



THE MUNICIPALITY OF THE COUNTY OF  
LA MUNICIPALITÉ DU COMTÉ DE  
**RICHMOND**

## **Source Water Protection Advisory Committee**

June 3, 2026

6:00 p.m.

Virtual

### **Agenda**

1. Call to Order
2. Approval of Agenda
3. Review of Minutes - March 4, 2026
4. Review of Updated Terms of Reference
5. Review of Updated Source Water Protection Plan
6. Guest: Mike Allen, Nova Scotia Environment and Climate Change,  
Watershed Planner
7. Next Meeting Date
8. Adjournment



## Source Water Protection Advisory Committee

March 4, 2026

- Location:** Virtual
- Present:** Councillor Brian Marchand, Randy Hussey, Appointed Member, Tristan Martel, Public Works Technologist,
- Also Present:** Shelley David, Municipal Clerk
- Regrets:** Dorothy Booher, Appointed Member

1. Call to order  
Randy Hussey called the meeting to order at 6:04 p.m.
2. Virtual Meeting Procedures  
For information only.
3. Items Added to the Agenda (Approval of Agenda)  
Moved by Councillor Brian Marchand, seconded by Tristan Martel, that the agenda be approved.  
Motion carried.
4. Review of the Minutes – November 19, 2025  
Moved by Councillor Brian Marchand, seconded by Tristan Martel, that the meeting minutes for November 19, 2025, be adopted.  
Motion carried.
5. Review Updated Terms of Reference  
Moved by Councillor Brian Marchand, seconded by Tristan Martel, that the Source Water Protection Advisory Committee approve the changes to the Terms of Reference.  
Motion carried.
6. Review of the Source Water Protection Plan  
Moved by Councillor Brian Marchand, seconded by Tristan Martel, that the Source Water Protection Advisory Committee approve the amendments to the updated Source Water Protection Plan.  
Motion carried.



7. Committee Scope

It was the consensus of the Source Water Protection Advisory Committee to invite Tanya Hunter, Environment Inspector, Nova Scotia, Environment and Climate Change, to the next meeting.

8. 2025 Drought Conditions – Discussions

A discussion ensued on the drought conditions experienced in 2025.

9. Next meeting date:

June 3, 2026, at 6:00 p.m.

10. Adjournment

There being no further business, the chair adjourned the meeting at 7:03 p.m.

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Chairperson

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Municipal Clerk



## **1. Mandate**

- 1.1** These Terms of Reference establish the Richmond Source Water Protection (SWP) Advisory Committee as an advisory group to the Richmond Water Utility/Municipality of Richmond County
- 1.2** The committee will review and make recommendations on activities affecting the SWP area as requested by the Utility/Municipality, and communities within the watersheds.

## **2. Goals and Objectives**

- 2.1** To develop a source water protection plan and provide the Utility/Municipality and Council with advice on matters related to land-use issues, water quality, levels and flows within the source water protection area.
- 2.2** Provide advice to the Utility/Municipality that will attempt to satisfy the water quality and quantity concerns of all stakeholder groups.
- 2.3** Provide advice to the Utility/Municipality about the sources of contamination in the source water supply area.
- 2.4** Provide advice to the Utility/Municipality about management options available.
- 2.5** Provide advice to the Utility/Municipality about the success of the protection plan.

## **3. Membership**

- 3.1** Membership will consist of:
  - a) At least two members of the public
  - b) A technical representative of the Utility/Municipality
  - c) One member of Council

- 3.2** The Chair and vice-chair of the Committee are appointed annually by the membership at the meeting closest to November 1<sup>st</sup>. The Chair and vice-chair will serve on the Committee for at least two years, after which the Utility/Municipality may choose an alternate for their respective position on a yearly basis at the meeting closest to [November 1<sup>st</sup>April 1<sup>st</sup>](#).
- 3.3** The Chair will act as the Committee spokesperson.
- 3.4** Where possible, membership should be composed of representatives of all stakeholders in the source water protection area.
- 3.5** Local members from the agricultural and forestry sectors may be invited to participate in committee meetings from time to time.

