



ENVIRONMENTAL TRUST FUND

Impact Report



2022 – 2023

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Message From the Minister

Hon. Gary Crossman

Minister of Environment and Climate Change



It is my pleasure to present the Environmental Trust Fund Impact Report for 2022 – 23. We have had a great year and we are making a real difference with the Environmental Trust Fund (ETF).

From small, rural communities to larger urban centres and those in between, the ETF projects cover vastly different aspects of environment all over the province. In 2022 – 23 there were 234 projects funded through the ETF, with \$8.6 million invested into these projects. There have been 230 of those projects completed and this year we took on 205 new ones.

We are proud to be investing in our province, in its rivers, lakes, tidal waters, forests, wetlands, and natural spaces. The five areas supported by ETF include: protecting our environment, increasing awareness through education, managing our waste, addressing climate change, and building sustainable communities.

One of our awareness projects is with the Meduxnekeag River Association who has been providing school aged children with outdoor learning experiences for 20 years. With funding from the ETF, this project was able to expand their outdoor classroom and teach 2,800 students the importance of environmental protection through guided nature walks, tree identification, and soil and water testing.

Research is another important factor that furthers our knowledge and understanding of our environment. It guides how we preserve and protect what all New Brunswickers appreciate about our province.

OTHER PROJECT HIGHLIGHTS IN THIS REPORT INCLUDE:

- building an education centre to minimize disturbance on migratory birds while educating the public;
- creation of a land reserve expanding an outdoor classroom for environmental education; and
- developing a waste-free farmers market model that can be used by Atlantic Canadians.

This year the Environmental Trust Fund marks its 33rd anniversary. I want to acknowledge and thank the dedicated staff of the department who make this program possible, as well as all New Brunswickers who have participated in this program. Together we can keep New Brunswick moving forward while keeping our environment sustainable to support the wellbeing of current and future generations.

The Environmental Trust Fund

For more than 30 years, the New Brunswick Environmental Trust Fund (ETF) has been supporting projects in communities throughout the province, along rivers, coastlines, and lakes, in wetlands, salt marshes and forests. The story of the work of the ETF is told in hundreds of projects, some extending over many years, where citizens have been taking action to protect and preserve the natural spaces that define their communities and province. Since 1990, the ETF has been supporting grassroots environmental restoration and protection by funding the work of community and conservation groups, First Nations, non-profit organizations, and local governments. In 2022 – 2023 the ETF supported 234 projects for a total of \$8,641,200.

IN 2022 – 2023

234 projects | \$8.64 million



This report provides an overview of the range of the work supported by the ETF and offers snapshots of specific projects in the fund's priority areas. A full list of funded projects can be found on the ETF website.

Priority Areas

The ETF supports projects in five priority areas: protecting our environment, increasing environmental awareness, managing our waste, addressing climate change, and building sustainable communities. Each of these priority areas has been assigned specific measures to ensure that funded projects are action oriented with measurable impacts and outcomes.



**Protecting Our
Environment**



**Increasing
Environmental
Awareness**



**Managing
Our Waste**



**Addressing
Climate Change**



**Building Sustainable
Communities**





Protecting Our Environment

The largest group of projects supported by the ETF in 2022 – 2023 fell into the category of protecting the environment. These projects involved protection or restoration of air, water, coastlines, wetlands and land environments, and the conservation of ecosystem biodiversity. The ETF also supported research that generates data to inform decisions about environmental protection, including the management of waterways, and the restoration and preservation of forests and biodiversity. The ETF supported 86 projects in this priority area for a total of \$3,135,650. These projects included water monitoring in rivers, lakes and coastal areas, land stewardship, research and data collection in wetlands and salt marshes, protecting species at risk, managing surface and groundwater on farms, and tree planting in riparian zones.

IN 2022 – 2023

86 projects | \$3.13 million

The Nature Conservancy: Protecting Migrating Birds at Johnson's Mills

About 30 per cent of all Semipalmated sandpipers in the world travel through the Bay of Fundy on their annual migration between the Canadian Arctic and South America. One of their stopovers is at Johnson's Mills, New Brunswick, a point of land that extends out from the Town of Tantramar into the bay. For more than 30 years, the Nature Conservancy of Canada (NCC) has been conserving land along the Johnson's Mills shoreline and has created an interpretive centre where visitors can view migratory birds. The NCC's Johnson's Mills Shorebird Reserve and Interpretive Centre creates a safe place for migrating shorebirds to rest and feed undisturbed and educates visitors about this remarkable natural space.

