surrey Langley SkyTrain including 13 km of fully separated bicycle and pedestrian lanes and end-of-trip facilities at all SkyTrain stations.</li> </ul>	<ul style="list-style-type: none"> <li>Increased investment in active transportation grants and programs for Indigenous and local government projects and for major projects such as Surrey Langley SkyTrain.</li> <li>Support for TransLink's three-year investment plan, which includes funding for walking and cycling in Metro Vancouver.</li> </ul>
<b>4 Heavy-Duty Vehicle Efficiency (HDVE) Program</b>	<ul style="list-style-type: none"> <li>Administered by the BC Trucking Association (BCTA), the HDVE Program provides training to B.C.-based carriers to adopt practices that reduce fuel consumption. Carriers that complete the training can apply for financial rebates for fuel-saving equipment to retrofit their fleet and further reduce fuel consumption.</li> <li>Heavy-duty commercial vehicles account for about 14% of B.C.'s total GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>During 2021/22, the driver-training portion of the program helped reduce diesel consumption by 23.8 million litres, equivalent to 64.9 ktCO<sub>2</sub>e emissions provincially or removing 13,766 passenger vehicles from North American roads.</li> <li>In 2021/22, an investment in incentives across 70 companies resulted in a reduction of 581K litres of diesel provincially (818K litres across North America) and a reduction of 1.6 KtCO<sub>2</sub>e emissions provincially (2.2 ktCO<sub>2</sub>e emissions in North America), equivalent to removing 337 passenger vehicles provincially (474 vehicles in North America).</li> <li>The financial rebate component of the program is extended to September 30, 2022 in response to global supply chain issues.</li> </ul>	<ul style="list-style-type: none"> <li>The BCTA will continue to offer training, free of charge, to carriers so they can reduce their fuel consumption. The BCTA will also report on emissions reductions based on the type and number of fuel-efficiency equipment installed.</li> </ul>
<b>5 Port Pilots (Lower Mainland freight trucks and port operations)</b>	<ul style="list-style-type: none"> <li>Pilot of zero-emission vehicles and other low-carbon fuels within Vancouver Fraser Port Authority and drayage operators.</li> </ul>	<ul style="list-style-type: none"> <li>Seaspan is trialling 100,000 litres of biodiesel in dual-fueled marine vessel.</li> <li>Seaspan is deploying two, battery electric class-eight yard tractors and charging infrastructure. The trucks arrived in Q2 2022.</li> <li>The next round of projects is expected to commence in 2022 with the deployment of rail, marine, and on-road trucks.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing deployment, monitoring, and collecting of lessons learned.</li> </ul>



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<b>6</b> <b>CleanBC Go Electric Commercial Vehicle program</b>	<ul style="list-style-type: none"> <li>Purchase rebates and support for fleet ZEVs and charging and fuelling infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>CleanBC Go Electric Vehicle Pilots (CVP) and CleanBC Go Electric Specialty Use Vehicle Incentive (SUVI) Programs continue to receive and review applications.</li> <li>The CVP program launched in January 2021 and has since held two funding calls to support the adoption of commercial ZEVs and supporting infrastructure.</li> <li>Eighteen school districts were approved, funded, and ordered a total of 34 electric school buses.</li> </ul>	<ul style="list-style-type: none"> <li>Continue CVP and SUVI programs.</li> </ul>
<b>7</b> <b>Charging stations in public rest areas and B.C. Government buildings</b>	<ul style="list-style-type: none"> <li>Expand public charging infrastructure across the province.</li> </ul>	<ul style="list-style-type: none"> <li>Government installed new EV charging stations at 23 sites.</li> </ul>	<ul style="list-style-type: none"> <li>Government is planning on installing new EV charging stations at 26 sites.</li> <li>Finalizing the Electric Vehicle Charging Station Rollout Plan for remote routes.</li> </ul>
<b>8</b> <b>CleanBC Go Electric public charging (expand charging network – public and fast charging)</b>	<ul style="list-style-type: none"> <li>Cost-share investments in public charging stations selected through a competitive Request for Proposal (RFP) process.</li> <li>The CleanBC Go Electric Public Charger Program launched in fall 2020 with a target of 194 sites across the province by 2024.</li> <li>The program offers up to 50% of the cost of public charging stations, and up to 90% if owned by an Indigenous community.</li> </ul>	<ul style="list-style-type: none"> <li>Announced CleanBC Roadmap commitment to complete B.C.'s Electric Highway by 2024 with a target of the province having 10,000 public EV charging stations by 2030.</li> <li>Released B.C. Light-Duty Public Zero-Emission Vehicle Infrastructure Study in May 2021, outlining number and location of Direct Current Fast Charging (DCFC) and hydrogen refuelling stations needed to meet legislated ZEV targets.</li> <li>Ongoing public charger network planning and coordination in partnership with BC Hydro, and FortisBC.</li> <li>By end of 2021, over 3,000 public Level 2 charging stations including 720 DCFCs across 262 public fast charging sites, representing 60% of the geographic network commitment in the Roadmap.</li> <li>50% increase in number of fast charging sites across the province in 2021 (compared to 2020).</li> </ul>	<ul style="list-style-type: none"> <li>Continue to work on Roadmap commitment to ensure broad geographic coverage of fast-charger sites by summer 2024; 10,000 public EV charging stations by 2030.</li> <li>Ongoing public charger network planning/coordination.</li> <li>Ongoing implementation of public charger funds.</li> </ul>
<b>9</b> <b>CleanBC Go Electric Hydrogen Program (expand hydrogen network – public hydrogen fuelling)</b>	<ul style="list-style-type: none"> <li>Expand the hydrogen fuelling network in B.C.</li> </ul>	<ul style="list-style-type: none"> <li>Released B.C. Light-Duty Public Zero-Emission Vehicle Infrastructure Study in May 2021 (combining public fast charging study and hydrogen study).</li> <li>Released funding call to support continued deployment of hydrogen refuelling stations in B.C.</li> <li>The Province released its hydrogen strategy in July 2021.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to the four hydrogen stations currently in operation, there are three stations under construction and 10 additional stations in planning stages with funding awarded in 2021.</li> </ul>

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<b>10 CleanBC Go Electric Charger Rebates (expanded charging network – home and workplace charging incentives)</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing implementation of home and workplace charger funds.</li> <li>Over 3,100 charging stations installed in homes and workplaces.</li> </ul>	<ul style="list-style-type: none"> <li>Starting April 1, 2022, federal funds from Natural Resources Canada were added to the program to increase rebates for charging stations in MURBs and workplaces. With the federal funds, for a limited time, MURBs and workplaces can receive rebates of 75% of installed station costs up to \$5,000 per station; in the absence of federal funds, the provincial rebates are 50% up to \$2,000 per station.</li> </ul>
<b>11 Enable private and utility investment in charging/hydrogen fuelling stations</b>	<ul style="list-style-type: none"> <li>Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) allows utilities to recover costs to build public fast charging infrastructure that meet specified criteria.</li> </ul>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>GGRR amendments.</li> </ul>
<b>12 CleanBC Go Electric Advanced Research and Commercialization (ARC) program</b>	<ul style="list-style-type: none"> <li>Cost-share investments in ZEV and related technologies research, development and business growth in B.C. based on a competitive RFP process.</li> <li>ARC project submissions are evaluated on the positive economic benefits they provide to B.C.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing program administration.</li> <li>The program's second funding call is supporting 18 B.C.-based projects. Successful projects were announced in spring 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing work on future ARC funding calls, specifically Commercial Vehicle Innovation Challenge.</li> </ul>



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<p><b>13 Public transit in B.C.</b></p>	<ul style="list-style-type: none"> <li>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.</li> <li>By 2050, TransLink’s goal is to run its fleet with 100% renewable energy.</li> <li>BC Transit committed to a fully electric bus fleet by 2040.</li> </ul>	<p><b>BC Transit</b></p> <ul style="list-style-type: none"> <li>In 2021/22, BC Transit put 54 additional compressed natural gas-powered (CNG) buses in service in Victoria, the Central Fraser Valley, Kamloops and Nanaimo.</li> </ul> <p><b>TransLink</b></p> <ul style="list-style-type: none"> <li>Implemented the Get on Board program, in partnership with BC Transit, a province-wide program in which children 12 and under can ride transit free of charge.</li> <li>Launched a pilot of Kid Commute – a Walking School Bus Program.</li> <li>TransLink invested funding into upgrading, maintaining, or building new regional walkways, cycling paths and roads in all 23 local governments in Metro Vancouver; 131 projects are being funded to improve active and clean transportation options.</li> <li>TransLink made improvements to integrate cycling and public transportation, and provided customers with more convenient bike parking options at six transit hubs around the region.</li> <li>In 2021, TransLink awarded a contract for 15 additional battery-electric buses. When these buses enter service in 2023, Route 100 will have 100% electric buses.</li> <li>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. Development of the transition plan is under way to prepare that facility to be able to accept battery-electric buses in 2025.</li> <li>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. To be in service in 2025.</li> <li>TransLink launch its first cycling campaign, Let’s Ride, to support TravelSmart’s cycling partners, the new regional cycling maps, new cycling infrastructure projects, and new bike parking amenities.</li> <li>In January 2022, TransLink released its first ever Climate Action Strategy, which provides a high-level outline for moving forward on climate action. From 2022 to 2030 TransLink plans to replace 34% of the current diesel bus fleet with battery-electric buses. This will amount to over 400 new battery-electric buses in service by 2030.</li> </ul>	<p><b>BC Transit</b></p> <ul style="list-style-type: none"> <li>In 2022/23, BC Transit plans to deploy an additional 36 CNG buses to reduce GHG emissions.</li> <li>In May 2022, BC Transit awarded a contract for its first 10 battery-electric buses for deployment in Victoria in 2023.</li> </ul> <p><b>TransLink</b></p> <ul style="list-style-type: none"> <li>In May 2022, the Province committed funding towards TransLink’s three-year investment plan, with funds dedicated to the Surrey Langley SkyTrain.</li> <li>Work is currently underway on TransLink’s more detailed Climate Action Plan to ensure the enterprise’s infrastructure and operations are resilient to the impacts of climate change impacts, to be completed by late 2022.</li> <li>Continued investment funding into upgrading, maintaining, or building new regional walkways, cycling paths and roads to benefit pedestrians, cyclists, drivers and transit users in local governments in Metro Vancouver.</li> <li>Continued investment in new on-demand bike lockers, featuring keyless entry and mobile payment that will improve integration between cycling and public transportation.</li> </ul>

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14 <b>Go Electric research and training</b>	<ul style="list-style-type: none"> <li>The Go Electric Training program helps prepare B.C.'s workforce to be leaders in the transition to ZEVs.</li> </ul>	<ul style="list-style-type: none"> <li>In 2021, updated educational resources for B.C. electricians installing EV charging infrastructure were developed.</li> <li>The Electric Vehicle Maintenance Training program, available to Red Seal automotive service technicians expanded to include four schools in 2021: the British Columbia Institute of Technology, Camosun College, Okanagan College and College of New Caledonia.</li> <li>EV Friendly certification launched (<a href="http://www.evfriendly.ca">www.evfriendly.ca</a>), an industry-led certification, sponsored by the Go Electric program, designed to cultivate a higher degree of confidence in ZEV ownership.</li> </ul>	<ul style="list-style-type: none"> <li>Continued training of electricians, expansion of ZEV automotive technician program to more colleges, and ongoing implementation of EV Friendly certification.</li> </ul>
15 <b>Establish energy intensity targets for passenger vehicles and goods movement; and implement vehicle kilometres travelled reduction and mode share targets</b>	<ul style="list-style-type: none"> <li>The CleanBC Roadmap to 2030 committed to vehicle kilometres travelled reduction targets (in light-duty vehicles by 25% by 2030, compared to 2020), mode share targets (to increase the share of trips by walking, cycling, transit to 30% by 2030, 40% by 2040 and 50% by 2050), and reducing the energy intensity of goods movement (tonne-kilometres) by at least 10% by 2030, 30% by 2040, and 50% by 2050, relative to 2020 and passenger vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Work underway to implement these targets.</li> </ul>	<ul style="list-style-type: none"> <li>Work underway to implement these targets.</li> </ul>
16 <b>Implement Clean Transportation Action Plan</b>	<ul style="list-style-type: none"> <li>The Clean Transportation Action Plan is a commitment included in the CleanBC Roadmap to 2030. Once complete, it will set out the Province's next set of commitments to reduce GHG emissions in the transport sector by 27-32% by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Work underway to develop a Clean Transportation Action Plan to identify additional steps government will take to increase efficiency and reduce emissions in the transportation sector. Engagement with Indigenous Nations, local governments, and technical stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Release of a comprehensive Clean Transportation Action Plan targeted for late fall 2023.</li> </ul>

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<b>INDUSTRY</b>			
<b>17 Oil and Gas Royalty Review</b>	<ul style="list-style-type: none"> <li>Undertake a review of incentive programs under the current oil and gas royalty system.</li> </ul>	<ul style="list-style-type: none"> <li>Oil and Gas Royalty Review undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>On May 19, 2022, the Province introduced a new oil and gas royalty system that puts the interests of British Columbians first and eliminates outdated and inefficient fossil-fuel subsidies.</li> <li>A transitional system will commence on September 1, 2022, with the new royalty framework fully in place effective September 1, 2024.</li> </ul>
<b>18 CleanBC Industry Fund</b>	<ul style="list-style-type: none"> <li>Fund for large industrial emitters to implement projects to reduce emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Launched two new program streams, Innovation Accelerator and Project Feasibility Studies, to support development of new clean technologies and get projects off the ground.</li> <li>The 2021 CleanBC Industry Fund invested funding from carbon tax revenue in 50 emission-reduction projects across its three program streams.</li> </ul>	<ul style="list-style-type: none"> <li>Funding agreements for the 2022 calls will be finalized in fall 2022.</li> <li>Undertake a third-party review of the program.</li> </ul>
<b>19 CleanBC Industrial Incentive program</b>	<ul style="list-style-type: none"> <li>Directs a portion of B.C.'s carbon tax paid by industry into incentives for cleaner operations.</li> <li>Supports competitiveness by reducing carbon tax costs for operators that demonstrate they are among the cleanest in the world.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Continued systems development expedited the application processing and enhanced the quality of emissions applications.</li> <li>Data collection software updated using the lessons learned during the application process and results of user experience surveys.</li> <li>Program results suggest that 153 facilities are already performing at or better than the world-leading benchmarks for their sectors, while 33 facilities showed poor emissions intensity performance.</li> <li>Overall B.C. industry's average emissions performance was 67% 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"> <li>Oil and gas: 68.9%</li> <li>Mining: 74.4%</li> <li>Cement/Lime/Gypsum: 99.7%</li> <li>Wood/Pulp and paper: 41.1%</li> <li>Others: 89.8%</li> </ul> </li> <li>Since 2012, total reported emissions from large B.C. facilities that emit more than 10,000 tonnes of CO<sub>2</sub>e per year have decreased by 4.5% to 18.4 Mt CO<sub>2</sub>e (19.3 Mt in 2012).</li> </ul>	<ul style="list-style-type: none"> <li>Reviewing submitted Clean BC Industrial Incentive applications and production verification reports. 443 applications are under review for calculating the incentive payments and setting the new benchmarks.</li> <li>Updating the guidance documents and calculators for each industrial sector to help reporters to increase the quality of their reports and expedite their actions.</li> </ul>