## **4. Roles and Responsibilities of the Committee**

- 4.1** Advise the Utility on water quality and quantity concerns of all stakeholder groups.
- 4.2** Identify sources of contamination in the source water supply area.
- 4.3** Highlight the success of the protection plan.
- 4.4** Advise on education programs about source water protection for local residents, land owners and other users of the SWP area lands.

## **5. Committee Meetings**

- 5.1** The Committee may from time to time request individuals or groups to make representation to the committee on matters affecting the SWP area.
- 5.2** The Committee may call for the input of other landowners in the source water supply area from time to time.
- 5.3** The Committee will meet as necessary, but no less than three times a year.
- 5.4** The Committee will review and comment on water quality and quantity monitoring programs and other studies related to the SWP area. All water quality information available from the Utility shall be made available to the Committee.
- 5.5** The Committee will endeavour to conduct business by consensus, but should the Committee be unable to attain consensual agreement on an issue, then

the Utility/Municipality may appoint a facilitator. Should this process fail, voting may be necessary. All motions require support from at least two-thirds majority of the members present. Two members will constitute a quorum.

**5.6** The Utility/Municipality may amend the Terms of Reference.

## 6. Reporting

**6.1** The committee will review and comment on an annual report prepared by the Utility. The report will be shared publicly via the Municipal website.

## 7. Related Documentation

- [EDPC Planning By-Laws](#)
- [Municipal By-Laws](#)
- [Municipal Policies](#)

## 8. Version Log

| Version Number | Amendment Description | Council Approval | Date       |
|----------------|-----------------------|------------------|------------|
| 1              | Reviewed              | Yes              | 11-19-2025 |
|                |                       |                  |            |
|                |                       |                  |            |
|                |                       |                  |            |



# Municipality of the County of Richmond - Water Utility Source Water Protection Plan

Revision Date: ~~June~~February 25, 2026

## 1.0 Introduction

The Municipality of the County of Richmond Water Utility operates two distinct water supply and distribution systems - Louisdale/Evanston/Whiteside Water System and the Arichat/Petit De Grat Water System. The Louisdale/Evanston/Whiteside system has approximately 500 connections and the Arichat/Petit De Grat system has approximately 600 connections. The Louisdale/Evanston/Whiteside Water System employs a groundwater supply in Louisdale and the Arichat/Petit De Grat Water System makes use of a surface water supply which is Babin's Lake in Arichat.

The Richmond Water Utility is required to file a Source Water Protection Plan with the Nova Scotia Department of Environment and Labour as part of Approvals to Operate these two water systems. This document describes various aspects of the proposed plan.

## 2.0 Source Water Protection Advisory Committee

The Municipality of the County of Richmond Council has endorsed the formation of Water Supply Protection Advisory Committees for the water systems. This committee is composed of members of Municipal Council and Staff, members from the serviced communities at large and other individuals as required. The goals and objectives of the committee are the following:

1. To develop and maintain a source water protection plan and provide the Utility/Municipality and Council with advice on matters related to land-use issues, water quality, levels and flows within the source water protection area.
2. Provide advice to the Utility/Municipality:
  - a. that will attempt to satisfy the water quality and quantity concerns of all stakeholder groups.
  - b. about the sources of contamination in the source water supply area.
  - c. about management options available.
  - d. about the success of the protection plan.
- ~~3. Provide advice to the Utility/Municipality about the sources of contamination in the source water supply area.~~
- ~~4. Provide advice to the Utility/Municipality about management options available.~~
- ~~5. Provide advice to the Utility/Municipality about the success of the protection plan.~~

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This committee meets a minimum of 3 times per year or as required.

### **3.0 Delineation of Boundaries of the Supply Area**

The extent of the boundaries for each of the two water systems have been delineated. These limits are shown on the attached Figures 1 and 2 for Louisdale and Arichat, respectively. [More detailed maps can be found in Appendix A.](#)



# Municipality of the County of Richmond - Water Utility Source Water Protection Plan

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Figure 1 - Louisdale/Evanston/Whiteside Water Supply Area:

