

# A Water Strategy for New Brunswick

Progress Report – December 2021

DEPARTMENT OF ENVIRONMENT AND LOCAL GOVERNMENT



**A Water Strategy For New Brunswick  
Progress Report 2021**

Published by:  
Department of Environment and Local Government

ISBN 978-1-4605-2980-5 (PDF: English)  
ISBN 978-1-4605-2981-2 (PDF: française)

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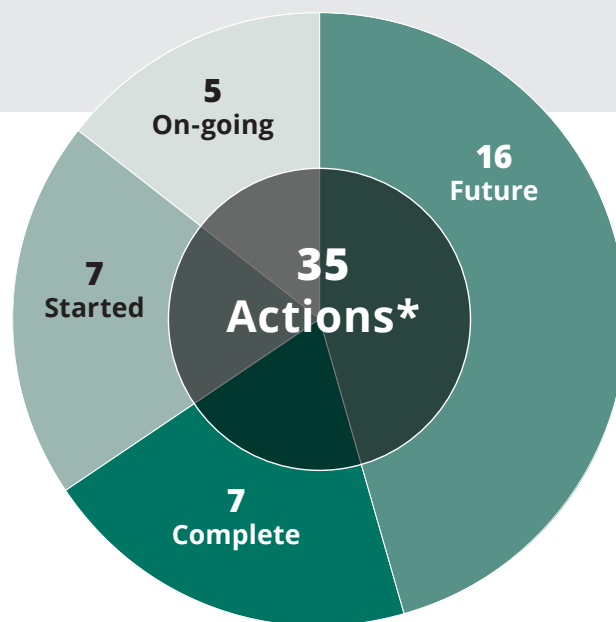
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# SUMMARY OF PROGRESS: 2018–2021



**Complete** actions have been finished.  
**Started** actions have been commenced and are moving towards completion.  
**On-going** actions have been initiated, but represent a continuous process.  
**Future** actions have not yet begun.

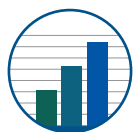
\* Some of the original 29 Actions have been subdivided to better track progress. See Section 02 for details.



Water quality monitoring at recreational beaches has been implemented and results are available online (2018).



New guidelines have been prepared to help ensure consistent decision-making and transparency in wetland protection (2020).



A report on the state of water quality in New Brunswick's lakes and rivers has been released (2019).



Three new on-line water quality data portals have been created to publicly share water data (2020).



The Shediac Bay Watershed Management Plan has been released (2021).



Over \$350,000 from the Environmental Trust Fund (ETF) has supported projects related to cyanobacteria detection, tracking and risk mitigation (2018-2020) with a further \$200,000 awarded during 2021.



New, more accurate wetland mapping for the province has been made available online (2020).



Over \$5 million in ETF funding has supported watershed groups, universities and other partners for projects related freshwater management (2018-2020) with a further \$2 million awarded during 2021.



*Drinking Water Quality in My Community* has been released, which describes drinking water quality in public water systems owned by local governments in New Brunswick (2021).

# INTRODUCTION

## NEW BRUNSWICK'S WATER STRATEGY

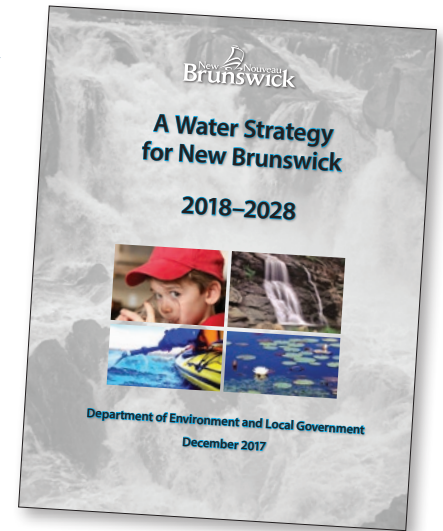
*A Water Strategy for New Brunswick 2018 – 2028* was released in December 2017 after a two-year collaborative effort involving government departments and other partners. Its purpose is to support the vision that *New Brunswick's water will be protected and managed to ensure its quality and availability for future generations.*

The strategy identifies a range of actions designed to help achieve this vision.