"Funds received from ETF have allowed the NCC to provide visitor education and minimize disturbances to shorebirds while conserving the ecological integrity of this natural area through visitor management," says Meghan Coyle, the NCC's development officer for major gifts in Atlantic Canada. "Potential disturbances can include people walking on the beach at high tide, trying to approach the roosting flocks to get a picture or walking on mudflats."

The Centre was open to the public from July 7 to September 2, 2022. Approximately four kilometres of shoreline was monitored for shorebird activity. On July 7, the Johnson's Mills interpreters sighted a Rufous hummingbird at a feeder and took photographs. This species is rarely seen in New



Semipalmated sandpipers at Johnson's Mills for a stopover in their annual migration.

Brunswick, as they breed and spend their summers in Western Canada. News of this sighting brought hundreds of birders from Atlantic Canada to Johnson's Mills, hoping to re-sight the bird. Unfortunately, the Rufous hummingbird was not re-sighted. On July 14, the first birds arrived; approximately 500 shorebirds were observed roosting at high tide. The peak shorebird daily count was August 12 when 107,950 shorebirds were observed, the highest recorded peak in recent years.

The NCC recorded 2,591 visitors at the Johnson's Mills Interpretive Centre in 2022, although the number is estimated to be higher because not all visitors are tracked along the entire length of the shoreline. NCC also hosted its third annual "Celebrating Shorebirds" virtual event on August 30. The event focused on the species of shorebirds at Johnson's Mills and building identification skills. There were 71 live attendees and 49 post-event views.

The following species of birds were observed at Johnson's Mills in 2022: Semipalmated sandpipers, Semipalmated plovers, Least sandpipers, Black bellied plovers, Sanderlings, White-rumped sandpipers, Spotted sandpipers, Short-billed dowitchers, Willet, Lesser yellowlegs, Peregrine falcons, Bald eagles, Northern harriers, Merlin falcons, Great blue herons, Black scoters, and Double crested cormorants.

Valorēs: Fighting Coastline Erosion on the Acadian Peninsula

On the fragile coastlines of the Acadian Peninsula, Valorēs, a non-profit applied research institute, has been researching and testing ways to fight erosion. In this region, natural coastal erosion has been accelerated by more frequent and intense storms caused by climate change. The evidence of coastal erosion can be seen in many places, for example on Miscou Island where the road leading to the famous lighthouse has been damaged in recent storms, on Lamèque Island where erosion has been threatening the communities of Sainte-Marie-Saint-Raphael, Cap-Bateau and Pigeon Hill, and in Grande-Anse where cliff erosion is threatening a lighthouse, and local cemetery.

In 2022 – 2023, with the support of the ETF, Valorēs tested new methods of controlling coastal erosion by revegetating coastlines using indigenous plants, for example beach grasses with long roots that stabilize the soil.

“It’s important to us to use only indigenous plants,” says Frédéric Haché, a sustainable development researcher at Valorēs. “Not only do they create a better ecosystem, but they are often better adapted to local conditions and their intended use.”



Valorēs volunteers working on various methods for resistance and effective re-vegetation.

Valorēs has set up experimental sites to test the resistance and effectiveness of this method of revegetation. The project is aligned with the Valorēs approach to addressing climate change through adaptation. For many communities in the region, adaptation means adjusting to the consequences of a changing climate and rising sea levels. The goal of climate change adaptation is both maintaining existing quality of life and preparing for the future.

The data collected to date show positive results from coastal revegetation using native plants as a method of coastal protection. Along with the revegetation and monitoring, Valorēs has put up signs explaining where to find revegetated sites on the Acadian Peninsula. This is a secondary priority measure for this project. “In terms of awareness, we’ve noticed a lot of interest from passers-by in our panels, and a marked commitment when we work on site,” Haché says.



