PEACE RIVER REGIONAL DISTRICT

Regional Climate Resiliency Plan

Acknowledgement

We would like to extend our gratitude to all the individuals and organizations who contributed to developing the Peace River Regional District Regional Climate Resiliency Plan. Your input has been essential in refining and enhancing the final Plan. We deeply appreciate your time and dedication to this important work.

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Ministry of Transportation and Infrastructure - Peace
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Peace River Forage Association
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Executive Summary

The Peace River Regional District (PRRD) is facing increasing climate-related challenges, including wildfires, floods, extreme heat, droughts, and severe storms. These events threaten daily life, infrastructure, and the local economy, underscoring the need for a proactive and coordinated approach to climate resilience and greenhouse gas (GHG) emission reduction. The Regional Climate Resiliency Plan provides a framework for addressing these challenges while aligning with provincial and national climate goals.

The PRRD's rural, northern location presents distinct climate action challenges, including cold winters with high energy demands, infrastructure limitations, and long travel distances between settlements and services. The plan acknowledges these realities while leveraging opportunities for sustainable innovation. It outlines strategies for both adaptation and mitigation, ensuring that the region is prepared for future climate impacts while reducing its reliance on fossil fuels.

Key components of the plan include:

- Buildings and Energy: Improving energy efficiency and enhancing the resilience of homes and buildings while expanding access to reliable, low-carbon energy sources.
- Transportation and Mobility: Supporting sustainable and climate-resilient transportation infrastructure.
- Public Infrastructure and Corporate Responsibility: Strengthening water supply sustainability, increasing resilience in regional infrastructure, and reducing corporate emissions.
- Local Economy and Agriculture: Promoting sustainable agricultural practices and supporting businesses in reducing emissions and adapting to climate impacts.
- Emergency Management: Enhancing early warning systems, emergency response measures, and public awareness campaigns to prepare for climate-related hazards.
- Ecosystems and Green Spaces: Integrating green infrastructure into planning and preserving the region's natural environments to enhance resilience.

Implementation of the plan requires collaboration across governments, Indigenous communities, industry, and local organizations. The PRRD will track progress through clear goals and indicators, adjusting strategies as needed to ensure effectiveness. While challenges remain, the plan sets a foundation for a sustainable and climate-resilient future, ensuring that the Peace Region can continue to thrive in a changing climate.

Contents

Introduction

The Peace River region is facing growing challenges as wildfires, floods, extreme heat, droughts, and severe storms become more frequent and severe. These climate-related events are disrupting daily life, livelihoods, and the local economy, putting strain on the region's ability to adapt and thrive. This highlights the importance of working together on practical, well-planned responses to protect what matters most to the region.

To face these challenges, the region must focus on both preparing for and adapting to changing conditions, ensuring communities remain resilient and capable of managing the impacts. The cold winters bring high energy demands, and long distances between communities make personal vehicles a necessity, with limited public transportation options. While these issues are significant, responding to them also presents opportunities to strengthen the region and drive innovation.

The **Regional Climate Resiliency Plan** is designed for the electoral areas of the Peace River Regional District (PRRD). The plan aims to help these rural areas adapt to projected climate impacts and take steps to reduce greenhouse gas (GHG) emissions. It provides a framework that respects the unique conditions of these rural, northern communities while working toward broader provincial and global climate goals.

- **Adaptation**: Preparing for and managing the impacts of climate change by making homes, infrastructure, natural areas, and community systems more resilient.

- **Mitigation**: Reducing GHG emissions in a way that acknowledges the specific challenges faced by rural and resource-based communities, while contributing to global efforts to reduce climate impacts.

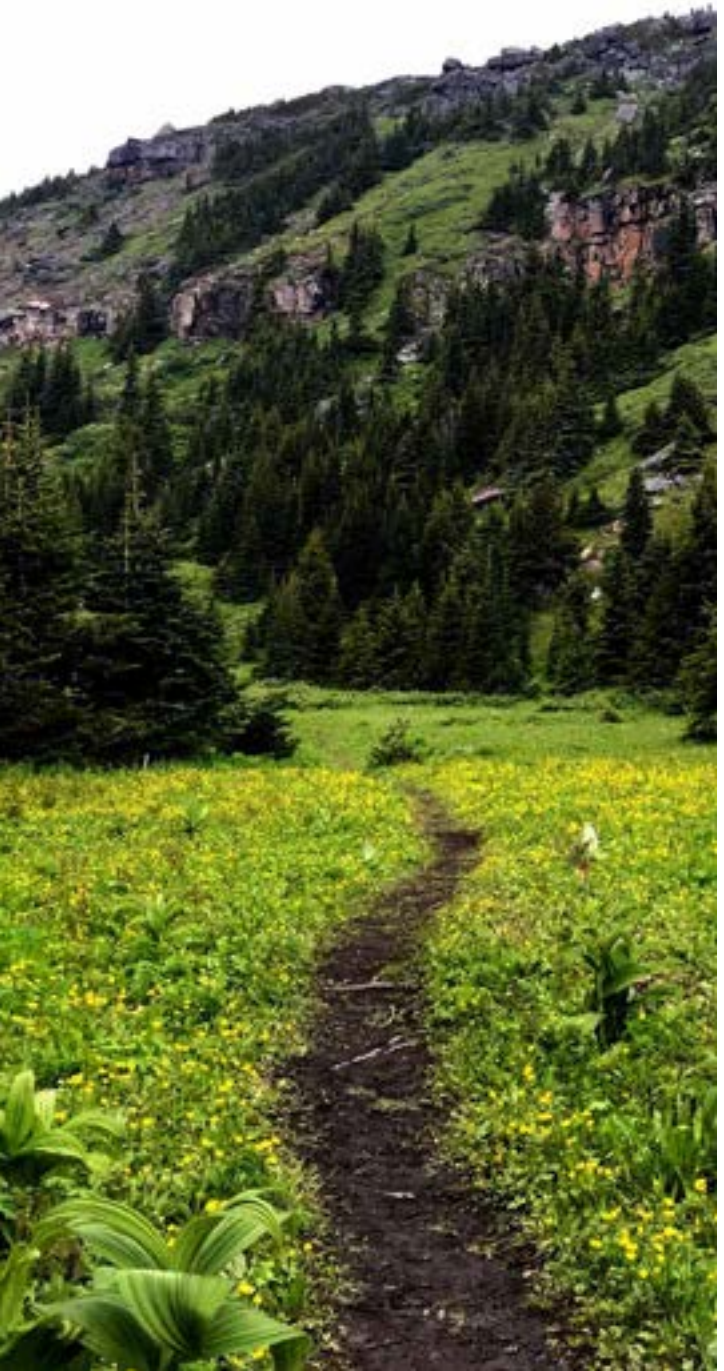
Provincial targets call for a 40% reduction in emissions below 2007 levels by 2030 and achieving net-zero emissions by 2050. While these targets are critical for meeting national and global climate commitments, the path to achieving them will look different for each community. In the Peace River region, the cold climate and geographically dispersed communities make adopting technologies like electric vehicles and heat pumps more challenging in the near term.

Given these factors, it is crucial that climate action strategies are tailored to the distinct realities of living and working in northern, rural communities, while still striving to meet overarching emissions reduction goals.

Through this Plan, the PRRD aims to:

- Strengthen infrastructure to better withstand climate hazards.
- Support sustainable practices in resource industries.
- Empower communities through education and involvement in the climate action process.
- Enhance collaboration among the regional district, municipalities, provincial ministries, First Nations, industry associations, agricultural groups, energy providers, health services, chambers of commerce, tourism organizations, and other key interest holders to build a comprehensive approach to climate action.

By establishing a foundation for a resilient, low-carbon future, the PRRD is taking an important step to protect the health, safety, and prosperity of its communities in a changing world.



Overview

The Peace River Regional District (PRRD) covers the largest area of any regional district in B.C. It is bordered by the Northern Rockies to the north, the Stikine Region to the northwest, the Bulkley-Nechako Region to the southwest, and the Fraser-Fort George Region to the south. The region's varied terrain includes forests, mountains, wetlands, grasslands, and agricultural lands, with communities dispersed across large distances. Its rural and remote nature poses unique challenges for infrastructure, transportation, and service delivery, with limited public transit options and long travel distances between settlements.

The region's economy is largely driven by resource industries such as agriculture, forestry, oil, and gas, alongside growing tourism and small-scale industries. While the economy is vulnerable to climate impacts, it also offers opportunities for sustainable innovation and resilience.

The PRRD serves these key functions:

1. Acts as local government for its unincorporated electoral areas.
2. Provides the political and administrative frameworks for municipalities and electoral areas to collaborate on service delivery.
3. Coordinates and provides regional services.[1]

As an essential regional government, the PRRD offers leadership, advocacy, and a variety of services, including:

- Building inspection
- Fire protection
- Invasive Plant Program
- Parks and recreation
- Planning and Land Use Management
- Rural water services
- Solid waste management
- Wastewater treatment and collection[2]

The PRRD collaborates closely with local governments, First Nations, agencies, and volunteer organizations to address regional challenges and enhance service delivery. It includes seven incorporated municipalities and four electoral areas, representing over 40 rural communities (see Figure A).

