

Community Action Plan

Recommendations for Memramcook Watershed Revitalization & Associated Opportunities for Eco-tourism and Economic Development

Prepared by Sentinelles Petitcodiac Riverkeeper



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EXECUTIVE SUMMARY

The Community Action Plan is the result of a three-year community consultation process to identify a path forward for the revitalization of the Memramcook Watershed and

associated opportunities for eco-tourism and economic development. The plan has been developed with input from over 40 organizations, and over 210 community members. These organizations include municipalities, provincial governments, federal governments, service districts, nature groups, local businesses, and educational institutions. This valuable input is combined with best practices to identify a collaborative path forward that centers the health of the watershed and sustainable economic development and ecotourism opportunities that prioritize environmental health and quality of life for residents. This Community Action Plan is made possible through the Coastal Restoration Fund, and a partnership with Sentinelles Petitcodiac Riverkeeper (SPR), Fort Folly Habitat Recovery (FFHR) and Petitcodiac Watershed Alliance (PWA).

Construction on the Petitcodiac Causeway finished in 1968 and impacts to the river and surrounding community were witnessed almost immediately. By 2003, it was listed as the most endangered river in Canada by Earthwild International. In 2021, the causeway was removed and residents, community organizations, and scientists are starting to see positive change. However, the Memramcook Causeway, located on College Bridge Rd in the Village of Memramcook, was constructed in 1973 and has had similar devastating effects on the Memramcook river and surrounding communities.

As a result of the concerns of citizens and the Riverkeeper, SPR undertook research and a number of consultations with the community around this issue and this Community Action Plan outlines community objectives for the next 4 years. This includes a general overview of the region, historical, cultural, and natural assets, an outline of ecotourism, challenges, a comprehensive multi-year action plan, and steps for implementing and evaluating its success. The community is focused on long-term planning and taking action today to help the community prosper for generations into the future. Economic development that focuses on environmental regeneration and or sustainability will play a vital role in achieving the community vision.

CHAPTER 1: INTRODUCTION

1.1 About

Sentinelles Petitcodiac Riverkeeper is a Canadian registered charity and a not-for-profit environmental organization. SPR's mission is to lead in the restoration, protection, and promotion of the ecological integrity of the Petitcodiac and Memramcook watersheds and the Shepody Bay Estuary. SPR is dedicated to protecting this 3,000 km² watershed located on the Inner Bay of Fundy in southeastern New Brunswick. Sentinelles Petitcodiac Riverkeeper was founded in 1999 and is part of 345 Waterkeeper groups in 48 countries, "a global movement united for clean, healthy, and abundant water for all people and the planet...because we believe water is life"¹.

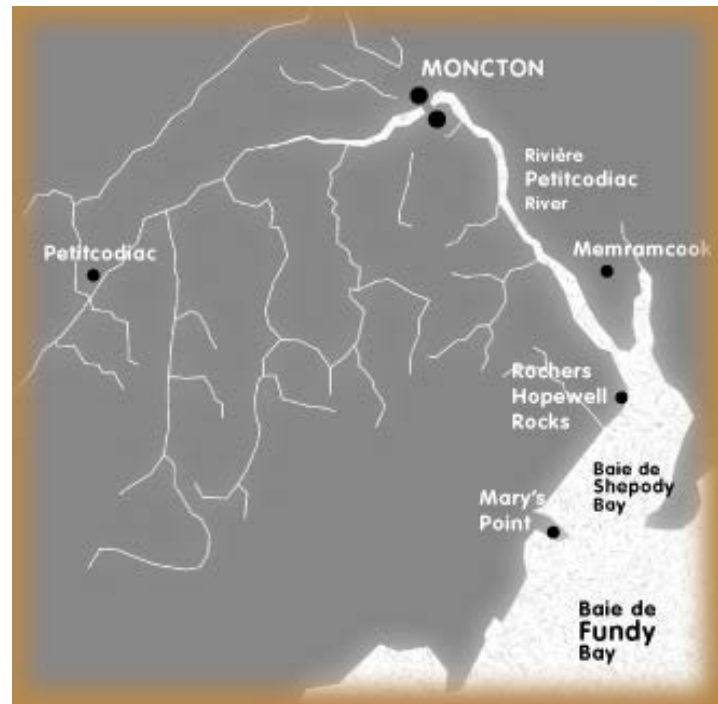


Figure 1: A map of the watershed SPR protects and restores.

1.2 Objectives

The Community Action Plan is a strategic plan that is based on the current situation in the watershed and identifies specific short-term, medium-term, and long-term goals to be achieved within the next 4 years in terms of ecotourism and economic development. The objectives for this Community Action Plan are as follows:

- The government takes action to replace the aging Memramcook Causeway with a bridge.
- Explore naturalized options to protect municipalities from flooding related to the removal of the causeway.
- A plan is put in place and resources dedicated to replacing the Memramcook Causeway
- Expand and improve resources to integrate ecological, historical and cultural storytelling into tourism activities
- Promote Memramcook and Petitcodiac watershed communities as a destination for tourism.
- Expand and improve ecotourism opportunities in the Memramcook and Petitcodiac watersheds.
- Broaden public awareness and engagement in local tourism opportunities
- Invest and strengthen the support system for the development of environmentally sustainable economic development including tourism.

1.3 Description of Area

A watershed is an area of land that drains surface water from a connected system of watercourses that drains into one river, creek, stream, lake or ocean. When using the term watershed, it includes both the streams and rivers that transport the water, as well as the land surfaces from which water drains into the watercourses. The watershed acts as a funnel that collects all the water within an area and channels it into a waterway. Each watershed is separated topographically from adjacent watersheds by a ridge, hill, or mountain, which is known as a water divide. Other terms that can be used to describe the same concept are catchment, catchment area, catchment basin, drainage area, drainage basin, river basin and water basin. Watersheds are important because understanding the connectivity is useful for planning and managing activities for the future². Any activity that could impact the water quality, flow rate or water quantity in one area of the watershed could affect locations downstream².