Increasing Environmental Awareness

The ETF supported projects involving the education of New Brunswickers about environmental issues with a view to how knowledge about natural spaces leads to action in communities. These education and awareness projects resulted in New Brunswickers taking action to protect the environment in various ways, including addressing climate change, building sustainable communities, and managing waste. The ETF supports partnerships that are provincial in scope and delivered through schools, youth-based organizations, and community groups. In 2022 – 2023, the ETF supported 47 projects in this priority area for a total of \$1,725,050. These projects included delivering environmental curriculum to schools, stewardship projects, the transfer of traditional knowledge from elders to families and communities, social media campaigns, development of an environmental law guide, and community engagement and education in traditional farming in the Wolastoqey language.

IN 2022 – 2023

47 projects | \$1.72 million

Meduxnekeag River Association: Expanding the Outdoor Classroom



Middle school and high school students participate in tree identification and measurement.

For two decades, the Meduxnekeag River Association (MRA) has been working with schools to offer environmental education on its preserve lands. The Meduxnekeag River rises in Maine, flows into New Brunswick and joins the Saint John River in Woodstock. The MRA has created a preserve of more than 1,000 acres of land along the Meduxnekeag River, including most of the forested riparian zone from Jackson Falls to the mouth of the river. The association has built and maintains a series of trails on its preserve lands.

"When we bought the initial properties and created the trails it was always our idea to use it as an outdoor classroom," says George Peabody, administrator of the MRA. "The Environmental Trust Fund has been very supportive of this and is key for us to be able to continue to do this."

The outdoor education that began 20 years ago in elementary schools in the Woodstock area, expanded in 2022 – 2023 with the support of the ETF. At the elementary school level, the MRA provides curriculum and guided nature walks on three trails. The curriculum links what the students experience on the nature walks with exercises in the classroom. The curriculum is designed for various age groups. Young children like to touch things, while older students are more interested in science. "Some kids are really keen on birds, others like bugs," Peabody says. "Almost everyone loves frogs and toads."

Middle school and high school students participate in tree identification and measurement. They learn how to identify the age of trees and the role of trees in removing carbon from the atmosphere. There is also a forest soils workshop that allows students to collect soil samples and learn about the relationship between healthy soils and forests. They also test water quality and flow rates on the main river and tributary brooks. High school students participate in an invasive species workshop.

The nature walks promote the value of nature preserves and respect for natural spaces. Peabody recalls a moment when he was leading a walk with a grade four class, single file down a narrow trail along a brook with a mature forest on either side. Two boys were speaking not far behind him and he heard one of them say: "I really like it here. It's so peaceful." "When you hear that from a grade four boy that's a clear effect," Peabody says.

During the last school year, 2,800 students participated in MRA programming. The MRA is now booking educational programming with schools from as far away as Oromocto, Plaster Rock and Grand Falls.

Fédération des jeunes francophones du Nouveau-Brunswick: Raising Climate Change Awareness in Schools

The Fédération des jeunes francophones du Nouveau-Brunswick (FJFNB) is a non-profit organization that defends the rights and interests of young people aged 14 to 18 attending New Brunswick's high schools. The organization's mission is to contribute to leadership development, identity, and cultural building, as well as community and civic engagement among young francophones.

In 2022 – 2023, the ETF supported a series of events in schools with a goal of raising awareness about eco-responsibility and climate change in their communities. The project is a continuation of the environmental mandate of the FJFNB in recent years, says Valérie Levesque, assistant general manager. "Many young people are aware of climate issues and are developing eco-anxiety in the face of collective inaction," she says.

With the support of the ETF, the FJFNB organized a discussion between high school students and the Learning Specialist (Climate Change) for the Department of Education and Early Childhood Development to assess the green and eco-responsibility status of the 22 FJFNB member schools. About 50 young people attended this event.



Students at the École Louis-J.-Robichaud celebrating their Green-Tomorrow prize win.

A Green-Tomorrow prize was awarded to École Louis-J.-Robichaud for a composting project. The goal of this project is to recycle and reuse organic matter from the school to create compost that will be used in the Shediac community garden located on school grounds.

As part of the ETF funded initiative, the FJFNB invited a series of climate change experts to schools to meet with students. Éco360 Sud-Est introduced young people to waste management solutions, engaging them in a variety of activities. Science East presented students with categories of climate challenges along with causes and solutions to counter these issues. The Gaia Project hosted a panel with various professionals in the field to talk about practical solutions to climate change. Éco-Motion from Sherbrooke held a session exploring eco-anxiety among young people.