This progress report is organized according to the strategy's five goals:

- Goal 1: Understanding and sharing knowledge about water
- Goal 2: Protecting drinking water
- Goal 3: Preserving and enhancing ecosystem health
- Goal 4: Working cooperatively on water protection and management
- Goal 5: Implementing the strategy and reporting progress

The early years of this ten-year Strategy have seen the commencement and completion of a number of Actions. The Strategy continues to provide the foundation for protecting and sustainably managing New Brunswick's water resources now and into the future.





## DETAILED WATER STRATEGY PROGRESS REPORT

### GOAL 1: UNDERSTANDING AND SHARING KNOWLEDGE ABOUT WATER

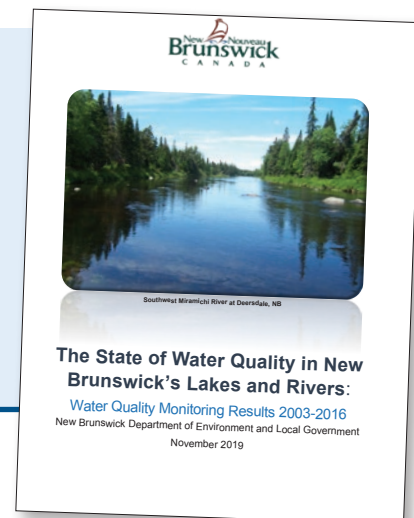
Timely and accurate water-related information is necessary to make wise decisions. This information should be made widely available, so it can be used to: measure the effectiveness of implemented actions; identify and respond to pressing issues such as climate change; include Indigenous traditional knowledge in relation to water resources and the importance of ecosystems in water-related initiatives; and identify new water-related actions that should be undertaken.

#### Action 1 *Issue an initial report on the current state of water quality in lakes and rivers in New Brunswick.*

##### COMPLETE

*The State of Water Quality in NB's Lakes and Rivers – Water Quality Results 2003-2016* was released in November of 2019. It summarizes water quality results collected from 55 river monitoring stations and 40 lakes. The results demonstrate that each year since 2003, 80 per cent or more of sampling stations have reported either excellent or good water quality according to the Canadian Council of Ministers of the Environment Water Quality Index.

The report describes the Department of Environment and Local Government's monitoring agreements with federal agencies and other partners and provides details of other surface water monitoring programs. A brief overview of issues that have been observed in the province's surface waters, including invasive species and algal blooms is also included.



## Action 2 *Maintain an on-going dialogue with First Nations in order to better understand and incorporate the Aboriginal perspective as it relates to water.*

### ONGOING

Prior to the COVID-19 pandemic, the Department of Environment and Local Government had been meeting regularly with the Wolastoqey Nation in New Brunswick and Mi'gmawe'l Tplu'taqnn Incorporated (MTI). At these meetings, updates were provided on departmental programming including water-related initiatives. In addition, the participation of MTI and the First Nation Communities of Fort Folly, Bouctouche and Indian Island was an integral component of the development of the Shediac Bay Watershed Management Plan.

The Department of Environment and Local Government has begun providing Indigenous reconciliation awareness training for its staff. Initial training was offered in 2019 and 2020. In addition, the Director of Forestry and Natural Resources with MTI spoke at an information session open to all Departmental staff in November 2019 regarding treaties with New Brunswick First Nations.