1.4 The Petitcodiac River Watershed

The Petitcodiac River is a major drainage basin located in Southeastern New Brunswick. The area includes the boundaries of Fundy National Park, through Petitcodiac, into the Greater Moncton area and then moves towards Hillsborough². The Petitcodiac Watershed has a total drainage area of 2,831 km² and more than 30 tributaries². Water flows southeasterly into Shepody Bay, which eventually makes its way to the Eastern portion of the Bay of Fundy³. The predominant land use activities in the Petitcodiac Watershed include forested land and agricultural land³.

The area is considered one of the most populated and fastest-growing regions within New Brunswick, since many people live within an hour's drive of the tri-city area of Moncton, Dieppe, and Riverview. Greater Moncton boasts the largest regional population in New Brunswick with over 152,000 people living in Moncton, Dieppe, Riverview and surrounding communities including McEwen, Salisbury, Hillsborough, Riverside-Albert, and Memramcook⁴. Over the past 5 years, it has been the fastest-growing metropolitan area east of Ontario⁴. The Petitcodiac River is also known as The Chocolate River. Strong tides can reach up to 13 km/hour and carry huge volumes of water. The highest tides in the world can be seen in the Bay of Fundy⁵.

1.5 The Memramcook River Watershed

The Memramcook River watershed is located Southeast of the Memramcook River, towards Sackville. The Memramcook River has a total drainage area of 400 km² with many small tributaries flowing into it². This area hosts a lot of land uses such as wooded areas, farms, highways, quarries, and residential areas². The Memramcook River starts in Painsec, which is a largely wooded area, and moves towards Memramcook and Dorchester where there are residential communities². Water from the Memramcook River empties into the mouth of the Petitcodiac River and these two together form the beginning of the Shepody Bay.

1.6 The Petitcodiac and Memramcook Causeways

The Petitcodiac River Causeway was proposed in 1962 as an option to rebuild the dyke system in the upper reaches of the Petitcodiac and as an alternative to providing a crossing between the communities of Moncton and Riverview. It was a controversial project from the start, with concerns being voiced early on by fisheries officers. But in the early 1960s, these types of projects were not subjected to rigorous environmental assessment review or public consultations. Although the causeway was equipped with a fishway, problems immediately arose after its completion. Thousands of fish were found dead and unable

to cross freely due to poor fishway design and sedimentation build-up. SPR was created in 1999 with the goal to reverse the tremendous ecological, economic and social devastation brought to the region as a result of the Petitcodiac Causeway. The Riverkeepers implemented a series of groundbreaking actions in environmental communications and environmental law enforcement. Ultimately, these efforts prevailed, leading to the opening of the gates of the Petitcodiac causeway in April 2010, the end of Canada's longest environmental battle and the commencement of North America's largest river restoration project. In 2021, the Petitcodiac Causeway was removed allowing the natural flow of the river to return. Residents, community organizations, and scientists are already starting to see the positive change since its removal. The benefits have been very noticeable and it affects the entire watershed. A strong tidal bore with fish and wildlife migrations, less flooding issues in Moncton since the head-pond created by the causeway was working against the natural drainage of the ecosystem, and less sedimentation which affects towns downstream of where the causeway was located. However, there is another causeway located downstream in the Village of Memramcook which has had negative impacts.

The Province of New Brunswick built the Memramcook River Causeway in 1973 to protect and preserve agricultural land from the flooding of saltwater². Over the years, the causeway has altered the natural ecosystem and has contributed to the elimination of several kilometres of the upstream estuary². This has affected the tidal range, fish migrations, sedimentation, and nutrient exchange in the river system. The causeway has gates that are operated electronically onsite by the Government of New Brunswick to control the passage of water². The gate schedule is in place to help reduce the effect of saltwater and high tides on surrounding agricultural land and to aid in the passage of fish². However, when the gates are open, the river sees an increase in water volume and sediments become re-suspended causing large fluctuations in E. coli, sedimentation, and salinity². These large fluctuations make it difficult for aquatic organisms to live in such stressful conditions². When the gates are closed and no fish ladder present, it obstructs approximately 60% of the natural passage of fish in the Memramcook River². The causeway has caused the elimination of nearly every fish species that once inhabited the river, including the distinct Inner Bay of Fundy Atlantic salmon, American shad, striped bass, Atlantic tomcod, Sea-run brook trout and more. These fish inhabited many tributaries that flow into the Memramcook River. Residents in Memramcook have seen the negative effects of the causeway and wish to see the causeway removed, so the river and the region can return to their natural state and begin to heal.