[1]Peace River Regional District ([2024]) Peace River Regional District Regional Growth Strategy Regional Profile.
[2]Peace River Regional District (n.d.) Who We Are. Retrieved from https://prrd.bc.ca/who-we-are/

Figure A: Peace River Regional District Electoral Areas and Communities

INCORPORATED COMMUNITIES

- District of Chetwynd
- City of Dawson Creek
- City of Fort St. John
- District of Hudson's Hope
- Village of Pouce Coupe
- District of Taylor
- District of Tumbler Ridge

ELECTORAL AREAS

- Electoral Area 'B' (18 unincorporated communities)
- Electoral Area 'C' (6 unincorporated communities)
- Electoral Area 'D' (12 rural communities)
- Electoral Area 'E' (10 rural communities)

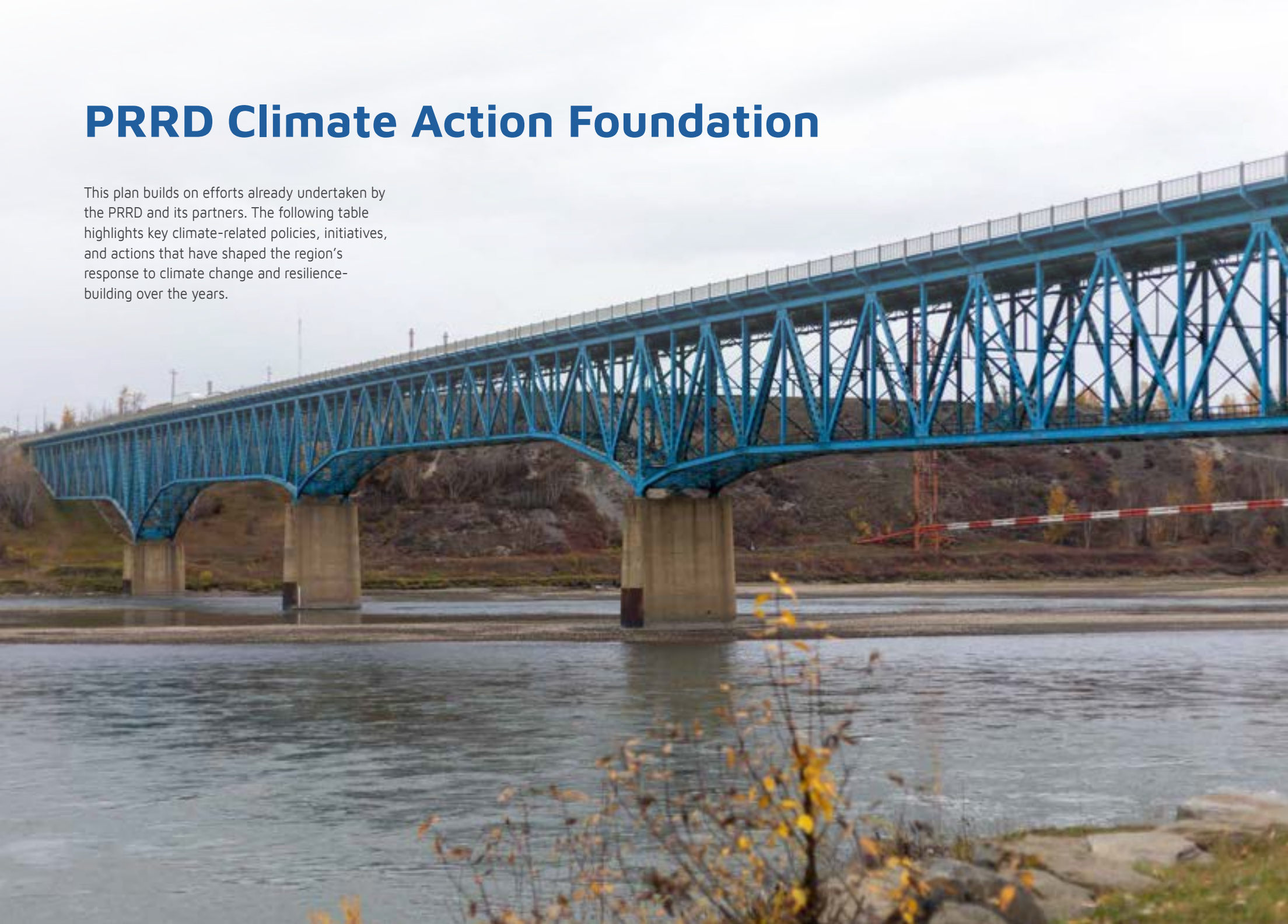
FIRST NATIONS COMMUNITIES

The Peace River Regional District is situated on the traditional territory of the Dane-zaa (Beaver), signatories of Treaty 8 and the Métis Nation BC Region 7.

1. Blueberry River First Nations
2. Doig River First Nation
3. Halfway River First Nation
4. Kwadacha Nation
5. Saulteau First Nations
6. Tsay Keh Dene Band
7. West Moberly First Nations

PRRD Climate Action Foundation

This plan builds on efforts already undertaken by the PRRD and its partners. The following table highlights key climate-related policies, initiatives, and actions that have shaped the region's response to climate change and resilience-building over the years.



CATEGORY	EXISTING CLIMATE POLICIES AND INITIATIVES RELATED TO CLIMATE ACTION
Organizational Leadership	**2023-2026 Strategic Plan:** Includes a goal under emergency management to ensure the PRRD's interests are articulated and considered in response to proposed amendments to the Emergency Program Act and Fire Services Act.
Land Use and Transportation	**Flood Risk Assessment (2020):** Identification of the primary causes of flooding in Chetwynd, Moberly Lake, and Pouce Coupe and development of a foundation for flood mapping to address identified risks. **Floodplain Identification and Flood Hazard Mapping (2021):** Developed floodplain and hazard maps for key areas, classified alluvial fans, and provided strategic recommendations for long-term flood risk management. **Regional Growth Strategy (2025 draft):** Long-range plan and regional vision statement that outlines actions to support key areas (e.g. housing, transportation, economy, and more) in the context of the changing climate.
Emergency Management and Preparation	**Rural Emergency Response Plan (2014):** Comprehensive, all-hazards plan. **Regional Debris Management Operational Plan (2022):** Provides systematic guidance on managing debris after emergencies. **Community Wildfire Resilience Plans (2023):** Includes recommendations to increase regional resilience to wildfires and emergency planning for wildfires. **FireSmart Campaign (Ongoing):** Achievements since 2021 include 100 home assessments, 10 critical infrastructure assessments, and various community events.
Water and Waste	**Regional Solid Waste Management Plan (2022):** Focus on efficiency, reducing/reusing/recycling, and sustainable management. **Water Conservation Plan (2023):** Assessed water demands, inventoried water resources, and proposed conservation actions. **Composting Pilot at Bessborough Landfill (2024):** Includes landfill gas collection and control systems.
Ecosystems	**Invasive Plants Program (Ongoing):** Management of invasive plants through prevention, containment, and restoration using hand-pulling, spraying, and re-seeding, with resources like the Invasive Plant Priority List.
Energy Efficiency and Emission Reduction	**PRRD Electoral Area Official Community Plans:** Set GHG reduction targets and actions that promote alternative energy, and collaboration to improve energy efficiency and emissions reductions.

Regional Climate Resiliency Plan Development

The PRRD's Regional Climate Resiliency Plan was developed over the course of a year, incorporating research, analysis, and extensive engagement with the community, PRRD staff and numerous organizations across the region. The process took a collaborative approach to ensure that the final plan addresses the unique needs and priorities of the region. Input from dedicated community members, local interest holders, and staff contributed to the establishment of clear goals and actions aimed at creating a resilient and low-emission future for the rural areas of the regional district.

PROJECT STEPS

- **Policy Analysis:** Reviewed existing federal, provincial, and PRRD policies to identify gaps and opportunities for regional action.
- **Climate Projections:** Analyzed regional climate projection data to understand the range of potential future climate impacts.
- **Emissions Inventory and Projections:** Gathered historical emissions data for the PRRD electoral areas.
- **Risk and Vulnerability Assessment:** Identified key risks and vulnerabilities based on local climate projections and engagement with staff and interest holders.
- **Goal Setting and Action Planning:** Established vision, goals, and climate action in the region, focusing on regional needs and challenges.
- **Best Practices Integration:** Integrated emerging best practices from other regions to enhance the strategy's effectiveness.

