Shediac Bay Watershed Association

Fiscal Year Report 2021-22

Report prepared by:
The Shediac Bay Watershed Association

March 2022

Table of Contents

1 Introduction

The Shediac Bay Watershed Association (SBWA) was founded in 1999 as a result of growing concerns from local community residents over the ecological health of Shediac Bay. In order to establish a long-term water quality-monitoring program, a community-based association was formed.

The Shediac Bay Watershed Association vision and mission statements are as follows:

Our Vision – Communities working together to foster a healthy ecosystem that will sustain the quality of water for future generations.

Our Mission – The SBWA will accomplish its vision through education and community stewardship.

The Board of Directors is composed of the following members:

Ms Helen Hall, President	Mr. Gerry Dionne	Ms. Germaine Gallant, Town of Shediac Representative
Mr. Denis Haché, Vice-President	Ms. Frances Kelly	Mr. Gilles Cormier, Beaubassin est Representative
Mr. David Dunn, Treasurer	Mr. Claude Léger	Mr. Bill Belliveau
Mr. Armand Robichaud, Past-President	Ms. Petrina Ferris	Mr. Duncan Noble
Ms. Helen Wedge, Secretary	Mr. Arthur Melanson	Mr. Alexis Robitaille
Mr. Pierre Landry	Mr. Rick Desbrisay	Mr. George Welling

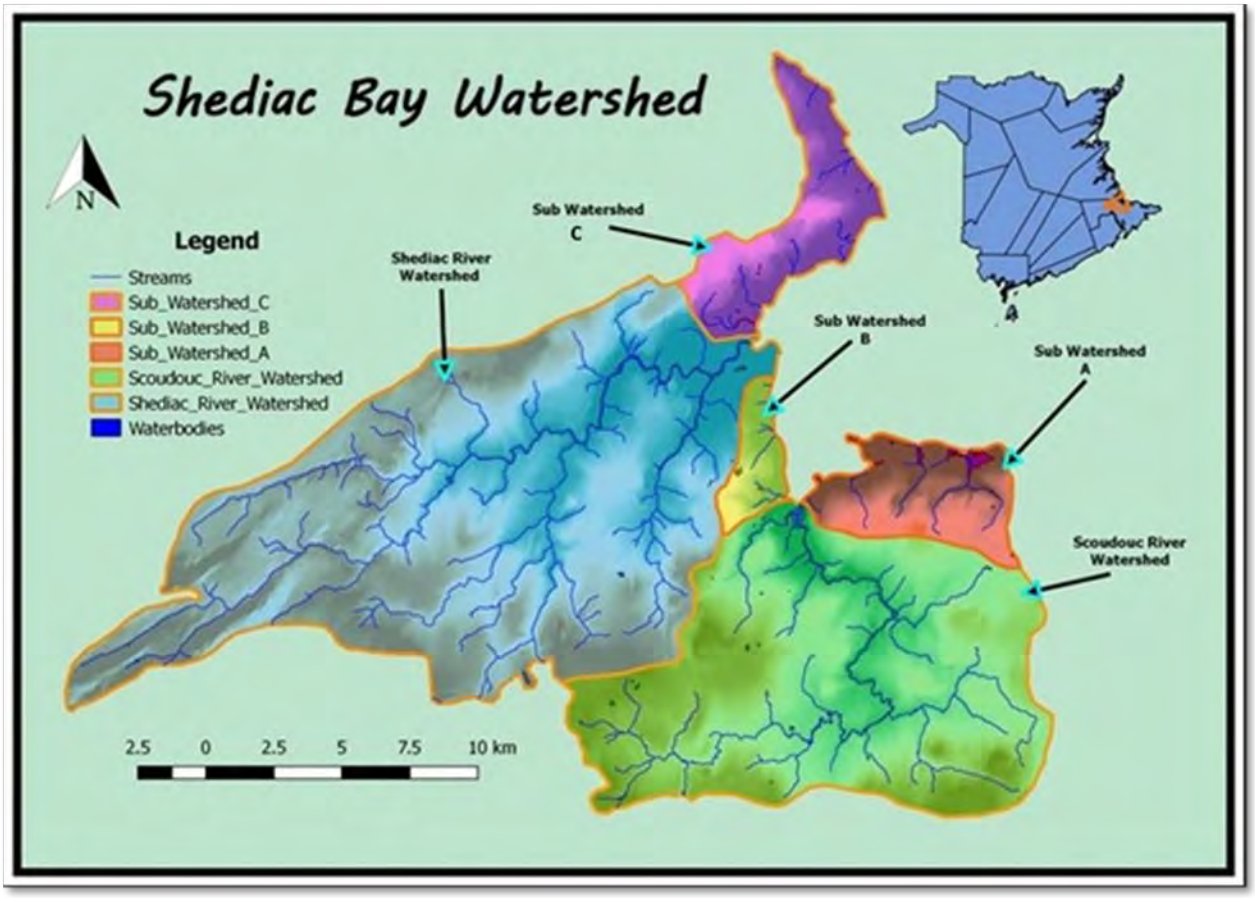
The Shediac Bay Watershed Association gratefully receives guidance, donations and in-kind support from various organizations and interest groups consisting of business owners, industry, foresters, farmers, residents, cottage owners, recreation boaters and swimmers, conservation groups and community organizations within the Shediac Bay Watershed.

