

CONSERVATION COUNCIL OF NEW BRUNSWICK

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# ecoalert



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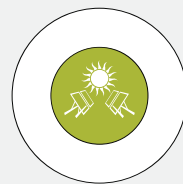
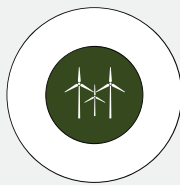
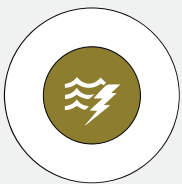
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#### GRAPHIC DESIGN

Stacy Howroyd, [design@makeanimprint.ca](mailto:design@makeanimprint.ca)

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Cover photo: Greg Hemmings

## It's time to protect our watersheds

New Brunswick is rich in beautiful lakes, rivers and streams. Whether it's our 5,000 kilometres of ocean coast, our 60,000 kilometres of major rivers and lovely streams, or our 2,500 lakes, we know them all, love them all, and argue which part of our wet province is our favourite.

Citizens from all walks of life and in all communities in the province highly value this beautiful, natural heritage. A recent public opinion poll conducted for the Conservation Council finds a large majority of us are concerned about the health of our water and believe that it is at risk from too much pollution.

So it's a good thing to see that the provincial government is working to develop a comprehensive water protection strategy.

In the old days, governments focused almost entirely on industrial pollution and sewage, and developed policy tools, like certificates of approvals, to restrict runoff at the "end of the pipe." Those restrictions helped. **A lot.**

Over time, governments developed drinking water protection plans that were a bit more comprehensive — setting wide buffers zones around municipal wells and prohibiting certain types of activities within those areas.

Gradually scientists, environmental experts and policy advisors within government recognized the limits of both the end-of-the-pipe approach, and focusing solely on drinking water, and advocated for comprehensive, science-based, watershed-wide protection planning.

That approach needs to form the basis of the government's strategy now.

We believe that under the new strategy, government should establish a baseline water quality classification system to better understand the health of our water systems. Already adopted in many jurisdictions worldwide, the water health classification system would set transparent goals to maintain and improve water quality.

The process works by "classifying" rivers, lakes, and tributaries, using scientific-based parameters (for example, dissolved oxygen, nutrient status and aquatic life). Governments then work with groups in each watershed, including business, community and environmental organizations, to either protect or improve on water health. That inclusive process ensures river health is maintained or improved over time. Luckily for us, we have an existing regulation under our important *Clean Water Act* that we can use (or even improve on).

All over Europe, in New Zealand, and in most parts of the United States, this system of protecting watersheds has led to sustainable water management plans and restoration projects that connect the upstream and downstream communities.

New Brunswick started work on this science-based system over 15 years ago, with the intent to "eventually classify all waters in the Province, watershed by watershed."

It's high time we got this done.



LOIS CORBETT is the Executive Director of the Conservation Council of New Brunswick

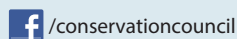
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**Julia Linke is a co-author of a study on forest loss in the Miramichi watershed.**

## Satellite data shows Miramichi watershed forest loss

By Tracy Glynn

**F**orest loss in the headwaters of Miramichi's watershed is happening and warrants our attention, according to a study released in January 2017 in the highest-ranking scientific journal on remote sensing.

The article assesses the accuracy of annual forest loss data from global satellite imagery (publicly accessible through Global Forest Watch) across 8,520 square kilometres of public lands in the Miramichi River basin from the year 2000 to 2012. The Miramichi River basin covers one-quarter of the 73,000 square kilometres of New Brunswick's land base. The scientists used forest harvest inventory data made available from the Department of Natural Resources (now the Department of Energy and Resource Development) to assess the accuracy of the forest loss dataset and found it to be quite reliable when applied to clearcut mapping in the temperate forest region of Miramichi.

The study by Julia Linke *et al.* published in *Remote Sensing of Environment* also summarizes the annual forest harvest in each of the sub-watersheds of the Miramichi, as well as the forest harvest rates on licensed Crown land and industrial freehold land in that area. Industrial freehold located near the headwaters of the southwestern Miramichi had the highest harvest rates, leading the authors to call for monitoring and impact assessments of that area.

The 2017 study notes that Miramichi's forest is dominated by red spruce, balsam fir, yellow birch, sugar maple, as well as tree species that are in decline in the region, such as white pine, eastern hemlock, eastern cedar and beech. Four large Crown land licence holders operated on Miramichi's public lands in the studied period: the provincial government (in a licence previously held by Weyerhaeuser), Fornebu (previously UPM Kymmene), J.D. Irving Ltd. and Twin Rivers (previously Fraser Paper Nexfor). Only approximately 2.6 per cent of Miramichi Crown land was catalogued as protected. The Miramichi River basin study area also included 2,586 square kilometres of land managed by industrial freehold, 89 per cent of it by J.D. Irving Ltd., and 2,110 square kilometres of private land.

The high harvest rates on industrial freehold in the Miramichi watershed is of further concern given that J.D. Irving asked the provincial government in 2012 to have all Crown land in New Brunswick managed as J.D. Irving freehold. The proposal was only made known to the public through a sweep of the provincial archives by the Halifax Media Co-op and the NB Media Co-op.