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<b>20 Industrial (including oil and gas) methane approach</b>	<ul style="list-style-type: none"> <li>The Province brought in new regulations in 2020 to reduce methane emissions in the upstream production of natural gas by 45% below 2014 levels by 2025.</li> <li>Roadmap commitment for stronger methane policies that will reduce methane emissions from the oil and gas sector by 75% by 2030 and nearly eliminate all industrial methane emissions by 2035.</li> <li>This includes annual reporting of regulation implementation progress to the federal government.</li> </ul>	<ul style="list-style-type: none"> <li>Guidelines (venting and flaring, fugitive emissions management) posted to BC Oil and Gas Commission website for industry use.</li> <li>Data gathered for the first annual leak detection and repair data report.</li> <li>Research projects continued and were completed under the direction of B.C.'s Methane Emissions Research Collaboration, a multi-stakeholder initiative, to better understand the sources of methane emissions from the oil and gas sector and to support regulatory development.</li> <li>In December 2021, the Ministry of Energy, Mines and Low Carbon Innovation submitted its second annual report to the Government of Canada under the federal equivalency agreement.</li> <li>In January 2022, a review of the provincial methane regulations led by the BC Oil and Gas Commission and supported by both Ministry of Energy, Mines and Low Carbon Innovation and the Climate Action Secretariat was initiated.</li> </ul>	<ul style="list-style-type: none"> <li>The methane regulatory review continues in 2022 and will be completed by December 2022. The results will lead to revisions as needed to ensure the effectiveness of the regulations to reach the 2025 reduction target.</li> <li>Focused methane measurement campaigns will be conducted in 2022-2024 to support: emission detection; regulatory compliance; inventory development and maintenance; and the 2030 and 2035 targets policy development work.</li> </ul>
<b>21 Advance provincial approach to Carbon Capture Utilization and Storage (CCUS)</b>	<ul style="list-style-type: none"> <li>A commitment in the 2030 Roadmap that will help B.C. meet emissions targets including net-zero by 2050.</li> <li>Focus is on emissions reductions at industrial facilities, lowering the carbon intensity of hydrogen, and removing carbon directly from the atmosphere.</li> <li>Ensure a regulatory framework for safe and effective underground CO<sub>2</sub> storage from the oil and gas industry in B.C.</li> </ul>	<ul style="list-style-type: none"> <li>To support opportunities in CCUS and other clean energy the Province, in collaboration with Shell Canada and the federal government, opened the Centre for Innovation and Clean Energy (CICE).</li> <li>CICE in 2022 launched the development of a B.C. Carbon Management Blueprint, a first-of-its-kind in Canada, aimed at identifying opportunities to scale carbon management projects across the province.</li> <li>Geoscience BC in collaboration with CICE and Ministry of Energy, Mines and Low Carbon Innovation launched a project to develop a Carbon Capture Storage (CCS) Atlas for Northeast B.C. (NEBC) via the Innovative Clean Energy Fund.</li> <li>The BC Oil and Gas Commission advanced a project to evaluate the CCUS potential of depleted oil and gas reservoirs in NEBC.</li> <li>Policy work advancing on review of long-term liability and open access provisions.</li> <li>Participate in development of the federal CCUS strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an accounting framework for CCUS.</li> <li>Develop a coordinated, comprehensive provincial approach to guide their deployment.</li> <li>Ensure that B.C. is able to leverage supports such as the federal investment tax credit for CCUS.</li> <li>Consider additional grants and incentives for research and development, pilot projects and commercial scale deployment.</li> <li>Provide support as needed to advance the CCS Atlas for NEBC.</li> <li>Complete and share depleted reservoirs study.</li> </ul>

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<b>22 CleanBC Industrial Electrification Rates and Facilities Electrification Fund</b>	<ul style="list-style-type: none"> <li>BC Hydro offers CleanBC industrial electrification rates which are a discount from its standard industrial rates to:                             <ul style="list-style-type: none"> <li>New clean industries setting up or expanding operations in B.C., including hydrogen and biofuels.</li> <li>Eligible existing customers that install new equipment that uses electricity rather than fossil fuels.</li> <li>Eligible new customers that can demonstrate they could have used fossil fuels rather than electricity to power their facilities.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro continues to work with its transmission service customers to develop rate design options.</li> <li>A number of applications under the CleanBC Facilities Electrification Fund are under review with Infrastructure Canada.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro will continue to work with customers who are interested in the rates and review applications.</li> <li>BC Hydro plans to bring forward a rate design application to the British Columbia Utilities Commission following consultation with industry stakeholders.</li> <li>CleanBC Facilities Electrification Fund: Funding approvals.</li> </ul>
<b>23 Develop Decarbonization Policy Framework for oil and gas sector to meet sector-specific target</b>	<ul style="list-style-type: none"> <li>Sector-specific target of 33-38% emissions reduction (using 2007 baseline) by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Initial assessment/review of inventory of policy tools and instruments to achieve emissions reductions in the oil and gas sector completed.</li> </ul>	<ul style="list-style-type: none"> <li>Workplan and stakeholder engagement plan/process will be developed and implemented.</li> <li>Discussions with federal government on oil and gas sector cap.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
24 <b>Clean up 100% of current orphan wells</b>	<ul style="list-style-type: none"> <li>Clean up 100% of current orphan wells in B.C. before 2030 through the industry-funded Orphan Site Reclamation Fund.</li> </ul>	<ul style="list-style-type: none"> <li>The BC Oil and Gas Commission utilized the collected orphan levy and surrendered security to fund planned decommissioning and restoration work. Supported by federal stimulus funding during the COVID-19 pandemic, the Commission received additional funding to implement the Orphan Site Supplemental Reclamation Program, which was implemented in 2020/21 and completed in 2021/22.</li> <li>In 2021/22 the BC Oil and Gas Commission completed the following work on orphan sites towards the Roadmap to 2030 target: 80 wells decommissioned, 101 sites decommissioned, 91 site investigations completed, 43 sites remediated, and final reclamation completed on 103 sites.</li> </ul>	<ul style="list-style-type: none"> <li>The BC Oil and Gas Commission will implement its 2022/23 work plan for orphan site treatment expenditures funded by the collected levies and surrendered security deposits from industry.</li> <li>The Commission is partnering with Indigenous Nations from NEBC to restore former oil and gas industry sites to their natural state.</li> </ul>
25 <b>Clean Growth Infrastructure Royalty program (CGIRP)</b>	<ul style="list-style-type: none"> <li>The CGIRP, which began in 2019, helps achieve GHG reduction goals and methane reduction targets, while also facilitating job creation and maintaining competitiveness in the upstream oil and gas sector.</li> </ul>	<ul style="list-style-type: none"> <li>In July 2021, the Ministry of Energy, Mines and Low Carbon Innovation Clean Growth Infrastructure Royalty Program approved nine new sustainability projects which will reduce emissions, including electrification and connection of upstream facility equipment with clean BC Hydro power, installation of solar powered zero emission well pads, engine waste heat recovery at natural gas compression facilities, and conversion of natural gas driven pneumatics with instrument air technology.</li> <li>In 2021/22 the program delivered 147,000 Tonnes CO<sub>2</sub>e in emission reductions.</li> </ul>	<ul style="list-style-type: none"> <li>2022 is the final year for the CGIRP. A new program will be designed to align with the new royalty regime.</li> <li>Projects submitted under the 2022 programs will be evaluated and agreements signed for successful emission reduction projects.</li> </ul>
26 <b>Establish requirement for net-zero 2050 plans for industry</b>	<ul style="list-style-type: none"> <li>The net-zero new industry policy will require new industrial facilities to develop a credible plan to be net-zero by 2050 and take into account the Province's 2030 and 2040 emission reduction targets.</li> <li>The policy requirement will also require new industrial facilities to have net-zero emissions in 2050 and every year thereafter.</li> </ul>	<ul style="list-style-type: none"> <li>Development of a net-zero new industry inter-ministry working group.</li> <li>Internal engagement with ministries.</li> <li>Initial analysis on net-zero new industry policy.</li> </ul>	<ul style="list-style-type: none"> <li>Development of a net-zero new industry policy paper.</li> <li>Internal engagement with ministries.</li> <li>Engagement with industry and consultation with Indigenous groups.</li> <li>Development of a net-zero for new industry reporting framework.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>BUILDINGS</b>			
<b>27 Net-zero energy ready by 2032</b>	<ul style="list-style-type: none"> <li>Improve the BC Building Code in phases to ensure all new buildings are “net-zero energy ready” by 2032.</li> <li>In addition to the mandatory base code, the BC Building Code also includes the Energy Step Code.</li> <li>The Province has expanded the BC Energy Step Code to apply to public sector buildings and is working with partners to develop associated energy performance targets.</li> </ul>	<ul style="list-style-type: none"> <li>Continue stakeholder engagement on revisions to the 2018 BC Building Code to make new buildings 20% more energy efficient as the next step towards net-zero ready by 2032.</li> </ul>	<ul style="list-style-type: none"> <li>Continue stakeholder engagement on revisions to the 2018 BC Building Code.</li> <li>The next revisions to the BC Building Code are planned for December 2022 and the next edition of the BC Building Code is anticipated in December 2023.</li> </ul>
<b>28 Introduce carbon pollution standards in the BC Building Code for new buildings; Zero-carbon new construction</b>	<ul style="list-style-type: none"> <li>Develop code requirements that set out the path for new construction to become ready to implement zero-and-low-carbon fuels, phasing in over 2024 and 2027, with a goal to be zero-carbon ready by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing work with local governments to develop voluntary carbon pollution standards. Those communities will serve as pilots for future province-wide requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Continue stakeholder consultation on operational carbon pollution standards in the BC Building Code and propose changes to the national code development system for consideration in the model national codes.</li> <li>The next revisions to the BC Building Code are planned for December 2022 and the next edition of the BC Building Code is anticipated in December 2023.</li> </ul>
<b>29 Energy Efficiency Standards for existing buildings in the BC Building Code</b>	<ul style="list-style-type: none"> <li>Implement alterations to existing buildings code by 2024 to address climate change mitigation, focusing on energy efficiency and exploring other possible mitigation and adaptation co-benefits. This will be done through work with federal partners to develop energy efficiency standards for voluntary alterations to existing buildings in the national model code that can be adopted in the BC Building Code in 2024.</li> </ul>	<ul style="list-style-type: none"> <li>National (technical) standing committee work is underway.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to work with national partners to develop energy efficiency requirements for alterations to existing buildings.</li> </ul>
<b>30 Highest efficiency standards for new space and water heating equipment</b>	<ul style="list-style-type: none"> <li>All space and water heating sold in B.C. after 2030 has efficiency greater than or equal to 100% (i.e., heat pump or electric resistance).</li> </ul>	<ul style="list-style-type: none"> <li>Early engagement through Ministry of Attorney General and Minister Responsible for Housing’s Existing Building Renewal Strategy consultation.</li> </ul>	<ul style="list-style-type: none"> <li>Further consultation.</li> <li>Technical and economic analysis.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>31 Existing Buildings Renewal Strategy</b>	<ul style="list-style-type: none"> <li>Describe the building regulatory system approach to address climate change mitigation (energy efficiency and GHG emissions) and adaptation (wildfire and wildfire smoke, water conservation, floods, heatwaves, extreme weather events).</li> <li>The project will:               <ul style="list-style-type: none"> <li>Work to create a regulatory system that is better able to adapt to local needs, future-oriented, and outcome-based.</li> <li>Highlight and celebrate existing and ongoing initiatives, tools and guidance that supports adaptation, maintenance and improvement of buildings to be more climate resilient.</li> <li>Support housing affordability, equity, community resilience, and economic resilience.</li> <li>Provincial codes for energy efficiency in relation to voluntary alterations to existing buildings will harmonize with federal standards, align where appropriate with the City of Vancouver, and consider impacts on other code objectives.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Phase 2 engagement and technical research on options and impact analysis.</li> <li>Engagement with Indigenous communities and organizations.</li> <li>Continued Gender-Based Analysis+, economic, and outcome analysis of preferred option(s).</li> <li>Finalize policy as part of the Buildings Roadmap development in fall 2021 and the broader Existing Buildings Renewal Strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and release the broader Existing Buildings Renewal Strategy.</li> </ul>
<b>32 Building energy labelling</b>	<ul style="list-style-type: none"> <li>Improve building energy information available to buyers and renters.</li> <li>Province continues to assess the feasibility of energy labels for homes and buildings, similar to ratings for vehicles and major appliances.</li> <li>Introduce a user-friendly, web-based, virtual home-energy rating tool to let people see how efficient their homes are.</li> </ul>	<ul style="list-style-type: none"> <li>Funding was secured in Budget 2022 to procure and develop a Virtual Home Energy Rating System and decision assistance tool.</li> </ul>	<ul style="list-style-type: none"> <li>Policy work is underway to determine the scope and nature of enabling legislation.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>33 Energy retrofits for social housing</b>	<ul style="list-style-type: none"> <li>Funding for energy efficiency component of Capital Renewal Fund for public housing.</li> <li>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.</li> <li>BC Housing activities on this initiative through Capital Renewal Fund (CRF) projects have been ongoing since 2018.</li> <li>Projects receive upgrades that improve their seismic safety, energy efficiency, and overall condition. BC Housing's Facility Condition Index (FCI) target is 16% to 21%.<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>In 2021/22, 271 projects were planned or underway improving the condition of over 12,000 units of publicly funded housing.</li> <li>Energy audits are planned on 20 projects undergoing major energy retrofits.</li> <li>As of March 2022, the portfolio FCI rating for social housing stock is 19%. At the start of 2021/22, the FCI of the housing portfolio was 20.9%. Without investment through CRF it would have reached 22.7% by the end of the year.</li> </ul>	<ul style="list-style-type: none"> <li>BC Housing has set the 2022/23 overall target at 16-21% FCI for provincial housing stock. The target is calculated using a 5-year projected average of the condition of the social housing stock. This approach is industry standard.</li> </ul>
<b>34 CleanBC Better Homes and Better Buildings</b>	<ul style="list-style-type: none"> <li>Incentives to make heat pumps affordable and make homes and buildings more comfortable through building envelope upgrades.</li> <li>CleanBC enabled further expansion of program offerings, with details of the program available on the <a href="#">CleanBC Better Homes</a> website.</li> </ul>	<ul style="list-style-type: none"> <li>Launched CleanBC Better Homes Income-Qualified program.</li> <li>Portfolio-wide program evaluation (customer and contractor surveys).</li> <li>Piloted program for rental apartments in development.</li> <li>Secured funding for northern and rural heat pump top-ups in Budget 2022.</li> <li>Temporarily closed Better Homes New Construction program due to oversubscription.</li> <li>Wrapped up the Double the Rebates Campaign (a COVID-19 response measure).</li> </ul>	<ul style="list-style-type: none"> <li>Planning to introduce heat pump top-ups for rural residents (fall 2022).</li> <li>Introduced new mandatory training requirements for all heat pump installations.</li> <li>Re-open Better Homes New Construction program.</li> <li>Continuing to explore ways to ensure these programs are targeted to those that need the most help – with a particular emphasis on multi-unit residential buildings.</li> <li>Undertake billing analysis to quantify measure impacts.</li> </ul>
<b>35 CleanBC Building Innovation Fund</b>	<ul style="list-style-type: none"> <li>Encourage the development of innovative and cost-effective low-carbon building solutions in the B.C. building industry.</li> </ul>	<ul style="list-style-type: none"> <li>In the third intake (November 2021 – January 2022), the program drew 50 applications.</li> <li>Seven winners in the third intake include projects distributed across the province.</li> <li>Program evaluation criteria were revised to place a greater emphasis on Heating, Ventilation and Air Conditioning (HVAC) projects.</li> <li>A new funding stream was added – Information Sharing and Market Transformation. This stream provided funding to one applicant to design and deliver a broad outreach strategy supporting the CleanBC Building Innovation Fund's market transformation objectives.</li> </ul>	<ul style="list-style-type: none"> <li>Receive final report – March 31, 2023.</li> <li>Receive quarterly reports from funding participants.</li> <li>Plan to launch the 4th intake in fall 2022.</li> </ul>

<sup>1</sup> The 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.