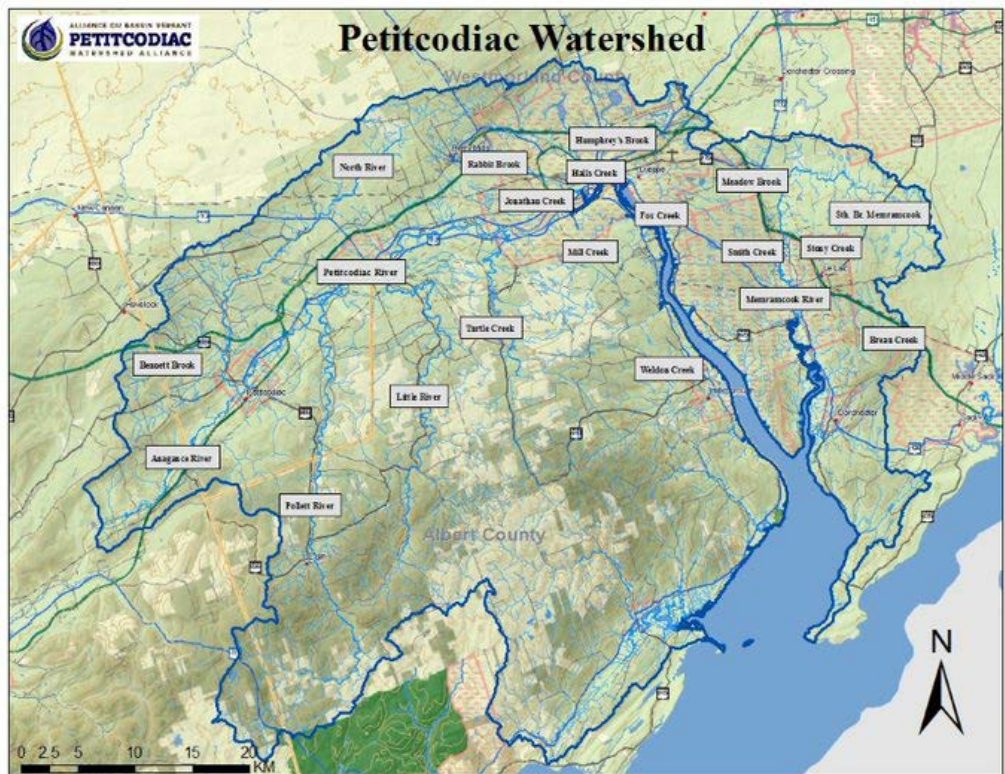


Figure 2: A map of the various tributaries in the Petitcodiac Watershed and Memramcook Watershed².

CHAPTER 2: HISTORICAL SIGNIFICANCE

The Petitcodiac and Memramcook Watersheds have important historical and cultural ties, particularly for Mi'kmaq and Acadian populations. Mi'kmaq have lived in what is now known as the Maritimes for thousands of years. They gathered into large semi-permanent villages during the summer months in areas referred to now as Memramcook and Dorchester. During the winter months, they would use the Memramcook and Petitcodiac Rivers as transportation routes which were connected to multiple portage routes to other rivers, making it an integral part of the transportation network.

Acadian colonizers settled along the banks of the Petitcodiac and Memramcook Rivers in the early 1600s, forming farming villages. These Acadian settlements are well known for a farming technique characterized by “aboiteaux” which prevent high tides from flooding agricultural land built on marshland. Aboiteaux can still be found in the area today along with many monuments that mark historically significant events, and organizations and cultural groups that support Acadian arts, culture, and history.

New Brunswick is internationally recognized for its covered bridges, for which several remain in the Petitcodiac and Memramcook Watersheds. Early industry development included stone cutting and shipbuilding, the latter of which is recognized by the Historic Sites and Monuments Board of Canada for its national importance of the shipbuilding industry in New Brunswick.

Throughout the consultation period, locals have expressed a desire to learn more about the history of the region, suggesting that many significant places and events are not well known within local communities. Ecotourism and economic development opportunities could target local and international clients alike. Mi'kmaq and Acadian cultural groups and associations may wish to integrate their history into ecotourism and economic development through education and activities.

CHAPTER 3: NATURAL HISTORY AND CULTURAL SIGNIFICANCE

There are many unique and incredible aspects to the natural environment of the Petitcodiac and Memramcook Watersheds, which have cultural significance as well. These areas need to be protected from the impacts of climate change, and the protection of these areas will have not only ecological benefits but cultural and economic benefits as well. The protection of these natural spaces could lead to new economic development opportunities that work with nature and further aid in the restoration of these areas or reduce human impacts to a negligible over the long term.

Many well-known natural phenomena in Southeastern New Brunswick are linked to the Petitcodiac and Memramcook watersheds. The Bay of Fundy boasts the largest tides in the world and every year tourists and locals alike flock to the Bay of Fundy National Park and Hopewell Rocks Provincial Park to view the impressive tides, walk on the ocean floor, camp, hike, and view the flower pot rocks. These destination attractions can serve as important links to nearby rural communities creating a corridor of local attractions that are ecologically, environmentally and culturally significant to the region.

One of the most well-known aspects of the Petitcodiac River is its tidal bore, forming twice a day as the tides from the Bay of Fundy push upriver towards Moncton. Until the construction of the causeway in 1968, the Petitcodiac River tidal bore was considered to be among the most impressive in the world. The opening of the causeway gates and subsequent removal of the causeway has led to the return of the tidal bore and with it many spectators to witness the phenomena for themselves.



Figure 3: Locations of the interpretive panels installed by FFFN®.

Every summer the upper Bay of Fundy plays host to massive flocks of migrating shorebirds. During the peak of the fall migration (late July to early August), up to 2 million shorebirds converge on Fundy's nutrient-rich mudflats. Two of the most important sites are located at Johnson's Mills and Mary's Point, on Shepody Bay. Shorebirds play an important ecological role in our communities and will continue to play a valuable role in

restoration, protection and conservation in New Brunswick. Additionally, birdwatching is a multibillion-dollar ecotourism opportunity that could have a positive economic and environmental impact on the region.

Removal of river obstructions including the Memramcook Causeway is important to restoring fish passage in the watershed. The Petitcodiac River has begun to see an increase in fish passage due to the opening of the gates and the removal of the causeway. It is expected that the Memramcook river and tributaries could also see a return of fish species that have historically been found in the Petitcodiac Watershed. At least 14 species of migratory fish were once abundant in the region including Inner Bay of Fundy Atlantic Salmon and American Shad which were once important economic resources for local fishers.