## Action 3 *Pursue a legislated requirement, similar to that contained in the Clean Air Act, for mandatory annual reporting by government on the state of New Brunswick's surface water and groundwater.*

### FUTURE

## Action 4 *Provide on-line access to the final reports of projects funded by the Environmental Trust Fund (ETF), so the results of these projects are more widely available.*

### ON-GOING

Approximately 1,100 ETF final reports for the years 2009 to 2014 have been forwarded to the New Brunswick Legislative Library where library staff continue to work towards adding them to the library's catalogue, making them publicly available online.

Entering large numbers of reports into the library's catalogue is time-consuming for library staff. Also, some reports do not meet the library's criteria for hosting documents (e.g. short, informal reports are not eligible). The Department of Environment and Local Government is therefore investigating options for making ETF reports publicly available via its own website.

## Action 5a *Prepare a standard, electronic data reporting template for use by First Nations, non-government organizations and industry when providing water monitoring results to the Department of Environment and Local Government.*

### COMPLETE

Data that has been collected by non-governmental organizations under the Department's volunteer lakes monitoring program can now be uploaded to the Department of Environment and Local Government's Water Quality Data Portal (see below) in a standard format. In addition, data collected by any organization can be captured automatically when samples are sent to New Brunswick's Research and Productivity Council (RPC) laboratory for analysis.

## Action 5b *Develop and implement a plan to establish a government-led, publicly accessible water data warehouse as part of New Brunswick's Open Data Policy.*

### COMPLETE

In 2016, an online data portal was launched containing river water quality data from 55 river monitoring stations around the province. In 2020, three new data portals were launched through the Department of Environment and Local Government's [website](#) to provide open access to monitoring results obtained from: 1) the volunteer lakes monitoring program; 2) water quality monitoring by watershed groups; and 3) lakes water quality monitoring led by the Department of Environment and Local Government.

## Action 6 *Expand the provincial groundwater and surface water monitoring networks to provide more complete information about New Brunswick's water resources including the effects of climate change.*

### FUTURE

## Action 7 *Continue implementation of water metering for industrial water users.*

### STARTED

A requirement for industries to measure and report on their water use is being phased in through the Department of Environment and Local Government's industrial approvals program under the *Clean Environment Act*. Beginning with large industries, this requirement will be expanded in the future to include other industrial water users. Currently, 75 out of 118 large industrial water users are equipped with water meters and report their water consumption to the Department of Environment and Local Government.

## Action 8 *Identify and implement options for on-line posting of water-related permits, approvals and associated conditions.*

### FUTURE





## GOAL 2: PROTECTING DRINKING WATER

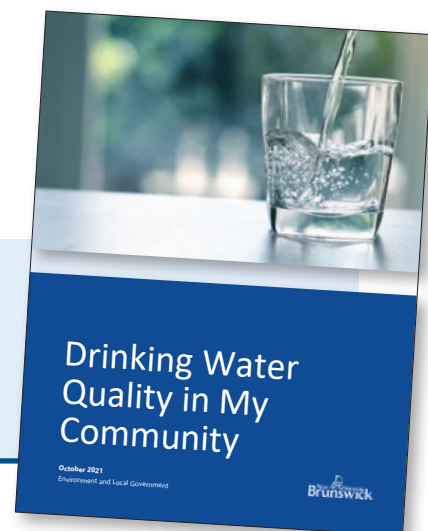
Potable water is a basic human need and all New Brunswickers should have access to safe, secure drinking water to meet their daily requirements.

**Action 9** *In collaboration with local governments, issue a report based on a comprehensive analysis of drinking water quality for all New Brunswick communities that have a public water supply system.*

### COMPLETE

*Drinking Quality Water in my Community* was released in October 2021. Water quality data is provided for 73 separate water systems serving 70 communities. The quality of water both before and after treatment is described.

This report will increase the public transparency of drinking water quality data and help government prioritize which water systems may need additional attention to ensure safe and reliable drinking water in the future.



