

Morell River Management Cooperative
Annual General Meeting



April 25th, 2024

Table of Contents

Agenda.....	4
Minutes - MRMC Annual General Meeting 2023.....	5
President’s Report.....	6
Treasurer’s Report	8
Watershed Coordinator’s Annual Report	10
2023-24 Field Season Recap	11
Board of Directors	12
MRMC Crew	15
Watershed Management.....	16
Projects.....	17
Gill Road Extension Crossing.....	17
Indian Bridge Project.....	18
Riparian Zone Restoration.....	19
Barrier Management.....	20
Beaver Management.....	22
Access Trails.....	23
Shoreline Cleanup	24
Bat & River Otter Monitoring Programs.....	25
Canada Goose Banding.....	25
Mooney’s Pond Pollinator Garden	25
Bowen’s Wood Duck Boxes	26
Agri-Watershed Spore Trap Project.....	26
PEI Fish Stocking Program	27
Surveys & Monitoring.....	28
Water Quality Monitoring.....	28
Redd Surveys.....	29
Adult Atlantic Salmon Pit Tagging & Tracking.....	29
Electrofishing Index Sites.....	29
Atlantic Salmon Smolt & Kelt Acoustic Tagging.....	30
Morell River Trout Tagging Study.....	31
Community Connection & Outreach	32

Go!East Events 32
Plamu’k na Kitapina’q (Salmon Are Our Friends Program) 33
Family Fishing Day at Mooney’s Pond..... 34
Morell River Run Festival 35
Bowen Collins Memorial Fly Fishing Derby & Workshops..... 36
Other Outreach & Education 36
Communications 37
Mooney’s Pond Interpretive Centre & Nature Trail..... 38
Partners 40
2024 Work Plan..... 41
Contact Information 42



Agenda

MRMC Annual General Meeting 2024

Call to Order

Welcome, Introductions & Land Acknowledgment

Approval of Agenda

Review and Approval of 2023 AGM Minutes

President's Report

Treasurer's Report

Coordinator's Annual Report

Nominations Committee Report

Guest Presentation – Katie Jordan, Abegweit Conservation Society

Meeting Adjournment



Minutes - MRMC Annual General Meeting 2023

Date & Location: April 20th, 2023 at Morell Consolidated School

Call to order: 6:59 pm by Santina Beaton-MacEachern

Attending: Jim MacAulay, Angela Frain, Doug MacEwen, Santina Beaton-MacEachern, Will Proctor, Trent MacSwain, Katie Jordan, Brian Crane, Lois Crane, Tyrone Paul, Hannah Murnaghan, Dan MacAdam, Hillary MacCormack, Rosie MacFarlane, Matt Lank, Matt Guindon, Heather Laiskonis, Brian Dempsey, Bruce Smith, Keil Vessey, Matt MacMillan, Gordie Foster, Aaron Thompson, and two others.

Approval of the Agenda

Motioned for approval by Doug MacEwen, seconded by Brian Crane. Motion carried.

Approval of 2022 AGM Minutes

Motioned for approval by Tyrone Paul, seconded by Doug MacEwen. Motion carried.

President's Report - Presented by Santina Beaton-MacEachern

Treasurer's Report - Presented by Brian Crane

Coordinator's Report - Presented by Hannah Murnaghan

Board Nomination Committee Report

Completed by Dale McIsaac and presented by Santina Beaton-MacEachern

The following people have agreed to let their names stand for election to the Morell River Management Co-op Board of Directors for the 2023-2024 fiscal year:

Will Proctor, Santina Beaton-MacEachern, Doug MacEwen, Brian Crane, Angela Frain, Trent MacSwain, Steve Collins, Tyrone Paul, Dale McIsaac, Travis James and Jim MacAulay

Motion by Santina Beaton-MacEachern to accept the nominated names as representatives for the 2023-24 board, seconded by Jim MacAulay. Motion carried.

Guest Presentations

Morell River Trout Tagging Project by Provincial Freshwater Fish Biologist Rosie MacFarlane

An Introduction to the Forest Enhancement Program by Provincial Private Land Forest Technicians Matt Lank and Matt Guindon

Motion for meeting adjournment, Doug MacEwen.

President's Report

The Morell River Management Cooperative (MRMC) had a very busy and successful 2023 field season. Huge thanks to our Watershed Coordinator, Hannah Murnaghan, as it was MRMC's biggest year and budget to date!

It was a monumental year for MRMC to say the least. In addition to regular in-stream restoration and all of our other annual activities, MRMC built a pedestrian/atv bridge on the Gill Road Extension along the Morell River with the PEI Department of Transportation where there has been excessive erosion the last number of years; the complete rebuild of Peggy's Trail at Mooney's Pond due to the destruction of that trail from Hurricane Fiona in Fall 2022; it was the first field season post-Hurricane Fiona so the field crew put in an exceptional amount of in-stream restoration work into establishing access to various sections of the rivers for fish migration, recreational use, and access to MRMC project sites; the Indian Bridge project that was on MRMC's wish list for many years was finished which allows safer access to the river, erosion mitigation and Kevin MacAdam's Memorial Bench; additional monitoring and restoration efforts took place on the East Branch of the Morell River to improve summer water quality conditions; and MRMC has purchased its first ever work truck!

Under the guidance of the MRMC Board, Hannah has also completed many past due updates to our Mooney's Pond office building, such as updated electrical work, a new heat pump, windows, doors, flooring, office furniture, paint, and a redesigned upstairs storage room for staff field equipment. Thanks to Dale McIsaac for your help in completing these tasks.

Beaver management is important in watershed management, and many thanks to Steve Collins and Doug MacEwen for working with Hannah on MRMC's beaver management plan to help when a problem arose.