There are many trails that people may immerse themselves into along the Petitcodiac and Memramcook rivers. They include accessible trails, more challenging hikes, cycling trails, interpretive trails, ski trails and many more. The term “trails town” is used to talk about communities along trails that typically benefit from ecotourism due to the influx of visitors going to restaurants, stores, and other establishments. Interpretive panels on trails such as those developed by SPR or Fort Folly First Nation (Figure 3) offer additional opportunities for visitors to learn about ecological, historical, and cultural information about the watershed. Trails have a significantly lower ecological impact than roads and are beneficial for one’s mental and physical health. Trails have the ability to bring communities together and offer connections that allow for strong relationships to establish and ecotourism opportunities to grow.

CHAPTER 4: UNDERSTANDING ECOTOURISM

The International Union for Conservation of Nature (IUCN) defines ecotourism as, “environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features—both past and present) that promotes conservation, has low visitor impact and provides for beneficially active socio-economic involvement of local populations”⁷⁷.

Ecotourism is based on sustainable development principles that focus on meeting current community needs without compromising the ability of future generations to meet emerging needs and interests⁸. In other words, ensuring the environment and the economy work together without overexploiting our natural resources.

4.1 Ecotourism Stakeholders and Local Communities

A huge range of players participate in ecotourism, some more actively than others, however, all have a role in the big picture of ecotourism. The key to the success of ecotourism is creating strong partnerships so that multiple goals of conservation and development are achieved.

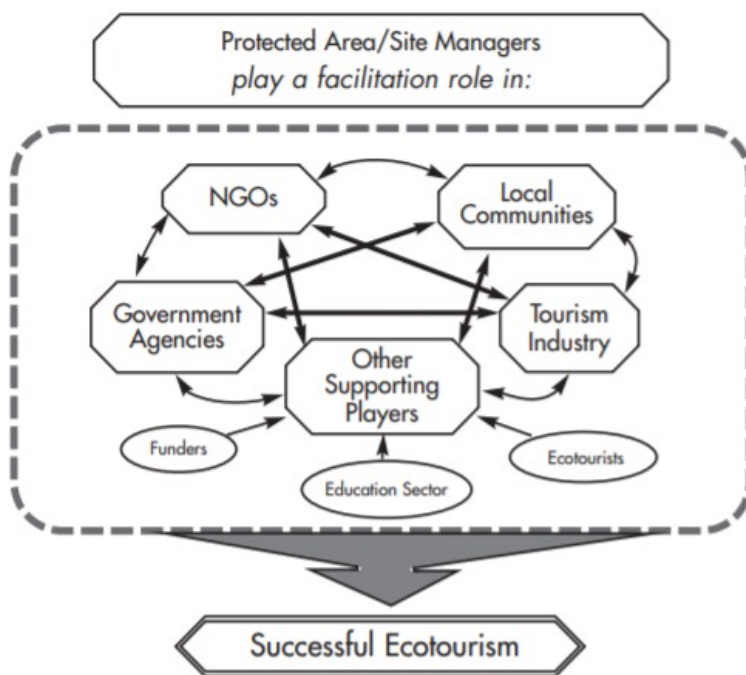


Figure 4: Ecotourism partnerships required for success⁹.

Some of these key players include community organizations and individuals, the private sector tourism industry, and a variety of government officials and non-governmental organizations⁹. All of these partnerships contribute to the success of ecotourism.

Local residents play a crucial role in ecotourism as active players and decision-makers in planning, management and protecting and conserving the areas in and around the Bay of Fundy. They have local or traditional knowledge that is vital to the ecotourism experience and to ensure the protection of natural habitat⁹. Residents can benefit from working together to create a shared experience that brings people to the Petitcodiac and Memramcook rivers, instead of having the rivers as mere

accessories to the landscape. By working together on trails, events, tours, and promotional activities, tourists can participate in a “package” experience that makes the region even more attractive. This helps build the sustainability of eco-tourism operators and creates local jobs and economic activity.

CHAPTER 5: COMMUNITY ACTION PLAN

5.1 Current Regional Challenges

New Brunswick boasts many world-class tourist destinations located in the Petitcodiac and Memramcook watersheds, where thousands of visitors flock every year to these destinations such as Hopewell Rocks, Johnson Mills Shorebird Interpretive Center, our trails, dykes and other wonders of nature.

In our region, tourism is a major contributor to the economy of these communities, however, some of the smaller ecotourism businesses and communities face challenges as they are “drive-through” communities along the way to bigger tourist attractions.

In addition, residents have expressed concerns about poor decisions related to development on the region’s marshlands made over the years, and say they are already seeing negative effects: poor water drainage, silt accumulation in water pipes, flooding, and other issues in the watershed. With the complete removal of the causeway and the construction of a bridge, the river will continue to gradually regain its natural flow and strength. Combined with rising sea levels, this means flooding will undoubtedly increase. In our consultations, people expressed concerns about the effects of climate change on the region and its fragile ecosystems and feel these issues should be further explored and addressed. Climate change mitigation must be incorporated into ecotourism planning and management. Finding ways to mitigate current flood risks, limiting development on marshes and wetlands, and planning for climate change adaptation while allowing the sustainable development of trails, marshes, and other ecotourism attractions will be required.

