

# Working Together to Build a Water Strategy for New Brunswick

**Discussion Paper**



Prepared by  
Environment and Local Government  
February 2016

## Working Together

The Government of New Brunswick invites the public, stakeholders, and First Nations to participate in a discussion about water, how it's managed and protected, today and for years to come.

The objective of this discussion document is to provide an overview of New Brunswick's water resources and some of the programs and initiatives currently in place. It is intended to support and encourage the engagement of New Brunswickers during the development of a Water Strategy.

A Water Strategy is a document that identifies a vision of what New Brunswickers would like to see happen with our water in the future. It also includes goals to work towards and what actions we need to take to reach our goals.

The public, stakeholders and First Nations are encouraged to participate in the discussion around water so that our Water Strategy best reflects the views and priorities of New Brunswickers and the water resources within our province.

## Opportunities to Participate

There are three ways to participate in the discussion:

- Electronically Visit the [water strategy website](#) for more information and to complete the questionnaire. The website can be accessed at [www.gnb.ca/Environment](http://www.gnb.ca/Environment) by selecting water strategy under quick links.
- In writing Submit comments in writing until April 29, 2016 by:
  - Email: [waterstrategy-strategiedeleau@gnb.ca](mailto:waterstrategy-strategiedeleau@gnb.ca)
  - Mail: Department of Environment and Local Government, Policy and Planning Division, P.O. Box 6000, Fredericton, NB E3B 5H1.
- In person Attend one of the public open houses and workshops. You can register by emailing [waterstrategy-strategiedeleau@gnb.ca](mailto:waterstrategy-strategiedeleau@gnb.ca) or by calling 506-453-3700. Dates, times and locations are listed on the water strategy website.

The public comment period will close on April 29, 2016. Following this date, a "What We Heard" document will be prepared and made available to the public on the Department of Environment and Local Government (DELG) website. The process of drafting a water strategy will then begin.



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## Minister's Message

Water is a precious resource that needs to be managed and protected. That is why it is important that we work in partnership with the public, stakeholders, and First Nations communities to develop a Provincial Water Strategy.

The Water Strategy will be a comprehensive approach to managing New Brunswick's surface and groundwater resources to ensure quality and availability for people, nature and the economy, now and into the future.

This discussion paper has been developed to begin the conversation with New Brunswickers about water, its importance and its management.

We live in a province of tremendous natural beauty which is why our government takes its responsibility to protect the environment for the next generation very seriously.

I encourage all New Brunswickers to read the discussion paper and have their voices heard on the protection and management of this important resource by attending one of the public open houses being held across the province or submitting comments online or by mail.

Honourable Brian Kenny



## Introduction

Water is part of our New Brunswick culture, heritage and our sense of identity. It is also an essential part of Aboriginal traditions and practices. We use water for drinking, bathing, and recreation; it powers many of our industries, supports our agriculture and forestry sectors, sustains our ecosystems, and our tourism and fishing industries.

In order for New Brunswick's existing surface and groundwater water resources to provide us with abundant clean water now and into the future, they need to be protected and managed responsibly to ensure their long-term sustainability.

Government has recognized the importance of New Brunswick's water resources and has committed to the development of a water strategy for the province to provide a foundation for enhanced water resource protection and management into the future.

### Why We Need a New Brunswick Water Strategy

A water strategy will guide New Brunswick's approach to water management now and for many years to come. It will recognize areas of success and build on them, identify areas needing more attention and improvements, and result in better planning overall.

A water strategy will be based on a long-term vision and set of guiding principles. It will further identify long-term goals to work toward when making management and operational decisions and will identify what actions should be taken to achieve these goals.

The views, comments and opinions of New Brunswickers are critical to the success of a water strategy as we all have a part to play in how New Brunswick's waters are managed and the goals and actions should reflect the perspective of those who depend on them.

The establishment of a water strategy vision, guiding principles and goals is the first step and all New Brunswickers will have the opportunity to provide their input.



## Approach and Process to Get There

This discussion document and supporting information was developed as a means of finding out what, related to water, is most important to New Brunswickers.

Included you will find a description of New Brunswick's water resources, an overview of current water management programs, a draft vision, draft guiding principles, and draft goals as a starting point to encourage conversation. These will be revised and modified based on the feedback we receive through our engagement with New Brunswickers. In addition to the information contained in this document, a water strategy website has been developed along with a series of water-related fact sheets.

The public is invited to comment using a variety of ways including a questionnaire at the back of this document. Government will host a series of public open houses and stakeholder workshops around the province to further engage New Brunswickers in discussions about water, its importance and its management. Details regarding the dates, times and locations of the public workshops are listed on the [water strategy website](#). The website can be accessed at [www.gnb.ca/Environment](http://www.gnb.ca/Environment) by selecting water strategy under quick links.