Public education has always been an integrated part of all the Shediac Bay Watershed Association's initiatives. Every year, the Association organizes activities meant to engage the public in environmentally friendly practices such as litter cleanup and tree planting, hoping to raise awareness and to build good habits.

Our strong presence in the public eye is a major factor to the success of many of our initiatives, and to keep the public informed of the great work being accomplished by the association.

1.1 Overview of the Shediac Bay Watershed

The Shediac Bay Watershed covers 420 km^2 of land area and stretches along 36 km of coastline, from Cap Bimet to Cap de Cocagne (Fig. 1). The Shediac Bay Watershed is composed of two major river systems emptying into Shediac Bay: the Shediac River and the Scoudouc River. The Shediac and the Scoudouc Rivers are characterized by small tributaries covering a watershed of 201.8 and 143.3 km^2, respectively. The Shediac River is composed of two major water arms. The northern water arm is created by the convergence of the McQuade Brook, the Weisner and the Calhoun Brook. The southern water arm of the Shediac River is the continuation of the Batemans Brook. Water velocity in both rivers is generally weak due to the gentle regional elevation. The watershed boundaries stretch into both Kent and Westmorland County and cross into both the Shediac and Moncton Parish.



Map of the Shediac Bay watershed

1.2 List of Funders and Financial Supporters

Municipal

Town of Shediac

Beaubassin-est Rural Community

Provincial

New Brunswick Environmental Trust Fund

New Brunswick Wildlife Trust Fund

Student Employment and Experience Development (SEED)

Federal

Environment and Climate Change Canada (Multiple Programs)

Department of Fisheries and Oceans Canada (Multiple Programs)

Canada Summer Jobs (CSJ)

Other

Atlantic Salmon Conservation Foundation

Université de Moncton

Nature NB

TD Friends of the Environment

Anglican Parish of Shediac

New Brunswick Environmental Network

Vision H2O

Groupe de Développement Durable du Pays de Cocagne

Parlee Beach Provincial Park

2 Water Quality Monitoring

Three different water quality monitoring programs were carried out by the SBWA in 2021. These include Shediac and Scoudouc rivers sampling, small streams sampling, and investigative sampling. Water samples were taken once per month from May to October.

As part of the water management efforts in the watershed, water temperature monitoring also continued in 2021. Temperatures loggers were placed in strategic locations from June to September.

2.1 Shediac and Scoudouc River Sampling

With six sites in the Shediac River watershed and four sites in the Scoudouc River watershed, a total of ten sampling sites make up the Shediac and Scoudouc river water quality monitoring.

For the Shediac River, only one sample surpassed the Canadian Recreational Water Quality Guideline (400 MPN/100 mL) in 2021. This sampling occurred during a light rain event.

For the Scoudouc River, there are six samples that surpassed the Canadian Recreational Water Quality Guideline (400 MPN/100 mL) in 2021.

Shediac River (Shd-B) sampling site

2.2 Small Stream Sampling

There is a total of 11 small streams sampling sites located along the coast of the Shediac Bay watershed.