**Action 10** *In collaboration with local governments, introduce a legislated requirement for public reporting of drinking water quality monitoring results.*

### FUTURE

**Action 11** *Complete the designation of New Brunswick's existing local government drinking water wellfields under the Wellfield Protected Area Designation Order - Clean Water Act.*

### STARTED

The wellfield protection program continues to be implemented, to protect drinking water safety. In addition to those already designated, the designation process for other wellfields has commenced and engagement activities are underway. It is anticipated that wellfields in Miramichi, Memramcook, Shediac, and Baker Brook will soon be designated under the *Wellfield Protected Area Designation Order*.

Several local governments are currently developing new drinking water wells that will subsequently become designated.

**Action 12** *Develop a coordinated plan to enhance protection and testing of private water wells through a combination of public education and strengthening of the Water Well Regulation (e.g. water well and geothermal well construction standards, set-backs, etc.), and the Potable Water Regulation under the Clean Water Act.*

### STARTED

New educational materials have been developed and are provided to home owners along with their well water test results.

**Action 13a** *Evaluate options for introducing regulatory requirements for the bottling and sale of potable water; to ensure that: public health is protected, these operations undergo inspections and monitoring, and potential effects on other water users are considered.*

### FUTURE

**Action 13b** *Evaluate options for introducing regulatory requirements for drinking water supplies with capacity below the current 50 m<sup>3</sup>/day requirement to ensure that: public health is protected, these operations undergo inspections, and monitoring and potential effects on other water users are considered.*

**FUTURE**

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**Action 14** *Evaluate options for extending source water protection to communal and provincially owned drinking water supplies.*

**FUTURE**

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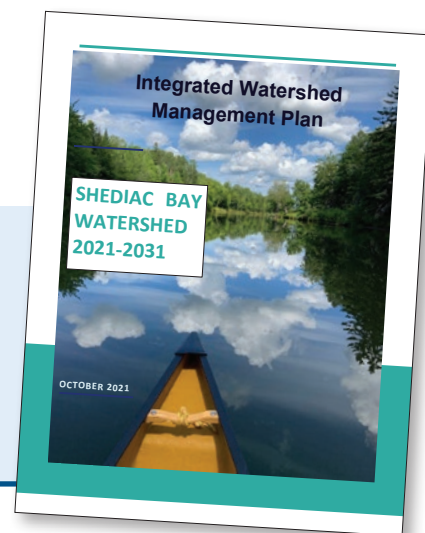
## GOAL 3: PRESERVING AND ENHANCING ECOSYSTEM HEALTH

Within each watershed, the needs of aquatic life such as fish, plants and other wildlife must be considered in water use decisions, to help ensure that ecosystem needs are respected. While meeting the primary goal of protecting ecosystem health, water must be managed in a way that recognizes its value to all New Brunswickers and First Nations and for social and economic uses. There is also a need to develop a renewed framework for watershed management in New Brunswick.

**Action 15** *Develop and implement a renewed approach to managing surface water quality on a watershed basis in light of the recommendations submitted to the Minister of Environment and Local Government by the Working Group on Watershed Management in December 2017.*

### STARTED

The development of a watershed management plan for the Shediac Bay watershed was identified as an important next step in the protection of water quality at Parlee Beach. *Integrated Watershed Management Plan – Shediac Bay Watershed 2021-2031* was released in October of 2021. This Plan will function as a long-term instrument for maintaining the good water quality at Parlee Beach, improving water quality within the watershed that drains toward Parlee Beach and will be used as a learning opportunity to help inform the next steps towards a provincial approach to watershed management.



**Action 16a** *Improve wetland protection and management in New Brunswick by releasing new, more accurate on-line wetland mapping using the most up-to-date data. The mapping will be improved on a continuous basis by incorporating the latest information as it becomes available in order to better identify wetland locations.*

### COMPLETE

A new, more accurate Watercourse and Wetland Alteration (WAWA) reference map for the province was released [online](#) in January 2020. It is now being used to support the Department of Environment and Local Government's wetland protection program under the *Watercourse and Wetland Alteration Regulation, Clean Water Act*.

