

Table 1. A list of projects awarded funding by the Minister of Environment and Climate Change from the Climate Change Fund in 2021-2022 as of November 2021.

Project Name	Project Lead	Project Description	Funding Amount
Climate Change Adaptation On-Farm	DAAF	Implementation of a program to assist farmers in adopting climate change adaptation technologies including soil drainage, soil erosion control, and improved farm water supply. Adoption of these technologies will improve the resilience of New Brunswick farms to climate change.	\$500,000
Riparian Protection On-Farm	DAAF	Implementation of a program to assist farmers in protecting and upgrading riparian areas through improved watercourse crossings, riparian area fencing, planting of vegetation in riparian areas, development of off-stream watering supplies and adoption of grazing plans in riparian areas. Adoption of these technologies will protect water quality and aquatic habitat for all New Brunswickers and improve streambank stability on-farm.	\$2,250
Climate Change Mitigation On-Farm	DAAF	Implementation of a program to assist farmers in adopting climate change mitigation technologies including nutrient management planning, precision agriculture, energy audits, energy efficiency upgrades, renewable energy sources and improved uniformity in nutrient application. Adoption of these technologies will reduce greenhouse gas emissions by New Brunswick farms.	\$100,000
Evaluation of Greenhouse Gas Emissions and Carbon Capture on New Brunswick Farms - Phase 2	DAAF	Benchmarking greenhouse gas emissions and carbon sequestration on New Brunswick farms in their potato, blueberry and dairy sectors using HOLOS software. This study will result in better estimates of net greenhouse gas emissions and the effect of implementing best management practices.	\$40,000
Multi-Year Culvert Assessment Study	DTI	Complete an inspection of all of DTI's large culverts, using the data to prioritize future large culvert replacements and rehabilitations. This study will allow DTI to strategically increase the structural capacity of culvert infrastructure to adapt to future events brought on by climate change.	\$412,500
Long-Term Impacts of Climate Change on Existing Transportation Network Study	DTI	Conduct a study on the long-term impacts of climate change on the existing transportation network in New Brunswick and develop a long-term plan for infrastructure renewal. As a climate change adaptation initiative, this study will involve detailed engineering analysis of the existing transportation network towards identifying climate vulnerability and risks and how best to address this.	\$250,000
Consultant to Create Infrastructure Decision Guideline	DTI	Develop a guideline on ensuring that the impacts of climate change and extreme weather events are considered in infrastructure decisions. This will help the province formalize the prioritization of climate change mitigation and adaptation in infrastructure decision making.	\$20,000
New Brunswick Fundy Dyke Assessment	DTI	Conduct an engineering analysis to determine how best to address the protection of communities along the Fundy dyke system by prioritizing climate vulnerability and climate related risks. This analysis will help inform the requirement for enhanced or building of climate resilient dyke infrastructure.	\$250,000
Michaels Creek Culvert	DTI	This funding will support the Michaels Creek Culvert in Moncton and will incorporate climate change adaptation considerations to build climate-resilient infrastructure.	\$1,100,000
Energy Program	DTI	Providing incremental funding to the existing energy retrofit program to provide additional energy retrofits to government buildings resulting in greenhouse gas savings.	\$2,000,000
Department of Transportation and Infrastructure Vehicle Strategy	DTI	Develop a vehicle strategy that optimizes future fleet replacements to incorporate climate change mitigation and greenhouse gas reduction through electric and alternative fuel vehicles as well as associated infrastructure.	\$50,000