Following the end of the engagement process in April 2016, the Department of Environment and Local Government (DELG) will create a "What We Heard" document and a proposed water strategy for New Brunswick to present to government.

## Engagement with First Nations

Government recognizes that water is important to Aboriginal people and is committed to engaging New Brunswick's First Nations communities in the discussion. Information will be sent to the leadership of these communities, and an invitation to discuss water-related topics of interest will be extended. Community members will be invited to submit comments, complete the questionnaire and participate in workshop discussions.



## Work to Date

As a starting point, DELG recently held two workshops. One workshop was held with people who work in DELG water-related programs. Another was held with other government departments and agencies where some of their initiatives integrate with water programs. This was to identify what, in relation to water, may require focused attention.

A draft vision, draft guiding principles and draft goals for the development of a New Brunswick water strategy have been prepared. These are presented in this document for your consideration and input. Based on feedback from the public, stakeholders and First Nations, DELG will review and revise them so they reflect the perspective of New Brunswickers.

### Questions to Consider

Please take a few minutes to consider the following three questions.

1. When you think about water in general, what comes to mind as being most important?

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2. What are your biggest concerns related to water in New Brunswick?

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3. What do you feel should be the water-related priority areas for government?

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*These questions are included in the questionnaire which is available online and at the back of this document.*



## Background

In recent years, government has undertaken a number of initiatives towards improving water protection and management. Some of these commitments include: the continued designation and protection of municipal drinking water sources; the development of a Flood Risk Reduction Strategy; significant investments in municipal water and wastewater infrastructure projects; and the establishment of a new ice observation system for River Watch to better forecast flooding during the spring melt.

### New Brunswick's Water Resources

We are fortunate to have an abundant supply of water in New Brunswick, including approximately 60,000 kilometres of streams and rivers, 2,500 lakes and 5,000 kilometres of coastline. Furthermore, approximately 14 percent of the provincial land base is covered by wetlands.

However, water is not always available where and when we need it. The amount of water available is influenced by a number of factors such as precipitation, snow melt and groundwater flow. In addition, the impacts of climate change have the potential to affect our water.

New Brunswick can be divided up into 13 major watersheds (see Figure 1). A watershed consists of three major components (water, wetlands and land) and is made up of many watercourses and the land surrounding them, all of which drain into a specific point at a lower elevation.

The quality of surface water (for example streams, rivers or lakes) determines what it can be used for. Water that is acceptable for some uses may not be suitable for others. For example, the quality of water in a lake or river may be suitable for swimming but not for drinking.

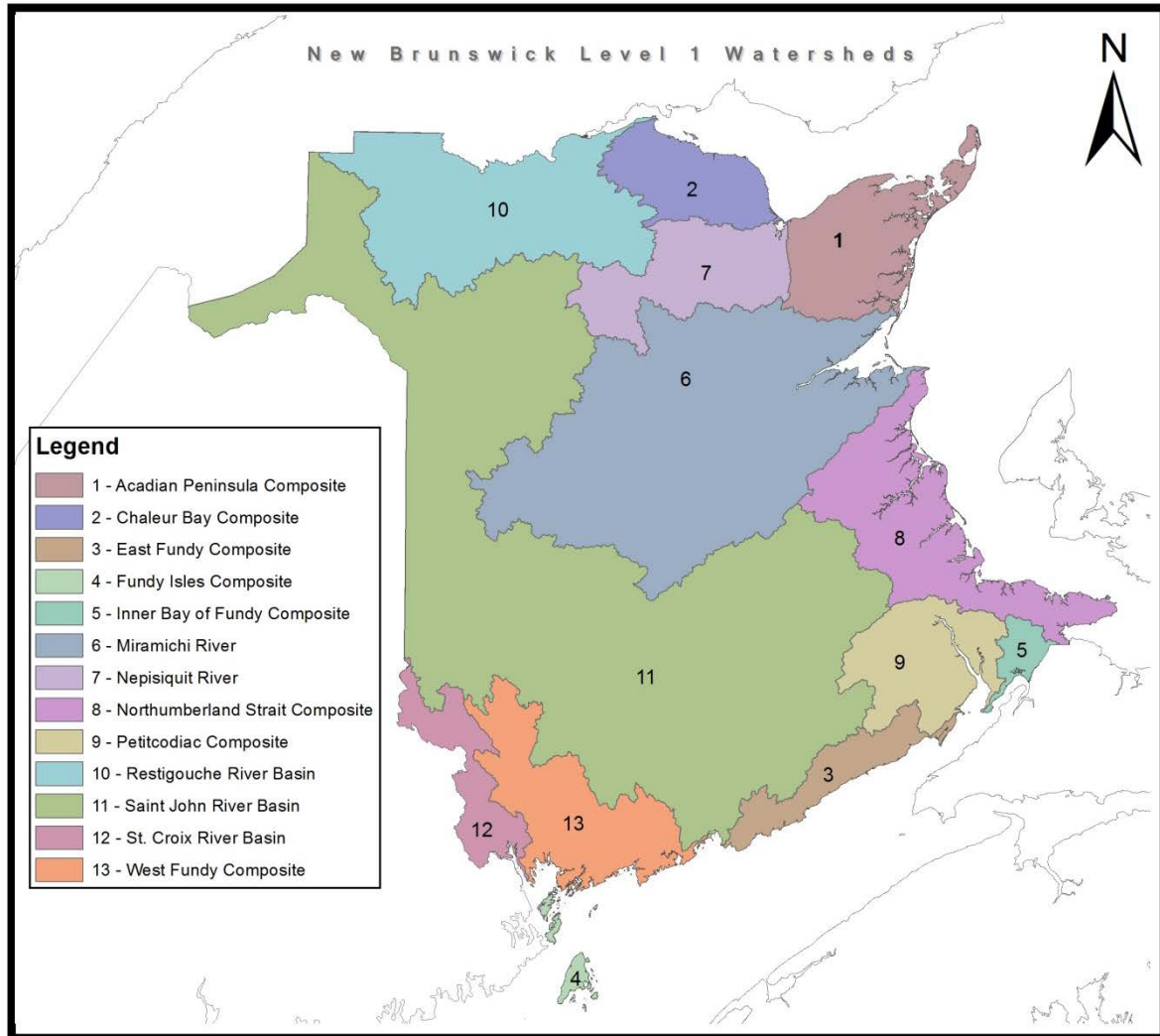
Water quality monitoring programs are carried out to determine the water quality of the water sources, to determine if there have been any changes in water quality and if so, why? Water quality information is gathered from a variety of sources, including monitoring stations around the province, reports from large industrial users, and results of private well water testing, among others. All this monitoring information is used on a regular basis to help inform decisions about water management.