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>36 Enhance energy efficiency incentives</b>	<ul style="list-style-type: none"> <li>Roadmap committed to “updated regulations to shift the focus of utility-funded efficiency programs to support market readiness for future standards and codes, place more emphasis on electrification, and to ensure affordability for households and businesses,” including “more support for building-envelope improvements such as insulation and better windows, and all kinds of high efficiency heat pumps – electric, gas and hybrid.”</li> <li>Roadmap also committed to “look for ways to further coordinate and integrate energy efficiency programs to make them more effective and easier to access.”</li> <li>Roadmap committed to “proceed with the next steps on a Property Assessed Clean Energy (PACE) program.”</li> </ul>	<ul style="list-style-type: none"> <li>Engaged with utilities on planned regulatory amendments that will enhance Demand-Side Measures for low-income households and better support heat pumps and envelope measures.</li> <li>User testing helped inform improvements to CleanBC Better Homes and Better Buildings website; CleanBC and utilities improved coordination on program eligibility requirements.</li> <li>A PACE Roadmap was drafted with input from stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Amendments to the Demand-Side Measures Regulation are planned for fall 2022.</li> <li>The Province is appealing to Natural Resources Canada to improve coordination with the federal Greener Homes Grant, to avoid market confusion. Program delivery model for nonprofit housing is being streamlined. The Province is working with BC Hydro on greater coordination of indigenous community offers.</li> <li>A request for decision has been drafted to determine the scope and timing of PACE.</li> </ul>
<b>37 Phase out utility gas equipment incentives</b>	<ul style="list-style-type: none"> <li>Roadmap committed to shift regulations so that “Instead of seeing incentives for conventional gas-fired heating equipment such as furnaces and boilers, consumers will see more support for building-envelope improvements such as insulation and better windows, and all kinds of high efficiency heat pumps – electric, gas and hybrid.”</li> </ul>	<ul style="list-style-type: none"> <li>Engaged with utilities on planned regulatory amendments to phase out incentives for conventional gas-fired heating equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Amendments to the Demand-Side Measures Regulation are planned for fall 2022 which will impact FortisBC’s Demand-Side Measures portfolio beginning in 2024.</li> </ul>
<b>38 Support adoption of mass timber</b>	<ul style="list-style-type: none"> <li>Established in spring 2021, the Mass Timber Demonstration Program (MTDP) is run by Forestry Innovation Investment with the goals of expanding the use of mass timber in B.C., overcoming barriers to the development of mass timber expertise and construction, and solidifying B.C.’s global leadership in advancing mass-timber products, technologies and services.</li> </ul>	<ul style="list-style-type: none"> <li>The first MTDP round funded eight building projects and four research projects, including residential towers, a fire station in Saanich, and the First Nations Health Authority.</li> </ul>	<ul style="list-style-type: none"> <li>The mass timber demo program was recapitalized in 2022/23 and four building projects (from multi-family units to mixed-use commercial and industrial buildings) received funding. Work is underway on the projects.</li> </ul>
<b>39 Low Carbon Buildings Materials Strategy (LCBMS)</b>	<ul style="list-style-type: none"> <li>The LCBMS was announced in the 2030 Roadmap.</li> <li>It will focus on reducing the embodied carbon impacts of B.C.’s built environment.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>The LCBMS is slated to be finished in 2023. Work is currently underway to create the strategy.</li> </ul>
<b>40 Right to Charge legislation</b>	<ul style="list-style-type: none"> <li>Develop a legislative strategy to implement Right to Charge in strata buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Government approved policy direction for amendments to the Strata Property Act in support of EV charging in strata buildings.</li> <li>Continued consultation with strata partners and stakeholders, and across government on related initiatives, i.e. EV charging, electrical capacity reports.</li> </ul>	<ul style="list-style-type: none"> <li>Draft legislative changes.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>COMMUNITIES</b>			
<b>41 CleanBC Communities Fund</b>	<ul style="list-style-type: none"> <li>Federal, provincial, local government and Indigenous community investment in clean infrastructure.</li> <li>Provincial and federal governments are investing as part of the Investing in Canada Infrastructure program, supporting infrastructure projects for public use and benefit.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Continued construction underway for 16 projects approved under the first intake.</li> <li>In January 2022, the third application intake was launched.</li> </ul>	<ul style="list-style-type: none"> <li>Funding announcements for 14 projects, estimated to avoid 433,211 tCO<sub>2</sub>e over their lifespan, under the second program intake.</li> <li>Third intake closed May 25, 2022, with final federal approvals anticipated in summer 2023.</li> </ul>
<b>42 Local Government Climate Action program (LGCAP)</b>	<ul style="list-style-type: none"> <li>Building on previous programs, the LGCAP gives local governments and Modern Treaty Nations stable, predictable funding to support local climate action, help reduce emissions, create opportunities for people and prepare communities for future climate impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Prepared for launch of new local government program (LGCAP) to replace the Climate Action Revenue Incentive Program (CARIP).</li> <li>Qualitative and quantitative reporting will be acquired from 187 local governments and eight Modern Treaty Nations – to be used for reporting in 2022/23.</li> </ul>	<ul style="list-style-type: none"> <li>Launched LGCAP.</li> <li>Fall engagement with local governments and Modern Treaty Nations on year two program structure and reporting requirements.</li> <li>Annual summary report on first year of LGCAP to be released in fall 2022.</li> </ul>
<b>LOW CARBON ENERGY</b>			
<b>43 Establish emissions cap for natural gas utilities (GHG Reduction Standard) for 2030</b>	<ul style="list-style-type: none"> <li>The Roadmap commits to legislation that would require natural gas utilities to undertake activities or investments to reduce emissions of their buildings and industry customers (except upstream oil and gas and liquefied natural gas) to around 6 MT by 2030. Utilities will be provided with a wide range of flexible compliance pathways to achieve this objective. Utility efforts would be overseen by the British Columbia Utilities Commission to ensure these actions are cost effective, and mitigate rate impacts for natural gas customers.</li> </ul>	<ul style="list-style-type: none"> <li>Commitment to implement GHG Reduction Standard (GHGRS) was publicly announced in September 2021 as a key component of the CleanBC Roadmap to 2030. The GHGRS replaced the previous CleanBC commitment to ensure that at least 15% of natural gas consumed in B.C. came from clean/renewable sources by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Development of an implementation approach is underway.</li> <li>Stakeholder and Indigenous engagements will be undertaken to inform development of the legislation required to implement the framework.</li> <li>Target date for introduction of the legislation is fall 2023/spring 2024.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>44 Increase supply of cleaner fuels</b>	<ul style="list-style-type: none"> <li>Increase the supply of cleaner fuels by ramping up new production in B.C. of 1.3 billion litres of renewable gasoline and diesel by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Doubled the target for renewable fuels produced in B.C. to 1.3 billion litres by 2030 as part of the Roadmap to 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Companies are moving forward in accordance with their agreements.</li> <li>Evaluation of opportunities to increase supply even further.</li> </ul>
<b>45 Hydrogen Strategy and Hydrogen Office</b>	<ul style="list-style-type: none"> <li>Research and launch of roadmap to increase adoption of hydrogen and fuel cell technologies in the province.</li> </ul>	<ul style="list-style-type: none"> <li>Released the B.C. Hydrogen Strategy at the beginning of July 2021.</li> <li>Began implementation of the 63 policy actions contained within the strategy to kickstart hydrogen deployment in B.C.</li> <li>Participation in the federal government's strategic steering committees on hydrogen and associated working groups.</li> <li>Signed a Trusted Partnership and Shared Cost Arrangement to advance several items aligned with BC Hydrogen Strategy implementation, including planning hydrogen hubs, establishing a hydrogen carbon intensity threshold, regulatory mapping, and developing a carbon capture and storage atlas.</li> <li>The BC Hydrogen Office was announced on March 31, 2022, and is designed to advance all aspects of hydrogen projects and facilitate hydrogen's role across British Columbia's energy systems.</li> </ul>	<ul style="list-style-type: none"> <li>Complete the Indigenous Hydrogen Market Opportunity Study under the Ministry of Energy, Mines and Low Carbon Innovation Indigenous Clean Energy Opportunities Engagement.</li> <li>Begin developing a hydrogen safety curriculum for sector participants.</li> <li>Increase hydrogen awareness and public outreach with partner organizations.</li> <li>Complete a Northern BC Hydrogen Investment Blueprint.</li> </ul>
<b>46 CleanBC Remote Community Energy Strategy (RCES)</b>	<ul style="list-style-type: none"> <li>The 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.</li> <li>The RCES is a 10-year initiative, with a 2030 target.</li> </ul>	<ul style="list-style-type: none"> <li>Budget 2021 included new RCES programs to support the capacity of Indigenous remote communities, and for the planning, development and implementation of diesel-displacing energy efficiency and renewable energy generation projects.</li> </ul>	<ul style="list-style-type: none"> <li>Launch and delivery of two new programs in partnership with Coastal First Nations – Great Bear Initiative, the New Relationship Trust, the federal government, and BC Hydro.</li> </ul>
<b>47 BC Innovative Clean Energy (ICE) Fund</b>	<ul style="list-style-type: none"> <li>The ICE Fund is a legislated Special Account designed to support Government's energy and environmental priorities and advance B.C.'s clean energy sector. Technology demonstrations have included bioenergy, solar, ocean-tidal, geo-exchange, desalination, energy management, smart-grid, and waste to energy.</li> <li>The Province/ICE Fund currently has a joint-call partnership (since March 2017) with Sustainable Development Technology Canada (SDTC) to support the development of pre-commercial clean energy technologies and projects within TRL 4-7.</li> </ul>	<ul style="list-style-type: none"> <li>Funding of projects are typically multi-year so progress, results and outcomes will vary. Under the ICE Fund/SDTC Joint Call Partnership, a total of 16 projects have been approved to-date.</li> <li>Results/outcomes (10 year forecast) for GHG emissions reduction (2028-2031) is estimated at 37,000 kilotonnes/year. An estimated 160 jobs created/retained in 2021/22 from five joint call approved projects.</li> </ul>	<ul style="list-style-type: none"> <li>In July 2022, CICE announced its first funding awards to eight companies across the battery/energy storage, bio/synthetic fuel, and hydrogen sectors.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
48 <b>BC Indigenous Clean Energy Initiative (BCICEI)</b>	<ul style="list-style-type: none"> <li>The BCICEI provides support and capacity-building funds to Indigenous communities working on the development of clean energy projects.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Program delivery agent New Relationship Trust (NRT) worked with communities to implement projects under intake six (2021/22).</li> <li>Third program evaluation complete.</li> <li>NRT supported unsuccessful applicants with pathfinding for alternative funding sources.</li> </ul>	<ul style="list-style-type: none"> <li>Independent program evaluation focused on community impact completed in fall 2022.</li> </ul>
49 <b>Low Carbon Fuel Standard (LCFS)</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Carbon intensity targets become more stringent every year to 2030.</li> <li>Part 3 Agreements can be used to support development of production capacity in low carbon fuels to support the CleanBC goal to develop capacity to produce 1.3 billion litres of low carbon fuel every year by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>Committed in the Roadmap to 2030 to raise the carbon-intensity reduction target to go beyond the current 20%, using 30% as a starting point for further analysis and consultations.</li> </ul>	<ul style="list-style-type: none"> <li>Enhance LCFS including increasing stringency for 2030 and expanding to aviation/marine fuels.</li> <li>New <i>Low Carbon Fuels Act</i> introduced on May 9, 2022 – to come into force January 1, 2023.</li> </ul>
50 <b>BC Centre for Innovation and Clean Energy (CICE)</b>	<ul style="list-style-type: none"> <li>B.C., Canada, and Shell Canada are each committing funding toward the new centre and collaborating to decarbonize the economy and scale up clean energy.</li> <li>The centre's initial focus areas for funding and project delivery will include: <ul style="list-style-type: none"> <li>Carbon capture, utilization, and storage.</li> <li>Production, use and distribution of low-carbon hydrogen.</li> <li>Biofuels and synthetic fuels (including marine and aviation fuels).</li> <li>Renewable natural gas.</li> <li>Battery technology, storage and energy management systems.</li> </ul> </li> <li>The centre will also initiate new technology pathways to accelerate larger reductions on the path to net-zero emissions by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>The Ministry of Energy, Mines and Low Carbon Innovation and CICE signed a Shared Cost Arrangement and Trusted Partnership to advance several items aligned with BC Hydrogen Strategy implementation priorities, including: <ul style="list-style-type: none"> <li>Develop a Metro Vancouver Hydrogen Investment Blueprint (hydrogen hub plan).</li> <li>Develop a hydrogen production carbon intensity threshold study.</li> <li>Perform regulatory mapping.</li> <li>Develop a carbon capture and storage atlas for NEBC.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Complete a Hydrogen Investment Blueprint for Northern B.C.</li> <li>Continue to fund B.C. clean energy projects and companies.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>51 BC Hydro 100% Clean Electricity Delivery Standard</b>	<ul style="list-style-type: none"> <li>Under a 100% Clean Electricity Delivery Standard, BC Hydro must show that it has acquired and generated enough clean electricity to meet the needs of its domestic customers.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro included a commitment to report on a Clean Electricity Standard in its 2022/23 –2024/25 Service Plan, released in February 2022.</li> </ul>	<ul style="list-style-type: none"> <li>First BC Hydro reporting on Clean Electricity Standard.</li> </ul>
<b>52 Phase out natural gas fired BC Hydro generation facilities</b>	<ul style="list-style-type: none"> <li>Retirement of natural gas-fired Energy Purchase Agreements (EPAs) between independent power producers (IPPs) and BC Hydro, potential replacement of BC Hydro's Fort Nelson Generating Station.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro released its Integrated Resource Plan for the next 20 years, and has indicated that they do not expect to renew their EPAs with thermal IPPs over the long term.</li> </ul>	<ul style="list-style-type: none"> <li>The British Columbia Utilities Commission is currently reviewing BC Hydro's Integrated Resource Plan in a public proceeding.</li> </ul>
<b>53 Implement BC Hydro Electrification Plan</b>	<ul style="list-style-type: none"> <li>BC Hydro published the Electrification Plan in September 2021 and files it as part of its Fiscal 2023 to 2025 Revenue Requirements Application with the British Columbia Utilities Commission.</li> <li>Implementation of BC Hydro's Electrification Plan is a key near-term action highlighted in the CleanBC Roadmap to 2030. The Electrification Plan includes expenditures to increase low carbon electrification, attract new load and connect customers more efficiently. It will reduce rate increases for customers, lower GHG emissions and provide economic benefits.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro launched initiatives focused on encouraging existing customers to make the switch from fossil fuels to clean electricity, while also supporting several new commercial and industrial customer connections.</li> </ul>	<ul style="list-style-type: none"> <li>Government put in place a direction to the British Columbia Utilities Commission to ensure BC Hydro could implement its Electrification Plan.</li> <li>Government also put in place a regulation to expand BC Hydro's purpose to include the promotion of electricity, which was a commitment in the Roadmap.</li> </ul>
<b>54 Residential electrification rates</b>	<ul style="list-style-type: none"> <li>BC Hydro will examine new rate options to support residential electrification that could include optional time of use rates and potentially rate options for heat pumps.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro consulted on options for residential rates, including a flat residential rate and time of use rates.</li> </ul>	<ul style="list-style-type: none"> <li>BC Hydro will submit its residential Rate Design Application to the British Columbia Utilities Commission.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>CIRCULAR ECONOMY</b>			