The bacterial levels in the small stream sites in 2021 exceeded the Canadian Recreational Water Quality Guideline (400 MPN/100 mL) on 22 occasions. Additionally, four sites have exceeded 5000 MPN/100 mL. These small tributaries flow through areas that are more developed or that are impacted by agricultural activities.

Ruisseau Albert-Gallant (WQ-9) sampling site

2.3 Investigative Sampling

In 2021, the SBWA continued the “Investigative” water quality sampling program to evaluate a greater variety of smaller tributaries of the Shediac Bay that have been impacted by land use, such as urban development and agriculture. Unlike the previously mentioned 21 regular monitoring station, investigative sample sites change based on results and funding. In the 2021 sampling season, a total of 8 small streams sites were sampled from July to October.

2.4 Water Temperature Monitoring

The strategy for the water temperature monitoring program is to monitor temperatures fluctuations in strategic locations. Areas of interest are those determined to be high risk for thermal stress in juvenile salmonids and other cold-water species. Other areas of interest are those determined to be colder zones suitable for thermal refugia.

Temperature logger installation

The monitoring program normally includes seven sites in the watershed. Only three sites were monitored in 2021 due to COVID-related supply issues and loss of equipment. The McQuade Brook had the highest recorded temperature with 28.2°C. The logger recorded that this brook exceeded the thermal stress levels (22.5°C) on 56 occasions and the lethal limits (25°C) on 23 occasions. The Weisner Brook is the coldest tributary of the Shediac River; the majority of the stream is shaded by forests and there are many cold-water springs that helps to keep the water temperatures cool. The Weiser Brook is recognized as a summer resting area for mature brook trout by the Department of Natural Resources and Energy Development, due to its colder characteristics.

3 Water Conservation and Stormwater Management

In order to enhance water quality throughout the Shediac Bay, there must be proper management of surface water and land uses in the watershed as a whole. The SBWA has put in place a number of projects aimed at absorbing stormwater runoff which contains bacteria and other pollutants. Projects such as rain gardens help reduce the volume of stormwater entering our storm sewers and small streams, all of which drains into the Shediac Bay. The following projects were all carried out during the 2021 field season.

3.1 Polyvalent Louis-J. Robichaud Bioswale

With the help of students from the Environmental Science class at Polyvalent L.-J. R, a 60m2 bioswale was built on school ground. The bioswale contains over a hundred plants, including flood tolerant grasses and flowers for pollinators. These plants will filter runoff from the surrounding soccer fields and the running track.

Before in 2021 (top) and after one season of growth in 2022(bottom) of the LJR bioswale

3.2 Maximum Signs & Time2Shine Bioswale

This is the first commercial bioswale and the largest-scale green infrastructure project that has been carried out by the SBWA to date. The bioswale, or bioretention system, will collect a portion of the stormwater runoff from the parking lot of the neighbouring business and part of the rooftop runoff from surrounding buildings, which totals approximately 920 m² of impervious surfaces.

The bioswale was excavated and filled with gravel, sand, top soil, and river rocks. A total of 116 plants were also planted. This bioswale design provides underground storage space for stormwater retention while it infiltrates into the ground or gets absorbed by the surface vegetation.

Before in 2021 (left) and after in 2022 (right) of the commercial bioswale

3.3 Residential Rain Garden – Rue Rachel

This rain garden is located in the front yard of a resident on Rue Rachel in Shediac. It was created to intercept stormwater runoff from the rooftop before making its way into the storm drain system.

Underground PVC piping was installed to ensure the connection two downspouts directly into the garden. A combination of flood tolerant grasses and flowers were planted. A small educational sign was installed near the rain garden in a visible location for pedestrians. This project became a demonstration site for residential rain gardens for two in-person workshops to date and several online presentations. We would like to thank the homeowners, who've been wonderful partners in the education and outreach part of this stormwater management project.

Before (left) and after (right) of the rain garden on Rue Rachel

3.4 Residential Rain Garden – Rue Smith

This residential rain garden is quite unique; it was made in the shape of a heart! This rain garden helps to reduce the lawn area in the front yard, helps to support pollinators, and will capture stormwater from sections of the homeowner's yard and rooftops.

Similar to the other residential rain garden, a combination of flood tolerant grasses and flowers were planted. A berm was constructed as well at the base of the heart to help create the form of a bowl to retain rain water.