## New Brunswick's Watersheds

Question: Can you identify which watershed you live in?



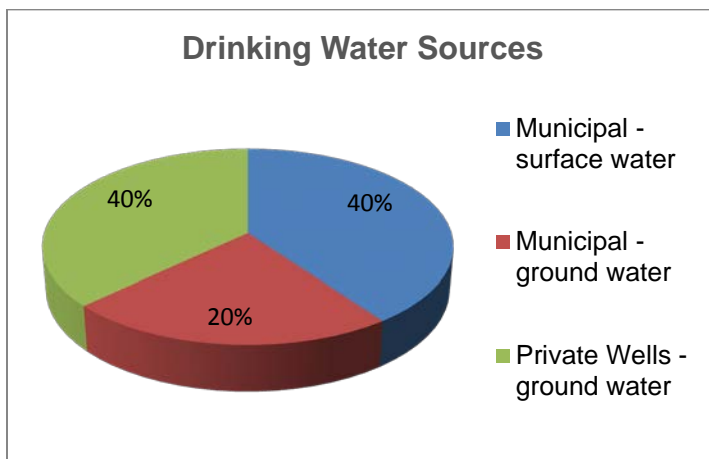
**Figure 1. New Brunswick's 13 major watersheds.**

New Brunswick partners with Environment Canada through the *Canada-New Brunswick Water Quality Monitoring Agreement* to undertake long-term water quality monitoring and data collection for water resource management. This initiative results in water quality information from monitoring stations around the province being made available online to the public, government agencies, industry and the scientific community. This information is available at: <https://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=En&n=CB97D13E-1>.

## Drinking Water

Drinking water in New Brunswick is generally of high quality. There are, however instances of localized poor water quality due to a variety of reasons including local geology.

Today, over 300,000 (40 percent) New Brunswickers get their drinking water from their municipality (a city, town or village) using surface water (rivers and lakes) and another 173,000 (20 percent) from municipal wells that use groundwater. The remaining 280,000 (40 percent) New Brunswickers get their water from groundwater using private wells. There are over 100,000 private wells in New Brunswick and each year there are approximately 2,000 water wells drilled or deepened.



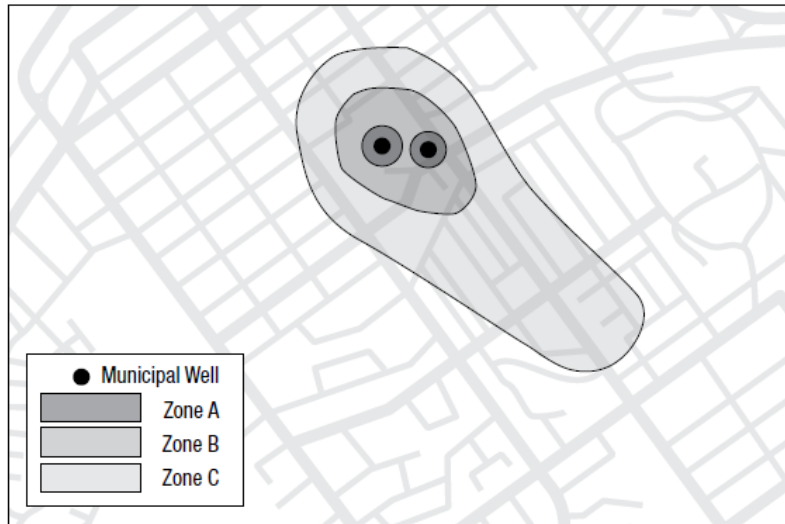
The municipal water systems in the province undergo upgrades on their infrastructure (for example, water mains) or treatment systems on a regular basis.