How satellite imagery is revealing serious forest loss next door in Nova Scotia was the subject of an opinion piece by Donna Crossland, a biologist who holds a Masters of Science in Forestry from the University

of New Brunswick, in the *Chronicle-Herald* on Jan. 17, 2017. Crossland pointed out why we should be concerned about forest loss: "Forests take decades, and in some cases centuries, to grow back, especially tree species of higher value that prefer shade and naturally achieve large sizes."

The Conservation Council produced a video in 2014 and brought to the media's attention in 2012 how this newly available satellite imagery was showing that New Brunswick was no longer home to large intact forest areas, outside of the province's three-per cent protected forest areas.

New Brunswick's Auditor-General Kim MacPherson noted in her 2015 report that **80 per cent of all the wood harvested from New Brunswick's Crown forests in the past two decades has happened through clearcutting.** She recommended that forest management decisions be based on science.

The recent scientific study by Linke *et al.*, validating satellite data of annual forest loss in the Miramichi watershed while also noting the most severe forest loss in the headwaters of the Southwestern region of Miramichi, highlights the urgent need for considering the impact that pervasive clearcutting has on water quality and aquatic species of the Miramichi River to help guide future management and conservation efforts and align them with New Brunswickers' priorities regarding forest values.



Policy

Talk

**Mother Nature sent us wicked weather for most of January and February, and the Conservation Council responded with a flurry of effort of our own - commenting on key policy issues in front of federal, provincial and local government decision-makers.**



- ▶ Prior to the government of New Brunswick's public meetings on the response to January's ice storms, Louise Comeau, the Conservation Council's Climate and Energy Solutions Director, shared research and recommendations with the government on the province's capacity to adapt and respond to **climate change-induced extreme weather events**. The submission highlights the need for a long-term risk reduction and preparedness plan and the development of a regional renewable energy plan for the Acadian Peninsula.
- ▶ The NB government announced the formation of a **Cabinet Committee to oversee action on the provincial climate plan** on Jan. 27. Direct involvement across departments, driven by leadership of the Premier and Cabinet Ministers, was a recommendation made by the Conservation Council in its July 2016 report, "*A Bold, Made-in- New Brunswick Plan to Address Climate Change,*" which was supported by the three-party Select Committee on Climate Change in its October 2016 report.
- ▶ Lois Corbett, our Executive Director, reacted to the government of New Brunswick's **2017-2018 budget** delivered by Finance Minister Cathy Rogers on Feb. 7. Corbett told the *Telegraph-Journal* that: "The government missed an important opportunity when it chose not to increase spending to help low-income families and seniors invest in energy efficiency retrofits for their homes." The Conservation Council had submitted our input on where investments were needed

for moving New Brunswick forward on energy efficiency and renewable energy during the pre-budget consultation phase in late 2016.

- ▶ The Conservation Council's Fundy Baykeeper, Matthew Abbott, is keeping a close eye on the federal government's work to **modernize the National Energy Board**. The government established an Expert Panel to engage Indigenous peoples, interested stakeholders, provinces and territories, as well as the public on how to strengthen the energy regulatory process. Abbott will appear at the Expert Panel session in Saint John on March 21.
- ▶ The Conservation Council and Fundy Baykeeper are pleased that the House of Commons Standing Committee on Fisheries and Oceans has included several key recommendations towards protecting **fish and fish habitat** in the report the Committee tabled on Feb. 24.

The Conservation Council and Fundy Baykeeper were among the many groups across the country that called for strong protection of fresh and saltwater habitat for fish in a new *Fisheries Act*.

- ▶ The Conservation Council's Tracy Glynn joined Stop Spraying NB at the N.B. Legislature on Dec. 6, 2016 to witness the submission of a **petition against glyphosate spraying of the forest** to Environment Minister Serge Rouselle. With over 27,000 people signing the petition, it is believed that this petition has the most signatures of any petition ever submitted to the NB Legislative Assembly.

You can learn more about these policy issues and read the Conservation Council's advice by checking out our website at: [conservationcouncil.ca](http://conservationcouncil.ca).

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# Is New Brunswick's water classification for rivers and lakes back on track?

By Corey Robichaud

New Brunswick's water classification system for the rivers and lakes is back on the table for discussion as part of a water strategy for the province.

Commenting on the engagement sessions on water in 2016 that garnered feedback from a variety of stakeholders, First Nations and the public, Environment and Local Government Minister Serge Rousselle said, "The current status of the Water

Classification Regulation under the *Clean Water Act* was a frequently raised concern. That is why we are establishing a technical working group to look at this particular issue in depth and provide recommendations as we develop the overall water strategy."

The Conservation Council's Lois Corbett is one of the fifteen members of the technical working group on water.

"We are especially pleased to see the Minister is committed to water classification

as a critical part of an overall water protection strategy by setting up a technical working group. This clears the way for the government to create a comprehensive and progressive strategy, one based in modern law," said Corbett.