Before (left) and after (right) of the rain garden on Rue Smith

3.5 Rain Barrel Giveaway

In 2021, the SBWA continued the free rain barrel giveaway program using the rigid plastic food-grade barrel. A social media contest was launched for the draw to distribute the rain barrels to citizens living in the Shediac Bay watershed boundaries.

The social media contest was very successful. The response from social media was very positive, and the purpose of the project was understood and appreciated.

Rain barrels are a simple and effective way to collect rainwater that runs off from rooftops. The water collected can be used to water laws and gardens, or to wash vehicles. When rain water is used for these purposes, potable drinking water is conserved. When rain water is collected from an impervious surface, such as a rooftop, it also serves to manage stormwater which helps protect water quality.

Installed rain barrel

4 Environmental Restoration

A number of environmental restoration projects were carried out across the watershed. These projects have a wide range of benefits including; reducing sedimentation, stabilizing the banks, cooling the temperature of water by providing shade, filtering pollutants, and providing fish with food sources such as insects and seeds.

4.1 OceanSurf Campground

Following the Hurricane Dorian in 2019, a Living Shoreline restoration workshop was held at OceanSurf Campground in 2020. The construction included a buffer zone to the south-east section of the campground. In the northern section of the project a berm was planted. Interpretive panel were installed next to the project site.

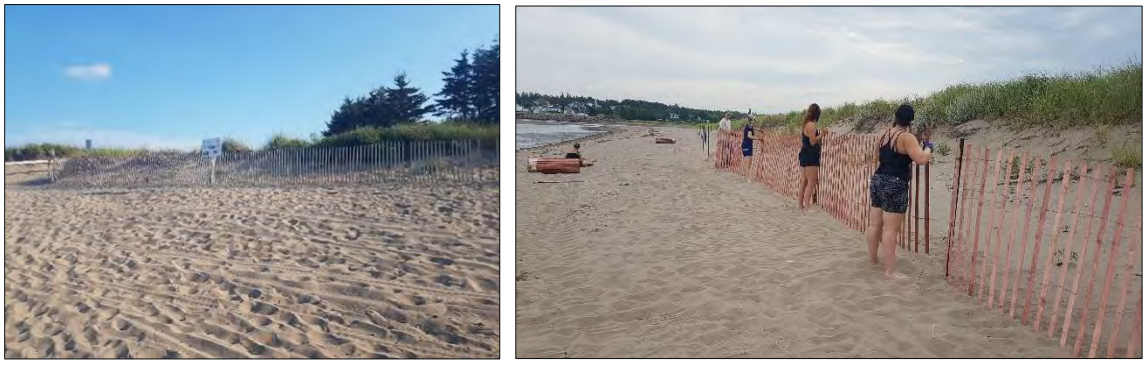
OceanSurf Campground restoration workshop 2021

In 2021, a section of the bank was extended from previous work done in 2020. Several techniques were used, including; waddle fencing, brush mats, and planting well adapted vegetation. All exposed soil was then covered with hay. These structures will hopefully strengthen the shoreline and help resist future erosion damage.

4.2 Dune Restoration

The SBWA was contacted by a citizen during the winter of 2020, with concerns about the degraded conditions of the dunes at Belliveau Beach in Pointe-du-Chêne. The public entrances cause breaches in the dune ecosystem because of excessive trampling of the marram grass. With time, these breaches become larger and make the dune more vulnerable to storm waves.

In the summer of 2021 and 2022, snow fencing was installed at beach access points and along the dunes to prevent further damages by foot traffic. By preventing the trampling, marram grass is able to naturally spread and strengthen. The snow fences also help capture and accumulates sand. Educational signage and interpretive panel were installed to educate on the sensitive habitat.



Snow fencing (left) and marram grass planting (right) at Belliveau Beach

Tree planting along stream on dairy farm

4.3 Farm Restoration

In 2019, an agricultural restoration site was identified on the Scoudouc River. Located on the property of a local dairy farmer, an unnamed brook was selected for restoration due to the lack of vegetated buffer zones and the lack of cattle fencing along most of the brook. In 2021, the land owner gave permissions to the SBWA to implement its stream bank restoration project.

A stream survey was conducted by the SBWA environmental technicians. The substrate characterized, and other notable observations were made on erosion pattern and other stream features. The most apparent issue with this stream is the severe erosion on the banks mainly due to heavy cattle use and lack of trees or shrubs.