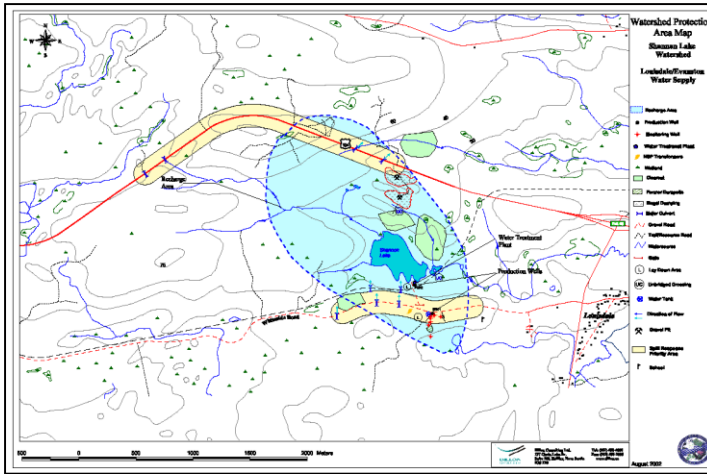
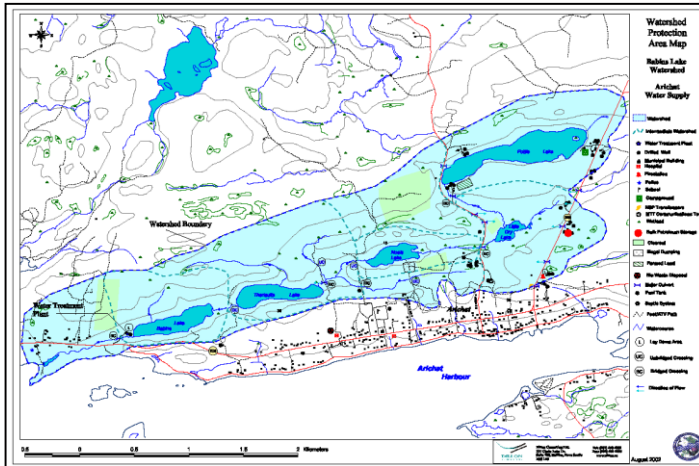


Figure 2 - Arichat/Petit de Grat Water Supply Area:





## **Municipality of the County of Richmond - Water Utility Source Water Protection Plan**

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### **4.0 Identification of Potential Threats to Water Supplies**

#### **4.1 Louisdale/Evanston/Whiteside Water Supply Land Use Activity**

Existing land uses within the Louisdale/Evanston/Whiteside Water Supply Area include:

- *clear cutting*
- *passive recreation*
- *gravel mining*
- *all-terrain vehicle recreation*
- *transportation*

There are currently no year round residences located within the Watershed Protection Zone. A high school and skating arena are located directly east of the Watershed Protection Zone boundary on Whiteside Road. A large fuel storage tank is located above ground at the rear of the school.

Transportation corridors within the Watershed Protection Area include a portion of the 104 Highway between exits 45 and 46, and Whiteside Road. Nova Scotia Power Inc. cables also run along Whiteside Road. The Department of Transportation currently places no limits on the shipment of materials through the watershed area, along the 104 Highway and/or Whiteside Road. They do not carry out the spraying of pesticides along the transportation corridors within the Watershed Protection Zone. Salting of Whiteside Road extends only as far as the new high school, after which sanding is used to the limit of pavement in Whiteside.

According to the Department of Natural Resources (DNR), they currently do not spray pesticides within the Watershed Protection Zone. However, private industries/owners may do so without the consent of DNR. The most common type of forest spray used is the herbicide known as Vision.

#### **4.2 Arichat/Petit de Grat Water Supply Land Use Activity**

Current land uses within or near the Babin's Lake Watershed Area include:

- *clear cutting*
- *bulk fuel storage*
- ~~steel~~ *Metal fabrication*
- *water treatment*
- *all-terrain vehicle recreation*
- *single unit dwellings*



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- *residential homes and property*
- *campground*
- *farming*
- *passive recreation*
- *transportation*

Transportation corridors within the watershed area include a portion of Highway 320 between Arichat and D'Escousse, and a portion of Highway 206 between Arichat and West Arichat. The Department of Transportation and Public Works (NSTPW) currently places no limits on the shipment of materials through the watershed area, along the 320 or 206 Highways. They do not carry out the spraying of pesticides along the transportation corridors within the watershed area.