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Consultant for Greenhouse Gas Reduction Tool for Capital Construction Projects	DTI	Develop a tool to evaluate greenhouse gas reductions associated with capital construction projects. This will help government assess capital construction projects using a climate change lens.	\$30,000
LED Lighting Upgrades for Public Buildings	DTI	Funding will be used to upgrade both interior and exterior lighting to LED in schools and other public buildings.	\$1,800,000
New Vehicle / Fleet Management System	DTI	Purchase of new Vehicle/Fleet Management System with enhanced fuel and emissions monitoring features.	\$127,000
Hiring a Green Fleet Manager	DTI	Hire a new Green Fleet Manager to work with stakeholders across government towards acquiring electric fleet vehicles.	\$50,000
Service New Brunswick Flood Hub	ELG	Develop a Service New Brunswick flood "hub" webpage with connection to the Department of Environment and Local Government as a one-stop shop for information on flooding in New Brunswick. The hub will include climate change related information that will help increase climate impact awareness in the province.	\$100,000
Coastal Erosion Risk Analysis - Pokeshaw to Janeville	ELG	The project consists of producing a detailed coastal erosion risk assessment of the coastline (including all tidal watercourses) extending from Pokeshaw to Janeville. This detailed risk assessment will complete the analysis of Regional Service Commission Chaleur's total coastline territory and will help better prepare for future climate conditions.	\$60,000
Flood and Erosion Risks Analysis for the Tabusintac River	ELG	The project is part of the development process of the Land Use Plan and Actions to Prevent Flood and Erosion Risks for the Acadian Peninsula. The main objectives are to carry out a description of the hazards (flood and erosion scenarios) and a risk analysis for the infrastructures of the coastal strips of the Tabusintac river.	\$50,000
Blue Green Algae Education	ELG	Develop updated blue-green algae advisory signage and educational materials that can be used to better educate and inform the public on blue green algae. The effects of climate change are contributing to the expansion of cyanobacterial blooms and an overall increase in the frequency and severity of bloom events. Blue green algae blooms are also appearing earlier in the spring and later into the year as increased blooms are related to increased global air and water temperatures, increased frequency and intensity of extreme weather events (resulting in increased nutrient loadings from runoff), and increased periods of drought (resulting in warm, shallow waters).	\$75,000
Ducks Unlimited Natural Infrastructure	ELG	Conduct an initial assessment of Regional Service Commissions to identify priority areas for potential future efforts to incorporate natural infrastructure into land use planning. Natural infrastructure serves to enhance resilience to the impacts of climate change.	\$50,000
Flood Advisory Level - Phase 2	ELG	Phase 1 of this project evaluated the appropriateness of the defined flood stages in the Lower Saint John River. Phase 2 will evaluate other locations in the Upper Saint John River. These levels have not been re-evaluated for many years and with the impacts of climate change, flood advisory levels could change in certain areas of the province over time. This initiative will ensure that flood advisories are being issued at appropriate flood stages during the annual spring freshet.	\$60,000
RiverWatch App with Municipal Flood Layer	ELG	Currently the Hydrology Centre provides a water elevation as a forecast. This project would link this forecast with a publicly available map, providing the public with a visual tool to better understand what is and isn't impacted at the forecasted water	\$50,000

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		levels. This would contribute to public knowledge, safety and communication under evolving flood conditions resulting from climate change.	