Water classification systems are used worldwide as a science-based tool to protect water quality. For example, the Nashwaak River was designated as a Class A watercourse, which would protect it from new sources of pollution. When a water body is classified, volunteer groups, government and business then work together to maintain its classification.

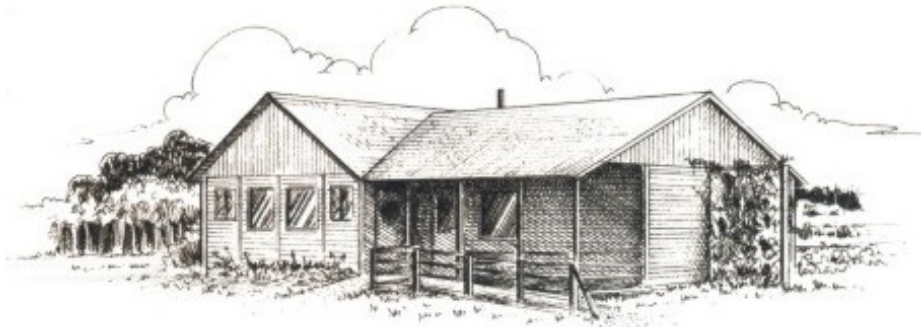
The Nashwaak Watershed Association lodged a complaint with the provincial ombudsman over management of the water classification program in 2014. In his response, Ombudsman Charles Murray condemned the management of the water classification program and said the program was bound by legal problems that had reduced the environmental regulation to what he described as "a smoke-alarm without batteries."

"There comes a point when an extended delay in implementing the provisions of an Act or Regulation thwarts the expressed will of the Legislative Assembly or the Lieutenant Governor in Council," wrote Murray in his August 2014 report.



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# Fixing a gutted Fisheries Act

**T**he *Fisheries Act* is almost as old as Canada and has served as an important piece of environmental legislation throughout the past century and a half. Of course, it has gone through several changes over those many years, strengthened in 1977, then drastically rolled back in 2012.

In 2012 major changes were made to the *Fisheries Act*, effectively gutting key aspects of the Act. This occurred in the context of major rollbacks to other environmental legislation, including the *Canadian Environmental Assessment Act* and the *Navigable Waters Protection Act* (now called the *Navigation Protection Act*). One of the most galling changes to the *Fisheries Act* was the removal of explicit protection of fish habitat and a replacement with a provision prohibiting “serious harm” to fish that contribute to “a commercial, recreational, or aboriginal fishery.”

The prohibition of the destruction of fish habitat was the cornerstone of the *Fisheries Act*, giving it its real strength. Focusing on protecting habitat showed that we understood that we are not all-knowing, that we cannot fully understand the complex ecological processes that occur in our

lakes, our rivers, and our oceans. Given that we cannot fully understand complex aquatic ecosystems, it is wise to focus on protecting the building blocks of natural ecosystems. The post 2012 emphasis on particular fisheries failed to grasp this responsible approach to fisheries management.

Since the 2012 changes there have been efforts across the country to see the *Fisheries Act*, and other environmental legislation, restored. The scientific community, Indigenous communities, fishery organizations, and environmental and conservation groups have all worked closely to push for a restoration of the *Fisheries Act* and other legislation. Throughout these efforts, new relationships were forged and a strong voice for restoration of environmental protections carried forward to the 2015 federal election.

The new government elected in 2015 brought with it a commitment to “review the previous government’s changes to the *Fisheries Act* and *Navigable Waters Protection Act*, restore lost protections, and incorporate modern safeguards.” The Government has continued movement toward making change through a House of Commons Standing Committee on Fisheries and Oceans, which

released its report on February 24, 2017. The report makes 32 recommendations, many of which propose restoring protections lost in 2012, addressing long standing regulatory issues, and filling gaps in funding and enforcement capacity. If the Committee’s recommendations are acted on, the *Fisheries Act* will once again serve as a central tool in protecting our shared fresh and saltwater.

Restoring and improving our environmental legislation is much more than an academic exercise. We are living in an era of climate change. Our aquatic ecosystems will be contending with changes in temperature, pH shifts due to ocean acidification, and changes in species distribution. We need to make good decisions now if we want to give our lakes, rivers, and coastal waters a chance to be resilient in face of a changing climate.

*By Matthew Abbott*

**The scientific community, Indigenous communities, fishery organizations, and environmental and conservation groups have all worked closely to push for a restoration of the *Fisheries Act* and other legislation.**







## Mount Polley tailings disaster still wreaking havoc over two years later: Why the Sisson mine is a concern for the Nashwaak

By Tracy Glynn

One of the world's largest tailing dams is proposed to be constructed in the upper Nashwaak River Valley as part of the proposed Sisson mine operation. With catastrophic mine waste spills on the rise and a failure of the Sisson mine's permitting process to examine the possibility of a tailings breach, there is reason to worry about the future of the Nashwaak Watershed.