<b>55 Circular Economy Strategy</b>	<ul style="list-style-type: none"> <li>The Circular Economy Strategy is two-pronged:               <ol style="list-style-type: none"> <li>1) Supports the reduction, reuse and diversion of organic waste thereby reducing methane emissions.</li> <li>2) Considers overarching circular economy approaches in the development of initiatives.</li> </ol> </li> <li>The Organics Infrastructure Program (OIP) facilitates the investment towards organics processing infrastructure in B.C.</li> <li>The CleanBC Organics Infrastructure and Collection Program (OICP) invests in new residential organics collections programs and organics processing infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>Currently, the OIP projects are under construction, with all expected to be completed and operational by March 31, 2024.</li> <li>A new Minister's Regulation was finalized July 2021 to enable authority for municipalities to implement single-use item bylaws without seeking Ministerial approval.</li> <li>In November 2021, the <i>Environmental Management Act</i> was amended giving the Province legal authority to regulate single-use items.</li> <li>Ongoing coordination with the federal government on bans and the development of recycled content standards and regulation.</li> <li>The summary report for expansion of the Recycling Regulation was posted in June 2021, with a multi-year plan for extended producer responsibility programs released in September 2021.</li> <li>Detailed research and data collection from the industrial, commercial, and institutional sector is planned to inform additional next steps for enabling a circular economy for plastics and packaging from this sector.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a Circular Economy Strategy (to be led by the Climate Action Secretariat) for release in 2023.</li> <li>Review of the <i>Environmental Management Act</i> legislative framework to identify any barriers to circular solutions for waste.</li> <li>Continuation of organics infrastructure funding programs (OIP, OICP).</li> <li>Continuation of the CleanBC Plastics Action Plan, including completion of engagement and drafting of a new waste prevention regulation to reduce single-use and plastic waste.</li> <li>Continued coordination with the federal government on bans and the development of recycled content standards and regulation.</li> <li>Continuation and expansion of funding for the Clean Coast Clean Waters Initiative Fund and CleanBC Plastics Action Fund.</li> <li>Continuation with the implementation of the Extended Producer Responsibility Five-Year Action Plan to add more items to the Recycling Regulation.</li> </ul>
<b>56 CleanBC Organics Infrastructure Collection Program</b>	<ul style="list-style-type: none"> <li>The OICP will invest in new/expanded, organic waste processing infrastructure and residential organic waste collection programs.</li> </ul>	<ul style="list-style-type: none"> <li>Successful recipients of the OICP were announced in early December 2021. There are currently 23 projects that have been announced.</li> <li>Many projects have begun, one project is complete, and several are close to completion.</li> </ul>	<ul style="list-style-type: none"> <li>Finalize and announce funding for up to three additional projects.</li> <li>Strengthen relationships with Indigenous Nations that are leading projects in their communities.</li> <li>Tracking project spending and performance indicators, including anticipated GHG emission reductions.</li> </ul>
<b>57 Organics Infrastructure Program</b>	<ul style="list-style-type: none"> <li>The Low Carbon Economy Leadership Fund OIP invests in new/expanded, organic waste processing infrastructure. This is a joint federal and provincial funding program.</li> </ul>	<ul style="list-style-type: none"> <li>Fifteen funded projects were underway in 2021/22. A second intake under OIP opened at end of 2021/22 and closed in June 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Announcement of successful second intake applicants planned for fall 2022.</li> <li>Continue to support recipients to achieve successful project outcomes.</li> <li>Tracking project spending and performance indicators, including anticipated GHG emission reductions.</li> <li>Entering into funding agreements with successful recipients from second intake.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>58 Clean Coast, Clean Waters Initiative Fund – shoreline and derelict vessel clean-up</b>	<ul style="list-style-type: none"> <li>The Clean Coast, Clean Waters Initiative Fund provides funding for projects to clear B.C.'s shores of marine debris and derelict vessels.</li> </ul>	<ul style="list-style-type: none"> <li>Successful projects announced April 28, 2021. Coastal First Nations – Great Bear Initiative (CFN-GBI) and PwC-administered projects will be completed by December 31, 2021.</li> <li>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).</li> <li>Up to March 31, 2022: <ul style="list-style-type: none"> <li>Over 1,000 tonnes of debris removed.</li> <li>Nearly 4,000 km of shorelines cleaned.</li> <li>86 abandoned vessels removed.</li> <li>65% recycling rate for shoreline clean-up projects.</li> <li>1,295 jobs created.</li> <li>Partnerships and participation from 30 Nations.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Successful projects for 2022 season announced in late July 2022.</li> <li>CFN-GBI expansion.</li> <li>PwC to administer four new projects: <ol style="list-style-type: none"> <li>Coastal Restoration Society – one derelict vessel and one shoreline clean-up project.</li> <li>Ocean Legacy Foundation – one shoreline clean-up project.</li> <li>Misty Isles Economic Development Society – one shoreline clean-up project.</li> </ol> </li> </ul>
<b>59 CleanBC Plastics Action Fund – increase the use of recycled plastics</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Funded projects will replace or recycle over 20,000 tonnes of plastic per year.</li> <li>Ninety-seven jobs created; majority are permanent full-time.</li> </ul>	<ul style="list-style-type: none"> <li>Second funding intake available under three streams: <ul style="list-style-type: none"> <li>Post-consumer recycled plastic processing and manufacturing.</li> <li>Reuse, repair and refill businesses and business models that reduce plastic waste.</li> <li>Indigenous led projects to reduce plastic waste.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Applications are now being accepted, with successful projects being chosen beginning in late September 2022 and continuing until February 2023. All projects must be complete by February 15, 2024.</li> </ul>
<b>60 Advancing recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026</b>	<ul style="list-style-type: none"> <li>A phased approach where producers will be responsible for implementing, funding and managing recycling programs for more products, such as single-use products and EV batteries. Extended producer responsibility is a critical component to address recovery and recycling, a contributing key element that helps drive a circular economy.</li> </ul>	<ul style="list-style-type: none"> <li>Expanded the deposit-refund system to cover all milk containers.</li> </ul>	<ul style="list-style-type: none"> <li>Recycling program for single-use items, such as cutlery, party supplies, sandwich bags, food containers and more.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>PUBLIC SECTOR LEADERSHIP</b>			
<b>61 CleanBC Government Buildings program</b>	<ul style="list-style-type: none"> <li>Working to make government buildings more energy efficient, and reduce GHG emissions through retrofits, innovative building design, and by switching to clean energy sources.</li> <li>Target: By 2030, 50% reduction of GHG emissions in core-government buildings over 2010 levels and 80% reduction by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>Completed the first net-zero energy building of the government portfolio in Williams Lake, an office space for Ministry of Children and Family Development.</li> <li>Implemented energy upgrades at 36 government buildings throughout the province, including lighting, improved heating systems, and better insulation.</li> <li>Modernized building controls in more than 90 buildings, which allows for optimal energy consumption and reduces energy waste.</li> <li>Opened the new Westhills ShareSpace in Langford – the Province’s first fully mobile workspace for government employees.</li> <li>Developing a climate risk management program to prepare government facilities for climate change.</li> </ul>	<ul style="list-style-type: none"> <li>Planning for 2022/23 CleanBC Government Building Program investments.</li> <li>Initiating low-carbon electrification projects at several buildings.</li> <li>Developed comprehensive climate action requirements for new construction core government buildings to be operationally zero carbon starting 2022/23.</li> </ul>
<b>62 Charging stations at government buildings</b>	<ul style="list-style-type: none"> <li>Expand government building charging infrastructure across the province.</li> </ul>	<ul style="list-style-type: none"> <li>As of March 2022, installed 152 EV charging stations at government buildings throughout the province for both employee/visitor and fleet use.</li> </ul>	<ul style="list-style-type: none"> <li>Planning to install approximately 325 EV charging stations across the province by end of 2022/23.</li> </ul>
<b>63 CleanBC Government Fleet program</b>	<ul style="list-style-type: none"> <li>The program aims to significantly reduce government’s vehicle fleet emissions through the widespread adoption of ZEVs and act as a catalyst for change across the broader public sector.</li> </ul>	<ul style="list-style-type: none"> <li>Developed the CleanBC Government Fleet Program Plan through significant cross-government collaboration.</li> <li>Established a robust governance structure to guide program development, implementation and operations.</li> <li>Implemented service delivery contract and operational changes to support the program.</li> </ul>	<ul style="list-style-type: none"> <li>The program was formally approved in summer 2022. To date there are 63 ZEVs in the government’s vehicle fleet.</li> <li>Roll-out of new vehicle replacement process and universal charge cards that enable vehicle charging at public facilities.</li> <li>Implement dashboards that aid in locating charging stations and trip planning.</li> <li>Implement a ZEV-first procurement approach.</li> </ul>
<b>64 Carbon Neutral Government (CNG) Reporting</b>	<ul style="list-style-type: none"> <li>Public sector organizations (PSOs) in B.C. have been carbon neutral since 2010, as committed in the <i>Climate Change Accountability Act</i> (CCAA).</li> <li>Under B.C.’s CNG program – legislated under the CCAA – all PSOs follow a five-step process to achieve carbon neutrality: measure, reduce, offset, report and verify.</li> </ul>	<ul style="list-style-type: none"> <li>The 2021 reporting year marked the twelfth consecutive year of public sector carbon neutrality in B.C.</li> <li>In 2021, public sector organizations invested in carbon offsets and retired 642,948 tonnes of carbon offsets in June 2021.</li> <li>PSO emissions in 2021 were 12.9% 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.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to support and empower PSOs to take ownership for their climate action and streamline CNG reporting processes for the 2022 reporting year.</li> <li>Customer service survey planned for 2022/23 to establish baseline and solicit input on areas of strength and opportunities for improvement on customer service and enhanced functionality.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>65 Low-Carbon Standards for existing public sector buildings</b>	<ul style="list-style-type: none"> <li>Developing and implementing a comprehensive strategy (2024) to transform our existing buildings portfolio to a low carbon and resiliency standard.</li> </ul>	<ul style="list-style-type: none"> <li>First phase of contract energy emissions to model energy performance and GHG emissions of public building archetypes launched, jointly between the Climate Action Secretariat and Building and Safety Standards Branch.</li> </ul>	<ul style="list-style-type: none"> <li>Public Sector Building Archetype research contract to be completed.</li> <li>Planned research into business case for retrofits.</li> <li>Engagement on policy options for driving GHG reduction and climate resilience of existing building stock to begin in fall 2022.</li> </ul>
<b>66 Low-Carbon Standards for new public sector buildings</b>	<ul style="list-style-type: none"> <li>Requiring all new public sector buildings to align with our climate goals beginning with performance standards (2023) and moving to zero-carbon new buildings (2027).</li> </ul>	<ul style="list-style-type: none"> <li>Energy Emissions Assessment Framework to reduce GHGs by 50% over base LEED Gold case study in place as interim measure pending development and adoption of Environmental Social Governance Framework for Capital (ESGFC). Engagement undertaken with ministry stakeholders and policy development for the CleanBC pillar of the ESGFC to specify GHG reduction requirements for public sector building capital submissions.</li> </ul>	<ul style="list-style-type: none"> <li>ESGFC approved by Treasury Board June 2022, with anticipated implementation beginning summer/fall 2022.</li> </ul>
<b>67 Public sector light-duty ZEV-first requirement</b>	<ul style="list-style-type: none"> <li>Making zero-emission passenger vehicles the default option for public sector fleets, with ZEVs accounting for 100% of light-duty vehicle acquisitions by 2027.</li> <li>All public sector passenger vehicle inventory are ZEVs by 2035 (Under2 Pledge at COP26).</li> </ul>	<ul style="list-style-type: none"> <li>New annual public sector fleet inventory reporting via the CNG program.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct research and analysis to support development of a ZEV-first acquisition approach for public sector fleets.</li> </ul>
<b>68 Public sector medium/heavy-duty ZEV-first requirement</b>	<ul style="list-style-type: none"> <li>Making zero-emission medium and heavy duty vehicles the default option for public sector fleets.</li> <li>All public sector medium and heavy-duty vehicle inventory are ZEVs by 2040 (Under2 Pledge at COP26).</li> </ul>	<ul style="list-style-type: none"> <li>New annual public sector fleet inventory reporting via the CNG program.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct research and analysis to support development of a ZEV-first acquisition approach for public sector fleets.</li> </ul>
<b>69 Climate lens on Government capital projects</b>	<ul style="list-style-type: none"> <li>Factoring climate considerations into government decision-making, ensuring a focus on climate resilient, zero- or low carbon projects. This priority will be delivered through capital projects as they include an assessment of these factors in their planning and approval processes.</li> </ul>	<ul style="list-style-type: none"> <li>Develop policy and engaged stakeholders for the CleanBC pillar of the ESGFC that specifies GHG reduction requirements and charging equipment requirements for public sector building capital submissions.</li> </ul>	<ul style="list-style-type: none"> <li>ESGFC approved by Treasury Board June 2022, with anticipated implementation beginning summer/fall 2022.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>70 Embodied carbon targets for public sector buildings</b>	<ul style="list-style-type: none"> <li>Develop a Low Carbon Building Materials Strategy by 2023 that includes an integrated approach to decarbonizing buildings, initially emphasizing public sector buildings, supporting the development and implementation of embodied carbon targets for public sector buildings by 2030.</li> <li>Develop methods for quantifying and analyzing the total embodied carbon of our built environment and identifying pathways to reduce it.</li> </ul>	<ul style="list-style-type: none"> <li>Embodied carbon policy scan conducted spring 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Pre-planning session of Low Carbon Building Materials Strategy led by the Ministry of Jobs, Economic Recovery and Innovation's Mass Timber Office in spring 2022. Stakeholder engagement to begin fall 2022.</li> </ul>
<b>71 LEED Gold certification for facilities owned by health authorities</b>	<ul style="list-style-type: none"> <li>All new facilities owned by health authorities are expected to be certified LEED Gold (60-79 points out of 110 possible points) or equivalent. This helps to assure investments in new health care facilities yield superior performance in a variety of areas: location and transportation; sustainable sites; water efficiency; energy and atmosphere; materials and resources; indoor environmental quality; innovation and regional priority.</li> </ul>	<ul style="list-style-type: none"> <li>In June 2021, the Royal Columbian Hospital Redevelopment Project – Phase One was LEED Gold certified, including a 75-bed Mental Health Substance Use building, an Energy Centre serving the new and existing campus, and a new Campus Communication Hub.</li> </ul>	<ul style="list-style-type: none"> <li>Forty health care facilities have been constructed, are under construction or are in the planning process as LEED Gold facilities.</li> </ul>
<b>72 Carbon Neutral Capital Program (CNCP)</b>	<ul style="list-style-type: none"> <li>CNCP funding supports carbon-neutral projects that have the greatest impact on reducing GHG emissions and providing energy efficiency and operational cost savings.</li> </ul>	<ul style="list-style-type: none"> <li>Health authorities implemented 26 CNCP projects resulting in 4,568 annual avoided emissions (tCO<sub>2</sub>e).</li> <li>Post-secondary institutions implemented 49 CNCP projects using CNCP provincial funding.</li> </ul>	<ul style="list-style-type: none"> <li>Provincial funding to support energy and electrical upgrades at 75 schools.</li> <li>The CNCP is providing funding to the Ministry of Advanced Education and Skills Training to support approximately 51 projects at 25 post-secondary institutions.</li> </ul>
<b>FOREST AND AGRICULTURE</b>			