**Action 16b** *Improve wetland protection and management in New Brunswick by releasing Implementation Guidelines to help ensure consistent decision-making and transparency when applying New Brunswick's Wetlands Conservation Policy (2002) and to assist applicants through the regulatory process.*

### COMPLETE

Updated guidelines and fact sheets have been made available on the Department of Environment and Local Government's wetlands [website](#) to help new Brunswickers understand how the Department protects the province's wetlands. This includes up-to-date information about the new Watercourse and Wetland Alteration (WAWA) Reference Map, and guidance detailing the wetland delineation and permitting process.

**Action 16c** *Improve wetland protection and management in New Brunswick by amending the Watercourse and Wetland Alteration Regulation under the Clean Water Act to extend protection to coastal Provincially Significant Wetlands less than 1 hectare in size.*

### FUTURE

## Action 17 *Establish a recreational water monitoring program for the provincial park system that includes water quality monitoring and signage that enables the public to make informed decisions and protects public health.*

### COMPLETE

A recreational water monitoring program for Parlee and Murray beaches began in 2017 and was expanded in 2018 to include a total of nine provincial park beaches.

Recreational water quality monitoring is currently undertaken by the Department of Environment and Local Government under the guidance of a monitoring protocol established by the Department of Health.

Beaches are sampled during the recreational swimming season, typically from May to mid-September or early October of each year. Results are compared to Health Canada's Guidelines for Recreational Water Quality to determine if the water is suitable for swimming or if a "No Swimming" advisory is issued.

Water quality status is posted [online](#) and also made available via signage placed at key locations on each beach.



## Action 18 *Prepare a policy aimed at the identification and maintenance of environmental flows (e-flows) so that water resources are not over-exploited and ecosystem health is preserved.*

### FUTURE

## Action 19 *Prepare a water conservation plan for the province that addresses water use by households and industry and includes water demand management, education and response to drought conditions.*

### STARTED

The Department of Environment and Local Government recently began working on developing a drought index for the Province and is considering how best to keep the public informed of drought conditions.



## Action 20 *Understand and evaluate the causes of algal blooms in order to develop and implement a comprehensive action plan that will reduce their occurrence over the long-term.*

### STARTED

New Brunswick's Environmental Trust Fund (ETF) provided over \$350,000 in 2018-2020 to universities and other non-governmental organizations in support of projects aimed at the cyanobacteria detection, tracking, and risk mitigation. An additional \$200,000 was awarded during 2021.

Efforts are underway to improve public awareness, including how to recognize cyanobacteria, how to report blooms to the Department of Environment and Local Government and what precautions may be necessary to protect themselves while enjoying recreational waters. For example, in 2020 the ETF supported the development of an educational video which has been posted on New Brunswick's Blue Green Algae [website](#). In the same year the Department of Environment and Local Government on behalf of the Department of Health, coordinated the development and installation of new Health Advisory signage at 16 key locations along the Saint John River, between Woodstock and Fredericton.

In early 2021, provincial, federal and municipal officials announced funding to upgrade Moncton's drinking water system by using technology to remove harmful toxins that blue-green algae can produce. The project involves researching and testing new and existing water treatment processes that will remove toxins, as well as selecting and implementing the chosen process to mitigate the increasing threat of blue-green algae.

The Department of Environment and Local Government is a member of the Natural Sciences and Engineering Research Council of Canada's "[Lake Pulse](#)" consortium which among other things, coordinates research into the causes of algal blooms.