ENGAGEMENT

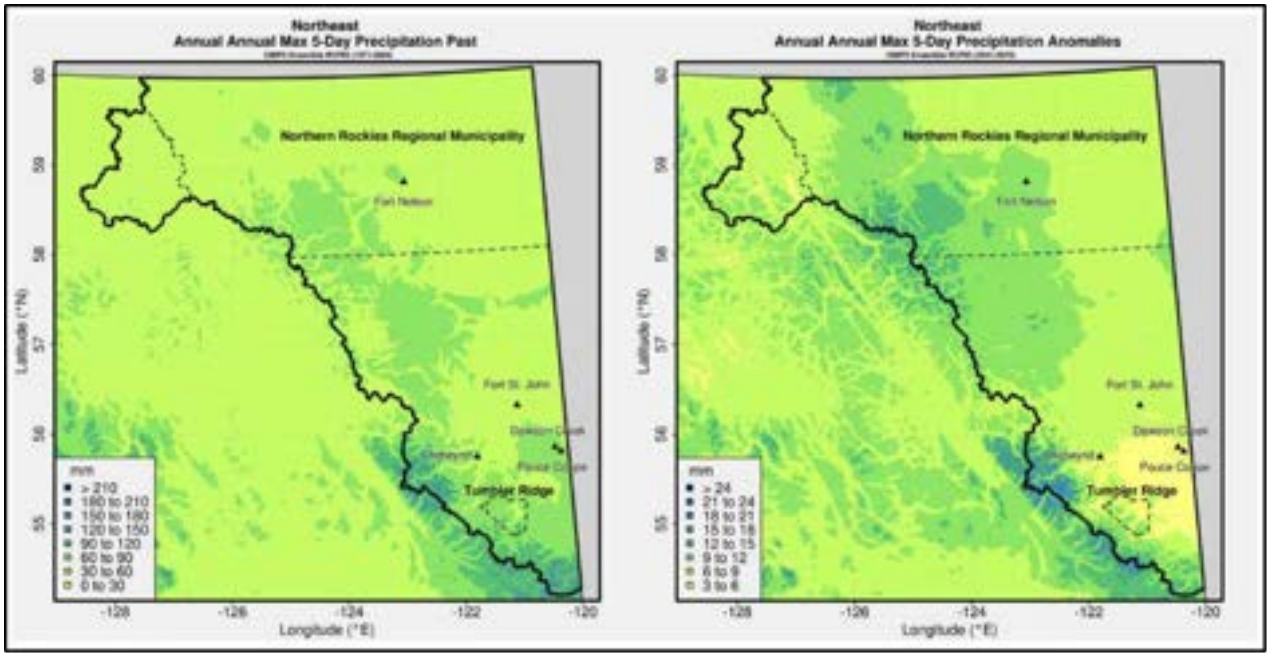
The development of the Plan included an engagement process ensuring broad participation and feedback throughout the plan's development. This included:

- **Public Survey and Open Houses:** An online survey was launched at the start of the project to gather input on climate action priorities. Four open houses (in Hudson's Hope, Tumbler Ridge, Fort St. John, and Dawson Creek) were held to engage residents directly and foster discussion on climate resilience. Two pop-up sessions were also held at the Fort St. John Farmer's Market and Chetwynd Chainsaw Carving Competition.
- **Workshops with Internal Staff and Interest Holders:** Four workshops brought together internal staff and interest holders to identify climate risks, gaps, and opportunities and to develop actions. Additionally, a session with the PRRD Board of Directors provided guidance and feedback for shaping the plan.

Climate Change

EXPECTED CLIMATE CHANGES

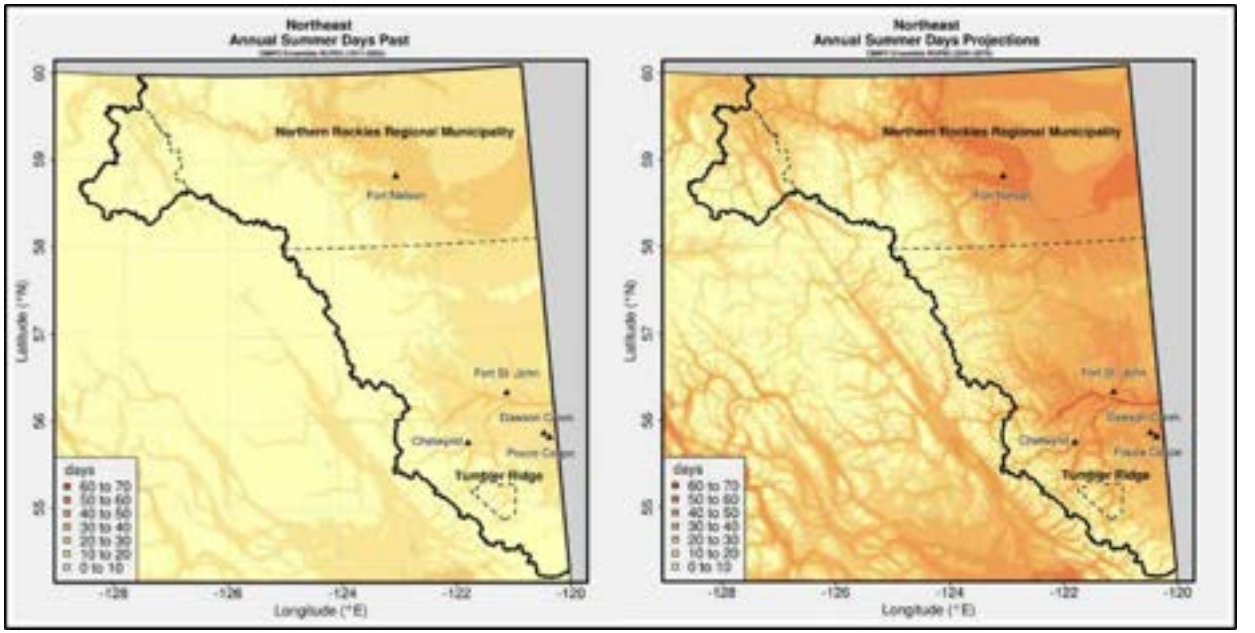
The region is expected to experience significant climate changes in the coming decades, which will affect both the environment and local communities. Some of these changes are already becoming evident. Key projections include:

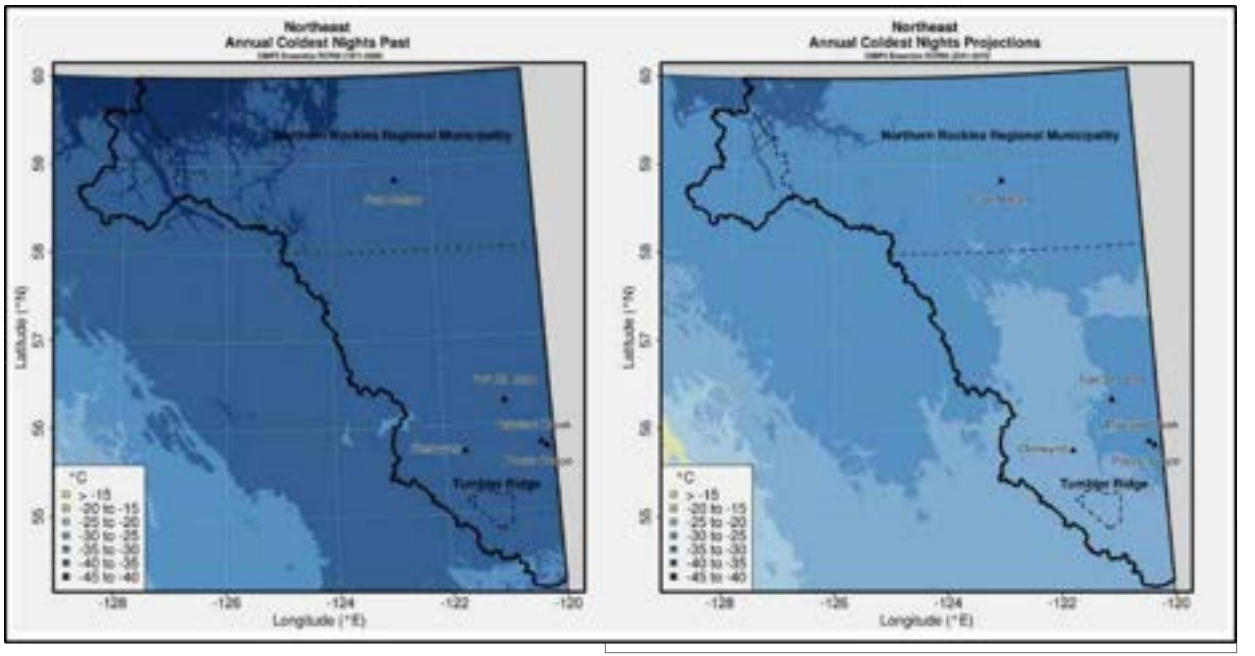


- **Warmer Summers:** A sharp increase in the number of days over 25°C, with projections showing up to 32 days by the 2050s and 49 days by the 2080s (compared to 12 days in the 1980s). This will heighten wildfire risks, water shortages, and heat-related health concerns.
- **Warmer Winters:** Winter temperatures are expected to rise, reducing frost days by 28% and extending growing seasons by 37%, potentially benefiting agriculture.
- **Increased Precipitation:** A 30% increase in spring and autumn precipitation by the 2080s is anticipated, leading to more frequent flooding and added stress on ecosystems and infrastructure.
- **Extreme Weather Events:** The frequency and intensity of extreme weather events, such as windstorms, hailstorms, and heavy rainfall, are projected to rise.
- **Decreased Summer Streamflow:** Earlier snowmelt and reduced snowpack will result in lower summer streamflow, exacerbating water stress and impacting water availability.[3]

[3]Fraser Basin Council (2019). Climate Projections for the BC Northeast Region. Retrieved from https://www.fraserbasin.bc.ca/_Library/CCAQ/fbc_ne_climatereport_web.pdf

By the 2080s, temperatures in Northeast BC will resemble those of the Okanagan region in the 1980s. January temperatures will feel like March in the 1980s.