New Brunswick Output-Based Pricing System Registry	ELG	Develop a registry to support the New Brunswick Output-Based Pricing System (OBPS). The registry will manage the greenhouse gas reporting by industry mandatorily and voluntarily participating in the system and will track compliance credit issuance, trading between facilities, and retirement/expiry. The registry is a fundamental tool required for the success of the New Brunswick OBPS.	\$300,000
Small Business Carbon Calculator	ELG	Develop a carbon calculator for small businesses in New Brunswick in order to estimate their annual GHG emissions based on their energy consumption and operating business activities (space heating, water heating, transportation and waste).	\$30,000
Dynamic Greenhouse Gas Emissions Dashboard for the Climate Change Secretariat Website	ELG	Develop a dynamic and enhanced, interactive Greenhouse Gas Emissions Dashboard for the Climate Change Secretariat website. The Dashboard will provide interactive visual analytics of New Brunswick greenhouse gas emissions data from Environment and Climate Change Canada's (ECCC) Greenhouse Gas Reporting Program, National Inventory Report, and ECCC's greenhouse gas emissions projections.	\$20,000
Electric Vehicle Pilot for the Department of Environment and Local Government	ELG	Purchase electric vehicles and supporting infrastructure for the Department of Environment to pilot electric vehicle usage in government fleet.	\$350,000
Grants to Fund School-Based Projects (Anglophone)	EECD	Administer grants to fund anglophone school climate action projects. This project engages learners in climate change education. Funding will support 30 grant projects. The program has two categories for participation: educate the school and/or community on climate change or students can identify a climate change problem, propose a solution, and implement it within their school and/or communities.	\$90,000
Build Teacher Capacity for high yield Education for Sustainable Development Instructional Practices (Anglophone)	EECD	Increase climate awareness in anglophone educators by providing opportunities for attending professional learning conferences and summits. Educators will complete climate change education modules to support enactment of updated Science 3-10 curricula.	\$100,000
Climate of Science Kit (Anglophone)	EECD	Purchase Science of Climate kits through the National Energy Education Development to support climate knowledge in grades 9 and 10. These kits provide a comprehensive look at climate science and climate change through hands-on, critical thinking activities. The activities explore the behaviours of carbon dioxide, greenhouse gases and the greenhouse effect, the carbon cycle, land and sea ice and energy consumption as it relates to carbon dioxide.	\$13,862
Middle School Climate Science (Anglophone)	EECD	Support Grade 7 classes in understanding climate change through New Brunswick Blue Sky Array, weather monitoring stations, and applied technologies (i.e. Pocket Lab digital sensors to monitor physical environment and notebook pro license).	\$46,248
Climate Change Training and Development (Francophone)	EECD	Provide training and development related to climate change for francophone educators in the province to understand the complexity of climate change and create opportunities for discussion for students to take action on climate change.	\$31,000
Scholarships for Schools for	EECD	Offer scholarships for francophone schools that want to develop an environmental initiative that would have an impact on climate	\$99,000

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Environmental Initiatives (Francophone)		change. This project will also consist of a one-day provincial symposium for the teams that have won the bursaries in order to expand the impact of the innovative ideas to a larger scale. The grants will be distributed based on the impact of initiatives related to climate change, greenhouse gas reduction or building resilience to climate change impacts.	
Hire Educational Officer to Support Program Implementation (Francophone)	EECD	Provide a one-year contract to hire an individual who can support environment and climate change education initiatives for francophone schools and ensure the development of an ecological and climate continuum. This individual would be responsible for coordinating training related to climate change for teachers and the scholarships for schools to develop environmental initiatives that would have an impact on climate change.	\$90,000
Early Childhood Strategy (Francophone)	EECD	Establish an Early Childhood Strategy to support staff and develop children's climate change skills. The project will partner with community organizations and experts in the field in New Brunswick to develop explanatory and pedagogical sheets on different themes to raise awareness of the need to take action on climate change. These sheets will be posted on the school districts' web platforms and at the Department of Education and Early Childhood Development to facilitate access to educational daycares.	\$30,000