Jacinda Mack says that the lives and landscape of the Secwepemc territory in the heart of British Columbia forever changed on August 4, 2014, the day the Mount Polley tailings dam breached. Mack was the Natural Resources Manager for the Xat'sull First Nation when 25 million cubic metres (10,000 Olympic-sized swimming pools) of contaminated process water and tailings poured into Polley Lake, Quesnel Lake and, eventually, the Fraser River Basin.

Before the Mount Polley disaster, Xat'sull families harvested and processed up to 200 salmon per family. The Quesnel Lake watershed supported a lucrative sport and commercial fisheries and tourism industry, while also being home to resource extraction in the form of mining and logging.

For the losses suffered by the worst mine waste spill in North America's history, the Xat'sull First Nation at one point received tens of salmon to compensate for the loss of wild salmon contaminated by the spill. The company that operates the Mount Polley mine and tailings dam, Imperial Metals, was never fined by the B.C. government.

"Tons of toxic substances were dumped into waterways. Fish habitats were destroyed. People's drinking water was affected. Yet, nearly three years after the disaster, and despite clear evidence of violations of Canadian laws, no charges have been brought forward by any level of government. This is wrong, simply wrong. It sets a terrible

"Tons of toxic substances were dumped into waterways. Fish habitats were destroyed. People's drinking water was affected. Yet, nearly three years after the disaster, and despite clear evidence of violations of Canadian laws, no charges have been brought forward by any level of government."

— Ugo Lapointe, Canada Program Coordinator for MiningWatch Canada

precedent for other mines across the country, let alone internationally," said Ugo Lapointe, Canada Program Coordinator for MiningWatch Canada. The organization is taking the B.C. government and Mount Polley Mining Corporation to court for violations of the *Fisheries Act* in relation to the Mount Polley disaster.

B.C. made some amendments to its mining code in July 2015 in response to recommendations made by an inquiry into the Mount Polley disaster, but Mack, now the coordinator of the *First Nations Women Advocating Responsible Mining*, argues that the changes are not strong enough to prevent another Mount Polley disaster.

David Chambers, a mining technical specialist with the U.S.-based Center for Science in Public Participation, maintains tailings disasters are on the rise and advocates against the construction of new tailing dams. According to the report, "*The Risk, Public Liability, and Economics of Tailings Storage Facility*

*Failures*," co-authored by Chambers, half of serious tailings dam failures in the last 70 years, 33 of 67, occurred between 1990 and 2009. Eleven catastrophic failures are predicted globally from 2010 to 2019. The average cost of these catastrophic tailings dam failures is \$543 million, according to Chambers' report.

While the industry says that they are working on best practices for tailings dams, catastrophic mine waste spills are increasing in frequency, severity and cost because of, and not in spite of, modern mining techniques. The tailings dams are getting larger and are not subjected to proper regulations.

Mining is essentially a waste management industry, says Joan Kuyek, founder of MiningWatch Canada. Kuyek argues that mining has short-term benefits and long-term consequences. What to do with the large amounts of waste generated from the mining of ore has always been a problem and the problem is getting worse with the mining of low grade ores that generate even more waste and require even larger dams or storage facilities. **The increasing rate of tailings dam failures is directly related to the increasing number of larger tailings dams.**

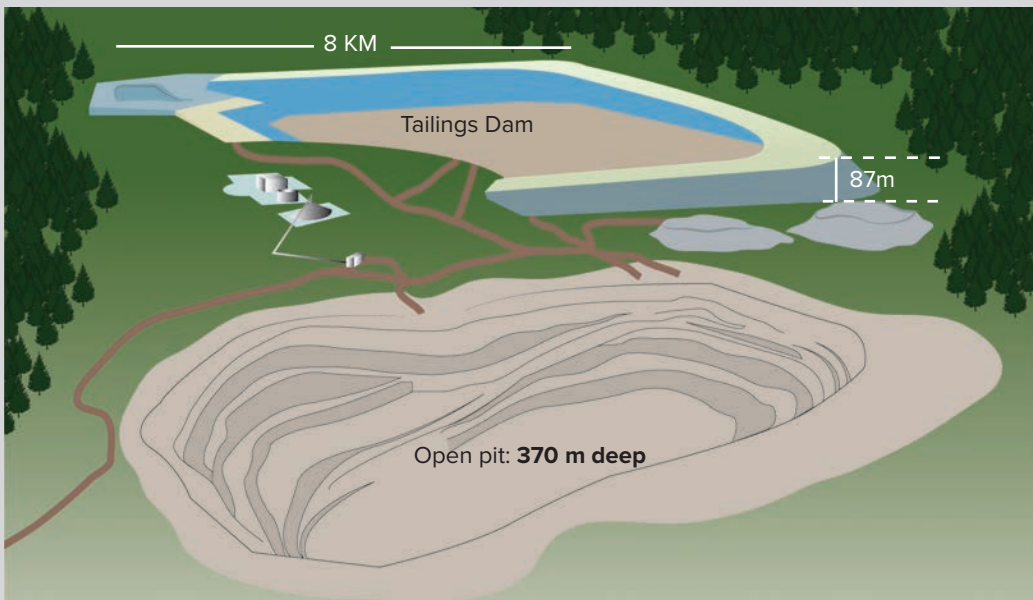
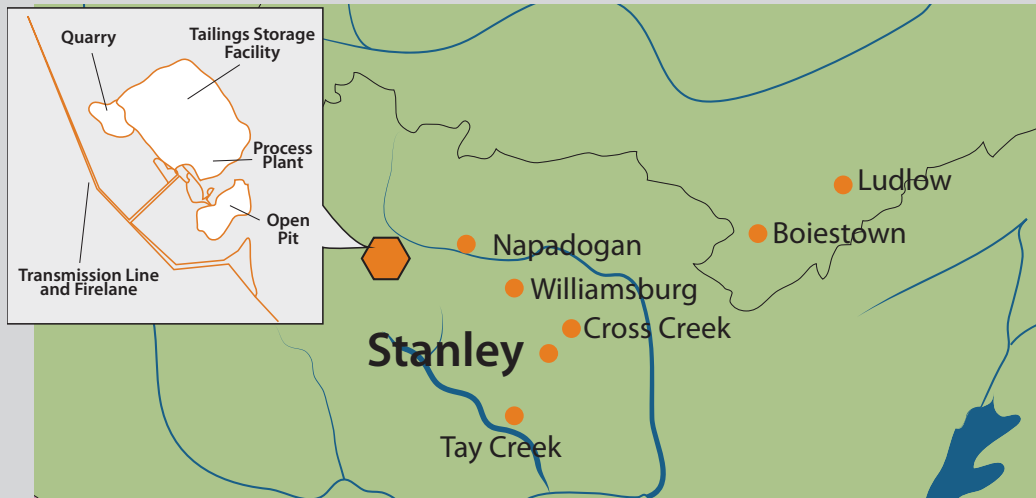
Mining companies dump tailings, the waste left over after ore has been mined and processed, into dams for permanent storage because it is cheaper than other methods that are considered less risky to the environment such as the dry-stack tailings method.