Disproportionate Climate Impacts

Climate change affects different populations in diverse ways, and not all groups will experience the impacts equally. Certain communities and individuals, due to a combination of social, economic, health, and environmental factors, are disproportionately vulnerable to climate hazards such as extreme heat, wildfires, flooding, and drought. Addressing these inequities is crucial to ensuring that climate resilience efforts are inclusive and effective. The following outlines key groups that should be prioritized to ensure all residents are supported in adapting to climate change impacts.

- **Low-Income and Precariously Housed Individuals**: People in low-income or unstable housing face challenges like poor-quality shelter and lack of cooling measures, leaving them more exposed to heat and air pollution. Limited access to transportation further restricts their ability to seek refuge during extreme weather.
- **Older Adults and Children**: Seniors and young children are more sensitive to extreme heat, air pollution, and other climate hazards. Health conditions and limited mobility increase their vulnerability, for example, during heatwaves and wildfires.
- **People with Physical Health Conditions and Disabilities**: Individuals with cardiovascular or respiratory conditions, as well as individuals with disabilities, face increased risks from climate impacts. Struggles with mobility or thermoregulation make it harder to adapt to extreme weather conditions.
- **People with Mental Health and Substance Use Challenges**: Mental health conditions or substance use disorders can impair an individual's ability to respond to climate threats. These individuals may also face added risks from medications and social isolation.
- **Indigenous and First Nations Communities**: Indigenous communities often experience disruptions to food sovereignty, cultural practices, and access to emergency services, further compounding their vulnerability to climate change.
- **Outdoor Workers and Farmers**: Those working outdoors, such as farmers and construction workers, are exposed to extreme conditions, leading to health risks and economic strain, especially during droughts and heat waves.
- **Immigrants and Linguistically Isolated Individuals**: Language barriers can limit access to vital information, making immigrants and non-English speakers more vulnerable during climate-related events.
- **Women and Pregnant People**: Pregnant women and women in disaster situations face unique health risks from extreme weather, such as pre-term birth, and are also at increased risk of gender-based violence.

Greenhouse Gas Emissions

Understanding the sources of GHG emissions in the region is essential for developing effective emission reduction strategies. As a regional district, the PRRD can implement strategies and advocate for initiatives and policies that directly influence emissions while also supporting broader regional, provincial, and industry-wide efforts to meet climate goals.

INVENTORY METHODS

The GHG emissions inventory for the PRRD was developed following the BC Best Practices Methodology for Quantifying GHG Emissions and the provincial Community Energy and Emissions Inventory data. This data for local inventories focuses on emissions from transportation, buildings, and solid waste—three key sectors where local governments have the greatest influence. By focusing on these sectors, the inventory provides a clear and actionable framework for local climate policy and community-based initiatives. The inventory does not include industrial processes, agriculture, air travel, and shipping, as most of these sectors lie outside the jurisdiction of local governments. Land use changes are also not quantified in this inventory.

KEY SOURCES OF EMISSIONS IN THE REGION

As of 2021, total GHG emissions for the PRRD community-wide were approximately 216,000 tonnes of CO2e. Figure B shows the breakdown of GHG emissions by sector in 2021 for PRRD electoral areas.

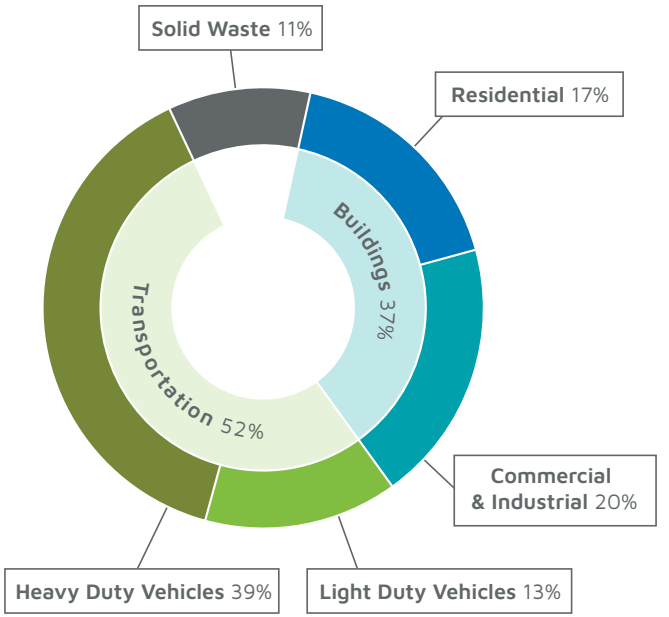


Figure B: Summary of 2021 GHG emissions by sector.

Transportation is the largest contributor to GHG emissions in the region, making up 52% of total emissions. Within this sector, heavy-duty vehicles like trucks and buses are the main source (39% of all emissions). Given the region's reliance on diesel fuel and limited zero-emission options for these vehicle types at this time, reducing transportation emissions will present challenges in this region. However, the introduction of cleaner technologies such as eventual adoption of zero-emission heavy-duty vehicles, improving fuel efficiency, and alternative fuels could offer opportunities to reduce emissions over time. Light-duty vehicles (cars and small trucks) are the second largest source of transportation emissions. These vehicles are expected to reduce emissions more quickly with continued improvements to fuel efficiency and the provincial and federal regulations requiring the sale of zero-emission light-duty vehicles by 2035.

Buildings contribute 37% of the region's emissions, with residential, commercial, and industrial buildings being significant sources of stationary energy use. Natural gas is the primary driver of these emissions, accounting for 80% of all building-related emissions and 92% of commercial and industrial building emissions. The region's cold winter temperatures present a barrier to reducing natural gas dependency. However, opportunities exist to significantly cut emissions in this sector by enhancing building efficiency through building code updates, adopting heat pumps specializing in cold-weather performance, and bolstering the reliability of the regional electricity grid. Simultaneously, increasing funding opportunities for deep carbon retrofits may unlock the capital needed to support energy efficiency investments across all building types.

Solid Waste contributes 11% of the region's emissions. Emissions in this sector come (largely) from the release of greenhouse gases as solid waste decomposes in landfills. Ongoing efforts to reduce waste through improved recycling programs and composting can help mitigate emissions from waste disposal. Regulation of methane emissions from landfills can also lead to a reduction in emissions from this sector.

Figure C presents a detailed breakdown of total GHG emissions in the PRRD, segmented by fuel type. It does not include emissions from solid waste or electricity-associated emissions within the district. Most (60%) emissions from fuel usage comes from transportation fuels, with diesel emissions representing the single biggest source of emissions of any fuel. These emissions come largely from heavy-duty vehicles in use across the district. In the building sector, the predominant fuel type is natural gas, responsible for around 34% of fuel-source emissions. Natural gas is primarily used for heating and cooling residential and commercial buildings although a small portion is used to power vehicles as well. The remaining emissions come from the use of other fuel types, such as propane and heating oil, which are less common but still contribute to the overall emissions footprint.

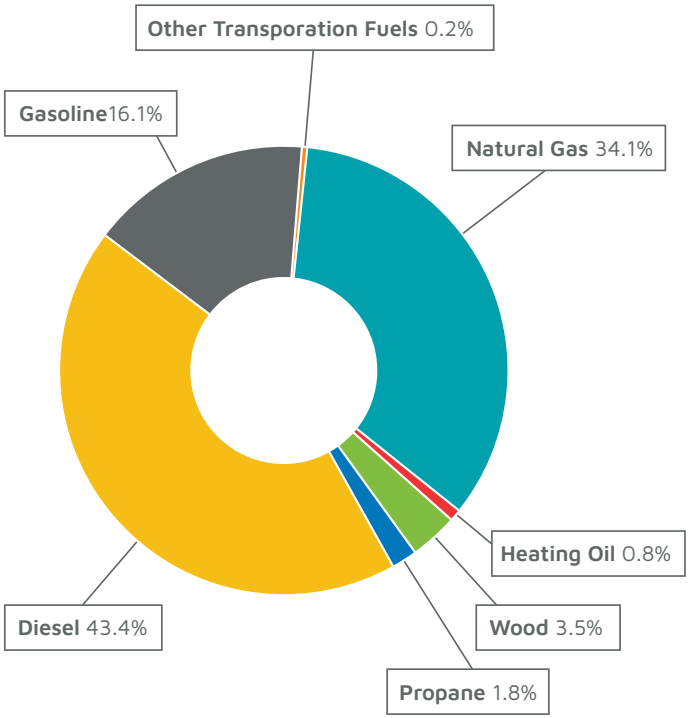


Figure C: Breakdown of total greenhouse gas emissions in the PRRD.segmented by fuel type (2021).