The Nova Scotia Department of Natural Resources (DNR) currently does not spray pesticides within the watershed area, however, private industries/owners may do so without the consent of DNR. The most common type of forest spray currently used is the herbicide known as Vision.

### **4.3 Potential sources of contamination**

There are a number of activities in these water supply areas that have the potential to generate contaminants. These include, but are not limited to:

- *abandoned wells*
- *dump sites*
- *transportation of bulk fuels*
- *sedimentation*
- *production / other wells*
- *water supply and treatment plants / incorrect chemical dosing*
- *construction activities*
- *vandalism*
- *above ground or underground storage tanks*
- *~~Metal~~ fabrication activities*
- *fertilizer / pesticide / manure storage / handling / application*
- *major highways and/or railroads*
- *road salt use*
- *septic systems*



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### **4.4 Potential Emergency Events in the Water Supply Areas**

#### ***4.4.1 Hazardous Material Spill***

Spills of fuel oils or chemicals represent a serious threat to the water supplies. Spills can occur from the following sources:

- Spills from heavy equipment or bulk transport equipment passing through the water supply areas;
- Spills along the recreational pathways within the watershed area, especially in the vicinity of stream crossings;
- Chemical and/or fuel spills at the water treatment plant site;
- Furnace oil spills from private residences within the watershed area;
- Runoff from septic systems within the watershed area; and
- Runoff and/or spills from pesticide and fertilizer use within the watershed area.

The fate of spill material is directly related to the presence/absence of viable pathways to transport contaminants. Factors such as topography, soil and vegetative cover, proximity of streams and watercourses, and the presence of other conduits such as ditches, culverts and wells may not only affect the extent of impact but may cause acceleration of the process.

Where hazardous materials are involved, fires and/or explosions may also cause contaminants to become airborne and be deposited within the water supply area.

#### ***4.4.2 Illegal Dumping***

There are several areas within these water supply areas that are currently used as sites for illicit dumping of waste. This practice could lead to contamination of the ground and surface water supply within the watershed and should be discouraged by the municipality. [See Appendix A for known illegal dumping locations.](#)

#### ***4.4.3 Natural Disasters***

There are a number of natural disasters which could threaten the watershed areas, as well as the water storage and distribution system. These include:

- **Hurricanes:** High winds and flooding can damage equipment and infrastructure, including power supply, communications and transportation systems. Washed out roads and/or downed power lines can prevent staff and resources from accessing parts of the water system, while flooding can cause sediment laden surface water to



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contaminate the water supply, especially where wellheads become submerged. The Lennox Passage Bridge is a key element of the local transportation system which may limit access to/from Isle Madame. Any damage to the bridge during a storm would be critical in an emergency response situation.

- **Lightning**: Lightning can damage power supply, communication and control systems.
- **Forest Fires**: Forest fires can damage water system infrastructure, and can also create a large demand on the supply system for firefighting purposes.
- **Flooding**: Flooding at the production wells can create problems where sediment laden water contaminates the water supply. Flooding may also cause well casings and water system piping to bend and become damaged and may result in cross contamination.
- **Extreme Weather**: Extreme heat and cold, along with ice storms, can cause structural damage to storage and distribution elements of the water system, and may also interfere with communications and power supply.

### **5.0 Recommended Methods to Protect the Water Supplies**

#### **5.1 Acquisition of Lands in the Waters Supply Areas**

##### **5.1.1 Lands in the Louisdale/Evanston/Whiteside Water Supply Area**

The Municipal Planning Strategy (MPS) for the Louisdale/Evanston/Whiteside Water Supply Area indicates that the Municipality should endeavor to purchase lands within certain zones around the two existing production wells. Specifically, the MPS states the following:

~~*"POLICY 1.4: It shall be the policy of Council to have a policy to acquire all lands which are either partially or completely located within 100-day time-of-travel zone based on calculations completed by Dillon Consultants."*~~

~~*"POLICY 1.5 It shall be the policy of Council to rezone any parcels acquired in accordance with Policy 1.4 to the Wellhead Protection (WHP) zone."*~~

*"Policy 4-84: Council shall continue to explore the purchase and acquisition of land within the Shannon Lake Watershed to protect this resource for the long-term future of the municipality."*



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It is expected the Municipality will pursue purchase of these lands.