Knowing all we know about the risks associated with today's tailings dams, one has to wonder whether we will one day be telling stories of the day the Sisson tailings dam breached and devastated the Nashwaak River.



# THE PROPOSED SISSON MINE:

One of the world's largest open-pit tungsten and molybdenum mines



Lawrence Wuest, a resident of Stanley, has worked diligently to reveal the impacts of what could be **one of the world's largest open-pit tungsten and molybdenum mines**. The Sisson mine, owned by Northcliff Resources and Todd Minerals, is located about **30 km from Stanley** and **60 km northwest from Fredericton**. The operation would have a footprint of approximately **1,250 ha**, a **145 ha open-pit** that is **370 m deep**, and a tailings dam estimated to be **87 m in height** at its deepest point and 8 km in length. In comparison, the Mactaquac dam is about **40 to 50 m in height** and **0.5 km long**.

According to Wuest, if a tailings breach were to occur at the Sisson mine, the volume could be four times more than that spilled at the Mount Polley site. If the tailings dam did fail, according to Wuest, the tailings would travel down the Nashwaak River and reach Stanley in 17 minutes and Fredericton in three days.

The Conservation Council brought together experts to examine and comment on the mine's environmental assessment reports. Based on the experts' assessment of the project and environmental assessment, the Conservation Council argues that the Sisson mine should not be approved. Important questions about the mine's impact on the natural environment remain unanswered. Shockingly, the Environmental Impact Assessment for the mine ignored calls for an assessment of a possible tailings breach into the Nashwaak River.

When Ministers responsible for mining from provinces and territories across Canada meet in St. Andrew's, New Brunswick this summer, it will be a time for them to stand up and ensure that our watersheds are protected from being forever devastated by a mine's waste.

GLOBAL TAILINGS DAM FAILURES

1990-2009  
**33**

GLOBAL TAILINGS DAM DISASTERS PREDICTED

2010-2019  
**11**

AVERAGE COST PER TAILINGS DAM FAILURE

**\$543**  
**MILLION**

Source: Centre for Science in Public Participation [www.csp2.org](http://www.csp2.org)



# NBers Love Their Watersheds

By Tracy Glynn,  
Kaleigh Holder and  
Emily McPhee

## What is water classification, anyway?

Water classification systems, in place worldwide, use science to set transparent goals for water quality. Jurisdictions “classify” their rivers, lakes, and tributaries, using certain scientific-based parameters (for example, dissolved oxygen, nutrient status and aquatic life), and then work with groups in each watershed, including business, community and environmental organizations, to either protect those values or to improve on them. That ensures river health is maintained or improved over time.