The SBWA started the restoration project on the unnamed brook by planting a total of 334 trees. The trees planted were mostly spruce with a few trees from other species including birch, pine, willow, maple, oak, and others.

4.4 Cornwall Brook Restoration

During the major road construction of a traffic circle and modification of the highway in 2018, a section of the Cornwall Brook was modified and left with no buffer zone. In 2021, the following trees were planted: 15 Spruce, 15 White pine, 6 Maples, 5 Oaks, and 2 Mountain ash. The planting of willows was abandoned due to the presence of beavers. Beavers are knowns to prefer willow, poplar, and birch.

Cornwall Brook

SBWA's tree nursery

4.4.1 SBWA Tree Nursery

In partnership with the Anglican Parish of Shediac, 8 raised garden boxes were built at the Shediac Cape community garden in 2017. The raised beds are used to plant seedling trees, acorns and cuttings, to provide us with a stock of trees and shrubs at low cost. These boxes also helped preserve plants that were later transplanted into our rain garden projects. The nursery provides us with a location for young trees to mature for a few years, to increase their chances of survival when used in stream restoration work. This supply of trees also provides in-kind value in the Association's funding proposal budgets.

5 Environmental Cleanup

Focusing on residential areas, three environmental cleanups were undertaken by the SBWA in 2021. The continuation of environmental cleanup efforts is important to the health of the watershed.

5.1 Trash cleanup

The SBWA was contacted by the Town of Shediac, who received a report from new homeowners of an old dump site along the edge of their property, on the shoulder of a small stream.

The dump site underwent a first phase cleanup, where the SBWA's staff and volunteers collected over 14 heavy-duty garbage bags and various debris. The next phase of this cleanup will require heavy equipment to retrieve the larger items and is scheduled for the spring of 2022.

Trash cleanup at old dump site (right) and total garbage collected (right)

5.2 Stream Cleanup

An unnamed stream crossing the Town of Shediac was identified to contain large amount of trash by the SBWA. Several sections of the stream were cleaned, resulting in the collection of 18 garbage bags along approximately 500 m of the watercourse. The SBWA employees cleaned the trash until the stream became inaccessible. The first access point is located at the Pascal Poirier Park. The second access point is located further upstream next to a bakery. Finally, the third site is located at the Ourson Park.

5.3 Beach Sweep

In celebration of World's Oceans Day, a public beach sweep event is organized every year by the SBWA, in partnership with the Town of Shediac. This year, the event was held at the Shediac Bay Marina and Pointe-du-Chêne. Door prizes provided by Gestion H2O in the Baie de Caraquet were handed out as well as some donated gift cards from local businesses.

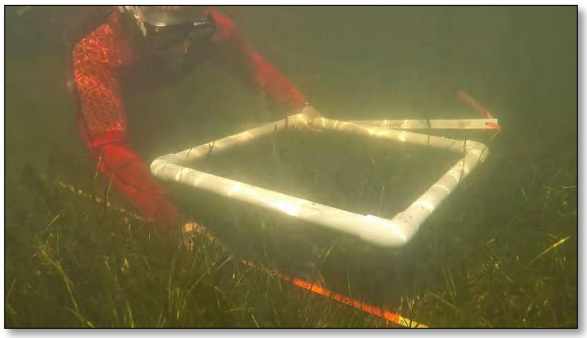
Beach sweep event

6 Wildlife Monitoring

These following projects were all included in the "Evaluation of the Health of the Shediac Bay" report, prepared for the *Environmental Trust Fund*.

6.1 Eelgrass Monitoring

Eelgrass monitoring transect have been established in the Shediac Bay since 2016. The eelgrass sites are located in the Shediac and Scoudouc rivers, Pointe-du-Chêne, and Grande-Digue. In the fall of 2019, hurricane Dorian impacted the Shediac Bay and caused extensive damages to the eelgrass habitats not sheltered from high winds.



Eelgrass transects

The decrease in eelgrass cover caused by the impact of Hurricane Dorian is still apparent in 2021.The Grande-Digue and Scoudouc River sites have shown signs of recovery from the hurricane, however, the two other sites have generally had a decrease in all parameters (height, ground cover, density) in 2021. Eelgrass have still yet to come back to the heavily affected Shediac River site.