MRMC hosted many family events in 2023 at Mooney's Pond, including the annual Family Fishing Day, Fish Friends Program field trips, and Go!East co-hosted events such as the very popular Great Pumpkin Walk. MRMC was proud to host the biannual Bowen Collins Memorial Fly-Fishing Derby again in September 2023, which was a great success and in memory of a past MRMC staff member and avid outdoorsman. We are looking forward to hosting this event again in the future! Hannah has been keeping our social media pages active with MRMC activities and community events with Go!East, plus showcasing real-time temperature data using our remote temperature station that is installed on the Morell River every year.

We were able to secure funding from many partners due to Hannah's hard work. Thank you to all our numerous 2023 funding and project partners!

Sincere thanks and appreciation to Hannah Murnaghan, on managing all MRMC projects, Mooney's Pond Interpretative Centre, and Peggy's Trail. The MRMC Board would also like to extend our thanks to the 2023 field crew: crew supervisor Grant MacCormack, Shane Collins, Lily Corlett, Shaymus McGuire, Hillary MacCormack, Gabriel Murphy, Riley Kelly, Fionn McAdam-Young, James Morrissey, Damon Fleming, and field dog Laya. Additional gratitude to Riley, James, Damon, and Fionn for extending their time with MRMC over the fall and winter months to clear access trails to work sites and completing redd surveys when water levels allowed in the fall.

I would like to thank our board members over the past year: Will Proctor, Dale McIsaac, Brian Crane, Doug MacEwen, Steve Collins, Tyrone Paul, Angela Frain, Trent MacSwain, Katie Jordan, and our Youth on Board member, Reid Thibault. I would also like to recognize a dedicated board member and our St. Peter's Bay board representative, Jim MacAulay who passed away in 2023. His passing has left a huge void on the MRMC Board and in the community. He was a great supporter and advocate for MRMC and surrounding community members and will be dearly missed.

Respectfully submitted,



Santina Beaton-MacEachern

Treasurer's Report

2023-24 Funding Partners	Amount
PEI Watershed Alliance Partnership with ACOA, 2Million, Bat & Otter Monitoring, Provincial Fiona and Aquaculture Alliance Shoreline Cleanup Funds	\$291,206.00
Rural Growth Initiative	\$203,250.00
PEI Watershed Management Fund	\$108,349.00
Abegweit Conservation Society Partnership with the Aquatic Ecosystems Restoration Fund	\$103,525.00
Foundation for the Conservation of Atlantic Salmon	\$29,000.00
Skills PEI Post-Secondary Program	\$18,960.00
Jobs for Youth Program	\$9,651.20
Community Foundation of PEI - Wildlife Conservation Fund	\$8,000.00
Canada Summer Jobs Program	\$4,570.00
Mi'kmaq Confederacy of PEI Partnership with the Environmental Sciences Research Fund	\$3,276.55
Agri-Watershed Partnership	\$1,733.98
Donations and Clothing Sales	\$1,525.00
Island Nature Trust Partnership with the Community Nominated Priority Places Fund	\$1,500.00
Workers Compensation Board Surplus Distribution	\$629.51
TOTAL:	\$785,176.24
Special thanks to the PEI Department of Transportation for their in-kind contributions to the Gill Road Extension and Indian Bridge Projects.	

2023-24 Expenses	Total Cost (HST included)
Mooney's Pond Trail Restoration Anderson's Pool Fishing Platform & Accessible Boardwalk Rebuild and Peggy's Trail Restoration	\$328,384.87
Employee Payroll (11 staff)	\$259,707.00
Mooney's Pond Interpretive Centre Renovations & Upgrades	\$84,265.28
Gill Road Extension Crossing Project	\$83,030.00
MRMC Work Truck	\$53,414.05
Project Equipment and Materials PPE, truck rentals, gas, oil, equipment repairs, waders, bug spray, etc.	\$21,431.18
Mileage	\$17,364.08
MRMC Expenses office supplies, public events, meetings, Interpretive Centre, public washroom & trail maintenance, etc.	\$15,717.77
Bookkeeping & Accounting	\$7,177.58
Maritime Electric	\$3,105.16
Insurance	\$2,521.00
Bell Internet & Phone	\$2,127.72
Beaver Trapping Services	\$1,800.68
Employee Health Benefits	\$1,471.76
Snow Removal & Fiona Cleanup	\$920.00
Workers Compensation Board	\$511.05
Property Tax	\$298.00
Trees & Shrubs	\$82.81
TOTAL:	\$883,329.99

Watershed Coordinator's Annual Report

2023-24 Field Season



Prepared by Hannah Murnaghan

2023-24 Field Season Recap

The 2023 field season was one like no other. In the wake of Hurricane Fiona, our access to many parts of the river was completely lost and although effort was made to open access trails in the fall of 2022, we knew a huge challenge lay ahead for the 2023 field season.

The season kicked off with a creel survey at the Midgell boat slip on opening day, followed by installing a fyke net to catch smolts for the final year of the ESRF tagging project. We were granted an early permit to begin working on the main branch of the Morell River to clear the canoe route from Grant's Bridge to Indian Bridge. The number of blowdowns was far worse than we could have imagined, and at that point, we knew we were in for a challenging summer. By June, the MRMC crew had the main branch of the Morell River open, and work began on the rest of the river with priority on the East Branch. The work was challenging, and I cannot thank the 2023 MRMC Crew (especially the chainsaw operators!) enough for their hard work and dedication throughout the field season. Thanks to their efforts, nearly 50km of Atlantic salmon habitat was made accessible in 2023, which meant that in the fall, salmon could reach critical spawning areas.

Over the summer season, the crew took well-deserved breaks from cutting and blockage clearing to complete other important projects, including the annual shoreline cleanup of St. Peter's Bay and the Indian Bridge Project, which improved access to the river and stopped runoff from entering the holding pool below the bridge. The crew also completed goose banding, bat & river otter monitoring, fish releases, installed wood duck boxes, and completed water quality monitoring.