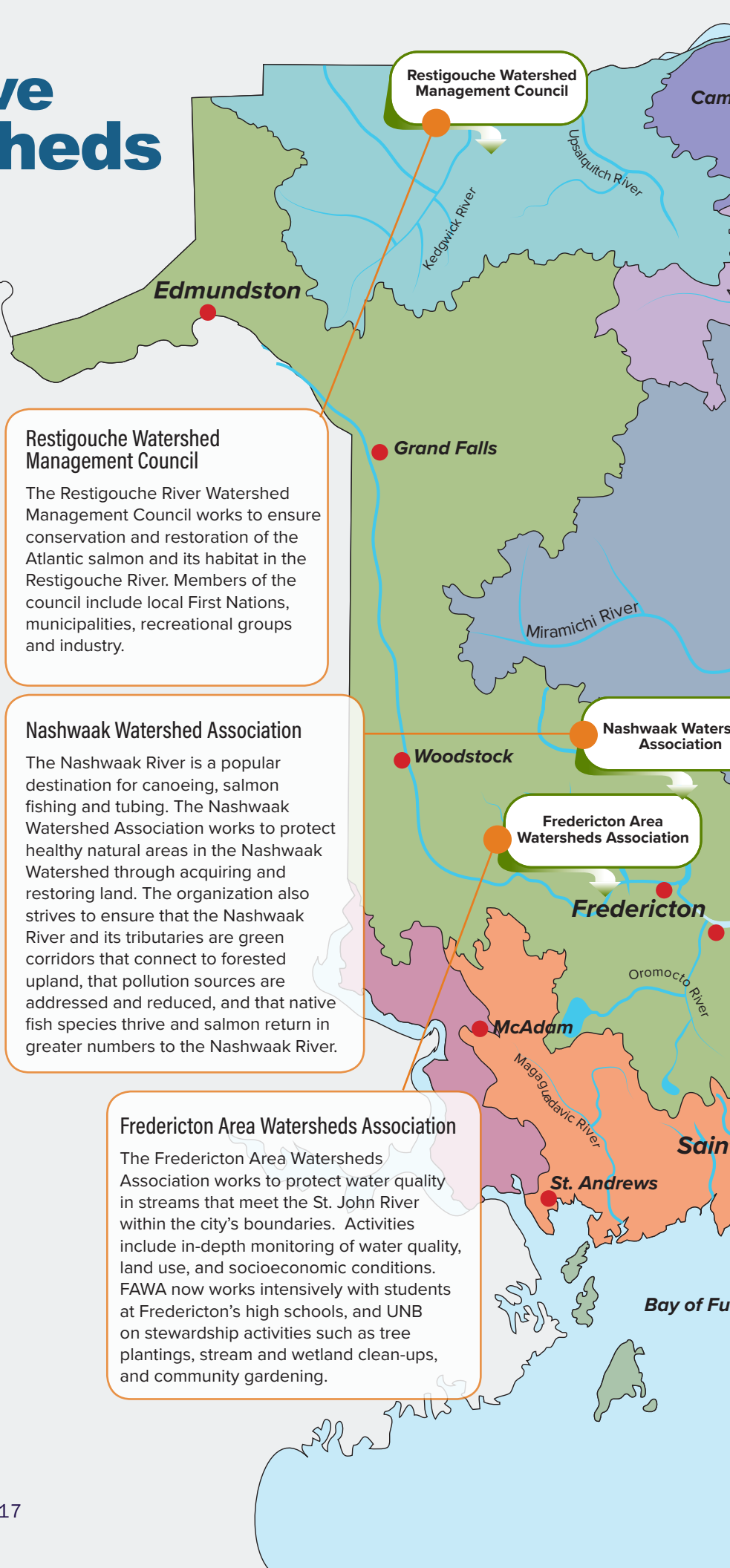
Used all over Europe, in New Zealand and in most parts of the United States, this system of protecting watersheds has led to sustainable water management plans and restoration projects that connect the upstream and downstream communities.

New Brunswick started work on this science-based system over 15 years ago with the passing of the Water Classification Regulation of our *Clean Water Act* with the intent to “eventually classify all waters in the Province, watershed by watershed.” Nineteen watershed groups conducted extensive data collection to submit their river systems for classification, none of the proposals have been approved.

Among the groups to submit proposals was the Nashwaak Watershed Association who have been proactive in seeking classification. A complaint filed by the association and many other environmental groups led to an investigation by to the Office of the Ombudsman, into the government’s delay in enacting the Water Classification Regulation.

The Ombudsman’s report was released in 2014 and found that the classification system provides no protection because the Water Classification Regulation has never been enforced. The Ombudsman stated that the government has all of the information available to approve the Nashwaak Watershed Association but have been dragging their feet.

In March 2016 the Department of Environment and Local Government announced that they would begin work on developing a new comprehensive water protection strategy. This opportunity gives First Nations, scientists, business and local watershed groups and the environmental community hope that the neglected Water Classification Regulation will be enacted as the strategy’s key component.



## Restigouche Watershed Management Council

The Restigouche River Watershed Management Council works to ensure conservation and restoration of the Atlantic salmon and its habitat in the Restigouche River. Members of the council include local First Nations, municipalities, recreational groups and industry.

## Nashwaak Watershed Association

The Nashwaak River is a popular destination for canoeing, salmon fishing and tubing. The Nashwaak Watershed Association works to protect healthy natural areas in the Nashwaak Watershed through acquiring and restoring land. The organization also strives to ensure that the Nashwaak River and its tributaries are green corridors that connect to forested upland, that pollution sources are addressed and reduced, and that native fish species thrive and salmon return in greater numbers to the Nashwaak River.