6.2 Green Crab Monitoring

Green crab monitoring has been carried out by the SBWA since 2013. This invasive species is known to disrupt eelgrass beds, a productive habitat for many juvenile fish species and crustaceans. The green crab population monitoring is composed of 10 sampling sites. Sampling is done using Fukui crab traps baited with sardines.

The amount of green crab caught have been steadily increasing in the Shediac Bay since 2019. The total amount of green crab caught has more than doubled from 2020 to 2021, however, compared to previous sampling years, the 2021 total catch is in the mid-range with 393 green crab caught.

Green crab caught in Fukui trap

6.3 Smelt Surveys

In partnership with the Université de Moncton (U de M), smelt surveys were carried out by the SBWA in small streams and river surrounded by salt marshes in South Eastern New Brunswick from Cocagne to Bay Verte. The primary objective of this study is to observe the importance of salt marshes in the reproduction of smelts, verify the state of salt marshes, and identify those that are in need of restoration.

Rock with smelt eggs

Secondly, the surveys were also carried out in small tributaries of main rivers. The smelt surveys identified the substrate type and overall suitability for smelt habitat.

Only two of the 12 Shediac Bay sites were found to be unsuitable for smelt habitat, with five sites having smelt eggs present during the surveys.

6.4 Bank Swallow Surveys

The Bank Swallow populations are considered to be threatened by both COSEWIC and SARA. No one singular threat is responsible for the decline in Bank Swallow numbers, the decline is most likely caused by a culmination of numerous threats. The loss of breeding and foraging habitat due to erosion and shoreline hardening is prominent in the Shediac bay watershed.

Bank Swallows at Parlee Beach Provincial Park

Bank Swallow surveys were carried out on three different colonies located in the Shediac Bay watershed. Two colonies were located in the Cocagne area and one at the Parlee Beach Provincial Park. The surveys identified the number of birds and burrows present at each colony site.

6.5 Tern Platform

The tern platform is an artificial nesting habitat built for the Common Tern colony of the Shediac Bay. Since 2014, the platform has been used by the Terns for nesting and laying eggs. The platform in anchored in the South Cove estuary near Pointe-de-Chêne.

Tern platform being pushed out of the marsh

In the spring of 2021, the Shediac Bay experienced sub-hurricane winds in combination with a storm surge, which detached the platform and floated it into the surrounding marsh. A platform rescue operation began by dividing it into it's four sections. Each section was moved back into the water manually using skid logs and a manual jack. This would have not been possible without the help of volunteers from our board, the Petitcodiac Watershed Alliance, the GDDPC, and Vison H2O. The platform was successfully returned to the water before the arrival of the Terns and the birds were seen occupying the platform. Unfortunately, they did not nest on the platform for the first time since this project began. We don't know why they didn't use the platform for nesting or where they went to lay their eggs and rear their chicks in the summer of 2021.

7 Education and Outreach

Normally, the SBWA does regular presentations to various audiences and stakeholders of our watershed. Due to the COVID-19 pandemic, activities such as public workshops or event were not possible unless they could be done virtually or following public health guidelines. The following presentations and webinars were held during the 2021-2022 fiscal year by SBWA's manager Jolyne Hebert.

"How to Build a Rain Garden" French presentation cover slide

7.1 Webinar – "How to Build a Rain Garden"

A virtual presentation was done on "How to build a rain garden" for the School Gardens Initiative, coordinated by New Brunswick Environmental Network (NBEN). The presentation was directed towards New Brunswick teachers who are interested in school gardens of any sort.

Promotional graphic for virtual workshop "The Importance of Groundwater"

7.2 Webinar – Natural Infrastructure for Climate Change Adaptation

This webinar was hosted by *Learning for a Sustainable Future* (LSF), a Canada-wide organization that provides a platform for various educational resources and webinars series for classrooms. The webinar was attended by 54 students from the grades 5-8 and 53 students for the grades 9-12.

LSF webinar cover slide

7.3 Webinar – Underground Water Workshop

A virtual workshop was co-hosted by Vision H2O, the SBWA, Petitcodiac Watershed Alliance (PWA) in partnership with the NBEN, on the importance of groundwater quality. The presentation given by the SBWA was on the importance of rain barrels and how to build your own.