Table 1: Local challenges identified through consultation

CATEGORY	CHALLENGES
Value of Natural Infrastructure	<ul style="list-style-type: none"> - The river is treated as a mere accessory in the landscape. - Lack of people-centred design facilitates “drive-through” status of communities. - Many natural assets are part of rural communities that are connected to the Bay of Fundy, however, the opportunities, values, and uniqueness of the region is not clearly communicated. - Getting communities to agree on environmental standards to protect the river, mitigate pollution, impose restrictions on developments that are harmful to the river and surrounding ecosystems, and make climate change adaptation a priority.
Climate Change & Water Quality	<ul style="list-style-type: none"> - Many poor decisions related to the development of the region’s marshlands have been made over the years, and we are already seeing negative effects: poor water drainage, silt accumulation in water pipes, flooding, and other issues in the watershed. - There are also concerns related to the effects of climate change on the region and its fragile ecosystems, which should be examined and addressed. - Water quality has direct repercussions on the watershed’s flora and fauna. Future economic development or increased recreational use of the river must not be done at the expense of contaminating the river and its watershed and wreaking havoc on their fragile ecosystems.
Linking Our Communities	<ul style="list-style-type: none"> - There are many silos that exist between organizations, businesses, key community leaders, municipalities, towns and villages. Collaboration, cooperation and common pooling of resources are necessary. - Lack of connected trail infrastructure to connect communities with attractions to unleash the full ecotourism potential of the Petitcodiac River. - Not everyone is represented by a municipality. Communities without mayors, or councils rely on community organizations as their voice.
Economic Development	<ul style="list-style-type: none"> - Currently, there is recognition of the importance of shifting economic development towards more sustainable goals, however, there is a lack of knowledge or steps to help businesses, entrepreneurs shift their business models to incorporate sustainability goals and quality of life. - Lack of attractions, heritage status, branding and marketing to showcase the unique features of the river communities.

5.2 The Consultation Process

SPR has held multiple consultations with the public including two ecotourism symposiums and four public dialogues on the Memramcook River (two held in English and two held in French). These public consultations are part of a multi-year engagement strategy from 2019-2021. In late 2019, Sentinelles Petitcodiac Riverkeeper hosted the first ecotourism symposium bringing together key stakeholders to build the local economy in an ecologically responsible way. In early 2020, SPR held the first two public dialogues on the Memramcook Causeway. In two separate presentations, presented in English and French, SPR reached out to many community stakeholders to develop options for the Memramcook River and Causeway and three options were presented to the public; repair, partial reconstruction, or removal.

At the end of 2021, SPR held two different public events; one was a Community Ecotourism Symposium and the other one was a public dialogue on the Memramcook feasibility document (held in both English and French). The purpose of the Community Ecotourism Symposium was to gather ideas from tourism operators and other stakeholders on how to make the region an ecotourism destination. The Memramcook feasibility public dialogues were held to provide an update on the Memramcook Causeway and get feedback on future work to be done.

5.2.1 Community Ecotourism Symposium 2019

On October 28th, 2019, Sentinelles Petitcodiac Riverkeeper hosted a historic symposium bringing together businesses, municipalities, towns and villages, wildlife protection and restoration organizations, universities, artists, economic development organizations, people who live and work along the Petitcodiac River, and others who see potential in the river to build the local economy in an ecologically responsible way. 54 participants attended the event.

Discussions during the symposium all seem to point to the fact that there is an overall shift taking place in our region and in our world in which people are realizing that we need to focus our economic development on more sustainable goals which prioritize the quality of life for residents and environmental protection. Organizations, businesses, key community leaders, municipalities, town and village councils must see their interconnectedness and start embracing collaborative projects which create a common brand around the Petitcodiac River and the experiences it can offer. Creating a Trails Towns which links our communities through continuous uninterrupted trails alongside and branching out from the Petitcodiac River. Attractions, recreational opportunities and accommodations should be linked as well via this trail system which could then be branded and promoted to increase tourism in the region.

The opportunities the Petitcodiac River provides as an ecotourism destination and for the surrounding communities to participate in sustainable ecotourism opportunities will create employment opportunities and allow the restored river to be admired. A summary of topics discussed and all comments and answers are shared in the *“Developing a Shared Vision & Strategy For the Petitcodiac River and its Communities”* (a link to the report can be found in Appendix 1).

“Someone’s success is all our success!”

– Marc Léger, Regional Trails Coordinator for plan360

5.2.2 Community Ecotourism Symposium 2021

Since the last ecotourism symposium, the Petitcodiac causeway has been removed, allowing the natural flow of the river to return along with fish and habitat. On November 30th, 2021, SPR held a virtual Community Ecotourism Symposium event to bring together tourism operators and other stakeholders to discuss the opportunities for developing and promoting our region as a world-class ecotourism destination. There were 33 participants during the virtual event where attendees gave feedback and shared ideas on a shared vision and environmentally responsible strategy to take advantage of new opportunities offered by the restoration of the Petitcodiac River, such as ecotourism, recreation, environmental and public health, economic development, and community resilience. A summary of topics discussed and all comments and answers are shared in the *“Community Ecotourism Symposium for Communities Surrounding the Petitcodiac and Memramcook Rivers”* (a link to the report can be found in Appendix 1).



93%

of attendees said much more could be done to encourage and promote eco-tourism in the Petitcodiac-Memramcook watershed.

Strongly Agree – 17/27 – 63%

Agree – 8/27 – 30%

Neutral – 2/27 – 7%



100%

of attendees believe eco-tourism is one of the best ways to build our local economies and protect our natural environment.

Strongly Agree – 14/27 – 52%

Agree – 13/27 – 48%



100%

of attendees support a collaborative effort among communities in the Petitcodiac-Memramcook watershed to increase eco-tourism opportunities

Strongly Agree – 15/27 – 56%

Agree – 12/27 – 44%

5.2.3 Memramcook Feasibility Public Dialogues

Community members and other key stakeholders have been calling for the removal of the Memramcook Causeway for several years. In 2020, SPR reached out to many community stakeholders to develop options for the Memramcook River and Causeway. Three options were presented:

1. Repair - Status Quo
2. Partial Reconstruction
3. Removal of the Causeway and Replacement with Bridge

SPR created the “*Preliminary Assessment of Options for the Long-Term Viability of the Memramcook River Causeway*” report, which was shared at two public dialogue sessions (Appendix 1). Over 90 participants attended the public dialogues. Over 40 people attended the February 25, 2020, English-language event in Dorchester and over 50 people attended the March 5, 2020, French-language event in Memramcook. The public dialogues brought the people from these communities together to share their priorities and concerns and listen to their feedback regarding three possible options for the Memramcook River Causeway. A summary of participants’ comments can be found in a report called, “*Summary of Public Dialogues on the Current State of the Memramcook River Causeway and Future for the Memramcook River & Watershed*” (a link can be found in Appendix 1).