## Drinking Water Protection

New Brunswick's Wellfield Protection Program has been recognized as being one of the strongest drinking water protection programs in the country. To protect municipal groundwater supplies in New Brunswick, government designates the recharge areas for these water wells as protected areas under the *Clean Water Act* and protects them by restricting land use activities and chemical storage.

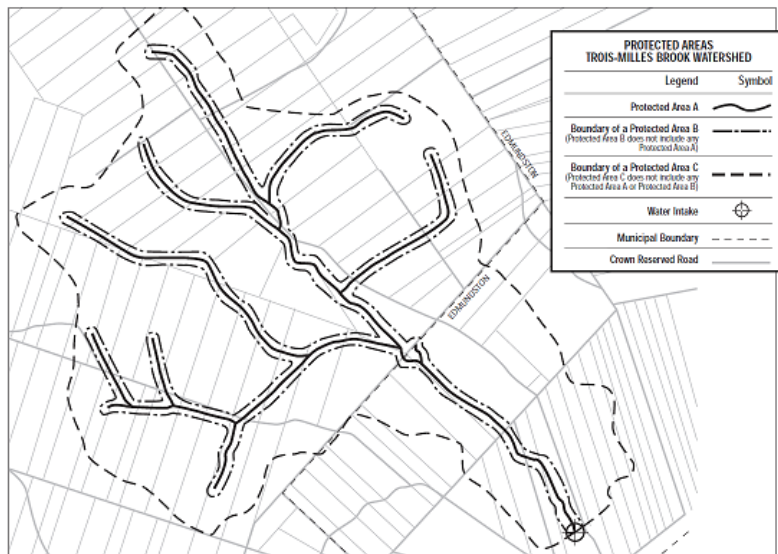


### Sample Illustration of a Wellfield Protected Area



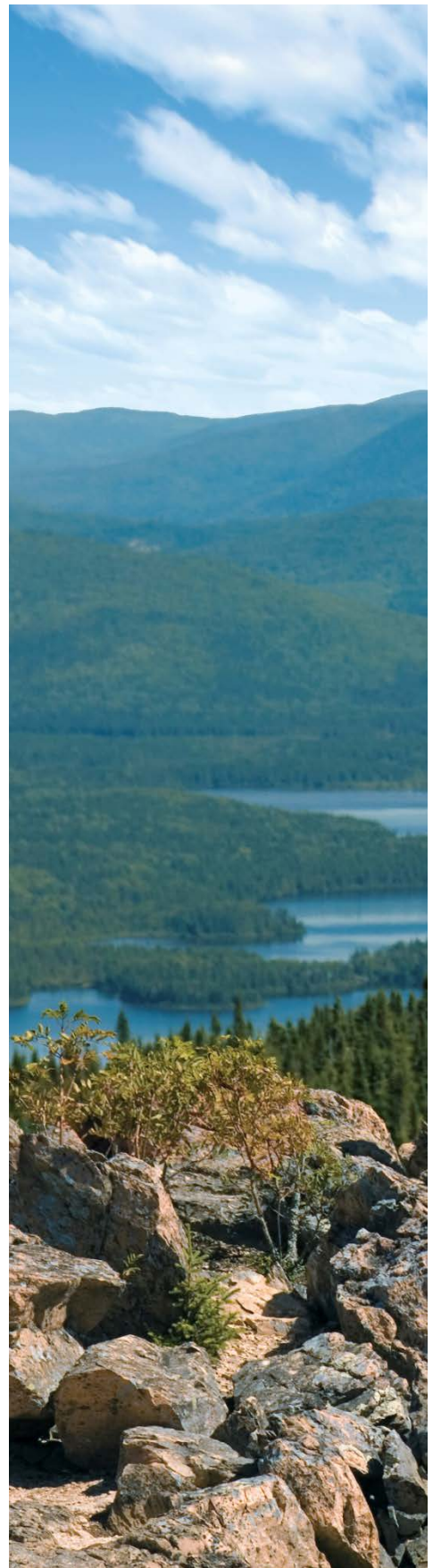
**Figure 2. A sample Wellfield Protect Area**

Similarly, the Watershed Protection Program protects the watershed area used to supply municipal drinking water from land use activities that may cause contamination within the watershed protected area.