The MRMC crew assisted with broodstock collection in the fall for the PEI Fish Stocking Program by running the Leard's Pond fish trap. They completed redd surveys when conditions allowed and planted trees at riparian restoration sites. Thanks to PEI Watershed Alliance Fiona Relief funding, four staff worked part-time over the winter on access trails, which means we can safely access more sections of the watershed for the 2024 field season!

In addition to stream restoration work, our partnership with the PEI Department of Transportation and the PEI Watershed Alliance allowed MRMC to build a new crossing at the Gill Road Extension which has been on our 'to be completed' list for many years.

Much-needed Interpretive Centre upgrades were completed at Mooney's Pond and the accessible boardwalk and fishing platform were rebuilt thanks to funding from the Rural Growth Initiative and the PEI Watershed Alliance.

I'm looking forward to the upcoming field season, continuing our positive partnerships, and fostering new ones in 2024!

- Hannah, MRMC Coordinator

Board of Directors

Santina Beaton-MacEachern, President - Santina is a Conservation Program Specialist with Ducks Unlimited Canada. She has a Wildlife Conservation degree from UPEI and was the coordinator at MRMC from 2015 to 2018. She volunteers with MRMC because of her investment in previous MRMC projects and her passion for all things involving the environment, agriculture, and wetlands.

Dale McIsaac, Vice President - Dale is a lifelong fisherman, outdoor enthusiast, and educator. He has a passion for improving the watershed's habitat. Dale was invited to join the board by a long-time member of the group.

Brian Crane, Treasurer - Brian has been on the MRMC board for many years. He lives along Cranes Conservation Zone on the Morell River. Brian joined the MRMC board of directors because of his close connection with the river and its importance to him.

Will Proctor, Secretary - Will has previous stream enhancement experience in the Miltonvale watershed. He has a degree in Agri-biology from NSAC and works for the PEI Department of Agriculture and Land. Will volunteers with MRMC to continue its long history of good river management.

Steve Collins - Steve is very conservation-oriented. He is an avid trapper, hunter, and fisher. He joined the board of directors to represent the trapping community and to see positive changes to the watershed.

Tyrone Paul - Tyrone has been a lifelong land steward, or conservationist, at heart. He grew up hunting, fishing, and trapping with his family in BC before moving to PEI some years ago. Throughout his life and career, he's been involved with natural resources development and protection. He's always been a concerned citizen but has also been involved through professional positions as an active member of different organizations or boards dedicated to nature conservancy or management. Tyrone joined the MRMC board through his involvement as the Director of Natural Resources for the Abegweit First Nation.

Doug MacEwen - Doug has had an interest in nature for nearly all his life. He has spent many years fishing, hunting, and trapping. He spent time on the Wildlife Conservation Fund committee, which provided him with extensive exposure to watershed management in the province. During his time outdoors he always took note of the MRMC stream enhancement efforts and their benefits. Doug first joined MRMC for beaver removal services, then was invited to join the board of directors.

Angela Frain – Angela grew up in the city of Kawartha Lakes with a family that loved to fish and hunt. As an outdoor enthusiast, she enjoys hiking trails and waterways and spending time in nature. She joined the MRMC board of directors to learn more about the area and its watersheds.

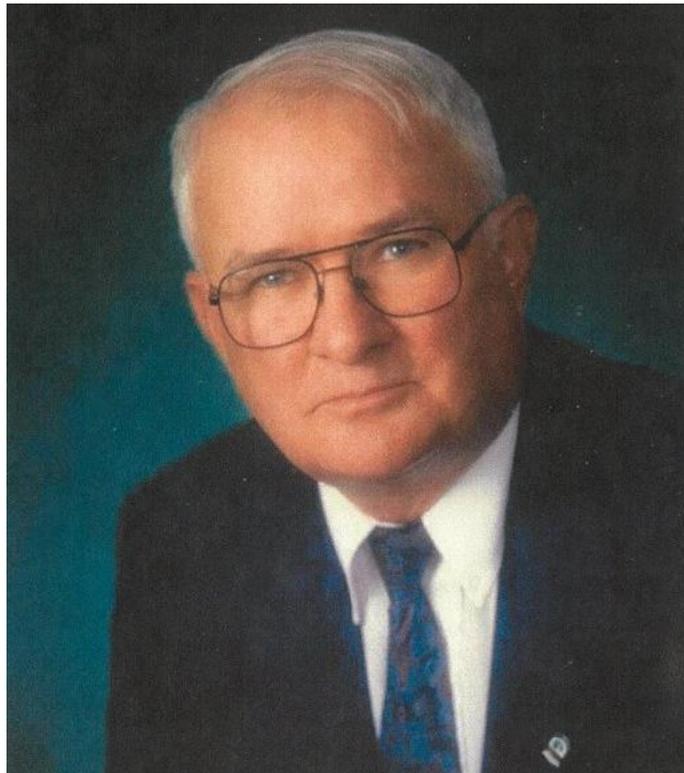
Trent MacSwain – Trent has previous watershed experience working with the Winter River Tracadie Bay Watershed in his youth. He has a Holland College diploma in Wildlife Conservation Technology and is a certified Wildlife Technician. Trent grew up hunting and fishing the Morell River. He joined the MRMC board to help preserve the world-class recreational opportunities that the Morell River has to offer.

Reid Thibault – Reid joined the MRMC Board of Directors in 2023 through the Youth on Board Program. He is a grade 12 student graduating from Montague Regional High and has enjoyed his time on the board very much. Reid loves the outdoors and enjoys a variety of outdoor activities such as snowshoeing, biking, and kayaking in the summer months. In the future, he plans to attend Acadia University in hopes of completing a degree in Environmental Engineering. He joined the MRMC board to learn more about the environment on PEI and has loved it since.

In Memory of MRMC Board Member

James Clement MacAulay

We lost a very valuable board member and friend in 2023. James “Jim” MacAulay was our St. Peter’s Bay board representative. He was a tremendous advocate and supporter for MRMC, his community and the other organizations he was a member of and will be greatly missed!