All of the information gathered from the 2020 public dialogues guided further research to create another report called, “*Memramcook River Causeway Replacement Feasibility Report*” (Appendix 1). The report was shared by SPR during two virtual events. The first event was held on December 1st, 2021, in English with 20 participants and the second event was held on December 7th, 2021, in French with 14 participants.

5.3 Community Action Plan Table

A Community Action Plan Table was put together with input from the community throughout the consultation process. The table includes a variety of outcomes to address the objectives developed by local citizens, municipalities, organizations, cultural groups, and more. The table offers suggested community activators who could play a lead role in the implementation of each outcome as well as the proposed timeline which is divided into short term (expected 1-2 years), medium-term (2-3 years), and long term (4 years or more).

Table 2: Objectives, outcomes, key performance indicators, and the timeline for a community action plan on Memramcook river restoration and economic development

OBJECTIVE: A HEALTHY RIVER THAT IS SUPPORTED BY SURROUNDING COMMUNITIES.			
Outcomes:	Community Activators	Key Indicators	Estimated Timeline
1. Municipalities have up to date Environmental Plans for land management, climate adaptation and climate mitigation (ex. Green Plan, Memramcook)	Municipalities	<ul style="list-style-type: none"> • Number of municipalities with sustainability plans that include climate mitigation and adaptation measures 	Medium-Term
2. A plan is put in place and resources dedicated to replacing the Memramcook Causeway	SPR	<ul style="list-style-type: none"> • Information is shared publicly and community members are aware of the vision for the river 	Short-Term
2.1 Funding Avenues are Identified	SPR	<ul style="list-style-type: none"> • Funding avenues are identified and shared with river communities 	Short-Term
2.2 Feasibility study for Memramcook Causeway is completed and shared with the public	SPR	<ul style="list-style-type: none"> • Number of community members and stakeholders who have seen the plan and attended events to discuss the report 	Short-Term
2.3 Explore naturalized options to protect municipalities from flooding related to the removal of the causeway	SPR	<ul style="list-style-type: none"> • Funding options are identified and a plan is in place to protect communities from further flooding 	Short-Term
2.4 Information is shared with all levels of government concerning the removal of the Memramcook Causeway	SPR	<ul style="list-style-type: none"> • Number of meetings, and discussions held regarding the removal of the causeway and the community vision 	Short-Term
2.5 Community members are given clear action items on who to address and how for the removal of the Memramcook Causeway	SPR	<ul style="list-style-type: none"> • The public has access to actions they can take to support the river and remove the causeway • Track number of actions taken by community members 	Short-Term
2.6 The government commits to investigating the removal of the Memramcook Causeway	GNB	<ul style="list-style-type: none"> • Intention to remove the causeway is made public 	Medium-Term
2.7 A timeline is in place for bridge construction and the removal of the Memramcook Causeway	GNB	<ul style="list-style-type: none"> • Resources are dedicated to the budget 	Medium-Term

OBJECTIVE: EXPAND AND IMPROVE RESOURCES TO INTEGRATE HISTORICAL AND CULTURAL STORYTELLING INTO TOURISM ACTIVITIES

Outcomes:	Community Activators	Key Indicators	Estimated Timeline
1. Research is completed and a plan is in place for the Petitcodiac Watershed Discovery Centre)	SPR, Municipalities, GNB	<ul style="list-style-type: none"> • Funding is secured for the development of a plan • A plan is in place and shared publicly on the creation of a discovery centre to link communities in ecotourism corridor, and to offer ecological, cultural and historical education opportunities 	Medium-Term
2. Develop cultural productions (theatre) on natural heritage themes in Memramcook	Fort Folly First Nation, Indigenous Business Owners, Acadian Cultural Associations, Local Businesses, and Local Community Groups	<ul style="list-style-type: none"> • # and type of productions • # and type of visitors 	Medium-Term
3. Create a community garden of traditional medicinal plants	Fort Folly First Nation, Municipalities, Community Groups	<ul style="list-style-type: none"> • Garden is created • # of annual visitors 	Medium-Term
4. Host events where culture (art, music and food) are integrated into the environment	Community Groups or Local Businesses	<ul style="list-style-type: none"> • # of events 	Long-Term
5. Develop a plan to increase sustainable hunting activities while educating on cultural significance and importance	Municipalities, Indigenous Community Groups, Community Groups	<ul style="list-style-type: none"> • The plan is developed and implemented 	Long-Term

OBJECTIVE: PROMOTE MEMRAMCOOK AND PETITCODIAC WATERSHED COMMUNITIES AS A DESTINATION FOR TOURISM.