While emissions from agriculture, industrial processes, and other sectors fall outside the jurisdiction of local governments, the PRRD can play a vital role in promoting sustainability and encouraging broader regional, provincial, and industry-wide efforts to meet climate goals. Local policies and initiatives targeting transportation, waste management, and buildings can be crucial in driving emissions reductions and fostering a more sustainable future.

GREENHOUSE GAS EMISSION REDUCTION GOALS

To align with provincial and national GHG emission reduction targets, the PRRD will focus on lowering regional emissions by reducing fossil fuel reliance, improving energy efficiency, and promoting sustainable land-use practices—while prioritizing resilience. These actions will mitigate climate change impacts and provide important co-benefits such as lower energy costs and greater local energy independence.

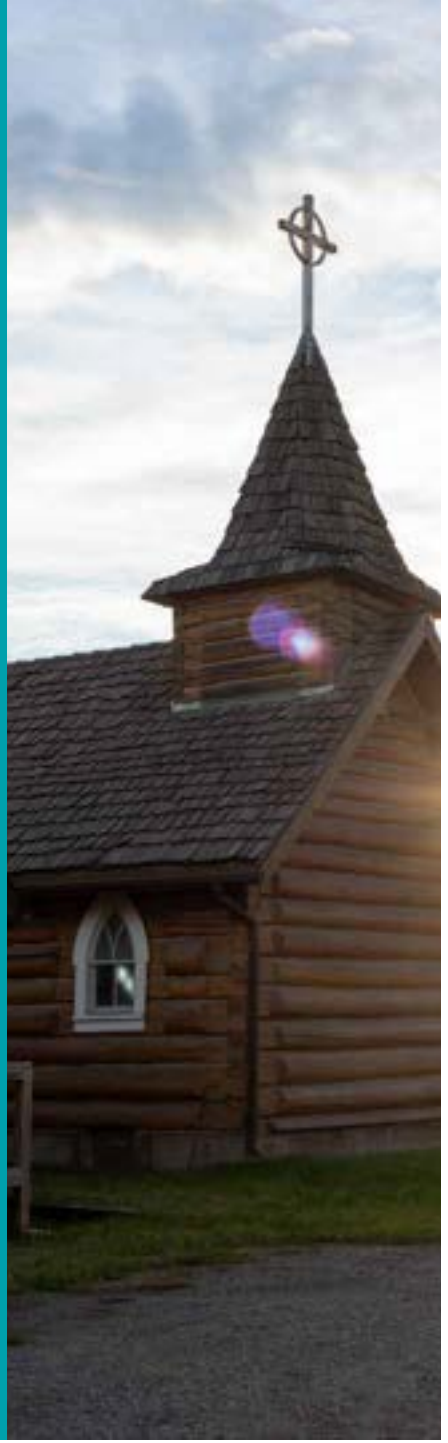
At the same time, the PRRD also recognizes the unique challenges facing the region in decarbonizing. The northern climate, characterized by large seasonal variations and long winters, means the district has a significant dependence on heating and energy-intensive infrastructure. The relatively remote and dispersed nature of the communities also means more limited access to suitable low-emission alternatives. Together, these realities pose barriers to rapid emission reductions. As such, overcoming these obstacles will require tailored, gradual solutions and sustained support from all levels of government.

Climate Resiliency Plan

The actions outlined in this plan emphasize the regional district's role in both enhancing resilience to climate change and reducing GHG emissions across the electoral areas of the region. These actions are designed to align with the PRRD's capacities and jurisdiction, while fostering collaboration with other levels of government, community groups, Indigenous communities, and the private sector.

The PRRD acknowledges its important role in achieving this plan's goals, but recognizes its capacity is limited. Successful implementation will rely on coordinated contributions from various organizations, with provincial and federal funding, legislative support, and private investments being essential to realize the goals in this plan. Collective action, shared responsibility, and a close collaboration across sectors will be key to ensuring these climate goals are achieved and sustained over time.

BUILDINGS AND ENERGY



GOAL 1:

Enhance resilience and efficiency of homes and buildings

Indicator: Net community building emissions and energy use/ dwelling.

GOAL 2:

Ensure reliable power sources

Indicator: Percentage increase in backup energy and renewable energy systems installed annually.

OVERVIEW

Buildings in the region play a vital role in providing safety and comfort to residents, businesses, and organizations amidst the region's diverse and challenging climate. However, energy inefficiencies, particularly in older structures, heighten vulnerabilities to climate hazards such as extreme weather, power outages, and flooding. These challenges are further exacerbated by increasing energy demand and the need for reliable, affordable energy solutions.

Through engagement with the community, concerns emerged around the inefficiencies of current energy systems and the growing impact of extreme weather on buildings and infrastructure. Addressing these issues by promoting energy-efficient upgrades, renewable energy adoption, and improving buildings and homes' resilience to climate change offers an opportunity to mitigate risks, lower costs, and reduce GHG emissions.

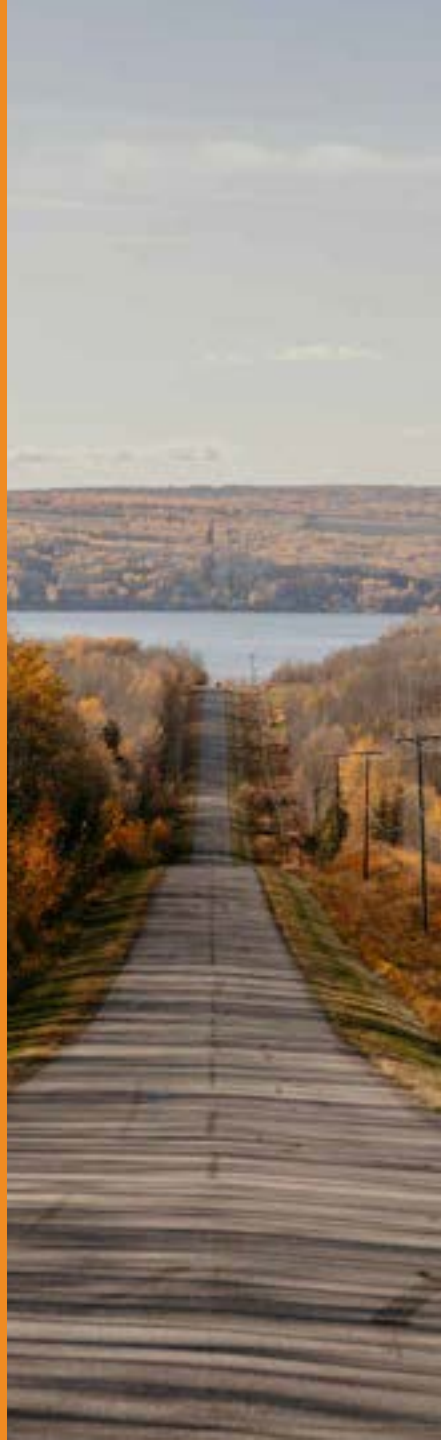
Goal 1: Enhance resilience and efficiency of homes and buildings

REGIONAL DISTRICT SCOPE	TIMEFRAME
1.1 Explore assistance for home energy retrofits Explore providing assistance, resources or top-up incentives to help residents complete energy-efficient home upgrades, improving home resiliency and reducing emissions.	Medium (2-5 years)
1.2 Explore the development of a Regional Housing Plan which incorporates resilient and low/ zero carbon building principles Explore the development of a Regional Housing Plan, in collaboration with member municipalities, including engaging with the public and interest holders on opportunities and challenges to integrate resilient building principles and low carbon technologies into the housing market.	Medium (2-5 years)
COLLABORATION	
1.3 Collaborate to support local trades in energy efficiency Collaborate with local institutions to offer workshops and information sessions for trades specializing in energy-efficient and resilient building practices.	Medium (2-5 years)
1.4 Collaborate to educate residents on efficient and climate-resilient construction Collaborate with different organizations like Northeast Climate Resilience Network and/or the Community Energy Association (CEA) to offer workshops and resources to Peace Region residents on building and retrofitting structures to withstand local climate risks, including floods, heatwaves, and storms.	Medium (2-5 years)
ADVOCACY	
1.5 Advocate for energy auditor and trades training Advocate for the promotion of energy auditing and support training programs for local trades in the Peace Region to enhance expertise in energy-efficient, resilient building practices.	Medium (2-5 years)

Goal 2: Ensure reliable power sources

REGIONAL DISTRICT SCOPE	TIMEFRAME
2.1 Remove potential barriers to backup energy and renewable projects Review PRRD policies to identify and remove potential barriers to renewable or backup energy systems and explore policy options to incentivize and support their adoption.	Medium (2-5 years)
ADVOCACY	
2.2 Address northern heating and power reliability Advocate for infrastructure improvements that enhance power reliability and address the specific heating needs of northern communities to reduce outages and energy instability.	Long (5+ years)

TRANSPORTATION AND MOBILITY



GOAL 3:

Enhance transportation resilience and sustainability

Indicators: Net greenhouse gas emissions per year from light-duty vehicles and total kilometres of new sustainable transportation projects completed annually.