**Figure 3. A sample Watershed Protected Area**

The *Water Well Regulation* outlines construction standards for water wells to help protect them from contamination. This includes private wells that provide water to a home. All new well construction, the deepening of existing water wells and well



decommissioning must be carried out by a licensed water well contractor and licensed well driller. Water well drillers are also responsible for tagging the well by welding a metal plate having a well identification number to the side of the well casing.

## Water Management and Protection in New Brunswick

The management and protection of water is a shared responsibility between various provincial government departments, municipalities, businesses, industry, and individuals. Each of us has a role to play.

As residents of this province, we need to be aware of how much water we use, practice water conservation, respect the environment, and ensure we have the proper permits and approvals before working in and around watercourses, wetlands, and protected areas.

DELG regulates how water is managed and has a number of laws and programs in place to do so. The *Clean Water Act* and the *Clean Environment Act* are the two overarching pieces of legislation that guide the management of water. (See Appendix A for a complete list and brief description of these Acts and Regulations.)

For example, a ***Watercourse and Wetland Alteration (WAWA) Permit*** is required any time work is done in or within 30 metres of a watercourse or wetland. DELG has been working with stakeholders in recent years to develop a long-term wetlands strategy that seeks to develop a more balanced approach between environmental conservation and economic activities. This exercise includes the development of improved wetlands mapping so that the public, stakeholders and developers will have a better understanding of New Brunswick's important wetland resources and can use this information early in the planning stages when proposing to develop near wetlands.

**Environmental Impact Assessment (EIA)** is a process where the environmental impacts that could result from a proposed project are identified and assessed at an early stage in the planning process. Many projects have the potential to have adverse effects on water for different reasons and this process



works to ensure impacts are avoided or mitigated before the impact happens. EIA therefore, represents a proactive, preventative approach to environmental management and protection.

A number of ***Approvals to Construct and Operate*** and permits relating to water are issued for things like water quality or wastewater, before the activities are allowed to proceed. This is done to ensure the activity on the site is environmentally acceptable.

The ***Water Classification Regulation*** was intended to provide a framework for watershed management in New Brunswick based on the intended use of the river or lake. DELG was advised that deficiencies within this regulation prevented its use to classify surface waters and the program was put on hold. Furthermore, DELG received legal advice that suggested attempting to fix this regulation would equate to an entire rewrite of that part of the legislation. DELG remains committed to working with the public, First Nations, stakeholders and industry to advance integrated watershed-based planning and management across the province. The development of a water strategy is just the first step in a discussion about water and how integrated watershed management can be improved.

In the meantime, community based watershed groups continue to receive support from the Environmental Trust Fund that enables them, and DELG, to better understand the water quality status of lakes and rivers in New Brunswick. This partnership serves to better inform decision-makers with respect to regulated activities within the respective watersheds. In addition, DELG has ensured that the principle of managing water quality on a watershed basis has been embedded in water-related programs that DELG has oversight for, including ***Approvals to Construct and Operate***.

The DELG works in cooperation with many other government departments, such as the Department of Health, the Department of Natural Resources, the Emergency Measures Organization and others on water-related programs and initiatives.

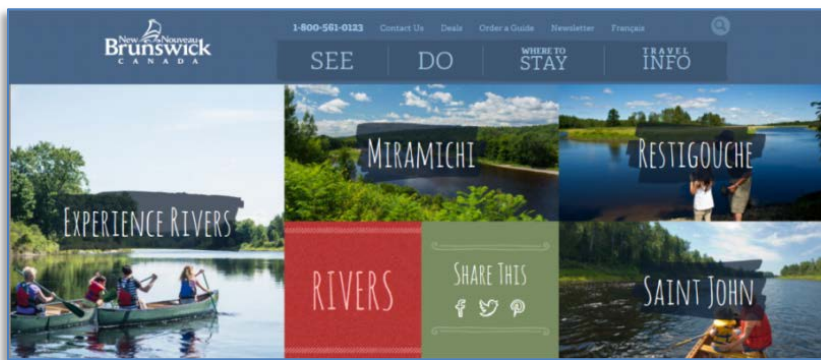


## Other Water-Related Facts and Uses

There are many different water uses, several of which have been referenced in this document. Here are a few examples of other uses and some water-related facts:

Energy generation - NB Power's hydro stations have the capacity to meet 20 percent of New Brunswick's energy needs.

Tourism - In 2015, there were 71 "see and do" items related to water listed on the Tourism New Brunswick website.



Fishing - The Department of Natural Resources issues over 66,000 angling licenses per year.

Agriculture – The Department of Agriculture, Aquaculture and Fisheries requires agricultural producers to implement Nutrient Management Plans for the protection of both potable and non-potable water sources.