### 5.1.2 Lands in the Arichat/Petit de Grat Water Supply Area

It is not expected that the Municipality will pursue purchase of lands within the entire Arichat/Petit de Grat Water Supply Area. This area is so large and there are so many properties in this area that purchase of these lands is simply not feasible.

## 5.2 Land Use By-Laws in the Water Supply Areas

Both municipal water supplies have Municipal Planning Strategy and associated Land-Use By-Laws in effect. The following gives some general requirements for each water supply.

### 5.2.1 Louisdale/Evanston/Whiteside Water Supply Land-Use By-Law

The Shannon Lake Wellhead Protection Area Land-Use By-Law includes wellhead protection zones and watershed protection zones based on the contents of Dillon’s Groundwater Protection Study (September, 2001).

#### Source Water Protection 1 (WP1) Zone

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Permitted Uses - The following uses shall be permitted in Source Water Protection 1 (WP1) Zone subject to the requirements of this By-law:

- a) Government Uses
- b) Parks and Playgrounds
- c) Public Recreation
- d) Trails and Conservation
- e) Water Access

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Permitted Uses by Development Agreement - The following uses shall be considered in the Source Water Protection 1 (WP1) Zone by Development Agreement, subject to the applicable policies in the Municipal Planning Strategy:

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- a) Energy Generation Systems – MPS Plicy 5-56

#### Source Water Protection 2 (WP2) Zone

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Permitted Uses - The following uses shall be permitted in Source Water Protection 2 (WP2) Zone subject to the requirements of this By-law:

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- a) Forestry uses – excluding buildings or structures
- b) Dwelling – up to 1 dwelling unit per lot

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- c) Government Uses
- d) Parks and Playgrounds
- e) Public Recreation – excluding buildings or structures
- f) Trails and Conservation
- g) Water Access

Permitted Uses by Development Agreement - The following uses shall be considered in the Source Water Protection 2 (WP2) Zone by Development Agreement, subject to the applicable policies in the Municipal Planning Strategy:

- a) Energy Generation Systems – MPS Policy 5-56

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Land uses permitted in the Wellhead Protection Zone (Zones 1 and 2) are limited to:

- ~~Developments related to water supply and waterworks and implementation of the groundwater management plan and protection strategy.~~

Land uses permitted in the Watershed Protection Zone (Zone 3 or Recharge Area) include:

- ~~uses permitted in the wellhead protection zone~~
- ~~forestry uses (excluding buildings)~~
- ~~existing seasonal dwellings~~
- ~~single unit dwellings~~
- ~~passive recreational uses excluding buildings~~

Oil storage tanks larger than 25 litres are not to be permitted in the Watershed Protection Zone.

## **5.2.2 Arichat/Petit de Grat Water Supply Land-Use By-Law**

The following is outlined in the Isle Madame Land Use By-Law:

### Uses Permitted Conditionally

1. The following uses will be permitted subject to a development agreement being negotiated between the municipality and the developer:
  - Campgrounds
  - Multiple unit dwellings and grouped dwellings

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### Permitted Uses

2. The following uses shall be permitted in a Water Supply (O-3) zone:
  - Agriculture uses

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- All uses permitted in the Conservation Open Space (O-2) zone
- Dwellings, single detached
- Dwellings, single detached with an apartment unit
- Existing campground identified on the land use map
- Existing residential dwellings
- Logging and silviculture uses
- Mobile homes
- Recreational trails
- Water supply treatment and distribution uses

### General Requirements

3. The requirements in the following table shall apply to all uses permitted in a Water Supply (O3) zone:

Minimum Lot Requirements

|                | Lot Area     | Lot Frontage | Front Yard | Rear Yard | Side Yard |
|----------------|--------------|--------------|------------|-----------|-----------|
| Water & Sewer  | 10,000sq.ft  | 20 ft.       | 20 ft.     | 20 ft.    | 10 ft.    |
| Water & Septic | 100,000sq.ft | 20 ft.       | 20 ft.     | 20 ft.    | 10 ft.    |
| Well & Septic  | 100,000sq.ft | 20 ft.       | 20 ft.     | 20 ft.    | 10 ft.    |

- Minimum lot sizes and some elements relating to configuration are also dependent upon approval by the Provincial Department of Environment and in some instances, by the Provincial Department of Transportation and Public Works. In cases of discrepancy, the more stringent requirements shall apply.