Communicating Climate Change Action (Francophone)	EECD	Promote the actions and initiatives related to climate change taken by Education and Early Childhood Development (Francophone) to the general population, community, businesses, parents and students. In addition, the project will work to inspire the entire school community to also commit to reducing their greenhouse gas emissions by promoting student projects and educator training as well as other information related to climate change.	\$10,000
Low Income Energy Efficiency	NB Power	Project supports incremental funding for the existing NB Power Low-Income Energy Efficiency program to retrofit homes in the province as well as purchase and distribute energy efficiency kits.	\$3,000,000
First Nations Energy Efficiency Program	NB Power	Funding to support the First Nations Energy Efficiency Program. This would result in direct incremental greenhouse gas savings through installed energy efficiency measures.	\$250,000
Smart Grid Atlantic Solar Farm for Tobique	NB Power	The Tobique Solar Farm and Microgrid project is a part of the Smart Grid Atlantic research and deployment program. This project is to put in place renewable and smart energy assets and to engage the Tobique First Nation community in order to develop a traditional microgrid. Initial work is focused on the microgrid controller and the development of use cases and AI testing which are being started in Shediac with the ultimate goal of them being repurposed in Tobique.	\$735,000
Commercial New Construction Program	NB Power	Launch and deliver Commercial New Construction Program. This will include incentives for energy modelling, training, Portfolio Manager webservices support, marketing and communication, electric vehicle readiness market analysis and labor to run program.	\$250,000
Close Low Carbon Economy Fund Funding Gaps	NB Power	This funding allows NB Power to leverage the federal Low Carbon Economy Fund for non-electric energy efficiency programming.	\$370,000
Residential Building Sector Training	NB Power	Funding will support further residential building training in the province. NB Power will work with the Canadian Home Builders Association to provide this training through 1-2 incremental building science workshops.	\$200,000

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SaveEnergyNB	NB Power	Funding will support NB Power's education SaveEnergyNB website by allowing for ongoing content management and promotion of the energy efficiency website.	\$758,000
Landscape Connectivity Assessment - Terrestrial	NRED	Assess the landscape connectivity through terrestrial ecosystems across New Brunswick, including current functional connectivity and connectivity issues resulting from climate change.	\$45,000
Biodiversity Monitoring Network - Scoping and Design Phase	NRED	Through partnerships with science and management experts, this project will scope out and develop a biodiversity monitoring network that can provide information to monitor, assess and project the impacts of climate change on species of conservation concern.	\$100,000
Landscape Connectivity Assessment - Inland Aquatic	NRED	Identify priority actions to mitigate and adapt to vulnerabilities to both climate change and connectivity across New Brunswick in inland aquatic ecosystems.	\$45,000
Wildlife and Biodiversity Vulnerability Assessment	NRED	Conduct a climate change vulnerability assessment for a selection of New Brunswick species, completed by surveying species experts for feedback on species vulnerability under predicted climate change scenarios.	\$50,000
Support Canadian Rivers Institute Forest Hydrology	NRED	Support the Canadian Rivers Institute's "Forest Hydrology: From Process to Meaningful Management" project. This work will help translate science into operational, decision making tools for forest and land-use planning including flood risks and will help determine actions to support climate adaptation and resilience.	\$150,000
Critical Road Asset Inventory and Inspection Program	NRED	Support a critical road asset inventory and inspection program that informs climate change adaptation investments and improves the resiliency of the crown road network for all users.	\$81,000
Electric Vehicles Incentive	NRED	Provide an electric vehicle incentive to help make electric vehicles more affordable so that more New Brunswickers can take part in reducing our transportation emissions. New Brunswickers who purchase eligible new and used electric vehicles can receive this incentive and are eligible for a rebate on a home charging station.	\$1,950,000
Review Locally Owned Renewable Energy Projects that are Small Scale (LORESS) Program	NRED	Complete an assessment of the Locally Owned Renewable Energy Projects that are Small Scale (LORESS) Program, including NB Power and Embedded Generation participants. The project will assess the program against other jurisdictions in Canada for effectiveness and local benefits and make recommendations for any future changes to the program to maximize benefits.	\$50,000
Explore Forest Carbon Offset Protocols	NRED	Hire a consultant with expertise in both carbon accounting protocols and forest management dynamics to review New Brunswick's forest carbon offset opportunities and to explore offset protocols that could benefit the New Brunswick economy.	\$75,000