Outcomes:	Community Activators	Key Indicators	Estimated Timeline
1. Increase the number of eco-friendly activities that take place on the rivers	Municipalities, Economic Development Agencies, Local Businesses and Community Groups	<ul style="list-style-type: none"> Locals and tourists have a variety of options for eco-friendly activities that are diverse and accessible for different abilities and income levels 	Short-Medium-Term
1.1 Track events and activities that take place along the river	SPR, Municipalities, Community Groups	<ul style="list-style-type: none"> Baseline data is collected and available publicly Updated regularly (ie. annually or every 2 years) 	Short-Medium-Term
1.2 Install QR codes or panels along trails and at other important destinations	Municipalities, Community Groups	<ul style="list-style-type: none"> # of panels and QR code uses 	Medium-Term
2. Increase the number and types of ecotourism businesses established along the rivers	Municipalities, Economic Development Agencies, Tourism Organizations	<ul style="list-style-type: none"> Locals and tourists have a variety of options for ecotourism businesses that are diverse and accessible for different abilities and income levels 	Medium-Long-Term
2.1 Eco-tourism businesses are tracked in number and type	Municipalities, Economic Development Agencies, Tourism Organizations	<ul style="list-style-type: none"> Baseline data is collected and available publicly Updated regularly (ie. annually or every 2 years) 	Short-Medium-Term
2.2 Encourage and support entrepreneurs in the development of ecotourism businesses	Economic Development Agencies, Tourism Organizations	<ul style="list-style-type: none"> Entrepreneurs have ready access to the information and support they need to establish their businesses More eco-tourism businesses are established along the river and its watershed 	Medium-Long-Term
3. Develop Regional eco-tourism branding and Strategy	Regional Service Commission, Economic Development agencies, Tourism Associations	<ul style="list-style-type: none"> There is clear eco-tourism branding tied to the region A strategy is in place to broadly promote eco-tourism in the region 	Short-Medium-Long-term
4. Encourage locals to share stories about the River and the natural environment and engage in local tourism	SPR, Municipalities, Businesses, Environmental and Community Groups	<ul style="list-style-type: none"> Number of stories shared Stories are showcased in mainstream media and through other organizations' social media 	Short-Medium-term

<p>5. Work with tourism operators to celebrate the story of the region both past and present, cultural and environmental heritage</p>	<p>Tourism Operators</p>	<ul style="list-style-type: none"> • # of local stories shared through events or online marketing 	<p>Medium-Term</p>
<p>5.1 Encourage and promote “staycations” and visits to local ecotourism activities</p>	<p>Municipalities, Businesses, Economic Development Agencies, Tourism Associations, Business Improvement Districts</p>	<ul style="list-style-type: none"> • Regularly see locals posting on social media of their local visits • Local tourism opportunities and operators appear regularly in the news 	<p>Short-Medium-Term</p>
<p>5.2 Continue to offer subsidies such as Explore NB Travel Incentive Program</p>	<p>GNB</p>	<ul style="list-style-type: none"> • Quantity of subsidy returned to New Brunswickers, number of different families receiving subsidies • New Brunswickers encouraging other New Brunswickers to “Travel Local” 	<p>Short-Term</p>
<p>6. Educate about, and promote local trails, dykes, and levees as world-class tourist attractions</p>	<p>Municipality, Local Businesses, Regional Service Commission, Tourism Associations, Environmental and Community groups</p>	<ul style="list-style-type: none"> • Track number of education materials, number of locations, and number of engagements online 	<p>Short-Medium-Term</p>

OBJECTIVE: EXPAND AND IMPROVE ECOTOURISM OPPORTUNITIES IN THE MEMRAMCOOK AND PETITCODIAC WATERSHEDS.

Outcomes:	Community Activators	Key Indicators	Estimated Timeline
1. Develop trails and expand the overall network	Regional Service Commission, Municipalities	<ul style="list-style-type: none"> • # kms of accessible trails in the region • Communities are interconnected by trail network (ie. can travel between communities without a vehicle on trail network) • Walking/biking trails with “pinch points” are marked on maps for accessibility 	Long-Term
1.1. Develop a program to showcase marshes and other wetlands	Municipalities, Community Groups or Local Businesses	<ul style="list-style-type: none"> • Program is developed and available publicly 	Medium-Term
2. Develop an ecotourism information package, so people can plan their trip.	Municipalities, Community Groups, Local Businesses, Tourism Associations	<ul style="list-style-type: none"> • An information package is developed and shared broadly 	Medium-Term
3. Install bike racks in public areas and at entrances and exits of trails and other village attractions	Municipalities, Regional Service Commission, Community Groups	<ul style="list-style-type: none"> • # of bike racks and infrastructure installed near trails and along the river 	Medium-Term
4. Develop rest areas along trails and bike paths	Municipalities, Regional Service Commission	<ul style="list-style-type: none"> • # of rest areas along trails and bike paths 	Long-Term
5. Develop a plan for the development of downtown Memramcook by bringing businesses and leisure activities together in one location	Municipality	<ul style="list-style-type: none"> • The plan is developed and progress is tracked and shared 	Long-Term
6. Partner with local businesses to create packages for daily trips (walking, biking, etc.)	Community Groups or Local Businesses	<ul style="list-style-type: none"> • Increased collaborations between businesses, municipalities and communities 	Long-Term
7. Share resource list of organizations working to invest and strengthen the support system for development of environmentally sustainable economic development including tourism	Green Economy Hub, CBDC, ACOA, Economic Development Agencies	<ul style="list-style-type: none"> • Anyone looking to partner, develop, or launch a program in the region can easily access a list of other organizations working in this network • Engage with other regional strategy groups i.e., Upper Bay of Fundy Regional Destination Development Strategy 	Short-Term

OBJECTIVE: BROADEN PUBLIC AWARENESS AND ENGAGEMENT IN LOCAL ECO-TOURISM OPPORTUNITIES

Outcomes:	Community Activators	Key Indicators	Estimated Timeline
1. Encourage and establish public transit between Memramcook and Dieppe-Moncton	All Levels of Government	<ul style="list-style-type: none"> • Transit routes are established • # of riders 	Long-term
2. Establish an open doors day for the public, and/ or open doors passport for tourism industry professionals. Tourism professionals are invited to participate in tourism activities for free, with activities that are available to them listed on the passport	Municipalities, Local Tourism Associations or Operators	<ul style="list-style-type: none"> • # of tourism operators who participate in Open Doors Day • # of community members who participate 	Medium-term
3 Create a common website focused on the Petitcodiac River, its history and impact on the heritage and culture of our communities, and featuring riverside attractions, trail maps, etc.	SPR, Community Groups	<ul style="list-style-type: none"> • There is a common online place where people can share their information about the river and surrounding communities 	Medium-Term
3.1 Create a platform and central touchpoint for many groups working on ecotourism, ecojustice, culture and history preservation	SPR, ACOA	<ul style="list-style-type: none"> • Creation of Petitcodiac River Discovery Centre 	Long-term