<b>73 Slash pile burning reduction initiatives</b>	<ul style="list-style-type: none"> <li>Slash piles – the residue from conventional forest harvesting – have long been burned as a way to help reduce the risk of wildfires, and to enhance habitat for wildlife and replanting.</li> <li>The Province will work towards near elimination of slash pile burning by 2030 and will increasingly divert materials away from slash piles and into bioproduct development, reducing both air pollution and GHG emissions while creating new economic opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Policy development is underway.</li> </ul>	<ul style="list-style-type: none"> <li>Partner with forest licensees and Indigenous communities to explore ways to make this feasible, taking into account any impact on wildfire risks.</li> <li>Continue to invest in projects that encourage greater use of forest fibre that would otherwise be burned.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>74 Updating policy and laws to allow use of Crown land for offset purposes</b>	<ul style="list-style-type: none"> <li>A new B.C. Forest Carbon Offset Protocol will expand access to the carbon-offset market for Indigenous communities and forest companies, supporting them to generate revenue while helping others meet their climate commitments. The protocol will also help to focus attention on the value of non-timber forest benefits, including biodiversity protection and carbon sequestration.</li> <li>Currently there is not a clear pathway to establish forest carbon offset projects on Crown land in B.C.</li> </ul>	<ul style="list-style-type: none"> <li>The Province is currently updating guidance, policy and laws to more easily enable the use of Crown land for the purposes of establishing forest carbon offset projects.</li> </ul>	<ul style="list-style-type: none"> <li>The Province will provide guidance documentation and webinars to support potential forest carbon offset project development.</li> </ul>
<b>75 Indigenous Bioproducts Accelerator program</b>	<ul style="list-style-type: none"> <li>The objective is to expand the Indigenous Forest Bioeconomy program to include a new Accelerator program, which will help Indigenous partners commercialize and scale-up innovative forest-based products by addressing the barrier to capital access for innovative Indigenous bioeconomy projects. Two to four projects will be funded per fiscal year. Projects can be in the pilot/demonstration, commercialisation, or scale-up phases.</li> </ul>	<ul style="list-style-type: none"> <li>Undertook program design and outreach to potential project partners.</li> <li>The Indigenous Forest Bioeconomy program, which the Accelerator program will build from, delivered 15 projects with 14 Indigenous partners across the province.</li> </ul>	<ul style="list-style-type: none"> <li>Program design has been completed and discussions are underway with project partners to define the scope and budget for four Indigenous-led forest bioeconomy projects through the new Accelerator program.</li> </ul>
<b>76 Methane reduction policy in forestry</b>	<ul style="list-style-type: none"> <li>Methane is slowly released due to decomposition of wood waste in landfills.</li> </ul>	<ul style="list-style-type: none"> <li>Work is underway to quantify and validate the contribution of wood waste landfills to provincial GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Once quantification methods are better refined, the Province will consider incorporating those improved methods in the Provincial Inventory Report.</li> </ul>
<b>77 Forest Carbon Initiative (FCI)</b>	<ul style="list-style-type: none"> <li>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 CO<sub>2</sub>e by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 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.</li> <li>More than 18,000 hectares of nutrient deficient forests have been fertilized to increase growth and sequester more carbon.</li> <li>Over 1.8 million cubic metres of fibre diverted from burning and utilized for bioenergy and other wood products, resulting in an immediate reduction of GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing reforestation funded by the Low Carbon Economy Leadership Fund (LCELf).</li> <li>Planned trees planted for 2022/23 through FCI (supported by LCELf) is estimated to be 24 million trees.</li> <li>LCELf is in its final year. Natural Resources Canada has begun implementation of the 2 Billion Tree program, which will see similar activities.</li> </ul>
<b>78 Cost-sharing for on-farm implementation of mitigation-related Beneficial Management Practices</b>	<ul style="list-style-type: none"> <li>Cost-share support to incent farmer adoption of Beneficial Management Practices (BMP) related to climate change mitigation, such as for projects related to biogas, electrification, manure management, nutrient management, and carbon sequestration.</li> </ul>	<ul style="list-style-type: none"> <li>Seventy-five climate change mitigation related BMP projects approved.</li> </ul>	<ul style="list-style-type: none"> <li>Fifty-one mitigation related BMP projects have been approved as of July 8, 2022.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Action in FY 2022/23 (Underway or Planned)
<b>ECONOMY-WIDE</b>			
<b>79 Future Ready: Skills for the Jobs of Tomorrow</b>	<ul style="list-style-type: none"> <li>The Future Ready: Skills for the Jobs of Tomorrow will outline a coordinated approach to address skill and talent shortages across all sectors of B.C.'s economy and ensure British Columbians are prepared for the jobs of tomorrow.</li> </ul>	<ul style="list-style-type: none"> <li>Funding was provided for industry reports to identify potential workforce implications of B.C.'s transition to a zero-emissions economy.</li> <li>A review of reports from across ministries on current and future government workforce development initiatives (including those relating to the clean economy).</li> <li>Engagement with key stakeholders on broad workforce development issues.</li> </ul>	<ul style="list-style-type: none"> <li>Future Ready: Skills for the Jobs of Tomorrow under development.</li> </ul>
<b>80 B.C. Tailpipe Standards</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>B.C. continued to work with the federal government to understand next steps for tailpipe standards.</li> </ul>	<ul style="list-style-type: none"> <li>The Ministry of Energy, Mines and Low Carbon Innovation is engaging with the federal government on the status of this including engagement with US government.</li> </ul>
<b>81 Analytical capacity for climate action</b>	<ul style="list-style-type: none"> <li>Development of an evaluation toolkit for B.C.'s climate policies.</li> </ul>	<ul style="list-style-type: none"> <li>Completed work on developing a method to evaluate co-benefits and harms of climate policies.</li> <li>Initiated development of a model to estimate emissions reductions due to climate policies.</li> </ul>	<ul style="list-style-type: none"> <li>Contracting external expertise to evaluate the economic impacts of climate policies and another to develop a methodology for evaluating market readiness of emission reduction technologies.</li> </ul>
<b>82 Carbon pricing</b>	<ul style="list-style-type: none"> <li>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.</li> <li>The carbon tax applies to the purchase and use of fossil fuels and covers approximately 70% of provincial GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>On April 1, 2021, B.C.'s carbon tax rate rose from \$45 to \$50 per tCO<sub>2</sub>e.</li> </ul>	<ul style="list-style-type: none"> <li>The Province is undertaking a review of the carbon tax and CleanBC Program for Industry to ensure that B.C.'s approach will be equivalent or better than the Canadian carbon pricing system.</li> <li>Beginning in 2023, B.C.'s carbon tax will meet or exceed federal carbon price requirements, while considering impacts to household affordability.</li> </ul>
<b>83 Climate-related tax initiatives</b>		<ul style="list-style-type: none"> <li>New climate-related tax incentives introduced in Budget 2022 including: <ul style="list-style-type: none"> <li>PST Exemption for Used ZEVs and Increased PST Surtax Thresholds for ZEVs to encourage consumers to adopt ZEVs.</li> <li>Clean Building Tax Credit for retrofits that improve the energy efficiency of multi-unit residential buildings.</li> <li>PST Exemption for Heat Pumps.</li> <li>Increase Tax Rate on Fossil Fuel Heating Equipment to further incentivize the switch to heat pumps.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Effective February 23, 2022 until 2027, PST exemption for used ZEVs and Clean Building Tax Credit.</li> <li>Effective April 1, 2022, heat pumps are exempt from PST.</li> <li>Effective April 1, 2022, the PST on a fossil fuel combustion system that heats or cools buildings or water is increased from 7% to 12%.</li> </ul>

# Climate Preparedness and Adaptation Table

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>PATHWAY 1: STRENGTHEN FOUNDATIONS – PARTNERSHIPS, KNOWLEDGE AND DECISION-MAKING</b>			
<b>Collaboration with Indigenous Peoples</b>			
<b>Climate change resilience partnerships</b>	<p>Work with Indigenous Nations and organizations to collaboratively integrate Indigenous knowledge and perspectives on climate change, climate risks and adaptive measures, into our work together.</p> <p>This work includes aligning climate risk assessments with commitments made through the <i>Declaration on the Rights of Indigenous Peoples Act</i>.</p>	<ul style="list-style-type: none"> <li>Projects funded included:               <ul style="list-style-type: none"> <li>A framework to assess climate impacts on cultural indicators in development by the Skeena Environmental Stewardship Initiative forum.</li> <li>Four pilot projects to protect Indigenous cultural heritage from climate change lead by the First Peoples Cultural Council.</li> <li>Implementation of a Climate Adaptation Workplan through Memorandum of Understandings with Coastal First Nations.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Work with First Nations Leadership Council Technical Working Group on Climate Change (FNLC CC TWG) to find opportunities for potential collaboration between FNLC Strategy, Roadmap to 2030 and Climate Preparedness and Adaptation Strategy (CPAS).</li> <li>Explore establishing a climate risk assessment sub-committee of Indigenous Climate Adaptation Working Group (ICAWG) focused on integrating Indigenous knowledge and perspectives of climate change into next version of the Provincial risk assessment framework.</li> <li>Work with ICAWG and FNLC CC TWG to develop engagement plan with Indigenous Nations, communities and organizations to integrate Indigenous knowledge and perspectives of climate change into next version of the Provincial risk assessment framework.</li> <li>Support inclusion of Indigenous knowledges, perspectives and priorities of climate adaptation into the Province's work with Indigenous Nations, communities, and organizations.</li> </ul>
<b>Indigenous Climate Resilience Capacity-Building Pilot Project</b>	<p>Identify priorities to increase Indigenous climate resilience, including regional Indigenous supports for communities and organizations, mentorship, knowledge products, adaptation training and a learning network. The Province will explore ways to improve this critical gap by undertaking a one-year pilot project to support Indigenous climate resilience capacity and skill-building needs.</p>	N/A	<ul style="list-style-type: none"> <li>A pilot project proposal will be developed and implemented in collaboration with ICAWG and FNLC CC TWG.</li> </ul>
<b>Indigenous climate engagement</b>	<p>Take a more coordinated, long-term and strategic approach to the Province's engagement with Indigenous Nations, communities and organizations in relation to CPAS and the Roadmap to 2030. This will include stable three-year funding for the FNLC CC TWG and the ICAWG, and work to enhance engagement with youth, Elders and off-reserve Indigenous Peoples.</p>	<ul style="list-style-type: none"> <li>Held a multi-day Indigenous Climate Resilience Forum online in February 2022 that featured a variety of community stories knowledge sharing sessions and skills-building workshops.</li> <li>Hosted a Provincial open house at the Forum with staff from CPAS and Roadmap initiatives.</li> <li>Held ongoing meetings with the FNLC CC TWG to develop CPAS and Roadmap initiatives.</li> <li>Established ICAWG in December 2021, with ongoing meetings held to implement CPAS.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings with FNLC CC TWG and ICAWG will continue. Work will be done in collaboration to:               <ul style="list-style-type: none"> <li>Integrate engagement for the Roadmap and CPAS 2022/23.</li> <li>Enhance engagement with youth, Elders and off-reserve populations.</li> </ul> </li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Framework for Respecting Indigenous Knowledge</b>	<p>Develop a document which provides the Ministry of Forests with:</p> <ul style="list-style-type: none"> <li>• A framework for integrating Indigenous Knowledge into climate adaptation and mitigation initiatives including decision-making, operations, policy and research.</li> <li>• A summary of recent government engagements with Indigenous Peoples.</li> <li>• A set of recommendations on how to transform input into government actions.</li> </ul>	<ul style="list-style-type: none"> <li>• Completed this report.</li> </ul>	<ul style="list-style-type: none"> <li>• Update Ministry of Forests Climate Action Plans (implementation plans) to reflect the recommendations provided in the Framework for Respecting Indigenous Knowledge.</li> </ul>
<b>Climate Data Monitoring and Forecasting</b>			
<b>Agricultural Weather Monitoring Network</b>	<p>Enhance the provincial agricultural weather monitoring network to assist producers with on-farm decision-making in light of increases in weather variability.</p>	<ul style="list-style-type: none"> <li>• Initiated user research with agricultural producers to understand their needs for weather-based information and decision aid tools.</li> <li>• Research described the needs of different producers in relation to weather data and tools, as well as opportunities to provide supporting education and extension needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue design research with prototyping and testing of a decision aid tool.</li> <li>• Co-develop the tool with agricultural producers and their advisors before developing for public release.</li> <li>• This process is part of a roadmap that will lay out steps for a long-term agricultural weather station network and tools that rely on the network.</li> </ul>
<b>Hydro-climatological program expansion</b>	<p>Coordinate and expand hydroclimatological data collection and monitoring networks into underrepresented areas of the province which will better inform our understanding of issues such as short- and long-term water shortage; changes in precipitation, water availability and water quality; and flood risk.</p> <p>This will provide essential data to support emergency management decisions; land, water and resource management; manage climate-related hazards and inform infrastructure design across B.C.</p>	<ul style="list-style-type: none"> <li>• The Province has developed tools to support engagement with Indigenous groups and clients such as:                             <ul style="list-style-type: none"> <li>– Geospatial statistical tools to help assess network coverage and gaps.</li> <li>– Hydrometric training modules to help develop a provincial hydrometric program, support provincial agencies in the collection of hydrometric data, and support First Nations and regional network (e.g. stewardship groups) capacity building and data management support.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Use geospatial statistical tools to expand the hydroclimate networks across the province.</li> <li>• Support these expansion activities by hiring and training staff, as well as procuring necessary equipment.</li> </ul>
<b>Cross-sector climate services</b>	<p>Expand necessary climate modelling and professional education services – through supports to the Pacific Climate Impacts Consortium (PCIC). Investment over the next three years to expand PCIC’s ability to meet the growing needs of Indigenous Nations and organizations, local governments, academia, businesses and industry to understand their climate risks and inform adaptation planning and actions.</p>	N/A	<ul style="list-style-type: none"> <li>• Develop a proposed work plan for the project that scopes future needs, including an analysis of current and future plans for expansion of PCIC services.</li> <li>• Develop and deliver at least three educational and technical workshops.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Forecasting and real-time information on flood and drought</b>	<p>Expand the operational capacity of the River Forecast Centre. Improve operational flood and drought forecasting capabilities to meet increasing demands due to longer and more intense drought and flood seasons under climate change to provide necessary real-time risk information to communities and the public.</p> <p>Continue coastal flood and storm surge forecasting through StormSurgeBC to provide accurate and timely risk information to coastal communities and emergency management teams.</p> <p>Strengthen drought response through more coordinated provincial and regional approaches.</p>	<ul style="list-style-type: none"> <li>Partnered with researchers at the University of Northern B.C. to develop tools to analyse the onset of snowmelt for hydrometric modelling freshet flood hazard forecasting.</li> <li>Provided funding to StormSurgeBC to provide ongoing storm surge forecasting to inform coastal communities of upcoming risks on a three- to seven-day timescale.</li> </ul>	<ul style="list-style-type: none"> <li>Review model performance from November 2021 and identify/implement actions to improve hydrologic modelling and forecasting.</li> <li>Provide funding for operations of StormSurgeBC.</li> <li>Develop new and refined tools and data for hydrologic modelling and river forecasts.</li> <li>Improve data-sharing on potential Nooksack River overflow events to support forecast and communication of transboundary flooding hazards.</li> </ul>