MRMC Crew



Shane Collins, Shaymus McGuire, Damon Fleming, Fionn McAdam-Young, James Morrissey, Gabriel Murphy, Riley Kelly, Grant MacCormack, Lily Corlett, Hillary MacCormack and MRMC field dog Laya.

Watershed Management

Proper planning and organization are key to using our resources wisely and maximizing our efforts as a watershed group. Watershed management planning takes place during monthly meetings with the MRMC Board of Directors. We collaborate with our partners for technical expertise to assist us in our watershed restoration work. Our group has a positive relationship with the PEI Forest, Fish & Wildlife division, the PEI Watershed Alliance, the Abegweit Conservation Society, the Department of Fisheries and Oceans Canada, the Atlantic Salmon Federation, and many other environmental organizations.

Several technical documents help guide our work, such as *A Renewed Conservation Strategy for Atlantic Salmon in Prince Edward Island*, and *The Technical Manual for Watershed Management on Prince Edward Island*. Our organization also follows the MRMC Beaver Management Plan and Salmon Management Plan for the Morell River to guide the group's work.

The PEI Watershed Alliance provides online webinars and training sessions for watershed groups. Our partnership with the Abegweit Conservation Society has also allowed MRMC staff to participate in training opportunities. In fall of 2023 three of our staff took the Provincial Chainsaw Certification Course to work over winter on access trails. MRMC staff attend various workshops, seminars, and training days to build our capacity as a watershed group.



Projects

Gill Road Extension Crossing

The Gill Road Extension is a secondary road in Mount Stewart, PEI that connects the Brothers Road to the Stanhope Road. The route crosses the south-west branch of the Morell River, which contains important spawning and rearing habitat for native fish, including Atlantic salmon and brook trout.

In the early 2000s, the original crossing comprised of two metal culverts collapsed. The road was deemed non-essential and the crossing was not rebuilt. The road has since become a popular ATV route which has led to deep ruts on the road and damage to the riparian area leading to runoff during heavy rain events. The ATV riders built a small wooden bridge to prevent driving through the river, however it was not maintained, and ATVs have continued to drive on the stream bed, negatively impacting important salmonid habitat.

Thanks to our partnership with the Abegweit Conservation Society, the Department of Transportation, and the PEI Watershed Alliance, Morell River Management Cooperative was able to construct a new crossing at the site in the fall of 2023 to protect and restore Atlantic salmon habitat on the Morell River. ATVs are no longer driving through the river, and the degraded riparian area was replanted with native trees, including yellow birch, red oak, eastern hemlock, and red spruce.



Indian Bridge Project

The two main objectives of the Indian Bridge Project were to reduce human impacts on important Atlantic salmon habitat and to recognize a devoted volunteer of MRMC. The land at the project site was recently acquired by the Provincial Government which allowed MRMC to partner with the Department of Forests, Fish and Wildlife, and the Department of Transportation to complete the Indian Bridge Project in the summer of 2023.

Work was completed to turn an eroding gully into a set of stairs to reduce soil erosion into the holding pool below the bridge. The stairs also provide safer access to the river for recreational users. The parking area and footpaths were graveled by the MRMC crew to reduce runoff, and Transportation crews completed road and ditch work to prevent road runoff from entering the river. A new sign designed in partnership with Fish and Wildlife to educate anglers about fishing in warm water will be installed this spring.

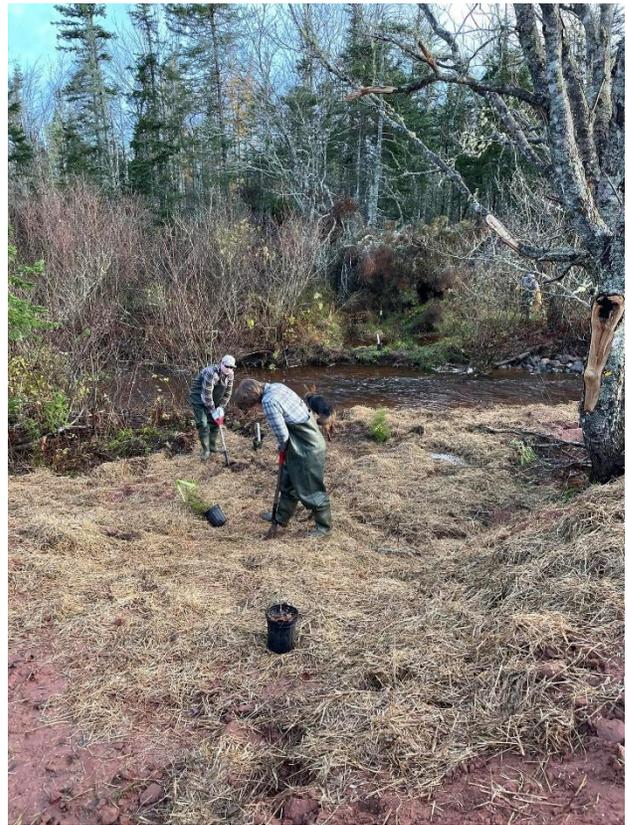
A memorial bench was placed overlooking the river to recognize the dedication invested by Kevin MacAdam in the conservation and enhancement of the Morell River. Kevin was a long-time volunteer of MRMC and put in countless hours on the river and at Mooney's Pond to enhance fish habitat and ensure the organization's success.



Riparian Zone Restoration

Morell River Management Cooperative's riparian restoration goal is to create healthy, diverse, and resilient forest stands. By planting a variety of native trees and shrubs, riparian areas are more resilient to the impacts of climate change. A healthy riparian zone benefits the river by providing shade to keep water temperatures cool, and roots help stabilize soils to prevent erosion.

Hurricane Fiona caused extensive damage to many forest stands along the Morell River and has made planting more challenging. In 2023 planting sites with good access were selected on the main branch, west branch, and south-west branches of the Morell River to restore roughly two acres of riparian habitat. Only native tree species were selected for planting, including eastern hemlock, red maple, eastern larch, yellow birch, red oak, white pine, sugar maple, red spruce, mountain ash, and serviceberry.