Small Modular Reactor Research	NRED	Conduct Small Modular Reactor (SMR) research as they have the potential to help New Brunswick meet greenhouse gas emission targets by providing clean energy. Advanced SMRs may also provide baseload and load following capabilities that can support additional intermittent generation like wind and solar. This work will identify areas where further supply chain opportunities exist for the province in developing and deploying this clean technology.	\$10,000,000
Ducks Unlimited Project	NRED	This project will focus on the rebuilding and repairing of earthworks and water control structures along the lower St. John River as part of a broader initiative between Ducks Unlimited Canada and the Government of New Brunswick to conserve and maintain natural and managed wetland habitats.	\$350,000

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Mitigation Guidance for Crown Road Managers	NRED	Through a vulnerability assessment of critical crown road infrastructure, a need for an inventory and condition rating of road assets, such as watercourse crossings, was identified. This project will explore the opportunity to mitigate climate change impacts to watercourse crossings on roads by changing management practices.	\$10,000
Innovation in Clean Technology	ONB	This project will partner Opportunities New Brunswick with the New Brunswick Innovation Foundation (NBIF) to support a Climate Impact Research Fund to support research centered on climate change mitigation and adaptation research to support the development of innovations with the potential to minimize carbon emissions and accelerate a shift to cleaner technologies.	\$1,500,000
New Brunswick Electric Vehicle Battery Remediation	ONB	This project will conduct a value chain analysis on New Brunswick's ability to become a focal point for electric vehicle battery remediation, recycling, and disposal. The report will also include a literature review, gap analysis, and explore next steps.	\$150,000
Biomass Inventory and Assessment	ONB	This project will develop an inventory of biomass feedstocks and assets from agricultural, forestry, aquaculture, marine and municipal waste to produce bioproducts, energy and fuels, and use this inventory to highlight areas of focus. From this assessment, a roadmap would be developed highlighting provincial activities and priorities.	\$500,000
Electrification Inventory	ONB	The project will map existing energy assets and infrastructure in specific regions and sites in New Brunswick and highlight any gaps and opportunities. This will enable further clean and green investments.	\$50,000
Inventory of Sites for Clean Investments	ONB	As the province pursues new clean and green investments, an inventory of existing and potential greenfield and brownfield sites would assist in these efforts. Opportunities New Brunswick will partner with various Government of New Brunswick departments to establish an inventory of suitable sites, including partnership opportunities, identification of site-specific features, evaluation of the sites, and a brief for site-specific promotional material.	\$80,000
Environmental and Social Governance Education and Communication	ONB	Environmental and social governance (ESG) is a term used to explain the impact a company or investment has on the environment, and the community. There is now a clear link between improved environmental performance and business outcomes. Highlighting and leveraging this link will increase the adoption of improvements related to environmental performance and allow small and medium enterprises to contribute to climate change goals.	\$350,000
Hydrogen Study – Economic Development and Supply Chain Opportunities	ONB	Hydrogen has recently become a priority in decarbonizing the energy system globally. This project focuses on New Brunswick and the potential for economic development and supply chain opportunities in the short-to-medium term. The project will conduct a New Brunswick focused economic development and supply chain analysis of the opportunities related to the various forms of hydrogen production, utilization, and transportation, and any specific short-term and medium-term actions that could be considered to facilitate this opportunity.	\$100,000
Moncton Blue Green Algae Water Project - Phase 2	RDC	Climate change has been suspected to be one of the main causes of blue green algae in the City of Moncton's watershed due to higher water temperatures and drought conditions within the watershed. Rising temperatures in the Moncton area pose a tangible risk to potable water sources such as reservoirs and are conducive to creating ideal conditions that can result in an	\$82,000

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		explosion of blue-green algal blooms, which would require costly mitigative measures to ensure the provision of potable water for the City of Moncton. This project is for blue-green algae abatement in portable water systems to remove toxins that blue-green algae can produce.	