<b>ClimatEx Project</b>	<p>Form partnerships to develop a modernized suite of tools for accessing high-resolution downscaled climate change projections. The focus is on providing previously unavailable data on weather extremes, ecological drought, fire weather, and many biologically relevant climate indices.</p>	<ul style="list-style-type: none"> <li>Workplan developed by PCIC.</li> <li>Pilot project performed by the University of British Columbia (UBC) Weather Forecast Research Team.</li> <li>End user needs assessment completed by Mike Flannigan Lab, Thompson Rivers University.</li> <li>Partnerships and engagement with Environment and Climate Change Canada (ECCC), Natural Resources Canada, University of Victoria (UVic), and BC Wildfire Service.</li> <li>ClimR (R package for programmatic access to climate data) beta version completed.</li> </ul>	<ul style="list-style-type: none"> <li>Work underway on high-resolution weather simulations of the year 2021 across B.C. as preparation for subsequent reconstruction of B.C.'s historical weather (partnership with the UBC Weather Forecast Research Team).</li> <li>Established a research partnership on machine learning methods for downscaling climate projections. (ECCC – UVic)</li> <li>Initiated a 3-year project to develop high-resolution projections of historical and future extremes, drought, and bioclimate indices, accessible to the public with a suite of tools (PCIC).</li> <li>Ongoing refinement of the climR package.</li> </ul>
<b>Coastal Climate Impacts Assessment</b>	<p>Establish a state of knowledge on climate change impacts and projected climate conditions in the marine and coastal environments of the South Coast of B.C.</p>	<ul style="list-style-type: none"> <li>Completed a report that: <ul style="list-style-type: none"> <li>Assesses the climate change vulnerability and risk of key valued elements on the South Coast.</li> <li>Synthesizes the state of knowledge on climate change impacts for the South Coast.</li> <li>Identifies knowledge and adaptation gaps that were important to address and to build the region's resilience to climate change.</li> </ul> </li> </ul>	N/A
<b>Wildfire predictive services and modelling</b>	<p>Develop a Predictive Services Unit supported by the national and international research community to ensure the latest science and technology are applied to wildfire management decision-making and business intelligence. Wildfire Predictive Services is an emerging field that integrates fire modelling and data science, meteorology, climatology, forecasting methods, and applied learnings to better inform decisions made by emergency management agencies.</p>	<ul style="list-style-type: none"> <li>Established new unit with specialized positions in fire weather, fire behaviour analysts.</li> <li>Improvements to fire growth modelling and utilization of satellite imagery and remote sensing.</li> <li>Established a dedicated Research Chair in Predictive Services, Emergency Management and Fire Sciences at the Thompson Rivers University (2021) to guide applied research.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to expand Predictive Services Unit, modernize weather networks, and increase use of new and emerging technology.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Understanding Climate Risks</b>			
<b>Provincial Climate Risk Assessment</b>	Prepare for the next determination of climate change risks in B.C., as required under the <i>Climate Change Accountability Act</i> .	<ul style="list-style-type: none"> <li>Engaged with the Indigenous Climate Adaptation Working Group to discuss Indigenous values and perspectives in the assessment of climate risks.</li> </ul>	<ul style="list-style-type: none"> <li>Develop project scope and outcomes.</li> <li>Further engage with external partners.</li> </ul>
<b>BC Parks Climate Risk Assessment</b>	Take steps to better understand the impact of climate change on BC Parks infrastructure and physical elements of cultural sites. Climate projections will be developed according to common industry practice, catered to staff-level understanding, and allow for the identification and development of tools for resilient infrastructure planning.	<ul style="list-style-type: none"> <li>Completed deliverables include:                             <ul style="list-style-type: none"> <li>Twelve climate change factsheets for each BC Parks section.</li> <li>A vulnerability tool catered to BC Parks infrastructure to understand relative climate risk.</li> <li>A report providing survey findings, relevant resources for our agency, and next steps for being better prepared for severe weather in a changing climate (March 2022).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Make efforts to integrate this work into BC Parks practices for infrastructure related works.</li> </ul>
<b>Provincial Hazard, Risk and Vulnerability Assessment (HRVA)</b>	Revise the Provincial HRVA to align with current best practice, up-to-date knowledge and the Provincial Climate Risk Assessment. The output is anticipated to be a living product that provides better value to users. It intends to account for the changing climate, future climate scenarios and Indigenous perspectives.	<ul style="list-style-type: none"> <li>Initial project scoping completed. This identified several key questions, data sources, and approaches, that are being considered as the project charter, workplan, and contracting materials are being developed.</li> </ul>	<ul style="list-style-type: none"> <li>Outline a clear vision to meet project objectives and put in place initial investments/contracts for foundational work.</li> </ul>
<b>Education on Climate Impacts and Adaptation</b>			
<b>Adaptation skills for professionals</b>	Help professionals to effectively integrate climate change adaptation into their work through the Adaptation Learning Network’s training, resources, and networking. This project is led by Royal Roads University with funding from the provincial and federal governments.	<ul style="list-style-type: none"> <li>This is the third and final year of the project co-funded by the federal and provincial government under the Building Regional Adaptation Capacity and Expertise program. Outcomes include:                             <ul style="list-style-type: none"> <li>Development of 11 courses by 6 universities that were offered 1–8 times each.</li> <li>Development of a climate adaptation competency framework.</li> <li>Development of an adaptation learning network for professionals.</li> <li>Development of a micro-credential strategy for climate adaptation learning.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Province has provided funding for this project to continue. Work will include:                             <ul style="list-style-type: none"> <li>Designing additional continuing studies courses.</li> <li>Refining a framework for adaptation competencies.</li> <li>Advancing a micro-credential certification to formally recognize core skills and competencies for adaptation professionals in B.C.</li> </ul> </li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Climate awareness for educators, students and communities</b>	<p>Launch a public awareness and education campaign on the climate risks identified in the Preliminary Strategic Climate Risk Assessment for B.C. and ways to reduce risk exposure.</p> <p>Work to enhance climate change preparedness and adaptation education in Grades K-12. Enhancements will reflect the B.C. context and include Indigenous ways of knowing.</p>	<ul style="list-style-type: none"> <li>Ongoing work to highlight and expand on opportunities for climate education in B.C.</li> <li>Produced a pamphlet for B.C. teachers highlighting many existing resources and programs.</li> <li>Partnered with the B.C. Teacher's Federation to hold two teacher focus groups examining the K-3 landscape of climate education and opportunities to support teachers and students.</li> </ul>	<ul style="list-style-type: none"> <li>In partnership with the Institute for Environmental Learning, develop and launch a survey of the sector to ask a broader cross-section of B.C. educators for suggestions on how to enhance climate change education in B.C.</li> </ul>
<b>Climate Change Governance and Decision-making</b>			
<b>Climate change governance and decision-making</b>	<p>Work across government to build climate adaptation capacity and expertise and integrate climate change into the day-to-day business of ministries. Develop a governance structure to support further development and implementation of CPAS across government.</p>	N/A	<ul style="list-style-type: none"> <li>The Province will: <ul style="list-style-type: none"> <li>Establish and maintain a cross-government implementation structure for the strategy.</li> <li>Develop options for adaptation capacity-building across government.</li> <li>Establish and maintain intergovernmental relations for climate adaptation action.</li> </ul> </li> </ul>
<b>Climate Adaptation Policy Framework</b>	<p>Develop a Climate Adaptation Policy Framework to underpin and align policies, priorities and objective planning, program delivery, and strategic and operational decision-making across the full spectrum of the Ministry of Forests mandate. This Framework will also include improved guidance, education and resources for decision-makers to integrate climate change into updates of legislation and policy.</p>	<ul style="list-style-type: none"> <li>Completed jurisdictional scan (initial project phase).</li> </ul>	<ul style="list-style-type: none"> <li>Launch of a climate fundamentals course with modules for internal Government and external-to-Government audiences.</li> <li>Initiate development of a climate adaptation policy framework, which aligns the Ministry of Forests' climate policy initiatives, through internal and external engagement.</li> </ul>
<b>PATHWAY 2: SAFE AND HEALTHY COMMUNITIES</b>			
<b>Community Adaptation Planning and Implementation</b>			
<b>Local Government Climate Action Program</b>	<p>Provide local governments and Modern Treaty Nations with predictable and stable funding to support implementation of local climate action that reduces emissions and prepares communities for the impacts of a changing climate.</p>	<ul style="list-style-type: none"> <li>Qualitative and quantitative reports on the program gathered from 187 local governments and eight Modern Treaty Nations.</li> </ul>	<ul style="list-style-type: none"> <li>Hold engagements to discuss program structure and reporting requirements for the second year of the program.</li> <li>Release an annual summary report of the first year of the program in September 2023.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Local government barriers and enablers to low-carbon resilient buildings</b>	Research local government barriers and enablers to implementing low carbon resilient buildings. Provided funding to BC Housing's Mobilizing Building Adaptation and Resilience project for this work.	<ul style="list-style-type: none"> <li>• Convened project advisory committee.</li> </ul>	<ul style="list-style-type: none"> <li>• Project is underway. Work to be completed includes:                             <ul style="list-style-type: none"> <li>– A literature review and jurisdictional scan (technical, financial, social, political and regulatory barriers and enablers).</li> <li>– Environmental scan on barriers and enablers.</li> <li>– Development of a toolkit.</li> <li>– An engagement workshop.</li> </ul> </li> </ul>
<b>B.C. Resilient Communities Hub</b>	Create a web platform that aims to support communities across B.C. in understanding and managing climate adaptation and disaster risk reduction.	<ul style="list-style-type: none"> <li>• Completed a prototype web application to demonstrate how data can be made more accessible and contextualized to support communities working towards a resilient future for B.C.</li> </ul>	N/A
<b>Infrastructure Planning for Climate Resilience program design</b>	Provide subject-matter guidance related to infrastructure resilience planning to support the design of a potential Infrastructure Planning for Climate Resilience program (IPCRP) to support local governments and First Nations (program itself not yet funded).	<ul style="list-style-type: none"> <li>• Initiated contract with consultant defining scope, deliverables and outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>• Project is underway. Expected deliverables by late 2022 include:                             <ul style="list-style-type: none"> <li>– A resource guide for applicants.</li> <li>– An assessment framework that will help evaluable future project applications for a potential program.</li> </ul> </li> </ul>
<b>Community Emergency Preparedness Fund</b>	Since 2017, the Province has provided funds to the Union of BC Municipalities (UBCM) to coordinate the Community Emergency Preparedness Fund (CEPF) to help enhance the capacity of First Nations and local governments to reduce risk and respond effectively to adverse events.	<ul style="list-style-type: none"> <li>• Funding provided to the UBCM to provide for disaster risk reduction and climate adaptation funding to First Nations and local governments in 2022/23.</li> </ul>	<ul style="list-style-type: none"> <li>• Launched the Extreme Heat sub-stream under the CEPF Disaster Risk Reduction – Climate Adaptation funding stream in May 2022. Intake closed June 30, 2022.</li> <li>• Launched the Disaster Risk Reduction–Climate Adaptation funding stream under CEPF in July 2022. Two project intakes to close September 30, 2022 and February 27, 2023.</li> </ul>
<b>Hazard, Risk and Vulnerability Analysis and Toolkit expansion</b>	In 2020/21, the Province launched an online HRVA tool for First Nations and local authorities to support completion of HRVAs for their communities. Through a grant to UBCM's Green Communities Committee, this expansion will develop a broader toolkit for leveraging completed HRVAs to undertake preparedness, mitigation, response and recovery activities in a risk-informed way.	<ul style="list-style-type: none"> <li>• Approved a grant to UBCM and delivered funds for this project.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue ongoing work planning, including the identification of opportunities to leverage and align with other projects funded under CPAS.</li> <li>• Complete approved project charter and workplan</li> <li>• Begin initiating contracts to support this work.</li> </ul>
<b>Indigenous-led Climate Adaptation Knowledge and Capacity Building</b>			
<b>Indigenous Climate Research and Data Portal</b>	Support the First Nations' Emergency Services Society (FNESS) in developing and integrating data into their Lightship data portal. This portal is currently used by a large portion of their members for planning, preparedness, mitigation, response, and recovery activities. This project aims to provide better access to reliable data as well as a consolidated set of success stories and wise practices for use of data in First Nations Communities.	<ul style="list-style-type: none"> <li>• Approved a grant to FNESS and delivered funds.</li> </ul>	<ul style="list-style-type: none"> <li>• The Province and FNESS will continue to meet regularly to discuss progress and share information.</li> <li>• Quarterly reports will be filed by FNESS.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Wildfire Prevention and Mitigation</b>			
<b>Community Resiliency Investment (CRI) Program</b>	Provide funding for local and Indigenous communities for FireSmart (risk identification, prevention, education, fuel treatments and others) activities through the CRI program to improve wildfire resiliency and capacity. The Crown Land Wildfire Risk Reduction program provides funding for risk identification, reduction and adaptation activities on Crown land.	<ul style="list-style-type: none"> <li>Expansion of funding for the program to enhance community access and risk reduction on Crown Land.</li> <li>New, simplified processes for accessing funding and evaluating risk.</li> <li>Since the announcement of the FireSmart Community Funding Program in 2018, 219 eligible applicants, including 100 First Nations and 119 local governments, have received funding for projects.</li> </ul>	<ul style="list-style-type: none"> <li>The CRI program received new investment in 2022 to expand the program. The program is being reviewed to: <ul style="list-style-type: none"> <li>Provide greater ease of access.</li> <li>Expand eligible investments.</li> <li>Build capacity.</li> </ul> </li> </ul>
<b>Wildfire risk reduction and cultural and prescribed burning</b>	Expand the use of cultural and prescribed fire in partnership with First Nations and the forest industry, ranching community, wildlife stakeholders and other partners. This is a core part of the Ministry of Forests shift to a year-round model focused on risk reduction. These projects are eligible for funding under the CRI, Land Wildfire Risk Reduction and FireSmart Community Funding Support programs.	<ul style="list-style-type: none"> <li>Initiated new program, including staffing and infrastructure, development of policy framework, initiated engagement with Indigenous communities.</li> <li>For 2021/22, 47 projects were coordinated throughout the province for wildfire risk reduction and prescribed fire on Crown land.</li> </ul>	<ul style="list-style-type: none"> <li>Sixty cultural and prescribed fire project plans (dependent on finalized burn plans and subject to favourable seasonal weather conditions).</li> <li>Further expansion of the program, including guidelines for co-development of projects with Indigenous communities.</li> </ul>
<b>Wildfire education and awareness</b>	Continue to implement a comprehensive wildfire communications strategy that includes wildfire education and awareness through advertising, engagement and during wildfires (all forms of media), including a Wildfire App. Continued expansion of FireSmart activities.	<ul style="list-style-type: none"> <li>Incorporated wildfire education into fire communications.</li> <li>Recorded positive feedback received from the public through social media.</li> <li>BC FireSmart Committee continues to enhance wildfire awareness, prevention and preparedness through partnerships across all sectors.</li> </ul>	<ul style="list-style-type: none"> <li>Further expansion and maturing of the communications strategy, coordination with emergency management partners and use of FireSmart in the province.</li> </ul>
<b>Enhanced Flood Management</b>			