OVERVIEW

Transportation is a lifeline for the region, connecting communities, supporting the economy, and enabling access to goods and services. However, the region's transportation infrastructure faces significant challenges, including vulnerabilities to climate impacts such as extreme weather, flooding, and freeze-thaw cycles. These issues threaten the safety, functionality, and resilience of the transportation network, potentially causing disruptions to the local economy, supply chains, and emergency evacuation routes. Community concerns highlight the need for durable and climate-resilient infrastructure that can withstand future conditions.

Challenges also exist in transitioning to low-emission transportation, particularly in rural areas, due to limited electric vehicle (EV) infrastructure, high costs, and battery performance in cold climates. Provincial initiatives like the CleanBC Roadmap to 2030, which mandates 100% zero-emission vehicle sales by 2035, provide a framework to support these efforts. Still, tailored regional approaches will be crucial to meet the unique needs of northern communities. Public transit access remains limited, with opportunities for expansion in more populated areas to reduce dependency on personal vehicles.

This theme emphasizes the importance of building a transportation system that is both climate-resilient and low-carbon.

Goal 3: Enhance transportation resilience and sustainability

REGIONAL DISTRICT SCOPE	TIMEFRAME
3.1 Support active transportation infrastructure development Incorporate active transportation considerations into regional planning updates, including Official Community Plans, the Parks and Recreation Master Plan, and similar planning tools. Work with partners, NGOs, and communities to build the capacity for active transportation infrastructure while coordinating with the Ministry of Transportation and Transit.	Medium (2-5 years)
3.2 Investigate installation of EV charging stations at PRRD facilities Investigate installing electric vehicle (EV) charging stations at PRRD facilities, contributing to the expansion of EV infrastructure in the region and supporting sustainable transportation options.	Medium (2-5 years)
3.3 Explore pursuing land use planning tools to promote sustainable community planning Investigate the development of a Complete Communities Assessment for key fringe and rural areas to help reduce transportation related emissions, and reduce urban sprawl in the wildland urban interface.	Medium (2-5 years)

Goal 3: Enhance transportation resilience and sustainability – Continued

COLLABORATION	
3.4 Explore expansion of public transit options Partner with BC Transit and local municipalities to explore opportunities to enhance public transit connectivity between rural and urban areas, aiming to reduce vehicle dependency, decrease emissions, and provide greater mobility for residents living in fringe areas.	Medium (2-5 years)
3.5 Consider developing a resilient master transportation plan Collaborate with the Ministry of Transportation and Transit to evaluate developing a regional transportation plan that focuses on improving connectivity, safety, accessibility, community well-being, and economic vitality, all while supporting a low-emission, active, and resilient northern transportation system.	Medium (2-5 years)
3.6 Support community groups building active transportation trails Collaborate with community groups working on building or expanding active transportation infrastructure, such as trails, bike lanes, and pedestrian pathways, to enhance mobility options and encourage sustainable, low-emission transportation choices.	Medium (2-5 years)
ADVOCACY	
3.7 Promote regional EV infrastructure development Advocate for and facilitate partnerships (e.g., Charge North) for expanding electric vehicle (EV) charging stations across the region to support a low-emission transportation network.	Long (5+ years)

PUBLIC INFRASTRUCTURE AND CORPORATE RESPONSIBILITY

GOAL 4:

Ensure sustainable and resilient water supply

Indicator: Regional drought conditions, number of PRRD potable water stations.

GOAL 5:

Enhance regional district infrastructure resiliency

Indicator: Number of PRRD infrastructure projects that incorporate climate resiliency measures completed annually.

GOAL 6:

Reduce corporate GHG emissions

Indicator: Percentage change in corporate GHG emissions relative to baseline year (2007).

OVERVIEW

Public infrastructure and corporate operations enable PRRD to provide essential services and support community well-being. Public infrastructure systems, such as water and wastewater, must be made resilient to climate hazards like flooding and extreme weather. Investments in climate-resilient design, critical system upgrades, and integration of climate considerations into asset management are necessary to safeguard essential services.

Water sustainability is also a priority, focusing on supporting rural water supply, promoting water conservation, and exploring non-potable water systems. By collaborating with other government organizations and interest holders, the PRRD can ensure the resilience and sustainability of its public infrastructure while also reducing its environmental impact.

As climate change presents increasing risks, the PRRD can lead by example by being environmentally responsible and taking action to enhance the resilience and sustainability of public infrastructure.

Regional district operations, including fleet operations and energy use in facilities, contribute to GHG emissions. Transitioning to low- or zero-emission vehicles, updating the corporate energy plan, and adopting sustainable procurement policies will help reduce the organization's environmental footprint and improve operational efficiency. Additionally, transitioning to a more sustainable records management system will streamline operations and reduce corporate waste.

Goal 4: Ensure sustainable and resilient water supply

REGIONAL DISTRICT SCOPE	TIMEFRAME
4.1 Water sustainability and contingency plan templates Explore the development of user-friendly templates to help rural landowners and agricultural producers create their own water sustainability and contingency plans, including drought preparedness and non-potable water systems for diverse uses.	Short (1-2 years)
4.2 Investigate new rural potable water systems Explore innovative and sustainable approaches to develop reliable potable water sources in rural areas, focusing on remote and underserved communities.	Medium (2-5 years)
4.3 Launch targeted water conservation campaigns Develop and implement water conservation campaigns aligned with the Regional Water Conservation Plan to raise awareness, reduce water waste, and promote sustainable water usage within communities.	Short (1-2 years)
4.4 Integrate water conservation policies into OCPs Incorporate specific water conservation measures, such as xeriscaping, into Official Community Plans during updates to promote long-term water efficiency.	Medium (2-5 years)

Goal 4: Ensure sustainable and resilient water supply – Continued

COLLABORATION	
4.5 Support non-potable water systems Collaborate with Northern Health to investigate and establish guidelines for new development that support incorporating non-potable water systems, such as purple pipe infrastructure, as an optional feature to enhance water sustainability.	Medium (2-5 years)
4.6 Explore the development of a regional integrated water resource management plan Collaborate with provincial agencies, member municipalities, First Nations, Northern Health, and residents to explore the development of an integrated water resource management plan across the region that integrates ecological, social, cultural considerations, along with economic development to determine holistic policies that integrate future climate conditions.	Medium (2-5 years)
4.7 Promote wastewater reuse and water conservation Collaborate with industry to develop water management strategies that promote wastewater reuse and conservation.	Medium (2-5 years)
ADVOCACY	
4.8 Advocate for rural potable water supply Advocate to the provincial government for updated policies that prioritize rural water supply for potable and agricultural uses and engage regional districts when water sources are identified and reviewed for permitting. Advocate for funding, resources, and reliable information to develop and maintain rural potable water systems.	Long (5+ years)
4.9 Advocate for adequate water resources for the agricultural sector To manage prolonged dry conditions, develop adequate water supply and distribution. Work with the farming community and Ministry of Agriculture, water stewardship branch to get support for implementing innovative water retention and storage systems. and alternative and drought-resistant crops. *[Links to RGS 3.2.a]*	Medium (2-5 years)

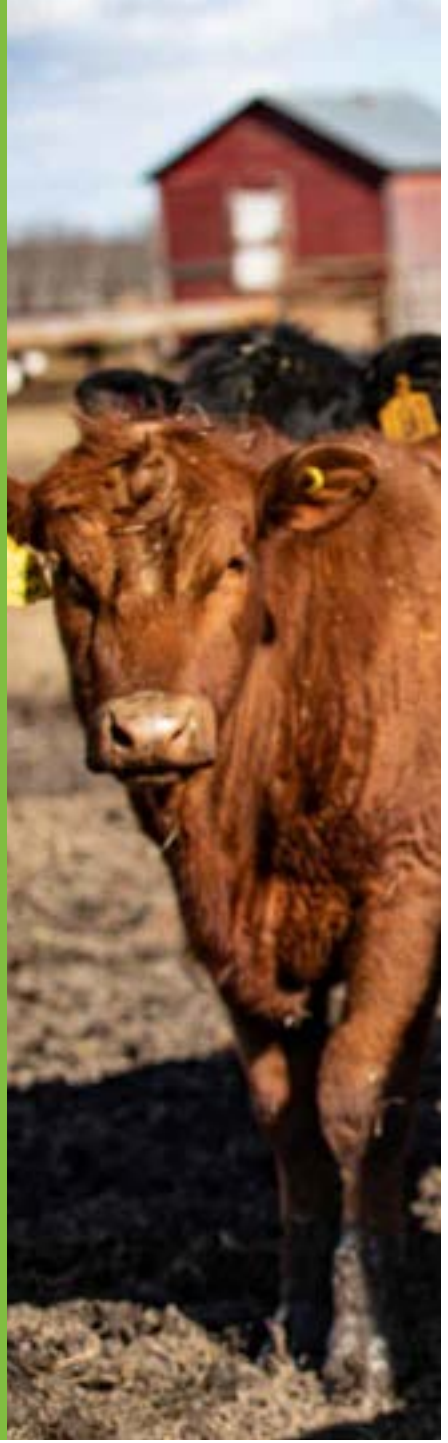
Goal 5: Enhance regional district infrastructure resiliency