CHAPTER 6: MEASURING SUCCESS AND PROGRESS

6.1 Understanding the Plan

The Memramcook Community Action Plan is not specific to one organization or community, but rather is a regional plan developed in collaboration with governments, organizations, community groups, and the general public. It is intended to be a living document where recommended actions can be added to the plan as the implementation of the plan progresses and new needs are identified. For the plan to be successful it is important that different organizations and groups take a leading role in different recommended actions. The plan will be posted online and organizations that see alignment with their goals can commit to actions to help move the collaborative efforts forward.

6.2 SPR's Role in the Plan

SPR will play a coordination role in the implementation of the plan. The organization will seek funding to ensure that continued support to the plan is given and will promote the plan regionally. SPR may work to find community champions, in the form of organizations, municipalities, businesses, to take on key responsibilities of the plan. SPR has played a key role in mobilizing communities around issues affecting the river. This experience is essential to bringing different key stakeholders together to work towards a cohesive and collaborative approach to river communities that center on sustainable development and quality of life.

6.3 Evaluation and Monitoring

SPR will need to identify how often it will evaluate the plan and update the community with the advancement of the actions identified in the plan. This could take the form of an update to the document online where partners and potential partners can see which actions are in progress and which organizations are playing a key role in achieving that objective. This format could allow for increased collaboration between stakeholders as the information is transparent and allows potential partners to reach out to groups already working on an initiative, thus breaking silos that are created from disjointed work plans and uncertainty in other key players working towards a common goal. A further symposium should be planned for the middle and end of the Community Action Plan timeline. A midterm symposium will bring together groups across industries to reflect on progress made so far and identify any further barriers and solutions to help achieve further results of the Community Action Plan. A Community Symposium at the end of the plan's projected timeline will allow for organizations to reflect on and celebrate the successes of the plan, and begin to identify new objectives for the future.

CHAPTER 7: CONCLUSION

SPR's main objective is to restore the ecological health of the Petitcodiac and Memramcook River watersheds. This project brings together the three environmental organizations, SPR, PWA, and FFHR, who have the most experience dealing with the Petitcodiac causeway, to assess the implications of replacing the Memramcook Causeway with a bridge. This multi-year partnership builds on existing knowledge and uses public consultations to identify opportunities for sustainable economic development and ecotourism.

It is important now more than ever to take action since there are environmental threats such as climate change, erosion, flooding, or human-made issues that may impact our environment and ecotourism destinations. Growing ecotourism and recreational use of these natural areas provide an opportunity for economic development, but it can also create potentially serious issues and must be done in a way that ensures the safety and well-being of both our rivers and the public.

The goals of this project going forward are to restore environmental areas, prioritize the continued advocacy for the removal of the Memramcook Causeway and engage with the community and key on environmental issues, sustainable economic development, and strengthen partnerships. The community is focused on long-term planning and taking action today to help the community prosper for generations into the future. Economic development that focuses on environmental regeneration and sustainability will play a vital role in achieving the community vision.

APPENDIX 1

Table 1: A list of the following reports mentioned in the Community Action Plan with links.

Name of Report	Link to the Report (EN)	Link to the Report (FR)
Preliminary Assessment of Options for the Long-Term Viability of the Memramcook River Causeway (2020)	http://petitcodiac.org/wp-content/uploads/2022/03/Preliminary-Assessment-of-Options-EN4-final.pdf	http://petitcodiac.org/wp-content/uploads/2022/03/Preliminary-Assessment-of-Options-FR3-FINAL.pdf
Memramcook River Causeway Replacement Feasibility Report (2021)	http://petitcodiac.org/wp-content/uploads/2021/12/Memramcook-River-Causeway-Replacement-Feasibility-Report.pdf	http://petitcodiac.org/wp-content/uploads/2021/12/Rapport-de-faisabilite-pour-le-remplacement-du-pont-chaussee-de-la-riviere-Memramcook.pdf
Developing a Shared Vision & Strategy For the Petitcodiac River and its Communities (2020)	http://petitcodiac.org/wp-content/uploads/2020/12/preliminary-thoughts-EN.pdf	http://petitcodiac.org/wp-content/uploads/2020/12/preliminary-thoughts-FR.pdf
2021 Ecotourism Symposium for Communities Surrounding the Petitcodiac and Memramcook Rivers (2022)	http://petitcodiac.org/wp-content/uploads/2022/03/2021-Ecotourism-Symposium-for-Communities-Surrounding-the-Petitcodiac-and-Memramcook-Rivers_Summary.pdf	http://petitcodiac.org/wp-content/uploads/2022/03/Symposium-2022-sur-lEco-tourisme-pour-les-communautes-adjacentes-des-rivieres-Petitcodiac-et-Memramcook_Sommaire .pdf
Summary of Public Dialogues on the Current State of the Memramcook River Causeway and Future for the Memramcook River & Watershed (2020)	http://petitcodiac.org/wp-content/uploads/2021/12/Summary-of-public-dialogue-v1-1.pdf	http://petitcodiac.org/wp-content/uploads/2021/12/Re%CC%81sume%C%81-des-consultations-v1-1.pdf

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