City of Saint John Seawall	RDC	Also known as the Fundy Quay Development, this 2.4-hectare wharf property will be completely raised to an elevation that is safe from the anticipated impacts of climate change. The project design is informed with future flood elevations and projected sea-level rise data, while considering the potential impacts from future storm surges, high-tides, and extreme weather events. The project will also include 500 metres of multi-use public paths and a pedestrian connection between the new site and Market Wharf.	\$1,640,000
Saint John Sanitary Sewer	RDC	The project focuses on the removal of sewage water from combined stormwater and sewer water systems in the Uptown/Central Peninsula, as there is a high risk of failure of the aged water infrastructure. This will allow for increased capacity in water piping, to accommodate the significant increases in water volumes expected with climate change events.	\$1,708,662
Saint Andrews Wharf Rehabilitation	RDC	This project will install an adaptive engineered solution to alleviate concerns over projected sea-level rise and the increase in severity and frequency of storm events, as well as to reduce the risks of flooding and erosion to the Wharf and Market Square. This project will increase the height of the seawall an additional meter to mitigate the impacts of future sea level rise, storm surges, high tides, and extreme weather events brought on or exacerbated by climate change.	\$200,000
Rothesay Wastewater Treatment Plant	RDC	The wastewater treatment facility was impacted by record flood levels during the 2018 and 2019 St. John River flood events. This project is for the construction of a new mechanical wastewater treatment facility with the capacity for existing and future municipal waste water flows to 2050, and that will be located above projected flood elevations in year 2100.	\$200,000
Birchwood Estates Wastewater Treatment Plant	RDC	Upgrades to the wastewater treatment facility required to avoid potential environmental impacts. The project includes climate change adaptation and resiliency outcomes such as increased energy efficiency of buildings and increased adaptation to climate change impacts. For disaster mitigation, the replacement of the facility will prevent release of untreated wastewater into the environment.	\$375,000
Energy Star Portfolio Manager Dashboards in Power BI	SNB	This project will allow government to view their owned buildings emissions and energy data in a Power BI dashboard. This allows the data in Portfolio Manager to be rolled up for easy visibility providing communication and awareness of greenhouse gas emissions and reductions.	\$15,000
Upgrade Metering in Schools, Hospitals and other Government of New Brunswick and Service New Brunswick Owned Facilities.	SNB	This project will upgrade metering in schools and hospitals to continue to connect utility meters to existing Building Management Systems. This funding targets buildings that are not undergoing controls upgrades and have no access to energy metering. Facilities staff have direct impact on energy use in buildings. Making energy visible can reduce energy consumption and thereby reduce greenhouse gas emissions from New Brunswick buildings.	\$80,000
Service New Brunswick Freight Fleet Emission Reductions	SNB	Implement measures to reduce emissions from the SNB fleet, including fleet software, policy, and driver training. This will result in reduced emissions through improved fuel efficiency	\$100,000

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		through measures such as aerodynamics, idle reduction, software, and driver training.	
Energy Management Operational Costs	SNB	Implement energy efficiency measures in schools and health such as optimization, programming, scheduling, and equipment (low cost equipment/maintenance with impact to energy consumption).	\$90,000
Capacity Building and Engagement - Energy Star Portfolio Manager	SNB	Provide workshops for Government of New Brunswick staff to further engage the use of Energy Star Portfolio Manager and identify low cost measures for improving Energy Star scores. Facilities staff have direct impact on energy use in buildings. Engagement and building capacity will reduce energy consumption thus reduce greenhouse gas emissions from New Brunswick buildings.	\$15,000
Plan for Electric Vehicle Charging Stations and Green Transportation	SNB	Prepare recommendations for electric vehicle charging stations at Service New Brunswick locations, many of which service the public. The plan includes understanding the needs and demands at facilities, prioritization of locations, timelines, costs, high-level specifications, and an implementation strategy.	\$25,000
Plan for Electric Vehicle Charging Stations and Green Transportation – Vitalité	Vitalité	Prepare recommendations for electric vehicle charging stations at Vitalité facilities. The plan includes understanding needs and demands at healthcare facilities, prioritization of locations, timelines, costs, high-level specifications, and an implementation strategy.	\$25,000
Develop a Climate Change Policy for Vitalité	Vitalité	Engage a third-party expert (knowledge in sustainability and healthcare) to work with Vitalité to develop a Climate Change Policy that focuses on the unique environmental situation of healthcare, considering a high-level strategy for deployment options.	\$30,000
TOTAL			\$34,171,522