The FJFNB also organized a free creative workshop where young people were given the task of creating advertisements to raise awareness about environmental issues among young people.



Managing Our Waste

The ETF supported projects that protect the environment through proper solid waste disposal and diversion initiatives. These projects advance the responsible management of waste through innovative reduction, diversion, and management activities. The goal is to encourage and promote environmental stewardship through recycling, community-based clean-up initiatives, and discouraging illegal dumping. The ETF supported 37 projects in this priority area for a total of \$1,466,300. These projects included increasing hazardous waste collection, glass recycling, shoreline cleanups, reduction of waste at public events, waste management education, and conversion of sewage sludge to organic fertilizer.

IN 2022 – 2023

37 projects | \$1.46 million

Bouchtouche Farmer's Market: A Waste-Free Model for Atlantic Canada



Demonstrations at the one of the “waste sorting stations”.

The Bouchtouche Farmer's Market has a bold vision. It is striving to become the model rural market in Atlantic Canada. With the support of the ETF, the market is creating a waste-free facility and has become a leader for community change, food education and capacity building. Rachelle Richard-Collette, executive director of the market, says support from the ETF has been essential for the market programming.

The market organized its second Zero Waste Festival in the fall of 2022. There were free tastings of zero waste recipes, a kid's crafts corner, a discussion panel, composting demonstrations, a clothing swap, and a Zero Waste Lunch that was free for people who brought their own plates or containers. The number of visitors doubled from the previous year, from about 150 in 2021 to 300 in 2022.

The 2022 season was the market's third year bringing a more integrated Zero Waste approach to its operations. A Waste Education/Sorting Station at the entrance to the market was staffed throughout the season. Students and volunteers helped people sort waste items, answering questions about sorting and composting. There was also a sorting station in the nearby food court. It was placed in a strategic location to help the customers sort their waste items while also providing education about how to sort.

“Every week, we took pictures of the three or four sets of waste sorting stations in order to see the quantity and the quality of the sorting from the general public,” Richard-Collette says. “We observed that the quality was far better when there was help around. When customers approached the garbage bin near the waste station that was being manned, it was clear that there was an effort made, which is the most important aspect. With thinking and efforts, comes learning.”

The market also encourages patrons to bring their own bags and takeout containers, to use its “get real dishes” cutlery and mugs, bring glass jars, and purchase handmade or reusable bags at the market.

In 2022, the market ran its “real dishes” program for the first time. This program allowed visitors to use real dishes instead of take-out containers to eat the food they bought at the market. A team of young people collected the dishes and washed them so they could be reused. The overall traffic for the 2022 season at the market was approximately 37,000 people during 29 weeks.

The Acadian Peninsula Regional Service Commission: Sorting Waste and Recycling at Home

The Acadian Peninsula Regional Service Commission (APRSC) established an at-home curb-side recycling program in 2014 that included an awareness campaign to educate residents about how to use the system.

“These efforts paid off, as we were able to see an increase in the tonnage of recyclables collected, combined with a decrease in the contamination rate of these products,” says Julie Robichaud, administrative services manager for the APRSC.

In 2016, the APRSC, with the support of the ETF, launched a second awareness and education campaign to help residents fully understand the principles of proper waste sorting at home.

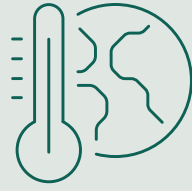
In the years that followed, the service evolved, and residents developed habits around waste sorting at home that did not always match the changes in the system. The Covid-19 pandemic brought a new set of challenges, and the APRSC began noticing an increase in contamination and rejection rates of household waste. The APRSC, with the support of the ETF, is working to bring rejection rates back in line with those achieved in previous years.



The Acadian Peninsula Regional Service Commission's (APRSC) awareness campaign for their new at-home curb-side recycling program.

In 2022, the APRSC launched a new “Sois chic! Trie tes poubelles!” (Be chic! Sort your trash!) campaign. The campaign was broadcast on various media platforms, on roadside billboards, and in several publications. The campaign was supported by a comprehensive website.