## Action 21a *Assemble a multi-agency working group to review the regulation and management of on-site sewage disposal systems including design and construction standards, such as new technology to address nutrients.*

### FUTURE

## Action 21b *Assemble a multi-agency working group to review the regulation and management of on-site sewage disposal systems including options for ensuring that on-site sewage systems are properly functioning and maintained.*

### FUTURE

## Action 22 *Evaluate the pesticide permitting requirements for the agriculture industry under the Pesticides Control Act for non-domestic pesticides, and take appropriate action.*

### STARTED

Pesticide use in New Brunswick is being evaluated by the Standing Committee on Climate Change and Environmental Stewardship of the Legislative Assembly. The Committee released its [first report](#) in November 2021. The Department of Environment and Local Government has reconstituted the Interdepartmental Pesticides Advisory Board under the *Pesticides Control Act* to advise the Minister of Environment and Climate Change on matters related to pesticides.

## Action 23 *Develop a regulatory framework to designate coastal protected areas under the Clean Water Act.*

### FUTURE



## GOAL 4: WORKING COOPERATIVELY ON WATER PROTECTION AND MANAGEMENT

The Province recognizes that it has a leadership role in developing and enforcing water-related legislation; however, all New Brunswickers have a stake in the protection and management of water and all have responsibilities with respect to its safekeeping. Federal, provincial, and local governments, First Nations, stakeholders and the public must work cooperatively to better protect and manage New Brunswick's waters. Partnerships between the province and others should be further developed to achieve the province's water protection and management vision.

### Action 24 *Continue a collaborative dialogue between government and First Nations regarding permits, projects, initiatives and other topics of mutual interest.*

#### ON-GOING

The Department of Environment and Local Government continues to have discussions with First Nations about various issues related to water. In November 2020, the Department held a meeting with Tobique First Nation to discuss flood mapping and climate change. Following the meeting, the Department provided flood data and projections to the community. In collaboration with the Department of Aboriginal Affairs, the Department has engaged with First Nations and has supported First Nation communities through the Environmental Trust Fund, as they make plans to adapt to climate change.

The Department notifies First Nations of each project proposal registered under the *Environmental Impact Assessment (EIA) Regulation* and engages First Nations on individual EIA files if they request engagement. For EIA projects that trigger a duty to consult, the consultation is led by the Department of Aboriginal Affairs, and the procedural aspects of consultation are often the responsibility of the project proponent. An EIA workshop for Wolastoqey Nation in New Brunswick was held in December 2019.

### Action 25 *Work collaboratively with watershed groups, lake associations, First Nations, academia, and non-governmental organizations on data collection, education, stewardship and other water protection and management-related initiatives.*

#### ON-GOING

The work of watershed groups, lake associations, universities and other partners is supported through the province's Environmental Trust Fund (ETF). Between 2018 and 2020 the ETF provided over \$5 million to projects directly relevant to management, protection and improvement of freshwater in New Brunswick with an additional \$2 million awarded during 2021.

The working group formed to assist in the development of the Shediac Bay Watershed Management Plan (see Action 15) included representatives from First Nations, academia and non-governmental organizations.

### Action 26 *Develop and implement a public education and awareness plan aimed at ensuring New Brunswickers: understand the legislative framework that affects the use of water and how to comply with it; have the knowledge and opportunity to become involved in water management activities; and have sufficient information to make wise decisions about their use of water.*

#### FUTURE

### Action 27 *Pursue a partnership with the Geological Survey of Canada to develop groundwater availability mapping.*

#### FUTURE

# GOAL 5: IMPLEMENTING THE STRATEGY AND REPORTING PROGRESS

This 10-year Water Strategy identifies actions designed to respond to challenges facing the province. Progress in implementing the strategy will be measured, tracked and reported. The strategy must also remain current; a water strategy is not a static document or a result of a one-time effort. Therefore, it will be reviewed and revised in the future to ensure that it remains relevant.

## Action 28a *Identify key performance indicators for each action in this strategy as the actions are initiated.*

**FUTURE**

## Action 28b *Issue annual progress reports on the status of water strategy action items.*

**ON-GOING**

This first progress report was issued in December of 2021.

## Action 29 *Review the strategy within five years of its release to ensure its continued relevance and to identify potential new actions for consideration in the next version.*

**FUTURE**