## Water Related Opportunities and Challenges

As previously mentioned, water is a natural resource which is needed for drinking, bathing, and recreation; it powers many of our industries, supports our agriculture and forestry sectors, sustains our ecosystems, as well as our tourism and fishing industries.

Water management opportunities could include developing a better understanding of our water resources and using this information to support sustainable economic development; implementing improved long-term wetland management developed through our work with stakeholders; and evaluating opportunities to share more water-related information with the public. A good example of information sharing is the Air Quality



Portal recently launched by DELG which now provides real-time air quality information from air monitoring stations across the province. DELG is also working toward the launch of a water quality data portal to be released in the spring of 2016.

New Brunswick, like many other provinces in Canada, is facing some water-related challenges. These challenges vary by region and include areas of poor water quality, a need for improved integrated watershed management, blue-green algae in some lakes, localized flooding, and a changing climate.

As you complete the questionnaire at the end of this document or submit comments online please think about how we can improve water protection and management and continue working on the challenges facing New Brunswick's water resources together. We want your ideas!



# Water Strategy Framework

The following outlines the draft vision, draft guiding principles and draft goals that resulted from the first two workshops. What do you think they should be? What would you change?

## Draft Vision

**New Brunswick's water is managed and protected to ensure its quality and availability for people, for nature, and for the economy, now and in the future.**

## Draft Guiding Principles

<b>Conservation and Accountability</b>	<b>Water will be recognized as a valuable resource with conservation and responsible water use encouraged.</b>
<b>Sustainability</b>	<b>Goals will be informed by science and take a long-term view of preserving healthy ecosystems.</b>
<b>Stewardship</b>	<b>Consideration will be given to how everyone plays a role in watershed protection and management.</b>
<b>Partnerships and Innovation</b>	<b>Opportunities for partnerships and innovative water management will be pursued.</b>
<b>Transparency and Communication</b>	<b>Progress will be reported publicly and more water-related information will be shared.</b>





## Draft Goals

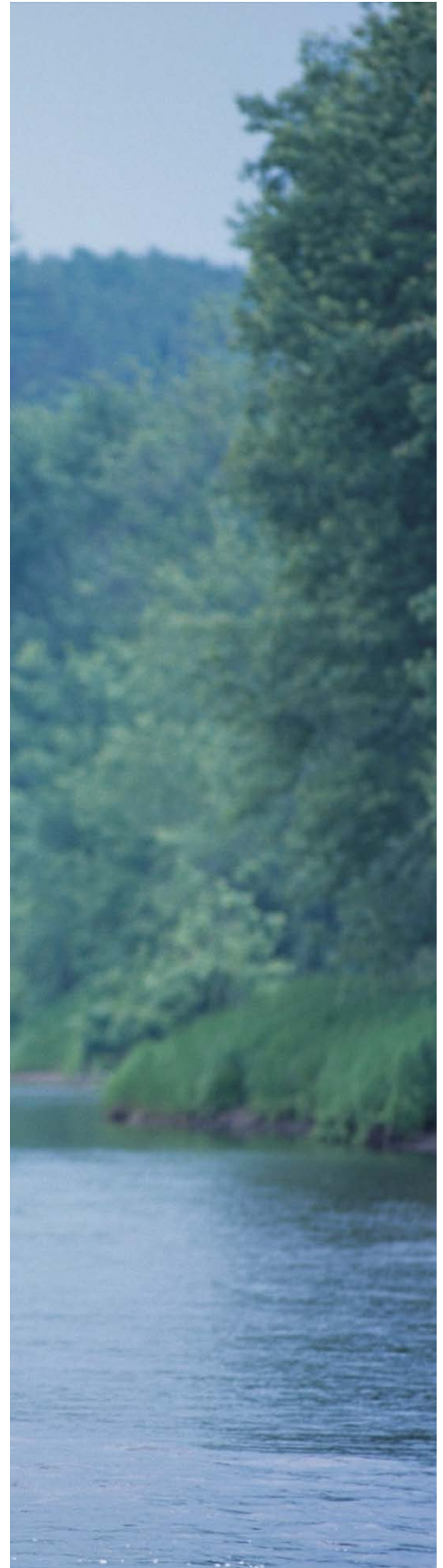
The following draft goals are what government would like to achieve and will be working towards. In other words, these goals will define the water related priority action areas for government in the coming years.

### Goal 1: Our Water Resources

Goal	Outcome
To better understand our surface and ground water resources.	More comprehensive information available to inform decision-makers, stakeholders and the general public about the quality and quantity of NB's water.

### Goal 2: Management and Use

Goal	Outcome
To manage and use water responsibly by protecting drinking water and eco-system health while allowing economic opportunities.	Solutions for drinking water quality and quantity challenges, a better understanding of eco-system requirements, and development that is sustainable in that it maintains a balance between human needs, the environment and the economy.