7.4 Workshop – Greater Shediac Community Garden

The SBWA held a workshop on how to build a rain garden, for the Greater Shediac Community Garden and their members. The session was recorded and made available on the GSCG's Facebook page.

7.5 School Programs

The SBWA has been working with local schools and teachers on the development of yearly environmental education programs. This long-term relationship led to the development of a series of presentations that

links science curriculum objectives and outcomes to local environmental issues. The main focus of these presentations revolves around water quality, aquatic habitats and biodiversity.

Middle school students at Parlee Beach

7.5.1 Parlee Beach Field Trip

Normally, Parlee Beach Provincial Park greets school groups that request educational outdoor activities. This year, the park requested the assistance of the SBWA to deliver these activities to a few school groups.

Activities included games from the "Great Minds Think Outside!" program, a treasure hunt on the beach, trash cleanup, a presentation on the dunes and the beach's ecosystems, and free time.

7.5.2 Adopt-a-River

In the 2021 fiscal year, SBWA continued with presentations to LJR school for the annual Adopt-A-River program. A field trip was held by the SBWA where a class went to the Scoudouc River (Edna's pond) to do the macroinvertebrate sampling and to collect other habitat measurements and observations. Following the field trip, another in-class activity was done so that the students could identify the macroinvertebrates found in their samples using a dichotomous key.

Adopt-A-River field trip

7.5.3 Tree Planting Activity

Following the Adopt-A-River program activities in the spring of 2021, with the help of the two 10th grade biology students at Polyvalent Louis-J.-Robichaud, a tree planting activity was organised on the Shediac bike trail along NB-115.

Tree planting by 10th grade students at LJR

7.5.4 Bioswale Presentation

Prior to completing the LJR bioswale, a presentation was held in class to students and staff of an environmental science class on the importance of rain gardens and storm water management for water quality protection.

7.5.5 Virtual Presentation - Degraded Habitat and Restoration

A virtual presentation was given on degraded habitats caused by extreme weather events and how to restore them to help wildlife. The presentation was delivered to 2 classes; one of 18 students and the other had 19 students. This new activity is a follow up and modification to the degraded habitat presentations delivered in 2020.

8 EcoVision 2025

The EcoVision 2025 green strategy identifies actions that will help ensure a healthy environment that can support economic development, a high quality of life, and vibrant communities in the reality of a changing climate. Actions are prioritized by short-, medium-, and long-term, ease of implementation, and scale of impact.

In 2021-2022, there were several activities accomplished under three priorities; reduce waste in the environment, increase recycling and encourage local biodiversity.

9 Educational Material and Signage

A number of different educational material has been created and distributed by the SBWA in 2021. This includes guides, signs, and interpretive panels.

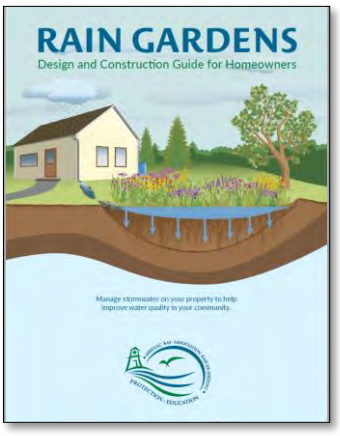
9.1 Boater Awareness Program

The Shediac Bay Marina (Shediac Bay Yacht Club) received Blue Flag certification in 2019. The Blue Flag certification requires that marina's display information relating to local ecosystems and environmental elements.

In 2021, this partnership was maintained by hosting the annual Beach Sweep event at the Shediac Bay Marina. This activity helps the marina reach their environmental and educational deliverables under the Blue Flag program.

9.2 Rain Garden Construction Guide for Home Owners

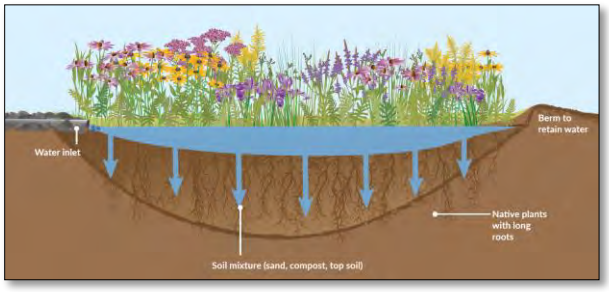
In 2020, a full bilingual step-by-step guide was produced by SBWA staff as well. It is 10 pages in each language and much more in depth compared to the mini-guide. The guide for home owners serves as an educational tool for home owners ready to start planning their own rain garden on their property. In 2021, Copies of the full guide have been distributed throughout the year, electronically and printed copies.