Barrier Management

Morell River Management Cooperative manages barriers to fish migration on an annual basis. Windfalls can create significant blockages by catching debris, which can impede fish passage and create stagnant water. The MRMC crew selectively cuts windfalls to create good flow and fish passage while leaving woody debris in-stream for fish cover and habitat. In some locations, windfalls can be strategically cut to create a pinch point to create favorable conditions for Atlantic salmon spawning habitat or left spanning the river to create a wildlife crossing.

MRMC also realizes that the recreational use of the Morell River is important and works to create a balance of providing quality salmonid habitat while still allowing recreational activities to occur safely. MRMC maintains the Morell River canoe route from Leard's Pond to Indian Bridge and has cleared large windfalls that blocked fishing access.

The impacts of Hurricane Fiona caused a large number of windfalls on the Morell River. The west branch riparian zone suffered a complete blowdown of some forest stands. With thousands of downed trees impeding water flow and some causing complete blockages, MRMC's goal for 2023 was to reopen the main branches of the Morell River, Bristol Creek, and St. Peter's River to ensure that Atlantic salmon could access critical spawning areas. The MRMC crew used chainsaws and manual labour to successfully restore access to nearly 50km of Atlantic salmon habitat throughout our management area during the 2023 field season.

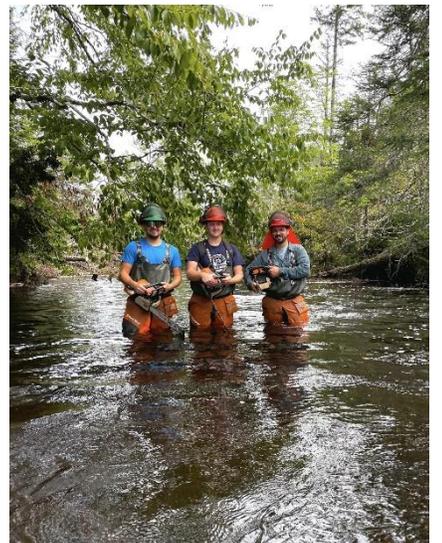
Restored access to upstream habitat

- **Morell River – 38 km**
- **St. Peter's River - 3.3 km**
- **Bristol Creek – 8 km**



Post-Fiona River Management

During post-Fiona restoration efforts, abundant amounts of large woody debris were left in-stream while clearing the Morell River canoe route and other river sections within our management area. Large woody debris creates excellent fish cover, shade, and habitat for macroinvertebrates and is very beneficial for a healthy river system.



Beaver Management

Morell River Management Cooperative actively monitors beaver activity within our management areas to ensure that migratory fish species can migrate successfully between saltwater and freshwater habitats. The MRMC crew surveys migration routes in the spring and fall to ensure that beaver dams do not impede the migration of Atlantic salmon, Rainbow smelt, gaspereau, brook trout, and American eel.

MRMC also manages beaver activity to prevent the loss of riparian tree cover. Beaver dams can flood large areas, and if left for too long, submerged trees can die. The Morell River is a warm water system and shade provided by riparian trees is important. MRMC works with local trappers to manage beaver activity and follows the MRMC Beaver Management Plan to identify priority areas. In 2023 MRMC managed seven beaver dam sites on the Morell River.

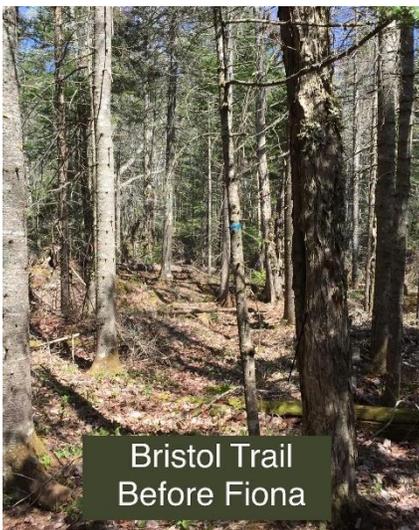


Access Trails

MRMC has many access trails throughout the watersheds we manage. They are essential for safe and efficient access to our project sites and also allow our crew to avoid unnecessary walking through the river during times when salmon fry might be emerging or when fish are spawning.

Maintenance on access trails was completed in the spring of 2023 on specific trails needed for the field season. Thanks to funding from the Atlantic Canada Opportunity Agency (ACOA) partnership with the PEI Watershed Alliance, MRMC was able to extend chainsaw operator contracts into the fall and winter to reopen our access trails lost during Hurricane Fiona. Trails were reopened on Bristol Creek, St. Peter's River, Marie River and Morell River with the ACOA funding.

Our trail systems are essential for the crew to complete stream enhancement and monitoring activities. We appreciate and thank the property owners that allow us to use their land to create access trails.



Shoreline Cleanup

In 2023, Morell River Management Cooperative completed a clean-up along 13km of the St. Peter's Bay shoreline. With some of the most picturesque views on the Island, MRMC takes pride in keeping the shoreline free of garbage to not only maintain the Bay's natural beauty but also to protect the coastal habitat of PEI's native wildlife and species at risk, including piping plovers, bank swallows, willet, and other migratory shorebirds.

The amount of garbage on the St. Peter's Bay shoreline was significantly more compared to previous years due to the impacts of Hurricane Fiona. Our shoreline cleanup efforts are funded in part by our partnership with the Island Nature Trust, and thanks to the PEI Watershed Alliance partnership with the PEI Aquaculture Alliance, additional funding allowed the MRMC crew to double cleanup efforts in 2023. The additional time spent on the cleanup was necessary as Fiona washed debris far up into the woods in some areas, which made this year's clean-up more challenging. The MRMC crew collected an estimated 1700 lbs of garbage and marine debris, including Styrofoam buoys, rope, and fishing gear. PEI Mussel King assisted in the clean-up effort by picking up the piles of garbage from the shoreline by boat. Using a boat to collect the garbage is ideal as it prevents driving vehicles on the sensitive shorelines. MRMC is proud of removing so much debris from the shore, keeping the environment clean and safe for people and wildlife.