REGIONAL DISTRICT SCOPE	TIMEFRAME
5.1 Integrate climate considerations into asset management Continue to advance asset management planning, policies, and practices with a climate lens, ensuring infrastructure resilience by addressing climate risks and readiness.	Short (1-2 years)
5.2 Ensure climate-resilient wastewater systems Assess and maintain existing wastewater systems using future climate projections to enhance resilience against extreme weather and flooding. When updating wastewater management plans and subdivision and development servicing bylaw, incorporate climate change considerations and ensure long-term infrastructure sustainability.	Medium (2-5 years)
ADVOCACY	
5.3 Support sewer systems sized for smaller communities Advocate to the Ministry of Environment and Ministry of Transportation and Transit to allow sewer systems that enable infill development in small rural settlements and reduce sprawl, which may require investment in and approval of innovative wastewater treatment solutions.	Long (5+ years)

Goal 6: Reduce corporate emissions

REGIONAL DISTRICT SCOPE	TIMEFRAME
6.1 Transition corporate fleet to electric vehicles Transition the PRRD fleet and equipment to electric or hybrid vehicles wherever feasible, reducing corporate emissions and supporting sustainable operations.	Medium (2-5 years)
6.2 Update Corporate Energy Plan Review and enhance the energy efficiency of corporate facilities by incorporating renewable energy sources and implementing strategies to reduce overall energy consumption.	Short (1-2 years)
6.3 Investigate sustainable procurement policies Investigate and consider developing procurement policies that prioritize environmentally friendly products and suppliers, favouring vendors that minimize the carbon footprint of regional purchases.	Medium (2-5 years)
6.4 Transition to digital records management Investigate opportunities for transitioning to a fully digital system for filing and records management to reduce paper use, streamline operations, and decrease corporate waste.	Medium (2-5 years)

LOCAL ECONOMY AND AGRICULTURE



GOAL 7:

Support local economic resilience and GHG emissions reduction

Indicators: Number of businesses with contingency plans and percentage reduction in commercial and industrial GHG emissions compared to the baseline year (2007).

GOAL 8:

Enhance agricultural resilience and adaptability

Indicator: Number of agricultural producers with active Environmental Farm Plans in the Region.

OVERVIEW

Agriculture and local businesses are integral to the PRRD, driving livelihoods and making significant contributions to the regional economy. However, these sectors face increasing challenges due to climate change impacts such as extreme weather events, shifting climate patterns, pests, diseases, invasive species, and water scarcity. This theme highlights opportunities for enhancing the sustainability and resilience of the region's economy and agriculture.

The CleanBC Roadmap outlines resilience initiatives for the agricultural sector, including adopting agritech and regenerative agriculture practices that reduce GHG emissions, sequester carbon, and build soil health. Adapting to drought conditions by ensuring adequate water availability—through water use efficiency measures and infrastructure investments—will also be critical. The PRRD aims to support agricultural producers by improving water management practices, engaging interest holders in policy development, and helping producers secure funding for climate resilience initiatives. Additionally, the PRRD will promote agricultural land protection through effective land use planning and encourage sustainable agricultural practices to ensure long-term sector viability.

Local businesses also play a key role in enhancing the region's climate resilience. To support them, the PRRD is exploring the potential reinstatement of a regional economic development function, focusing on initiatives that enhance resilience and reduce emissions. The PRRD is also working to integrate green spaces into new developments, improving environmental quality, stormwater management.

Through these efforts, the PRRD seeks to strengthen the region's economy and agricultural sector, supporting them in adapting to climate challenges and building long-term sustainability.

Goal 7: Support local economic resilience and emission reduction

REGIONAL DISTRICT SCOPE	TIMEFRAME
7.1 Require greenspaces in new development Explore ways to mandate the inclusion of green spaces in all new developments, enhancing stormwater management, supporting biodiversity, sequestering carbon, and reducing heat impacts to improve overall environmental quality.	Medium (2-5 years)
7.2 Investigate the development of a regional economic development strategy Investigate the development of a regional economic development strategy which includes considerations around enhancing community resilience, reducing emissions, and coordinating business and community adaptation efforts.	Medium (2-5 years)
COLLABORATION	
7.3 Strengthen regional resilience through supporting municipal members in implementing climate risk assessments Support member municipalities in implementing actions from climate change vulnerability and risk assessments.	Medium (2-5 years)
7.4 Promote and educate on local business continuity planning Partner with Community Futures: Peace Liard to develop webinar programming to educate business owners on emergency response and recovery plans to increase business continuity.	Short (1-2)

Goal 8: Enhance agricultural resilience and adaptability

REGIONAL DISTRICT SCOPE	TIMEFRAME
8.1 Assist with agricultural grant applications Provide grant-writing assistance for agriculture producers and rural residents pursuing climate adaptation or resilience-focused projects.	Short (1-2 years)
8.2 Engage agricultural producers in policy and program development Ensure agricultural producers are actively engaged in the development of plans, policies, and emergency management strategies to ensure their needs and perspectives are represented.	Medium (2-5 years)
8.3 Protect agricultural land through land use planning Direct non-agricultural uses away from agricultural areas and ensure adequate buffering is provided by non-agricultural land uses in accordance with the Ministry of Agriculture's Guide to Edge Planning to safeguard agricultural lands and improve and naturalize stormwater management, enhance environmental quality, support biodiversity, sequester carbon, and reduce heat impacts.	Medium (2-5 years)
8.4 Open opportunities for agricultural resilience funding Provide agricultural producers the opportunity to apply for grant funds or grant writing assistance from the PRRD to support climate resilience measures. Encourage staff to attend relevant agricultural events to stay informed and support these initiatives.	Medium (2-5 years)

Goal 8: Enhance agricultural resilience and adaptability – Continued

COLLABORATION	
8.5 Collaborate on agricultural land use inventory Explore collaboration with the Ministry of Agriculture to develop and maintain an agricultural land use inventory, supporting informed decision-making and enhancing the resilience of agricultural practices in the region.	Medium (2-5 years)
8.6 Explore the development of a regional agricultural plan Explore the development of a regional agricultural plan in collaboration with producers, Ministry of Agriculture and other groups to guide sustainable agricultural practices, enhance resilience, and support the long-term viability of the agricultural sector in the region.	Medium (2-5 years)
ADVOCACY*	
8.7 Support provincial review of agricultural land regulations Advocate for a provincial review of the Agricultural Land Reserve (ALR) boundaries, parcel sizes, and permitted uses to optimize food security and agricultural resilience.	Long (5+ years)
8.8 Advocate for agricultural innovations that support adaptation Support agricultural producers, Ministry of Agriculture and others on implementing innovative pilot projects that explore adaptive crops and other climate adaptation innovations.	Short (1-2 years)

** See also actions related to water conservation, access, and drought in the Water theme area.*

EMERGENCY MANAGEMENT

GOAL 9:

Increase public awareness and preparedness for climate-related hazards

Indicator: Number of initiatives or projects implemented to increase public awareness and preparedness for climate hazards; Completed regional risk assessments

GOAL 10:

Enhance early warning systems and emergency response

Indicator: Number of actions or projects implemented to enhance climate emergency preparedness and early warning systems.

OVERVIEW

The PRRD is increasingly exposed to climate-related emergencies, including flooding, wildfires, extreme heat, and severe storms. These events pose significant risks to public safety, critical infrastructure, and the regional economy. This theme highlights the importance of strengthening emergency management systems and fostering community resilience to mitigate the impacts of these threats.

Public feedback has underscored the need for improved emergency services, early warning systems, and public awareness about climate-related health and safety risks. Strengthening these systems is crucial to safeguarding lives, protecting property, and minimizing disruptions to communities across the PRRD.

Efforts to bolster emergency management will require sufficient provincial support, particularly in implementing the forthcoming emergency management legislation. Building stronger regional partnerships with provincial authorities and neighbouring jurisdictions will also be critical in ensuring effective coordination and resource sharing.