Rain Garden Construction Guide for Homeowners

9.3 Rain Garden Mini-Guide

A French fold styled mini-guide was produced by SBWA staff to provide a brief description of rain gardens compared to the rain garden construction guide. The mini-guide was produced in both French and English and contains background information on rain gardens, and the construction and maintenance.



Rain garden illustration

The guide provides a list of 30 plants that are suitable for rain gardens that are native to NB. Additional information on sunlight exposure requirements, benefits to pollinators, and tolerance to inundation and drought are indicated for each plant.

9.4 Signage and Interpretation Panel

New Signage was designed and produced in French for the Polyvalent LJR bioswale. The sign explains what rain gardens are and why they are important. This sign was installed in the spring of 2022.

For the commercial bioretention system at Maximum Signs & Time2Shine, a bilingual interpretation sign that explains the purpose of the bioswale was developed over the winter. The panel goes in depth on how bioswales are a vegetated basin that collects and treats stormwater. It also has a segment on the importance of clean water and how it can affect the surrounding areas. The sign is currently in production and will be installed in the spring.

LJR rain garden sign (left) and Commercial bioswale interpretive panel (right)

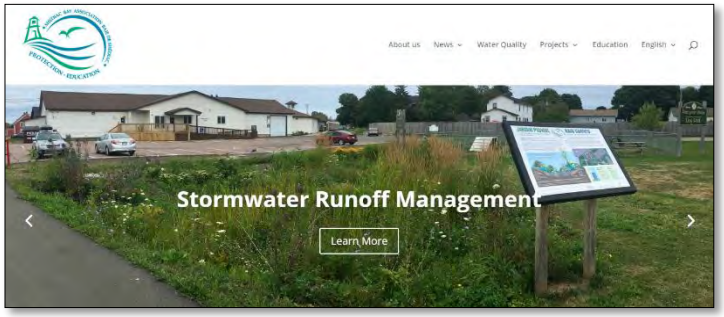
10 Media Outreach

10.1 Newsletter

During the 2021-2022 fiscal year, 3 bilingual newsletters were produced. Two have been released and the third will be published in early March. The newsletters display information and photos on the various projects that the SBWA has been doing in the year. The newsletter is now distributed electronically by email list and is available on our website and Facebook page.

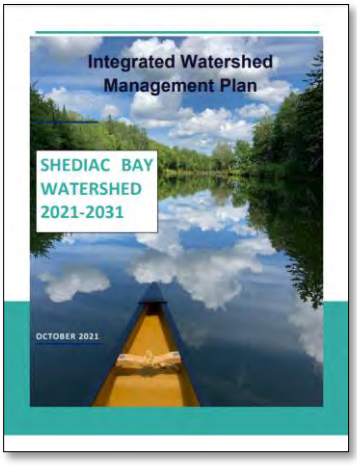
10.2 Socials Medias and Website

The SBWA is working to keep its website and social media up to date, posting photos and short description of activities and projects. The SBWA now has a dedicated employee who focuses on outreach and communications, and the design and production of educational materials.



Home page of the Shediac Bay Watershed Association website

11 Watershed Management Committee



In 2019, a working group was formed by the Department of Environment and Local Government of New Brunswick to develop a watershed management plan for the Shediac Bay watershed. The main purpose of the Shediac Bay Watershed Management Plan (WMP) is to address water quality issues in the watershed namely, anthropogenic or human sources of nutrients and bacteria. This will in turn, help protect and improve water quality at Parlee Beach. The plan was published in both official languages on October 22, 2021.

The Shediac Bay WMP is not regulatory in nature. The use of a partnership-based approach will therefore be critical for the successful implementation of the plan as it will encourage local ownership and participation. Therefore, the plan will apply an “Adaptive Management Approach”, through the creation of an implementation committee. The SBWA has been tasked with the coordination of the meetings of the implementation committee.