### Special Requirements: Separation Distances

4. No development permit shall be issued for any structure within 50 feet of the edge of a lake or watercourse within the Water Supply (O-3) zone, with the exception of water treatment and distribution uses.

### Special Requirements: Treed Buffer

5. A treed buffer of 25 feet (7.6 metres) shall be maintained around the edge of the lakes and watercourses which form the watershed of Babins Lake, as identified by the Water Supply (O-3) zone. Paths, walking trails and recreational trails may be cleared within the treed buffer.

### Special Requirements: Keeping of Farm Animals

6. Where farm animals are kept in a Water Supply (O-3) zone, the following restrictions shall apply:

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- Such animals shall be kept in an enclosed area, which is surrounded by wire or fencing;
- no part of such an enclosed area or building used for housing farm animals shall be located within 50 feet (12.2 metres) of a neighbouring residence; and
- the animals present in an agricultural operation shall total no more than one and one-half animal units (as defined in Part 5, Section 16) for each acre of land or part thereof enclosed for such purposes).

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### Special Requirements: Storage of Manure and Pesticides

7. Where manure or pesticides are stored within the Water Supply (O-3) zone, the following restrictions shall apply:

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- Manure storage facilities shall be constructed in compliance with the Department of Agriculture and Marketing "Guidelines for the Management and Use of Animal Manure in Nova Scotia" or other guidelines or regulations which may replace them. Confirmation of this compliance will be required from the Department of Agriculture and Marketing; and
- pesticide storage facilities shall be constructed in compliance with whatever provincial guidelines may exist at the time. Confirmation of this compliance will be required from the provincial department or agency which is responsible for administering these guidelines.

### Special Requirements: Multiple Units and/or Grouped Dwellings

8. Where multiple unit dwellings and/or grouped dwellings are permitted within the Water Supply (O-3) zone, the following restrictions shall apply:

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- The development is serviced by central municipal water and sewer services;
- The installation of underground or above ground heating oil storage tanks shall be prohibited; and
- Oil storage tanks larger than 25 litres shall not be permitted,

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~~The Isle Madame Land Use By Law states that structures cannot be located within 7.6 m of any watercourse except for structures relating to water treatment and distribution uses, fishery related uses, boat building and yacht club related uses. It also states that the minimum setback of an intensive livestock operation from a watercourse shall be 61.0 m.~~

~~All but one property around Babin's Lake has been zoned O-3, or 'Water Supply Zone'. Permitted uses within the Water Supply Zone include:~~

- ~~• agricultural uses~~
- ~~• boardwalks or nature interpretation stands~~
- ~~• conservation projects~~
- ~~• walking or hiking trails~~



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- ~~• dwellings, single detached~~
- ~~• dwellings, single detached with an apartment unit~~
- ~~• existing campground~~
- ~~• existing residential dwellings~~
- ~~• logging and silviculture uses~~
- ~~• mobile homes~~
- ~~• recreational trails~~
- ~~• water supply treatment and distribution uses~~

~~Within this zone, structures may not be placed within 15 m of the edge of a lake or watercourse, with the exception of water treatment and distribution uses. Tree buffer zones of 7.6 m are required to be maintained around the edge of the lakes and watercourses which form the Babin's Lake watershed system. Special requirements also apply to the keeping of farm animals and storage of pesticides within the watershed area.~~

~~There are a number of properties within the watershed area that are not controlled under the O-3 designation. For example, the Water Supply Zone runs through the brook between Babin's Lake and Theriaults Lake and this area has been zoned VO, or Village Recreation Open Space. Uses permitted on this land include:~~

- ~~• boardwalks~~
- ~~• canteens~~
- ~~• hiking and walking trails~~
- ~~• information stands~~
- ~~• marina facilities~~
- ~~• recreational uses~~
- ~~• yacht clubs~~