<b>B.C. Flood Strategy and Resilience Plan</b>	Define a coherent, strategic vision for flood management in the province, outlining what needs to be achieved and how to achieve it. This strategy will build on what the provincial government has already heard at multiple engagement events and set the foundation for B.C. flood resilience planning to be implemented. It will also include strengthening drought response through more coordinated provincial and regional approaches.	<ul style="list-style-type: none"> <li>Work focused on the creation of a strategic framework outlining the vision, outcomes and principles for flood resilience in B.C.</li> <li>Work completed included: <ul style="list-style-type: none"> <li>A methodology for a provincial flood risk assessment as the foundation for engagement with Indigenous nations in 2022/23.</li> <li>Updates to the provincial guidance for the design and maintenance of flood protection infrastructure.</li> </ul> </li> <li>Engagement work paused following the 2021 flooding events and the focus of many flood-impacted communities on recovery. Work towards the strategy supported these recovery efforts.</li> </ul>	<ul style="list-style-type: none"> <li>Re-engage with First Nations and local governments, followed by industry, professional organisation, non-government organizations, and other stakeholders. Led by Ministry of Forests and supported by Emergency Management B.C. (EMBC), in collaboration with multiple ministries.</li> <li>Targeted release of B.C. Flood Strategy in 2023.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Floodplain mapping</b>	Develop floodplain mapping standards for B.C. and compile existing floodplain mapping from communities across B.C. to provide critical planning and response information for high-risk areas. This information will be made accessible and available for British Columbians.	<ul style="list-style-type: none"> <li>• Drafted Flood Hazard Mapping Guidelines for British Columbia.</li> <li>• Initiated an assessment of high-risk flood areas with inadequate floodplain mapping to guide prioritization for provincial floodplain mapping.</li> <li>• Aligned planning and prioritization of B.C. floodplain mapping activities with opportunities for federal cost-sharing under the Flood Hazard Identification and Mapping Program (FHIMP).</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing work includes:                             <ul style="list-style-type: none"> <li>– Beginning the process of procuring a contract for conducting floodplain mapping in high-risk flood regions, in collaboration between the Ministry of Forests and EMBC.</li> <li>– Developing a Memorandum of Understanding with Natural Resources Canada under the federal FHIMP.</li> <li>– Developing a flood portal to store and distribute floodplain maps, in collaboration with multiple ministries.</li> </ul> </li> </ul>
<b>Health and Wellness</b>			
<b>Engagements on climate equity and extreme heat</b>	Better inform Provincial heat response planning by understanding the unique barriers, challenges, strengths and circumstances that equity-denied populations experience during the 2021 heat dome. Engage with those disproportionately impacted, such as seniors, people with disabilities, and people experience homelessness/housing insecurity.	<ul style="list-style-type: none"> <li>• Hosted a series of engagements participated in by over 100 people across B.C.</li> <li>• Shared learnings with a cross-ministry working group and in a <a href="#">public online report</a> to be shared widely across ministry partners and external agencies.</li> <li>• BC Housing has drawn from the report to better inform heat resilience among social housing residents.</li> <li>• Produced a companion report that consolidates learning and emerging practices for effectively engaging with diverse people.</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver a final companion report with best practices and recommendations for engaging with groups disproportionately impacted by climate change.</li> </ul>
<b>Climate Impacts Project (Data Innovation program)</b>	Leverage integrated B.C. administrative data to characterize the impact of significant climate-related events on the use of government services related to health or well-being. Generated data can be used to: <ul style="list-style-type: none"> <li>• Inform new or improved adaptation policies.</li> <li>• Examine the impact of these events on health service use.</li> <li>• Estimate heat-related costs to the health system.</li> </ul>	<ul style="list-style-type: none"> <li>• Examined patterns of income assistance and mental health-related service use during and after three significant flood events in B.C. (Phase 1).</li> <li>• Sharing findings through presentations to government committees and a report. These finding included:                             <ul style="list-style-type: none"> <li>– Small increase in income caseload following the start of flood events in two of three populations.</li> <li>– Observable increases in the frequency of substance-use related Medical Services Plan buildings.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Examine the impact of extreme heat events on health service use, with results expected in fall/winter 2022 (Phase 2).</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Low-carbon climate-resilient health system</b>	In collaboration with health authorities, the Province is establishing a new Climate Resilience Program to promote climate leadership capacity and initiate the shift towards a low-carbon, climate resilient health system in the health system.	<ul style="list-style-type: none"> <li>Completed a comprehensive review of climate actions across the health system, including an inventory of health system climate actions as well as progress, gaps and opportunities to enhance resilience.</li> <li>Established a Health Advisory Committee to advise on activities to promote health system collaboration on innovative, evidence-based solutions grounded in cultural safety and health equity.</li> <li>Identified priority action areas for the program.</li> </ul>	<ul style="list-style-type: none"> <li>In collaboration with health authorities, coordinate the implementation of health commitments under the Climate Resilience Program.</li> <li>Collaborate and engage with key partners within and beyond the health system on health sector climate action priorities.</li> <li>Develop collaborative governance structures to support the Climate Resilience Program.</li> <li>Initiate provincial assessment of current climate-related health impacts and vulnerabilities within the population and the health system.</li> </ul>
<b>Strengthening Public Health in B.C. Initiative</b>	Renew the Province's Guiding Framework for Public Health with inclusion of climate change impacts and response activities as part of the Strengthening Public Health in B.C. Initiative.	<ul style="list-style-type: none"> <li>Identified climate change as one of the top provincial strategic public health priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Completion of a renewed Guiding Framework for Public Health and associated Action Plan.</li> </ul>
<b>Extreme heat preparedness</b>	Better prepare the province, communities, and B.C. residents for extreme heat/extreme temperature events. This includes a clear response framework, enhanced protection for vulnerable populations and awareness of wise practices among all partners.	<ul style="list-style-type: none"> <li>Developed the Extreme Heat Preparedness Guide for Agencies and Ministries following the 2021 heat dome.</li> </ul>	<ul style="list-style-type: none"> <li>The <a href="#">Guide for Agencies and Ministries</a> and the <a href="#">PreparedBC guide</a> were released in 2022.</li> <li>Initial work-planning to build on the Guide and Heat Alert and Response System is underway, including: <ul style="list-style-type: none"> <li>Jurisdictional scans.</li> <li>Consultations with ministries and health professionals.</li> <li>Establishment of an oversight group.</li> <li>Development of a project charter.</li> </ul> </li> </ul>
<b>BC Health Effects of Anomalous Temperatures (BC HEAT) Coordinating Committee</b>	Established a committee to ensure scientific and evidence-based public health coordination around extreme hot weather events in the province.	<ul style="list-style-type: none"> <li>Established the BC HEAT Coordinating Committee in January 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Committee released an evidence-informed framework for the BC Heat Alert and Response System (BC HARS) in June 2022.</li> <li>Committee membership and terms of reference will be refined in fall 2022.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>BC Heat Alert and Response System</b>	Develop a Heat Alert and Response system for B.C.	<ul style="list-style-type: none"> <li>Created an evidence informed framework for the BC HARS. The document is available here: <a href="http://www.bccdc.ca/health-professionals/professional-resources/heat-event-response-planning">http://www.bccdc.ca/health-professionals/professional-resources/heat-event-response-planning</a>.</li> </ul>	<ul style="list-style-type: none"> <li>The Province will: <ul style="list-style-type: none"> <li>Engage with communities and partners throughout summer and fall of 2022.</li> <li>Hold information sessions with community and First Nations partners through EMBC regional networks.</li> <li>Continue to work with EMBC to develop an evaluation and improvement plan, with specific attention to susceptible populations.</li> <li>Ratify an approved and community-centric BC HARS through the BC Heat Committee, in collaboration with EMBC, for summer 2023.</li> </ul> </li> </ul>
<b>Extreme Heat Protective and Preventative Toolkit</b>	Develop an Extreme Heat Protective and Preventative Toolkit to support vulnerable individuals and communities by providing behavioural actions people in B.C. can take to lower risk of injury or illness during a potential extreme heat event.	<ul style="list-style-type: none"> <li>Provided feedback on Climate Action Secretariat-led messaging for wildfire smoke and heat for Indigenous communities, including recommendations for increased alignment in all communications related to health behaviours and knowledge.</li> <li>Toolkit is aligned with the PreparedBC Extreme Heat Preparedness Guide and Health Canada.</li> <li>Translated into French, Simplified Chinese, Punjabi and Farsi.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing distribution of the toolkit across government ministries, Non-Government Organization's, and health promoting organizations in B.C. to ensure province-wide reach and alignment in language and behavioural recommendations.</li> </ul>
<b>Public guidance for extreme heat and perinatal/ infant and young child populations</b>	Develop guidance materials on extreme heat for vulnerable populations.	<ul style="list-style-type: none"> <li>Worked to create public facing guidance on perinatal and infant/child health during extreme heat in collaboration with Perinatal Services BC, Child Health BC and the BC Heat committee. Health authority partners identified that there was a gap in terms of public facing guidance for perinatal and infant/child populations in relation to extreme heat.</li> </ul>	<ul style="list-style-type: none"> <li>Guidance materials are now available on HealthLinkBC that cover: <ul style="list-style-type: none"> <li><a href="#">Safety for Infants and Young Children During Extreme Heat.</a></li> <li><a href="#">Heat-related Illness in Infants and Young Children.</a></li> <li><a href="#">Safety for Perinatal Population During Extreme Heat.</a></li> </ul> </li> </ul>
<b>Food security</b>	Increase the Province's understanding of security and Indigenous food sovereignty in the context of a changing climate.	<ul style="list-style-type: none"> <li>Indigenous engagement began in February 2022 and is ongoing.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing engagement. Preliminary engagement reports and summaries are anticipated in fall 2022.</li> <li>Ongoing cross-government work on food security, such as ministry mandates and development of a policy framework.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>PATHWAY 3: RESILIENT SPECIES AND ECOSYSTEMS</b>			
<b>Healthy Waters</b>			
<b>Responding to ocean acidification and hypoxia (OAH)</b>	<p>Develop B.C.'s Fisheries and Aquaculture OAH Action Plan. The plan:</p> <ul style="list-style-type: none"> <li>Assesses the state of knowledge related to OAH in the coastal waters of B.C.</li> <li>Sets long-term goals for addressing knowledge gaps.</li> <li>Develops adaptation and mitigation strategies to support the fisheries and aquaculture sectors, including food-fish harvesters.</li> </ul> <p>More details can be found here: <a href="https://quadracentre.org/meetings/bc-fisheries-oah">https://quadracentre.org/meetings/bc-fisheries-oah</a></p>	<ul style="list-style-type: none"> <li>Formed an advisory committee representing provincial, federal, local government, First Nations, academic, industry, and non-governmental organisations. Held workshops to inform action plan development.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare drafted OAH Action Plan for publication, anticipated by November 2022.</li> <li>Form a taskforce to oversee implementation following discussions regarding the respective roles of the B.C. and federal governments.</li> </ul>
<b>Climate-ready contaminated sites</b>	Identify and review potential actions to incorporate climate adaptation and sustainability in B.C.'s contaminated sites framework.	<ul style="list-style-type: none"> <li>Reviewed groundwater protection policies and legislation in other jurisdictions.</li> <li>Drafted a Discussion Paper for engagement with Indigenous Nations and stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion Paper posted to Engage BC October 3, 2022.</li> <li>Engagement with Indigenous Nations will continue.</li> </ul>
<b>Watershed Security Strategy and Fund (WSSF)</b>	<p>Develop a WSSF.</p> <p>Establish a B.C. – First Nations Water Table that will address water issues that are provincial in scope.</p>	<ul style="list-style-type: none"> <li>Engaged internally on potential strategy outcomes.</li> <li>Engaged on a Discussion Paper supporting WSSF development, including a stakeholder policy workshop.</li> <li>Completed foundational work supporting Water Table establishment.</li> <li>Established a cross-ministry directors team.</li> </ul>	<ul style="list-style-type: none"> <li>Work underway: <ul style="list-style-type: none"> <li>Established a Water Table.</li> <li>Engaged internally with ministries.</li> </ul> </li> <li>Planned actions: <ul style="list-style-type: none"> <li>Co-develop WSSF with Indigenous Peoples.</li> <li>Engage with partners on a draft strategy, including a policy workshop.</li> <li>Complete strategy for finalization in late 2023.</li> </ul> </li> </ul>
<b>Healthy watersheds</b>	Support watershed security by distributing funding through grants to organizations with a proven track record in delivering watershed security projects.	<ul style="list-style-type: none"> <li>Signed seven grant applications. Funding recipients included: <ul style="list-style-type: none"> <li>Indigenous Watersheds Program at Watersheds BC.</li> <li>BC Wildlife Federation.</li> <li>Rivershed Society.</li> <li>Farmland Advantage.</li> <li>Redd Fish Restoration.</li> <li>Ducks Unlimited.</li> <li>Living Lakes Canada.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Discussions with each of the grant recipient to discuss updates in their work will occur in fall 2022.</li> <li>Interim reports from each grantee are due in October 2022.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Protecting our coasts</b>	<p>Continue to co-develop a Coastal Marine Strategy with coastal First Nations. This strategy will articulate actions to:</p> <ul style="list-style-type: none"> <li>• Improve stewardship of coastal marine environments.</li> <li>• Advance reconciliation with First Nations.</li> <li>• Foster community resilience in the face of increasing pressures.</li> </ul> <p>It will also:</p> <ul style="list-style-type: none"> <li>• Set a clear direction for management of marine and coastal areas and values.</li> <li>• Provide a well-defined roadmap into the future.</li> </ul>	<ul style="list-style-type: none"> <li>• Held a series of leadership and technical sessions with First Nations in early 2022 to identify shared values, issues and potential solutions for coastal marine management.</li> <li>• Collated feedback from these sessions into a What We Heard document.</li> </ul>	<ul style="list-style-type: none"> <li>• Work underway:                             <ul style="list-style-type: none"> <li>– Developed an Intentions Paper that outlines a proposed policy direction based on First Nations engagement, internal engagement and existing policies and programs.</li> </ul> </li> <li>• Planned actions:                             <ul style="list-style-type: none"> <li>– Seek input on the Intentions Paper from public, local government and partners in fall 2022.</li> <li>– Summarize submissions into a second What We Heard document in late 2022.</li> <li>– Begin development of a draft strategy in early 2023.</li> </ul> </li> </ul>
<b>Resilient Species and Ecosystems</b>			
<b>Future Forests Ecosystem Centre</b>	<p>Provide the expertise and resources to translate climate change projections into information that is meaningful for business areas or interest groups, translating expertise into data and tools that can be used directly by planners and practitioners. The Ecosystem Forecast Centre (being renamed as the Future Forests Ecosystem Centre) will follow a client service model, collaborating with Natural Resource Sector ministries to incorporate projections for reforestation, forest health, species at risk, old growth, timber supply and wildfire.</p>	<ul style="list-style-type: none"> <li>• Established the Future Forests Ecosystem Centre.</li> <li>• Established a governance structure for research funds.</li> </ul>	<ul style="list-style-type: none"> <li>• Developing a strategic plan in consultation with an implementation working group.</li> <li>• Funding projects on Forest Drought Risk assessment tool, climate impacts to caribou, species habitat models, insect outbreak modelling, climate change vulnerability assessment, vegetation community monitoring, tree range expansion monitoring, wildfire refugia, and decision-making under climate change uncertainty.</li> </ul>