## Fredericton Area Watersheds Association

The Fredericton Area Watersheds Association works to protect water quality in streams that meet the St. John River within the city’s boundaries. Activities include in-depth monitoring of water quality, land use, and socioeconomic conditions. FAWA now works intensively with students at Fredericton’s high schools, and UNB on stewardship activities such as tree plantings, stream and wetland clean-ups, and community gardening.



Did you know that there are over 30 groups in the province of New Brunswick working to protect our waters? Here we profile just a small sample of them in different corners of the province. We hope that this inspires you to get involved with your local watershed group.

**Esgenoôpetitj Watershed Association**

The Esgenoôpetitj Watershed Association was established just this past November. Samantha Robichaud and Lorraine Savoie, both environmental monitoring technicians with the group, are more than excited to be a part of an association that's creating jobs and informing the public on water issues.

**Petitcodiac Watershed Alliance**

In 2016, the Petitcodiac Watershed Alliance celebrated the announcement of the removal of the causeway affecting the Petitcodiac River and its replacement with a bridge. *"We stand on the shoulders of giants, and I am forever grateful for those who came before us. Today, the Petitcodiac River will be formally resurrected in the eyes of our government and community. To those who walked across the causeway holding a casket which read "Petitcodiac RIP," I hope that we have made you proud,"* said Christine McLaughlan, the Petitcodiac Watershed Alliance's Executive Director.

**Petitcodiac Watershed Alliance**

**Belleisle Watershed Coalition**

The Belleisle Watershed covers the 37,000 ha of forests and farmlands that surround Belleisle Bay. The Belleisle Watershed Coalition conducts water quality sampling and monitoring and recently celebrated the development of the Belleisle Creek Trail that stretches 5 km.

**Canaan-Washademoak Watershed Association**

The Canaan-Washademoak Watershed Association works with landowners, public agencies, the academic community, and the private sector to protect and improve water quality in the Canaan River and Washademoak Lake. Activities include monthly meetings with expert speakers, workshops, community events, and research and monitoring.

**New Brunswick Watersheds**

-  Chaleur Bay Composite
-  East Fundy Composite
-  Northumberland Strait Composite
-  Inner Bay of Fundy Composite
-  Miramichi River
-  Nepisiquit River
-  Acadian Peninsula Composite
-  Fundy Isles Composite
-  Petitcodiac Composite
-  Restigouche River Basin
-  Saint John River Basin
-  St. Croix River Basin
-  West Fundy Composite



# 3

RECOMMENDATIONS FOR IMPROVING

# Shediac Bay Water Quality

By Corey Robichaud

## 1

**Spread awareness  
of multiple sources  
of contamination**

After misreported swimming conditions at Parlee Beach made headlines in 2016, Environment Minister Serge Rousselle announced the formation of a Steering Committee that will work with scientists and local governments to fix reporting protocol (so that it meets Health Canada's guidelines) and explore ways to fix water contamination in Shediac Bay.

What needs to happen to assure tourists and locals alike that Parlee Beach is swimmable by next summer? Here are three recommendations from Rémi Donelle, Manager of the Shediac Bay Watershed Association (SBWA), for steering Shediac Bay water quality back towards cleaner water:

**Rémi Donelle, Manager  
of the Shediac Bay  
Watershed Association**

Donelle says there are multiple sources of pollution that need to be addressed and resolving just one very likely won't be enough.

"It's not a simple problem. There isn't just one source of contamination for Parlee Beach. A little bit comes from everywhere, so I guess it's everyone's responsibility to address what they can," Donelle told the Conservation Council on Feb 15, 2017. "The Steering Committee will need to work with a lot of different partners if they want to be effective. This means the Greater Shediac Sewage Commission, the Town of Shediac, resident boat owners and farmers alike."

In fact, we're seeing the beginning of this collaboration between local stakeholders.

For instance, Dominic LeBlanc, Fisheries and Ocean Minister, was in Shediac on Feb 20 to speak with town officials about a \$1.9 million project to upgrade the town's sewage lines on Main Street should that be the source of the contamination. If necessary, Minister LeBlanc says he'll look to the Federal government for funding.

As for other sources of contamination, the SBWA is planning to spread awareness regarding the free to use pumping stations at the bay's two marinas, as well as working with resident farmers to help prevent additional sources of contamination. However, if things continue to worsen rather than improve, the government may also need to consider stricter regulations, according to Donelle.



# Things you might know about Parlee Beach

1. Parlee Beach boasts the warmest salt waters in Canada, the warmest water north of Virginia and the world's largest lobster statue!

2. In 1959, Parlee Beach was named in honour of T. Babbitt Parlee, two years after he died in a plane crash. Parlee was the former Minister of Municipal Affairs in Hugh John Flemming's government.

3. In 1989, the Beach Boys held a concert at Parlee Beach for 20,000 fans at a temporary concert stage between Main Street and the beach.

4. Each spring, the provincial government spends about \$60,000 replacing sand on the beach lost from erosion. Up to a thousand truckloads of sand are needed to replace the amount of sand lost.