Bat & River Otter Monitoring Programs

Bat and River Otter monitoring projects were completed in the Morell River Watershed in partnership with the PEI Watershed Alliance. For the past four years, MRMC has installed acoustic monitors at four sites and completed one mobile survey per year for bats. A total of 12,302 bat calls were recorded during the 2023 monitoring program which is a significant increase compared to previous years. For the river otter monitoring project, two trail cameras were installed at river crossings. No otters have been captured on camera to date.

Canada Goose Banding

The MRMC crew was excited to help Ducks Unlimited Canada, the Canadian Wildlife Service and Eastern Habitat Joint Venture with goose banding at multiple sites in eastern PEI in 2023.

Mooney's Pond Pollinator Garden

Over the past few years MRMC has established a healthy swamp milkweed garden at Mooney's Pond to create a food source for pollinators. The garden has attracted some exciting insect species, including the endangered monarch butterfly. Swamp milkweed is essential for the caterpillar life stage of the monarch.



Bowen's Wood Duck Boxes

Funds raised at the Bowen Collins Memorial were put towards MRMC's wood duck box program. Several wood duck boxes were installed throughout the Morell Watershed in memory of Bowen, who was an avid hunter, trapper, and angler and loved the outdoors. The wood duck boxes are cleaned and filled with new bedding annually in late winter or spring for the next breeding season.

Agri-Watershed Spore Trap Project

MRMC took part in a Blight Monitoring Project with the Agri-Watershed partnership during the 2023 growing season. Staff installed a blight spore collector in a potato field owned by Compton Brothers and retrieved samples from it weekly which were sent for analysis of blight spores. The information gathered from the project helped producers make decisions regarding the timing of protective sprays.



PEI Fish Stocking Program

MRMC staff assisted the Department of Forests, Fish and Wildlife, and the Abegweit Biodiversity Enhancement Hatchery with the 2023 fish releases and broodstock collection for the PEI Fish Stocking Program. MRMC staff helped to coordinate the release of Atlantic salmon fry and brook trout in the spring and helped to collect adult broodstock in the fall. MRMC staff also assisted with spawning operations in November at the Abegweit Biodiversity Enhancement Hatchery.



Surveys & Monitoring

Water Quality Monitoring

The Morell River is a warm water system where summer water temperatures often exceed 20°C. As warm water holds less dissolved oxygen (DO), this can create poor water quality conditions for native fish, especially cold-water species. To monitor temperature and DO, MRMC installs Hobo™ temperature and DO loggers on every branch of the Morell River and operates a remote satellite temperature station to get real-time data. Periodic checks with a YSI multimeter are also done during heat waves to closely monitor water quality conditions. Hobo™ temperature data loggers were placed in sixteen locations throughout the Morell River and three locations each on Midgell River, St. Peter's River, Schooner Creek, Marie River and Bristol Creek.

The remote satellite temperature station is near 'the forks' of the Morell River where the east and west branches merge into the main branch. When temperatures exceed 20°C, brook trout and Atlantic salmon become stressed and seek cold water refugia. Angling during these temperatures causes additional stress to the fish. Temperature information from the remote station was posted on the MRMC Facebook page every week during the summer months so that anglers could make informed angling decisions based on water temperature.



Redd Surveys

When conditions allow, MRMC crews complete extensive Atlantic salmon redd surveys on the Morell River. The entire main branch and parts of the west, south, and east branches are surveyed by walking or paddling and marking redds with GPS points. Unfortunately, heavy rain events caused high flows in the fall of 2023, which limited redd survey efforts. The MRMC crew completed surveys on a portion of the west and east branches of the Morell River with a total of 58 Atlantic salmon Redds recorded. The count for 2023 is considered incomplete.

Adult Atlantic Salmon Pit Tagging & Tracking

The MRMC crew installed the fish trap at Leard's Pond on October 16th and operated the trap for 38 trap days. MRMC staff scanned fish moving through the trap for pit tags with a portable reader. With the assistance of the Abegweit Conservation Society, seven Atlantic salmon from the Morell River were implanted with new pit tags in 2023. Three pit tag reader stations located on the main branch, east branch, and west branch are operating to collect fish movement data.

Electrofishing Index Sites

MRMC completed two annual electrofishing index sites on the west and east branches of the Morell River in the fall of 2023. These sites were completed in partnership with the Department of Forest, Fish, and Wildlife. Juvenile Atlantic salmon and brook trout were present at both sites.

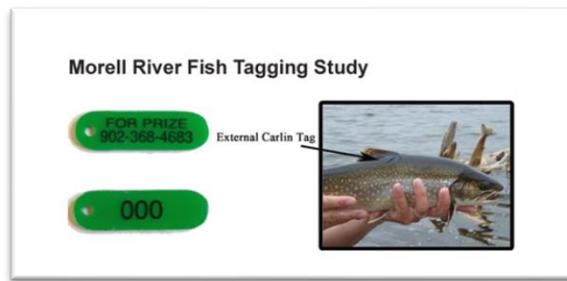
Atlantic Salmon Smolt & Kelt Acoustic Tagging

MRMC was excited to collaborate with the Mi'kmaq Confederacy of PEI and the Abegweit Conservation Society for the final year of an Atlantic salmon tracking project taking place across Eastern Canada. The project is funded by the Environmental Studies Research Fund and involves tagging and tracking Atlantic salmon smolts and kelts to learn more about their migration pathways. MRMC assisted with this project by installing and operating a fyke net on the main branch of the Morell River to catch smolts. It was our most successful year operating the fyke net with 100 smolts tagged in 2023. The information collected from this tagging project will reveal the migration movements of Atlantic salmon, which will assist with future management plans for many ocean resources. Partners in the project include the Department of Fisheries and Oceans Canada, the Ocean Tracking Network, the Atlantic Salmon Federation, Indigenous organizations, and many other environmental groups.