### Goal 3: Shared Responsibility

Goal	Outcome
To share the responsibility for the management of water and build relationships.	Increased water management partnerships, a greater sense of responsibility on the part of all consumers (large or small), and public awareness of water-related management tools and conservation options.

### Goal 4: Reporting

Goal	Outcome
To make more water-related information available to the public and report on the progress of water strategy actions.	Greater amount of water-related information accessible to the public and providing regular updates on the progress of water strategy actions areas.



## Questions to Consider

Please take a few minutes to consider the following three questions.

4. Do the draft vision, guiding principles and goals capture what's important to you? Think back to the list of priority areas you identified earlier.

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5. What's missing?

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6. What action items (things we need to do to achieve our goals) would you like to see included in a water strategy for the province?

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*These questions are included in the questionnaire which is available online and at the back of this document.*

## Next Steps

With the release of this consultation document, the next step will be to collect, review and consider all the input received in writing and through the consultation open houses/workshops. A "What We Heard" document that summarizes the input received will then be prepared and made available online. Subsequent to this, a water strategy will be prepared and posted on DELG's website for comment.

As a final step, a proposed water strategy will be prepared and presented to government for consideration.



## Water-Related Information Available

### Fact Sheets

A number of water-related fact sheets are available on the [water strategy website](#). The website can be accessed at [www.gnb.ca/Environment](http://www.gnb.ca/Environment) by selecting water strategy under quick links.

- Managing Our Water Resources
- Drinking Water
- Programs and Approvals
- Water Use and Conservation
- Monitoring and Reporting
- Geo NB
- Blue Green Algae
- Wetlands
- Climate Change

### Documents and Webpages

Other online water-related resources include:

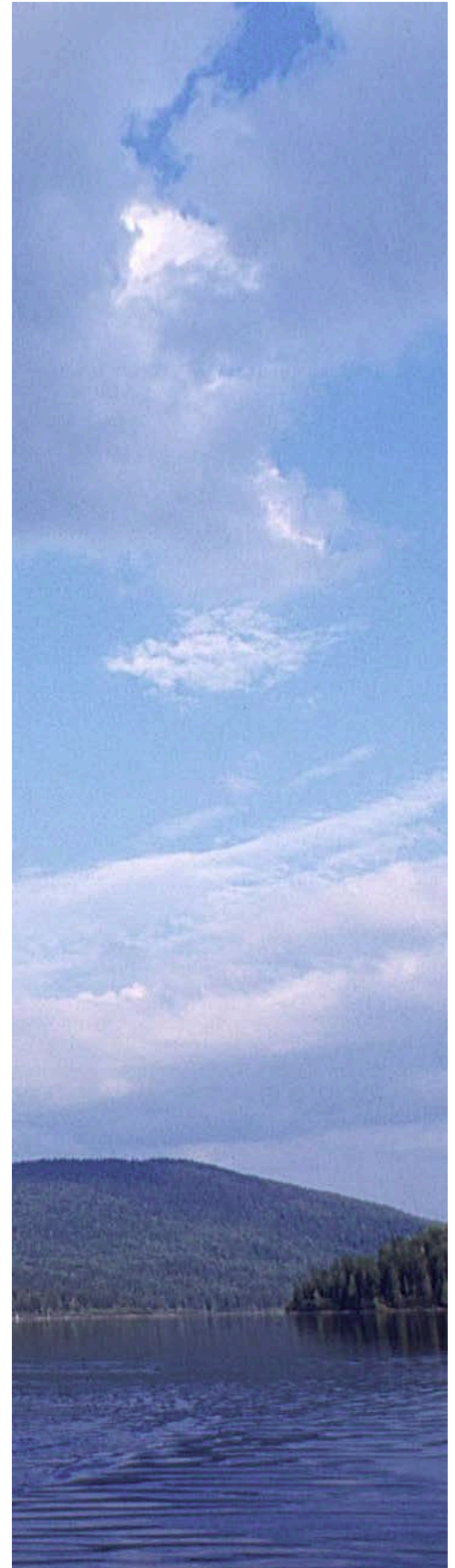
- Groundwater Chemistry Atlas (1994-2007)
- Online Well Log System (OWLS)
- Flood History Database
- Water Quantity Information (rainfall, snowfall, stream flow and groundwater)
- GeoNB
- Canada's Water InfoStream
- River Ice Manual

## Contact Information

Environment and Local Government  
Policy & Planning,  
PO Box 6000, Fredericton, NB E3B 5H1  
Telephone: 506-453-3700  
Fax: 506-453-3676

Email: [waterstrategy-strategiedeleau@gnb.ca](mailto:waterstrategy-strategiedeleau@gnb.ca)

[www.gnb.ca/Environment](http://www.gnb.ca/Environment)



## Appendix A

### **New Brunswick Legislation Protecting Water**

The *Clean Water Act* and the *Clean Environment Act* are key statutes administered by the Department of Environment and Local Government (DELG). These *Acts* provide broad powers to the Minister of Environment and Local Government by requiring anyone discharging a contaminant (which is very broadly defined and essentially includes anything which is in excess of the natural constituents of the environment) to obtain approval from the Minister. The Minister has authority to issue orders, which provides a means of controlling or stopping the discharge of contaminants, or requiring the clean-up of contaminated sites. Further detail on each Act is provided below.