5. Nearly a half million people visit Parlee Beach Provincial Park each year.



2

Identify and target specific sources of contamination

Donelle says specific sources of contamination must be identified with the help of government and partners.

The Steering Committee will be working with Mount Allison University Professor Dr. Douglas Campbell, who had previously said he planned to study Shediac Bay pollution with the help his environmental microbiology class last November.

Dr. Campbell will be working with the government to gather Shediac Bay's bacteria results from interested parties like the SBWA and update the province's new information portal on Parlee Beach water quality. Donelle says he is hoping this newly updated database will help point them in the right direction.

3

Review the current water quality testing system and inform the public on the source of each instance of contamination

While the government has promised to review the current water testing system and promised to keep the public better informed about water quality by enhancing on-site signage and posting water quality results online, Donelle says they need to provide better information on why the water quality is poor: "Right now, that information is not available to people why the water quality is poor – is it high bacterial count? Is it rainfall?"

Donelle says there is a big difference between an *E.coli* count of 100 and 1000, between contamination spikes that come with rainfall and those that come from abnormal amounts of animal fecal matter. He says that everyone has different boundaries and that's why he recommends the government be transparent about the source of contamination when they post water quality results.



When is it safe to swim?

**Escherichia coli** (abbreviated as *E. coli*) and Enterococci are indicator organisms generally measured to assess microbiological quality of water. Most strains of *E. coli* are harmless, others can make you sick and can cause kidney failure, urinary tract infections, respiratory illness and pneumonia. When we discover *E. coli* in water, it usually has come from sewage runoffs, and animal faecal matter. That's why health officials all over the world carefully monitor *E. coli* and other bacteria.

Health Canada has set safe limits for *E. coli* in drinking water and recreational waters. The number of faecal bacteria considered unsafe for recreational swimming varies depending on whether the bacteria is found in freshwater or saltwater. If tests find more than an average of 35 enterococci/100 millilitres from five samples in marine waters, it is declared unsafe for all and the beach is closed.



# Behind the Scenes at Conserver House



## Learning Outside throughout the seasons

Children enjoy learning outside year round and there are ample opportunities to incorporate math, literacy, science and other subjects into learning about New Brunswick's habitats and species no matter what the season. Nadine Ives, our **Learning Outside** coordinator, has been exploring the nature trail and wetland with students and teachers at Lincoln Elementary School, learning where the fox and snowshoe hares travel by following their tracks, looking at apples cached in trees by squirrels, and watching chickadees at the bird feeding station (sponsored by Shur-Gain Feeds'n Needs).



We've been recording weather conditions, digging snow profile pits and measuring snow depth (109cm now!), and learning that the deep icy snow layer contains twice as much water as the fluffy top layer. We've experienced wind chill and how snowshoes making walking much easier (thanks for the great idea, snowshoe hares!). We've had a close-up look at snowflakes and watched an eagle soaring overhead.

And there's a lot more to investigate!  
**See you outside!**

[www.learningoutside.ca](http://www.learningoutside.ca)

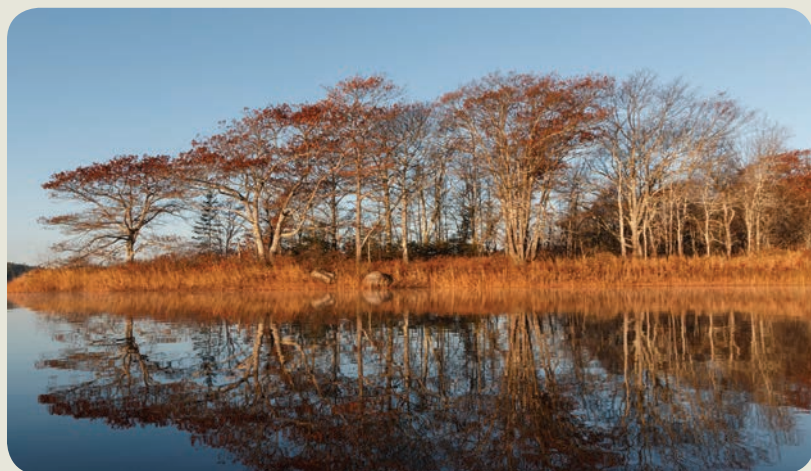


Photo: Liane Thibodeau

## The Great Trees of New Brunswick

Is your great tree old and bold? Beautiful and striking? Part of a remarkable story? The Conservation Council is working on the second edition of *The Great Trees of New Brunswick*. There is still time to nominate your great tree. With almost 100 nominations so far, it is fair to say that New Brunswickers love their trees.

Contact Tracy at 506 458-8747 or [forest@conservationcouncil.ca](mailto:forest@conservationcouncil.ca).



## The Conservation Council on YouTube

Have you checked out the Conservation Council's YouTube Channel lately? There are videos to be found there on our great trees project and Learning Outside program. Another video goes to the seaside Honeybeans Cafe in St. Andrews to discuss the importance of buying local.

The videos are being brought to you by Conservation Council intern, Samantha Phillips, a filmmaker from Fredericton. Topics of videos in the works include renewable energy and profiles of environmental champions.