~~Further, there are other areas within the watershed boundaries that are zoned Village Low Density Residential (VR-1) and Village Mixed Use (VMU). Uses permitted in these zones are as follows:~~

### **VR-1:**

- ~~• agricultural uses~~
- ~~• boarding house~~
- ~~• churches and cemeteries~~
- ~~• community centres and halls~~
- ~~• cottages and cottage establishments~~
- ~~• day care centres~~
- ~~• dwellings, single detached~~
- ~~• dwellings, single detached with apartment unit~~
- ~~• dwellings, semi-detached and duplex~~



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- ~~• dwellings, townhouse or row-house~~
- ~~• mobile homes~~
- ~~• recreational uses~~
- ~~• wharves and boathouses~~

### **VMU:**

- ~~• all uses permitted within the VR 1-Zone~~
- ~~• appliance sales and service establishments~~
- ~~• art galleries~~
- ~~• automobile repair shops~~
- ~~• automobile sales and services~~
- ~~• automobile service centres~~
- ~~• automobile repair shops~~
- ~~• bakeries~~
- ~~• banks and other financial institutions~~
- ~~• bed and breakfast establishments~~
- ~~• beverage rooms and lounges~~
- ~~• boat, trailer and snowmobile sales and rentals~~
- ~~• building supply and lumber outlets~~
- ~~• catering shops~~
- ~~• commercial greenhouses~~
- ~~• custom workshops (including woodworking/carpentry shops)~~
- ~~• convenience stores~~
- ~~• drug stores~~
- ~~• entertainment centres~~
- ~~• farmers markets~~
- ~~• food and grocery stores~~
- ~~• fitness centres~~
- ~~• funeral homes~~
- ~~• garden and nursery sales and supplies~~
- ~~• hotels, motels, or tourist inns and associated uses~~
- ~~• ice cream shops~~
- ~~• libraries~~
- ~~• liquor stores~~
- ~~• marina facilities~~
- ~~• museums~~
- ~~• parking lots~~
- ~~• personal service establishments~~
- ~~• photographic studios~~
- ~~• post offices~~
- ~~• printing establishments~~
- ~~• private clubs professional or business offices~~



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- ~~• recycling depots~~
- ~~• residential dwellings located in the same building as a commercial use~~
- ~~• restaurants and take-out restaurants~~
- ~~• retail stores~~
- ~~• stand-alone automated banking/teller machines~~
- ~~• taxi and bus stands~~
- ~~• television or radio studios~~
- ~~• tourist information centres and information kiosks~~
- ~~• upholstery shops veterinary clinics~~
- ~~• video rental shops wholesale establishments~~
- ~~• yacht clubs~~
- ~~• fish processing uses and light industrial fabrication and sales uses~~

The Municipal Planning Strategy for Isle Madame states the following regarding this inconsistency between the Water Supply (O-3) Zone and the actual boundary of the water supply area:

*"The current Water Supply (O-3) zone has been identified based on mapping of the watershed provided by the Department of Environment and an analysis of topographic mapping. Comments from the Department of Environment indicate that no analysis has been done to confirm the boundary of the watershed. If such an analysis is done in the future to provide definitive boundaries for the watershed, the Water Supply (O-3) zone should be adjusted to reflect the revised watershed boundaries."*

*Policy 4.11: It shall be the intention of Council to adjust the Water Supply (O-3) Zone based on a thorough review of the boundary of the Babin's Lake watershed if such a review is undertaken."*

It is expected that this issue will be referred to the Municipality's Planning Advisory Committee for review and appropriate action.

### **5.3 Emergency Response Planning**

The Municipality has drafted detailed Emergency Response Plans to enable the Municipal Staff to prepare for and react to foreseeable emergency incidents that might threaten the



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water supply areas. These Plans are available for viewing and are updated on an annual basis. An Executive Summary for these plans is provided at the end of this document.