#### **Clean Water Act**

The purpose of the *Act* is to control, reduce or eliminate the release of contaminants or waste into or upon the water (including wastewater treatment facilities or waterworks).

#### **Water Well Regulation**

The regulation ensures that water wells are constructed in a manner that does not compromise water quality and the environment. It is a critical component to providing safe potable water to the citizens of New Brunswick. A water well driller's report (well log) outlining construction details must be submitted to DELG and a copy provided to the well owner.

#### **Potable Water Regulation**

The regulation requires, among other things, that all new or re-drilled (deepened) wells undergo testing for water quality.

#### **Wellfield Protected Area Designation Order**

This instrument ensures the ongoing protection of municipal wellfields by providing appropriate standards for land use surrounding designated ground water recharge areas. Zones are identified which encompass the recharge area associated with and surrounding a wellfield. Zone A lies closest to the well head and requires the greatest protection. Zone C is located farthest from the well head and requires less protection.

#### **Watershed Protected Area Designation Order**

This instrument ensures the ongoing protection of surface watersheds that serve as public drinking water supplies. A designation order defines protected zones. Zone 'A' is defined as any watercourse, including lakes, streams, ponds, rivers or brooks designated as protected, within the watershed area. Zone 'B', also called the 75-meter setback zone, is an area within a horizontal distance of 75 metres from the bank of watercourses. Zone 'C' is defined as the remaining area within the watershed, outside the 75-meter setback but within the watershed boundary. Standards may vary between each zone of protection.

### ***Watercourse and Wetland Alteration Regulation***

This regulation protects provincial streams, rivers, wetlands, and lakes from work or ground disturbance within 30 metres of these features. The Regulation is administered using two types of permits: a provisional permit that deals with alterations (activities) that pose a potentially low level of environmental risk and can typically be carried out with a standard set of conditions of approval; and a standard permit, which is intended for projects of a more significant nature which represent a higher risk to the environment. These projects require a more comprehensive review and the establishment of site/project specific conditions of approval.

### **Clean Environment Act**

The purpose of the *Act* is to control, reduce or eliminate the release of contaminants or waste into or upon the environment (which is defined as air, water or soil, capturing both above and below surface level).

### **Water Quality Regulation**

The regulation requires owners or operators of a source of water contaminants to obtain an approval for the construction, operation, or modification of the source.

### **Environmental Impact Assessment Regulation**

Environmental Impact Assessment (EIA) is a process through which the environmental impacts potentially resulting from a proposed project are identified and assessed early in the planning process. EIA identifies steps that can be taken to avoid significant negative environmental impacts or reduce them to acceptable levels before they occur.

### **Petroleum Product Storage and Handling Regulation**

The intent of the regulation is to protect the environment from petroleum contamination. This is accomplished by requiring new petroleum storage tank systems and modifications to existing systems to be approved. These approvals ensure that the proposed arrangement and design of the petroleum storage tank system be installed and/or modified by conforming to the latest edition of the *Construction Standards for Installation and Removal of Petroleum Storage Systems* prior to commencement of work. Furthermore, petroleum storage sites having a total storage capacity of 2,000 L or more, and marinas having a total site capacity of 200 L or more, must register all storage tanks and shall maintain an annual Petroleum Storage Site Licence with DELG. This greatly reduces the risk of petroleum contamination.

## Appendix B

### QUESTIONNAIRE - WE WANT YOUR IDEAS

From what perspective will you be answering these questions (Please check one)?

- As an individual
- As a business (please specify the kind of business) \_\_\_\_\_
- As a representative of a community group or organization (please specify position and organization) \_\_\_\_\_
- As a water professional (e.g. hydrogeologist, water/septage hauler, etc.) (please specify) \_\_\_\_\_
- Other (please specify) \_\_\_\_\_

Which municipality do you live in? \_\_\_\_\_

Which watershed do you live in? \_\_\_\_\_

Where does your water come from?

- Municipal Source
- Drilled or dug well
- Other (please specify) \_\_\_\_\_

### Questions to Consider

Please take a few minutes to consider the following questions:

1. When you think about water in general, what comes to mind as being most important?

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Return completed questionnaires to:

[waterstrategy-strategiedeleau@gnb.ca](mailto:waterstrategy-strategiedeleau@gnb.ca)

Environment and Local Government, Policy & Planning, PO Box 6000,  
Fredericton, NB E3B 5H1