Morell River Trout Tagging Study

In April 2023 MRMC staff and board members assisted the PEI Department of Fish & Wildlife with the first year of the Morell River Trout Tagging Project. The project involves tagging sea run brook trout with carlin tags before the start of the angling season. Once the season begins, creel surveys are completed and anglers that catch a fish with a tag are asked to provide information about their catch. The purpose of the study is to gain more information about the sea-run trout population on the Morell River. The tagging project is taking place again in 2024, if you catch a tagged fish, please call the Fish & Wildlife Office.



Community Connection & Outreach

Go!East Events

The Eastern Region Sport and Recreation Council (Go!East PEI) and MRMC have been co-hosting events at Mooney's Pond for many years. The popular events encourage people to get outside and get active by incorporating a 1.9km hike around Peggy's Trail with every event. In October 2023 we hosted the very popular *Great Pumpkin Walk* Halloween event. It was our largest event to date with nearly 600 people in attendance. In February 2024 we hosted a *Come Try Snowshoeing* winter event where people could try snowshoeing with equipment provided by Go!East and a bonfire with hot chocolate sponsored by the Morell Consumers Coop.

We look forward to hosting more events with Go!East this season!



Plamu'k na Kitapina'q (Salmon Are Our Friends Program)

The MRMC crew always looks forward to Fish Friends days in June when students visit Mooney's Pond for fish releases. Schools participating in the program raise salmon fry in classroom fish tanks until their release date in June. Members from Abegweit First Nations and the Abegweit Conservation Society performed smudge ceremonies and Honour Songs for the salmon before they were released into the Morell River by the students. The students also enjoyed doing a scavenger hunt around Peggy's Trail, looking at the MRMC taxidermy, and barbequed hotdogs for lunch!



Family Fishing Day at Mooney's Pond

May long weekend is Free Family Fishing weekend on PEI. Angling licenses are not required, but you must abide by all regular fishing rules and regulations. MRMC's Family Fishing Day was held on Saturday May 20th, 2023. There was a BBQ sponsored by the Morell Consumers Coop and lots of amazing prizes given away thanks to Going Fishing, Eskape Anglers, PEI Department of Forests Fish & Wildlife, Delta Waterfowl, Ducks Unlimited Canada and the Atlantic Salmon Federation. We look forward to hosting this popular event again in 2024!



Morell River Run Festival

The Morell River Run Festival is an annual event in the Village of Morell to celebrate the community and its connection to the Morell River. MRMC participates in the festival every year. In 2023 Nasty Cracks Basement Solutions hauled the MRMC parade float and a booth was set up with taxidermy and information on MRMC's river restoration projects at the River Run Expo.



Bowen Collins Memorial Fly Fishing Derby & Workshops

In September 2023 MRMC hosted the second bi-annual Fly Fishing Derby & Workshops in memory of Bowen Collins. There was a great turnout for the fly tying and casting workshops and we look forward to hosting this event again in memory of Bowen.



Other Outreach & Education

Every year MRMC takes part in several outreach events varying from presentations to educational field trips. These events involve groups from elementary schools, high schools, post-secondary institutes, and the community. Our educational outreach experiences can range from a full day of tree identification and planting to a one-hour guided nature walk around Mooney's Pond. In addition to educational activities, MRMC partners with other businesses, government organizations and community groups to facilitate other activities or training opportunities. Listed below are some of the outreach activities held in 2023:

- Planting day with Tree Canada and Morell Consolidated School at Kelly Green Park
- Vernon River Outdoor Club Nature Walk at Mooney's Pond
- PEI Library Storywalk at Mooney's Pond
- PEI Envirothon Teaching Day at Mooney's Pond

Communications

The MRMC social media pages allow for connection and engagement between community members and our organization. The MRMC social media pages highlight our watershed enhancement efforts and are used to inform community members about our public events. These channels are updated regularly.

The MRMC website provides information about our organization, our funding partners, our projects, and links to additional environmental resources. PDF versions of MRMC's Annual Reports can be found on the website.

In addition to social media, MRMC also posts signage at project sites to recognize project partners and to educate the public about restoration projects. In 2023 MRMC worked with the PEI Department of Forest, Fish and Wildlife to design new signs for the Grant's Bridge and Indian Bridge parking areas which will be installed this spring. The signs include a QR code that links to the MRMC Facebook page where anglers can view the weekly temperature updates from the satellite temperature station. The signs also include information on warm water angling so that anglers are aware of how temperature impacts our cold-water fish species.



Facebook @morellrivermanagementcoop – 1.9k followers



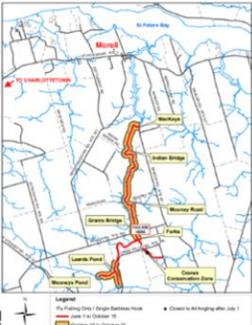
Instagram @morellrivermanagement – 757 followers



Website www.morellriverpei.com

Welcome to the Morell River/ Pjilita'q Puku'samkek Sipu

GRANT'S BRIDGE



To Fish or Not to Fish

Over 20°C

- Trout and salmon are stressed in high temperature and low oxygen conditions.
- Released fish may not survive even with proper catch and release.
- Find colder water or head to saltwater to fish for striped bass or mackerel.

18-20°C

- Fish early in the day when water is coolest
- Use heavier tippet to fight and release fish quickly
- Minimize their time out of water - take a picture another time!

Below 18°C

- Conditions are good for fish
- Fish should be able to survive if handled properly and gently released.

STOP

SET YOUNG SALMON FREE

It's the law!
If you catch a salmon parr or smolt, gently remove the hook and release it back into the water.