It will take time to measure the full impact of the campaign at the sorting facilities, however APRSC is encouraged by the enthusiasm and interest in the campaign. “Citizens are talking about it, asking questions, and the media are contacting the campaign organizers, so these communication and awareness-raising efforts have not gone unnoticed,” Robichaud says. The APRSC is confident that this campaign will have a significant long-term impact, and that results will follow on the sorting line.



Addressing Climate Change

The ETF supported projects that support New Brunswick's response to the challenges of a changing climate. These projects involve both reducing greenhouse gas emissions, building on resilience to the impacts of climate change to create safer, sustainable communities. The projects have been promoting new technologies and initiatives to reduce emissions through community-based transportation, carbon offset opportunities and renewable energy. The projects are also tracking and identifying risks and vulnerabilities caused by climate change, opportunities for adaptation, and environmental trends. In 2022 – 2023, the ETF supported 61 projects in this priority for a total of \$2,169,200. These projects included development of adaption plans in communities, measuring emissions from the peat industry, forest management, education programs for home building and renovations, and developing best practises for farmers.

IN 2022 – 2023

61 projects | \$2.16 million

City of Saint John: Charting a Course to Net-Zero Emissions



The City of Saint John joins the international “Race to Zero” campaign, which includes a pledge to reach net-zero greenhouse gas emissions (GHG) by mid-century at the latest.

The City of Saint John is particularly at risk in a changing climate, threatened by rising sea levels, intense storms, flooding, and coastal erosion. As an industrial centre for the province, it is also facing a significant challenge in reducing greenhouse gas emissions. In the fall of 2021, City Council voted to join the international “Race to Zero” campaign, which includes a pledge to reach net-zero greenhouse gas emissions (GHG) by mid-century at the latest.

In response to the council directive, with the support of the ETF, the city engaged consultants to develop the ActSJ strategy that will provide a pathway to net-zero emissions for Saint John.

Samir Yammine, director of environmental performance and asset management for the City of Saint John, said the process began by hiring consultants and creating a community steering committee. The steering committee had representation from city departments, and external stakeholders such as JD Irving, Ltd., Irving Oil, the regional hospital, developers, Liberty Utilities, Saint John Energy, NB Power and the Atlantic Coastal Action Plan, among others. The city met with stakeholders, and held two public engagement exercises, one in person and one online. “We need support and buy-in from major stakeholders,” Yammine says.

The consultants began researching Saint John’s energy consumption and sources of GHG emissions, asking fundamental questions: Where are we now? What happens if we do nothing? What happens if we reduce emissions under various scenarios?

“We needed good data,” Yammine says. “We needed a baseline. We needed to understand our current state. And we need to tell our story. The community needs to understand where greenhouse gasses are coming from.”

The ActSJ report will be presented to Council in the fall of 2023. Among other things, the report will explore how a net-zero process under various scenarios could create jobs and growth through clean energy innovation that would align with a global shift away from fossil fuels.

Yammine says a net-zero future will require a dedicated community effort, with the understanding that these goals are a choice for the good of the City and future generations that extends beyond the legislative control of a local government.

“We are being transparent and we are being real,” Yammine says. “It is complex, but I am very optimistic that we can do this. We can’t hide from it anymore. The main objective of the ActSJ is to make it visible as well as create awareness to the community, to make a better world for our children and our children’s children. We don’t need to be famous. All we need to do is create awareness in ourselves that whatever small changes we make, it can radiate onto others and will eventually lead others to follow suit.”

Climate adaptation in the Rivière-à-la- Truite watershed



CCNB students working to develop a case study and adaptation plan for flood mitigation.

In the aftermath of a series of damaging spring floods in the border region of northeastern New Brunswick, the City of Edmundston turned to its community partners to seek solutions. In particular, the city was searching for nature-based management strategies to adapt and build resilience in the Rivière-à-la-Truite watershed, where by 2100 the volume of water is projected to increase 34 per cent during 20-year events due to climate change.

In the Rivière-à-la-Truite watershed, climate change models predict significant disruptions. River flows will increase during the winter and spring periods to levels where bridges, culverts, floodplain infrastructure and surface drainage systems will be unable to withstand the hydrological load.