<b>Invasive species predictive modelling and management</b>	<p>Develop, field-verify and implement predictive modelling for the introduction and expansion of high-risk species. This model will then be incorporated into updated invasive species risk assessments.</p>	<ul style="list-style-type: none"> <li>• Completed testing of two modelling approaches for climate change impacts on 25 invasive species expansions, using several taxonomic groups. Maps and data outputs produced for 13 species.</li> </ul>	<ul style="list-style-type: none"> <li>• Further analysis to identify habitat constraints for specific species.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Biodiversity research</b>	<p>Complete research, planning and modelling projects to:</p> <ul style="list-style-type: none"> <li>Identify opportunities for the conservation and management of vulnerable ecosystems or areas that may act as climate-stable refuges for species and ecosystems in the future.</li> <li>Produce Species Habitat Models to predict how habitats will change through time with climate change.</li> <li>Research fish and Environmental Flow Needs (EFN).</li> </ul>	<ul style="list-style-type: none"> <li>Work regarding vulnerable ecosystems and climate refugia included: <ul style="list-style-type: none"> <li>Initiating work on a framework to identify climate refugia in British Columbia terrestrial and aquatic ecosystems.</li> <li>A completed report analysing gaps in existing provincial wetlands policy and legislation.</li> </ul> </li> <li>Work on Species Habitat Models has included: <ul style="list-style-type: none"> <li>A draft provincial modelling standard.</li> <li>A library of environmental predictor data.</li> <li>A “proof-of-concept” species habitat model for Roosevelt Elk.</li> </ul> </li> <li>Work on EFN has included: <ul style="list-style-type: none"> <li>Analysis to provide quantitative support for flow management thresholds and help flow management in assessing the impacts of altered flows in data deficient streams.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Ongoing work on vulnerable ecosystems and climate refugia will produce: <ul style="list-style-type: none"> <li>Assessment methods.</li> <li>“Proof-of-concept” maps that identify refugia.</li> </ul> </li> <li>The wetlands report will support policy development and an inter-ministry wetland working group.</li> </ul>
<b>Climate change guidance for land use planning</b>	<p>Develop guidance to support B.C. Government and Indigenous planners in addressing climate change at collaborative land use planning tables. This guide will:</p> <ul style="list-style-type: none"> <li>Communicate key climate change context, priorities, and concepts from Western and Indigenous worldviews; and</li> <li>Identify a flexible approach to incorporate climate change into the Land Use Planning process, including existing tools and strategies.</li> </ul>	<ul style="list-style-type: none"> <li>Westland Resources completed a final draft of the guidance.</li> <li>Held an Indigenous engagement workshop to inform scope and content.</li> <li>Circulated document for feedback and review among multiple government teams focused on related work.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing Indigenous Advisory Review of guidance.</li> <li>Additional Indigenous and stakeholder engagement planned for spring 2023.</li> <li>Publication is anticipated end of spring 2023/early summer 2023.</li> </ul>
<b>Revitalizing wild salmon populations</b>	<p>Continue to implement BC’s Wild Salmon strategy and deliver the BC Salmon Restoration and Innovation Fund (BCSRIF) in collaboration with federal partners at Fisheries and Oceans Canada (DFO).</p>	<ul style="list-style-type: none"> <li>Forty-seven projects started that are funded by BCSRIF.</li> <li>B.C. will fund 30% and DFO 70%.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to work in partnership with DFO to deliver BCSRIF.</li> <li>B.C. and Canada announced in August 2022 that funding for the BCSRIF will be doubled and in September launched a request for new proposals.</li> </ul>
<b>Natural assets</b>	<p>Identify barriers to the use of natural asset infrastructure by local governments and Indigenous communities and suggest some initial strategies to help reduce barriers.</p>	<ul style="list-style-type: none"> <li>Initiated contract with consultant defining scope, deliverable and outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>The project is underway to identify: <ul style="list-style-type: none"> <li>Natural asset barriers faced by local governments.</li> <li>Potentials solutions to reduce these barriers.</li> </ul> </li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>PATHWAY 4: CLIMATE-READY ECONOMY AND INFRASTRUCTURE</b>			
<b>Climate-ready Infrastructure and Buildings</b>			
<b>Low carbon resilient public sector buildings</b>	Develop new climate resilience design standards and guidance to support provincial public sector organizations to prepare for climate risks to public sector buildings. The standards will be applied to major new buildings and renewals. The project will include requirements to use future shifted climate data for energy modelling and to undertake a climate risk assessment to support the understanding of risks that could occur at the project site.	<ul style="list-style-type: none"> <li>Standards developed and a financial analysis completed.</li> <li>Guidance and resilience framework in development.</li> </ul>	<ul style="list-style-type: none"> <li>Complete Standards and Guidance for public sector use.</li> <li>Test Standards and Guidance in project planning.</li> <li>Develop supporting materials.</li> </ul>
<b>Low carbon resilient public sector buildings – school districts</b>	Work with school district partners to incorporate climate mitigation and adaptation into the design and construction of capital projects. This includes providing a design option for all new school projects that reduce greenhouse gas emissions by at least 50% compared to a baseline building, with incremental funding provided by government to cover additional costs.	<ul style="list-style-type: none"> <li>The Province has given presentations on climate adaptation to school districts at conferences and worked with school district partners to:                             <ul style="list-style-type: none"> <li>Provide additional funding on all new school projects to reduce GHG emissions.</li> <li>Incorporate climate adaptation into capital projects.</li> </ul> </li> <li>Climate adaptation measure have included, but are not limited to:                             <ul style="list-style-type: none"> <li>Minimizing flood risk during site selection.</li> <li>Adding cooling systems to building designs.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Province will:                             <ul style="list-style-type: none"> <li>Continue to educate the sector on climate adaptation options.</li> <li>Continue to fund GHG reduction options.</li> <li>Further investigate how to incorporate the minimal climate resilient standards into concept plans and business case development processes for capital projects.</li> </ul> </li> <li>Supported by climate resilient standards guidebook described above.</li> </ul>
<b>Climate resilient resource roads</b>	This action has two components: <ol style="list-style-type: none"> <li>Develop and implement new standards and codes for resource roads that integrate consideration of climate change that will inform future maintenance and upgrade projects, to improve the resilience of B.C.'s resource road network.</li> <li>Conduct provincial geohazards research and assessment, including predicting, mapping and mitigating climate-driven geohazards such as potentially catastrophic landslides and flooding that can disrupt transportation corridors and communities.</li> </ol>	N/A	<ul style="list-style-type: none"> <li>Developing a new hydrology model to factor in climate change for new bridge and culvert installations.</li> </ul>



Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Resilient Highway Infrastructure Climate Adaptation program</b>	Identify, map, prioritize and proactively replace select high risk culverts and drainage vulnerable to climate and extreme weather as part of the infrastructure asset management adaptation program.	<ul style="list-style-type: none"> <li>• Foundational tools for this analysis have been developed, including:               <ul style="list-style-type: none"> <li>– A Geographic Information System (GIS) database that includes highway corridors, culverts, bridges and drainage basins associated with this infrastructure.</li> <li>– Performance measures, such as current capacity and added load from future climate change factors, to see how culverts perform in future scenarios.</li> <li>– Prioritization measures, such as economic, social, and environmental indicators, are used to assess infrastructure projects and prioritize adaptation actions.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing refinement of performance and prioritization measures in the GIS database for determining adaptation of vulnerable infrastructure.</li> <li>• Includes facility to identify hotspots and produce lists of adapted infrastructure.</li> </ul>
<b>Agriculture and food climate change adaptation programming</b>	<p>Research and extension programs related to areas including water supply and water conservation, dam safety, irrigation efficiency, extreme heat, and wildfire risk reduction.</p> <p>The two main components of this programming are:</p> <ul style="list-style-type: none"> <li>• The Regional Adaptation Program</li> <li>• The Farm Adaptation Innovator Program</li> </ul>	<p><b>Climate-ready Industry</b></p> <ul style="list-style-type: none"> <li>• Held training and knowledge transfer events.</li> <li>• Produced reference materials and products.</li> <li>• Identified and developed new technologies that can be demonstrated on-farm.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue research and extension projects related to water supply and water conservation, dam safety, irrigation efficiency, extreme heat, and wildfire risk reduction.</li> <li>• Continue regional climate adaptation assessments and 18 projects underway across Delta, Fraser Valley Cariboo, Okanagan, Bulkely-Nechako and Fraser Ft. George, Kootenay and Boundary, and Vancouver Island regions.</li> <li>• Apply on-farm research under the Farm Adaptation Innovator program (nine projects are set to be completed under this program by end of year 2022/23).</li> </ul>
<b>Beneficial Management Practices program</b>	Cost-sharing for on-farm implementation of climate change adaptation related Beneficial Management Practices (BMPs), such as for projects related to water supply and water management, cover cropping, and pest management. These projects often have GHG reduction and climate mitigation co-benefits.	<ul style="list-style-type: none"> <li>• Thirty-four climate adaptation related BMP projects approved.</li> </ul>	<ul style="list-style-type: none"> <li>• Approved 27 climate adaptation related BMP projects as of July 8, 2022.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Extreme weather preparedness and water infrastructure for agriculture</b>	Support farmer and ranchers to build resilience to wildfire, drought, flooding, extreme heat and other climate-related risks.	<ul style="list-style-type: none"> <li>Developed a conceptual plan for an Agricultural Water Infrastructure program that identifies:                             <ul style="list-style-type: none"> <li>Water-scarce areas based on assessment of sources that can be used for B.C. agriculture.</li> <li>Activities, practices and equipment that could be cost-shared to improve or expand irrigation infrastructure or water supply and storage.</li> </ul> </li> <li>Interviewed 10 Indigenous communities to assess water infrastructure needs for Indigenous agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>Launched an initial pilot of the Extreme Weather Preparedness for Agriculture Program in July 2022 to assist farm and ranch business in preparing for wildfire, flooding and extreme heat. Received over 70 applications.</li> <li>Launched an on-farm Agricultural Water Infrastructure program in July 2022 as an enhancement to the Beneficial Management Practices Program.</li> <li>Program will help producers capture some of the peak spring flow for use later in the summer when demand is highest, helping to mitigate both drought and flooding.</li> </ul>
<b>Climate Change Risk Management program</b>	<p>Minimize the negative effects of climate change on government buildings and the services they enable the Province to provide to British Columbians.</p> <p>Government has completed climate risk and vulnerability assessments of more than 50 buildings over the past three years.</p>	<ul style="list-style-type: none"> <li>Ongoing development of:                             <ul style="list-style-type: none"> <li>Tools to screen buildings/sites for climate hazards .</li> <li>A custom climate risk assessment methodology to assess climate risks on government buildings.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Province will:                             <ul style="list-style-type: none"> <li>Develop an internal training to build Climate Change Adaptation awareness within the government.</li> <li>Pilot two climate risk assessments and solutions studies with costed adaptation solutions to inform capital planning process.</li> <li>Learn from past climate events by gathering data on types of events and responses.</li> <li>Integrate the use of future climate data in ongoing HVAC design projects.</li> </ul> </li> </ul>
<b>Economic analysis of the 2021 heat dome</b>	Complete a retrospective analysis of the 2021 B.C. Heat Dome to examine the economic impacts in key areas and produce original information to support effective prioritization of investments in adaptation. This analysis will be completed through a shared-cost agreement with the Canadian Climate Institute.	<ul style="list-style-type: none"> <li>Funding provided.</li> </ul>	<ul style="list-style-type: none"> <li>Established an advisory committee with experts from across Canada in climate adaptation, extreme heat, health and economics.</li> <li>Will complete research and analysis by summer 2023.</li> </ul>
<b>Forest landscape planning (FLP)</b>	<p>Increase climate science and adaptation expertise to support integration of climate change in key forest management and decision-making to ensure that climate-relevant information is integrated and considered in foundational forest management systems.</p> <p>FLPs newly created by recent amendments to the <i>Forest and Range Practices Act</i>, provide a new mechanism for land managers to plan for future forest ecosystem conditions and to carry out practices and stand-level investments that contribute to managing global carbon cycles and climate change risks.</p>	<ul style="list-style-type: none"> <li>Three of the four FLP pilots have started to integrate Climate Change Vulnerability Assessment (CCVA) framework into the planning process.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to integrate CCVA into FLP pilot projects.</li> <li>Share learnings from CCVA process from FLP pilots to new FLPs.</li> </ul>

Climate Action	Details	Progress Measures/Results (FY 2021/22)	Actions In FY 2022/23 (Underway or Planned)
<b>Refreshing business areas and regions' Climate Action Plans (CAP)</b>	<p>Update and develop CAPs in each business area as required under the 2015-2020 Climate Change Strategy for the Ministry of Forests.</p> <p>In 2016, 22 CAPs were completed for regions and business areas across the ministry and implementation has been ongoing. Those CAPs expired on December 31, 2020, and Business Areas have been refreshing their CAPs following the approval of the updated 2021-2025 Climate Change Strategy.</p>	<ul style="list-style-type: none"> <li>• Fifteen ministry business areas (branches or regions) operate with updated CAPs and are working on final review and sign-off.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing work includes: <ul style="list-style-type: none"> <li>– Implementation and continuous improvement of existing CAPs.</li> <li>– Focus on development and approval of new CAPs to ensure all areas of ministry business are covered.</li> </ul> </li> </ul>
<b>Strategic Framework for Tourism: A Plan for Recovery and Resiliency</b>	<p>Rebuild and revitalize B.C.'s tourism industry while working with partners to ensure this industry is cleaner, more resilient and prepared to adapt to climate change. This will be achieved using three key actions:</p> <ol style="list-style-type: none"> <li>1. Collaborate with partners to identify climate risks and develop tools to respond.</li> <li>2. Encourage partners to adopt common sustainability policies and practices, such as through active transportation plans.</li> <li>3. Invest in infrastructure to reduce tourism emissions and waste, such as expanding EV charging network, and adapt to climate impacts.</li> </ol>	<ul style="list-style-type: none"> <li>• Supported several tourism climate resilience projects, including making recreational trails and infrastructure more resilient to extreme events like wildfire and flood. Projects are to be completed by March 2023.</li> <li>• Led the Tourism Emergency Management Committee, which collaboratively: <ul style="list-style-type: none"> <li>– Develops processes, resources and training for emergency stakeholders to help them manage environmental emergencies.</li> <li>– Launched the B.C. Tourism Emergency Management Framework, which assists stakeholders in adapting to climate change by preparing for emergency disaster events.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The Tourism Experience and Destination Development Fund will deliver funding towards projects that support tourism recovery resilience and support actions in the Strategic Framework for Tourism, including climate change preparedness and adaptation and implementation of more sustainable practices.</li> <li>• The BC Regional Tourism Leadership Society will use a grant to educate tourism industry stakeholders about their roles in emergency management and prepare them to respond and support guests and travellers during an emergency event.</li> </ul>



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