By investing in emergency preparedness and resilience, the PRRD can protect its residents, infrastructure, and economy from the increasing risks of a changing climate.

Goal 9: Increase public awareness and preparedness for climate hazards

REGIONAL DISTRICT SCOPE	TIMEFRAME
9.1 Update planning and emergency response documents for climate-related risks Update Official Community Plans (OCPs) and other relevant documents to incorporate information about climate-related development risks, ensuring that communities are prepared for changing conditions. [Related to RGS 8.2.d)]	Medium (2-5 years)
9.2 Develop a regional natural hazard and climate risk assessment Continue building relationships with member municipalities and First Nations in the region to support the development of Regional Natural Hazard and Climate Risk and Vulnerability Assessments in line with the upcoming requirements of the new Emergency Management and Disaster Management Act (EDMA). [Related to RGS 8.1.d)]	Medium (2-5 years)
9.3 Identify planning tools to address high-risk areas Following completion of the Regional Natural Hazard and Climate Risk and Vulnerability Assessment, identify high-risk areas for climate-related hazards and investigate the need to strengthen or introduce new Development Permit Areas (DPAs), guidelines, and other planning tools to mitigate these risks effectively.	Medium (2-5 years)

Goal 9: Increase public awareness and preparedness for climate hazards – Continued

COLLABORATION	
9.4 Support Northern Health Authority with climate health campaigns Collaborate with Northern Health to design and distribute climate health awareness campaigns and workshops targeted at priority populations, ensuring the messages are aligned with regional climate risks and public health concerns.	Medium (2-5 years) SHORT (1-2 YEARS)
ADVOCACY	
9.5 Ensure adequate funding for FireSmart programs Advocate for consistent and enhanced funding for FireSmart initiatives, ensuring the Regional District has the necessary resources to increase community awareness and preparedness for wildfire risks. Explore opportunities to expand FireSmart programs through partnerships with municipalities and First Nations.	Medium (2-5 years)

Goal 10: Enhance early warning systems and emergency response

REGIONAL DISTRICT SCOPE	TIMEFRAME
10.1 Investigate alternative communication systems for offline residents Explore alternative communication options for offline residents, including coordination with local community organizations, digital message boards, and fire department signs. Provide contingency and emergency plan templates for individuals to better prepare, detailing contact points connected to online warning systems. Investigate the potential for advocacy to Northern Health to implement a neighbour check-in program to support community resilience.	Medium (2-5 years)
10.2 Explore ways to facilitate animal evacuation Explore ways to develop and share a list of individuals, organizations, and facilities that can temporarily host animals during emergencies. Educate residents on evacuation planning for pets and livestock, providing guidance on where to go and who to contact in the event of an evacuation. [Links to 10.6 Advocacy]	Medium (2-5 years)
10.3 Identify agricultural sector representatives to support EOC Identify and train agricultural representatives to be called in to support the Emergency Operations Centre (EOC) for events that directly impact agricultural producers.	Medium (2-5 years)

Goal 10: Enhance early warning systems and emergency response – Continued

COLLABORATION	
10.4 Support establishing extreme weather response centres Support the establishment and equipping of facilities as warming and cooling centres at strategic locations across the region to assist residents in coping with extreme temperatures, ensuring accessible shelter and resources during heatwaves and cold snaps.	Medium (2-5 years) SHORT (1-2 YEARS)
ADVOCACY	
10.5 Advocate for improved provincial communication during emergencies Advocate to the provincial government for better, earlier, and ongoing communication throughout climate-related emergencies, ensuring timely and accurate information is shared with communities to enhance preparedness and response.	Long (5+ years)
10.6 Advocate for broader evacuation options for livestock and pets Advocate for the provincial government to broaden evacuation options, ensuring the inclusion of livestock and pets not only for large-scale or official producers. Aim to improve the accessibility and inclusivity of evacuation plans during climate-related emergencies	Long (5+ years)

ECOSYSTEMS AND GREEN SPACES

GOAL 11:

Integrate green infrastructure into planning

Indicator: Completion of natural asset mapping and inventory and development of green infrastructure guidelines.

GOAL 12:

Preserve and enhance natural environments

Indicators: Number of projects, actions or initiatives targeted at conservation, restoration, or improvement of natural areas. Percentage of protected land area (ha) in the region.

OVERVIEW

Healthy ecosystems and green spaces are essential to the region's socio-ecological well-being. They provide essential services such as carbon sequestration, flood mitigation, and temperature regulation, supporting both climate adaptation and mitigation. Additionally, these natural areas enhance the quality of life for residents by improving air quality and water quality, offering recreational spaces, and contributing to overall community well-being.

However, the region's ecosystems are increasingly at risk due to climate change, with threats such as extreme weather events, invasive species, and shifts in biodiversity. Protecting and enhancing these ecosystems is essential for long-term resilience.

To strengthen the region's natural spaces, the PRRD aims to restore degraded habitats, preserve and expand existing green areas, and develop a comprehensive inventory of its natural assets. By prioritizing the protection and growth of green spaces, the PRRD can enhance the long-term sustainability and resilience of its ecosystems and communities.

Goal 11: Integrate natural and green infrastructure into planning

REGIONAL DISTRICT SCOPE	TIMEFRAME
11.1 Prepare natural asset maps and inventory Build an inventory of the region's natural assets to support sustainable planning, conservation, and climate resilience based on outcomes of a Hazard, Risk and Vulnerability Assessment (HRVA). This mapping will identify key resources, such as forests, wetlands, and rivers, to inform land-use planning, infrastructure development, and development permit area guidelines, helping prioritize areas for climate resilience efforts	Long (5+ years)
11.2 Implement green infrastructure in development projects Develop guidelines for the preservation of green spaces and inclusion of landscaping in new developments to manage stormwater, support biodiversity, and reduce heat.	Medium (2-5 years)

Goal 12: Preserve and enhance natural environments

REGIONAL DISTRICT SCOPE	TIMEFRAME
12.1 Expand and connect PRRD-owned natural areas Prioritize the expansion of PRRD-owned green spaces and the creation of habitat corridors. Ensure that new developments contribute to local parkland through parkland dedication and coordinate with the province to enhance regional connectivity.	Medium (2-5 years)
12.2 Restore, manage, and maintain natural areas Restore degraded natural areas (e.g., closed landfills) through active rewilding and restoration efforts, including adaptive monitoring, and ensure ongoing management and maintenance to enhance biodiversity and ecosystem services.	Medium (2-5 years)
12.3 Implement parkland dedication requirements Establish a requirement for new subdivisions that up to 5% of land be dedicated as parkland or to accept cash in lieu for future park acquisitions or improvements, as enabled by legislation.	Short (1-2 years)

Implementation and Reporting

The implementation of this plan will be led by the Development Services Department, working in close collaboration with other departments across the PRRD. A coordinated, cross-departmental approach will be essential to achieve the plan's objectives efficiently and effectively.

KEY ELEMENTS OF IMPLEMENTATION

The following principles will guide the PRRD's approach to implementing this plan:

1. **Leverage opportunities:** Capitalize on emerging funding opportunities, partnerships, and technologies to support implementation.
2. **Equity:** Strive for equitable outcomes that address the needs of all residents, particularly vulnerable populations, ensuring that benefits are distributed fairly.
3. **Leadership:** Demonstrate strong regional leadership by aligning actions with provincial and federal climate goals, setting an example for other communities.
4. **Collaboration:** Foster partnerships with interest holders, including Indigenous communities, member municipalities, other government agencies, businesses, and residents, to enhance collective action.
5. **Adaptive management:** Use an adaptive management approach to remain flexible and responsive to new challenges, opportunities, and evolving climate science.

MONITORING AND REPORTING PROGRESS

To ensure effective implementation, the PRRD will systematically track and measure progress on the actions identified in this plan.

- **Annual reporting:** Progress will be reviewed and reported annually through a standardized update to the PRRD Board. The report will include the status of actions, measured outcomes, and recommendations for adjustments, ensuring transparency, accountability, and continued momentum.
- **Indicators:** Indicators tied to each goal will serve as a clear metric for evaluating success. Baseline values will be established at the outset to enable comparison and track changes over time. These indicators will be reassessed as implementation evolves to ensure they remain relevant and responsible to new priorities or emerging conditions.
- **Five-year review:** Every five years the PRRD will conduct a more comprehensive reassessment of the plan and its implementation strategy. This will include revising the actions based on new evidence, emerging scenarios, and updated projections.

Closing

The Regional Climate Resiliency Plan reflects the PRRD's commitment to building a sustainable and resilient future for all communities across the region. By prioritizing collaboration, supportive initiatives for residents and businesses, and policy and land use planning that strengthens resilience, the plan provides a clear path to address the challenges of climate change while seizing emerging opportunities.

Success will depend on the collective efforts of all levels of governments, Indigenous communities, businesses, and residents. As we move forward, the PRRD will track progress, adapt to new information, and focus on continuous improvement. Together, we can build a region that thrives in the face of change, ensuring a resilient future for generations to come.