The City of Edmundston and the Northwest New Brunswick Regional Services Commission partnered with INNOV, the applied research division of the Collège communautaire du Nouveau-Brunswick (CCNB), to develop a case study and adaptation plan. The project was funded by the ETF, the City of Edmundston, Eco-Canada, Environment and Climate Change Canada.

The goal was to develop strategies through integrated management of land and water, using an ecosystem-based approach to build resilience in communities through the conservation, restoration, and engineering of natural systems.

"As part of this study, two innovative decision-support tools were developed," says Dr. Dodick Gasser, a researcher with INNOV's Applied Ecology and Environment, Bioeconomy

Division. "These tools are particularly relevant to the planning of nature-based solutions at watershed scale, as they integrate stakeholder preferences, logistical elements of land use and the physical characteristics of the watershed as key elements in decision-making."

The various solutions in the plan include: the tracking of flood complaints, the restoration and creation of wetlands, reforestation in various regions throughout the watershed, and the creation of water retention basins.

The research team expects its approach and methodologies can be used by other communities searching for ways to adapt in the changing climate. The approach is replicable for other watersheds with similar flooding problems, or for the resolution of other climate change-related issues such as water quality or summer drought. In addition to the application of the project to climate change adaptation, the process also became an educational resource in the region.

"Many people were exposed to education, awareness and knowledge transfer activities on various topics and ongoing projects: ecosystem services assessment, roles and importance of wetlands, water quality, the concept of natural assets," Gasser says. "These people were of all ages, from different institutions and in different roles. I think it's very important to expose young people to academic paths, scientific careers, the regional innovation sector and the beauty of ecosystems, and to make them aware of environmental challenges and their solutions."



Building Sustainable Communities

The ETF supported projects that create capacity in communities to build resilience to various environmental challenges. These projects are designed to increase community and regional resilience to climate change and support community sustainability by advancing innovative land use and adaptation programs. In 2022 – 2023, the ETF supported three projects in this priority area for a total of \$145,000.

IN 2022 – 2023

3 projects | \$145,000



Hayes Farm: Growing Food and Sustainable Communities



Students enjoying a tour of Hayes Farm and learning about human-scale regenerative farming, food security, and environmental accountability in the local community.

Hayes Farm is a community farm and educational space within the City of Fredericton that for years has fostered a thriving and resilient culture of local food growers. The farm promotes human-scale regenerative farming, food security and food sovereignty, socioeconomic responsibility, and environmental accountability in the local community.

The ETF has been supporting NB Community Harvest Gardens programming since 2011 and most recently its Urban Teaching Farm project at Hayes Farm. The Urban Teaching Farm grew out of a 30-week Regenerative Farming Certificate program launched in the spring of 2018. In 2022 – 2023 the farm refocused its programming from teaching aspiring farmers how to make a meaningful living as small-scale market gardeners to teaching all aspiring growers how to feed their families and communities, and how to reconnect with the land.

The programming at Hayes Farm creates a space to grow food, educates people of all ages about climate change and the possibilities of chemical free human-scale farming. The farm works closely with local community service organizations

to target underrepresented and marginalized communities and hosts paid internships in regenerative farming.

“Food connects people and builds communities,” says Edee Klee, the project lead and co-chair of the NB Community Harvest Gardens. “People want answers to the question: ‘What can I do?’ We give them a solution that is tangible.”

The farm also organizes open farm days from May to October, offering tours of teaching gardens, showcasing seasonal local food, presenting growing and homesteading workshops, and children’s activities. The farm has a “pay what you can,” and “take what you need” system for distributing food grown on the farm. “We touch a lot of folks throughout the season,” Klee says. “Without the ETF support we never would have been able to do what we’ve done.” On average 700 to 1,200 people visit the farm each year.

“You are feeding the soil, nurturing yourself and nurturing the land,” Klee says. “It opens your mind to what is possible.”

Conclusion

The story of the ETF is found in the work of hundreds of grassroots organizations where dedicated environmental leaders are restoring and protecting natural areas and working to create sustainable communities in the time of climate change. These leaders are also educating New Brunswickers about the importance of environment protection and preserving natural spaces. Their work is making a difference in communities throughout the province, and the impacts of these projects will be seen in natural spaces long into the future.