SALMON PARR

- Eleven dark bars separated by a single row of red spots
- Forked tail

SALMON SMOLT

- Silver fish with dark forked tail
- Only a shadow of vertical side bars

BROOK TROUT

- Yellow and red spots, some circled with blue halos
- Wormlike pattern on the back and dorsal fin
- Lower fins have a white edge and black line
- Tail is square or slightly concave

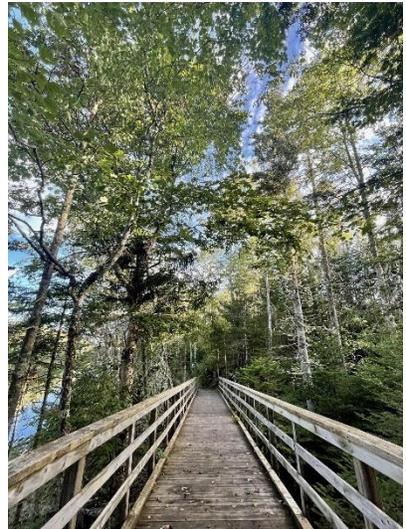
Images courtesy of Atlantic Salmon Federation

Carry a pocket thermometer so you can be aware of the best times to fish. To view temperature information on the Morell River, visit the Morell River Management Cooperative Facebook Page.

Parking area provided in partnership between the Morell River Management Cooperative and the Government of PEI

Mooney's Pond Interpretive Centre & Nature Trail

MRMC continues to operate and maintain Mooney's Pond Interpretive Centre, Peggy's Trail, and Anderson's Accessible Angling Pool. Maintenance of the trail is completed year-round and repairs are completed when necessary. In 2023 new tree ID signs were installed around the trail which feature English and Mi'kmaq tree names and two Storywalks were displayed around the trail in the spring and fall. October continues to be the busiest month for visitors with our infrared trail counter recording 4,500 visitors in October 2023.



The fishing platform and accessible boardwalk at Anderson's Pool was not open to the public in 2023 as it suffered extensive damage from Hurricane Fiona. Thanks to funding from the PEI Watershed Alliance and the Rural Growth Initiative, both the accessible boardwalk and the fishing platform were rebuilt and are now reopened to the public. Additional restoration work was also completed on the loop trail at Mooney's Pond to fix uprooted trees and new gravel will be added to sections of the accessible trail.



Funding from the Rural Growth Initiative allowed us to complete much-needed renovations and upgrades to the Mooney's Pond Interpretive Centre & MRMC Office. New flooring, exterior doors, a new front window, electrical, and heating upgrades and road front signs are just a few of the renovations completed with the funding.

Thank you to the contractors that helped us complete the projects, including Diversified Divers Inc, Jerome MacDonald Carpentry, MacEachern Electric, Jenkins Dirtworks, Signal Solutions, Flooring Forward, and First on Site Restoration. Special thank you to MRMC board members, staff, and volunteers who assisted with office upgrades, especially Dale McIsaac, Dan MacAdam, Riley Kelly, James Morrissey, Fionn McAdam-Young, and Damon Fleming.



Partners

Our organization's goals would not be achieved without the support of our partners, sponsors, and funding programs:

- Abegweit Conservation Society
- Agri-Watershed Partnership
- Atlantic Salmon Federation
- Aquatic Ecosystems Restoration Fund
- Canada Summer Jobs Program
- Community Foundation of PEI - Wildlife Conservation Fund
- Community Nominated Priority Places Fund
- Department of Fisheries and Oceans Canada
- Delta Waterfowl
- Ducks Unlimited Canada
- Eastern Region Sport and Recreation Council
- Environmental Studies Research Program
- Eskape Anglers
- Forests, Fish & Wildlife
- Foundation for the Conservation of Atlantic Salmon
- Going Fishing
- Island Nature Trust
- Jobs for Youth Program
- Mi'kmaq Confederacy of PEI
- Morell Consumers Co-op
- Mussel King
- PEI Aquaculture Alliance
- PEI Department of Environment, Energy and Climate Action
- PEI Department of Transportation & Infrastructure
- PEI Post Secondary Program
- PEI Watershed Alliance
- PEI Watershed Management Fund
- Royalwater Holsteins
- Skills PEI Post Secondary Program
- Tree Canada

Finally, to all the individuals that support our efforts, including community members, anglers, landowners, fellow conservationists, and friends,

thank you!

2024 Work Plan

Projects

- Stream assessment and restoration on sections not accessed in 2023
- Remove barriers to fish migration and open Morell canoe route
- Finish filling in west branch wing deflector with rock
- Remove blockages on cold water tributaries on the east branch of Morell River
- Beaver Management in all watersheds
- Installation of wood duck boxes in memory of Bowen Collins
- Annual Shoreline Cleanup
- Continue working with landowners to address sediment issues on Morell River
- Assessment of MacKinnon's Pond in Bristol Creek
- Assessment of Mooney's Pond for semi-natural rearing

Surveys and Monitoring

- Temperature data loggers & remote satellite monitoring station on Morell River
- East branch temperature and dissolved oxygen monitoring
- Redd surveys
- Morell River trout tagging project and creel surveys with Forests, Fish and Wildlife
- Electrofishing index sites
- Sediment monitoring
- Fish trap count and broodstock collection

Community Outreach and Events

- Events with Eastern Region Sport and Recreation Council
- Family Fishing Day at Mooney's Pond
- Interpretive Centre and Boardwalk Grand Re-Opening
- Salmon are our Friends Days at Mooney's Pond
- Morell River Run Festival Expo & Parade
- Maintaining MRMC website and social media pages
- Education & community outreach activities

Contact Information

Hannah Murnaghan, Watershed Coordinator

Cell phone: 902-583-3144

Email: coordinator@morellriverpei.com

Santina Beaton-MacEachern, President, Board of Directors

Email: president@morellriverpei.com

Office Address:

Morell River Management Cooperative

2720 Mount Stewart Road, Route 22

Peakes, PE, C0A1T0