### **5.4 Provincial Water Supply Designation**

#### **5.4.1 Louisdale/Evanston/Whiteside Water Supply Area Designation**

The Municipal Planning Strategy for the Louisdale/Evanston/Whiteside Water Supply Area indicates that the Municipality should work towards the designation of the area as a Public Water Supply Area under the Environment Act. The following related policies were adopted:

*Policy 4-83: Council shall collaborate with the Province of Nova Scotia to designate the lands around the wellhead for the municipal water supply for the communities of Louisdale, Evanston, and Whiteside as a "Protected Water Supply Area." Specifically, this area should encompass the groundwater draw down area for the Production Well #1 and Production Well #2 as delineated by Dillon Consultants (Groundwater Protection Study Louisdale Wellfield – Louisdale, Nova Scotia, 2001) and the watershed for Shannon Lake.*

*POLICY 1.0: It shall be the policy of Council to encourage the Province through the use of Section 106 of the Environment Act to designate the lands located around the wellhead for the municipal water supply for the communities of Louisdale, Evanston and Whiteside area as a "Protected Water Supply Area" specifically lands which encompass the groundwater draw down area for Production Well #1 (PW1) and Production Well #2 (PW2) as delineated by Dillon Consultants and the watershed for Shannon Lake.*

*POLICY 1.1 It shall be the Policy of Council to encourage the Province when designating the lands located around the wellhead for the municipal water supply for the communities of Louisdale, Evanston and Whiteside area as a "Protected Water Supply Area" in accordance with Policy 1.0 that they give consideration to the wording proposed as Appendix "A" to this Municipal Planning Strategy.*

*POLICY 1.2 It shall be the policy of Council to designate the lands located around the wellhead for the municipal water supply for the communities of Louisdale, Evanston and Whiteside area as "Drinking Water Protection" as identified in the Generalized Future Land Use Map (GFLUM), Map 3. These lands will encompass the groundwater draw down area for Production Well #1 (PW1) and Production Well #2 (PW2) as delineated by Dillon Consultants, the watershed for Shannon Lake as well as all properties either within or partially within the watershed and groundwater supply areas.*



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### **5.4.2 Arichat/Petit de Grat Water Supply Area Designation**

There are currently no plans to work towards a Public Water Supply designation under the Environment Act for the Arichat/Petit de Grat Water Supply. However, the Water Supply Protection Advisory Committee will likely examine this option.

### **5.5 Education**

The Municipality recognizes that education is a key component of any Source Water Protection Plan. There are three key areas that education is currently carried out:

- a) *water supply boundary signs*
- b) *letters to property owners in the water supply areas*
- c) *water supply and watershed protection information displayed on the municipal website*

Municipal Staff has posted signs at the boundaries of the two water supply areas where these boundaries intersect with transportation corridors. These signs indicate the boundary of a water supply area and provide emergency contact information should a person witness an incident that may threaten the water supply. The layout of these signs is depicted in Figure 3 below.



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**Figure 3 - Water Supply Sign:**



In addition to posted signs, Municipal Staff has sent letters to owners of properties located within the water supply areas. These letters serve to remind property owners that they are within the water supply area and advise these owners to take precautions to protect the supply. *Figure 4* shows a typical letter.

Municipal staff has included water supply and watershed protection information on the Municipal website [www.richmondcounty.ca](http://www.richmondcounty.ca). The website provides people with detailed information on the two municipally operated water systems including such topics as supply,



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treatment methods, monitoring criteria, emergency contact information, and mapping. To find the said information on the website click on the ***Public Works*** tab, then ***Municipal Water*** sub tab, and lastly the ***Information on Water Supply Areas*** tab.

### **6.0 Monitoring and Evaluation of the Plan**

This Source Water Protection Plan is to be updated on an annual basis. It is proposed that the plan will be reviewed each year by Municipal Staff and the members of the Water Supply Protection Committee. The review process should include the following items:

- significant negative changes in raw water sampling data
- review of land use activities
- changes to water supply infrastructure
- introduction of new legislation

In addition to monitoring the water supply area through water quality sampling, the Municipality should undertake visual monitoring of the water supply areas. For example, periodic inspection of the areas (by drive-by or walkthrough) can identify potential water quality problems or other potentially harmful activity. This may help identify activities that are in violation of bylaws and regulations put in place to protect water quality.



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**Figure 4 - Typical Letter to Homeowner in Water Supply Area:**

November 4, 2003

Dear Sir or Madam:

Richmond County Public Works would like to remind you that your property is located in the Arichat / Petit de Grat Watershed Recharge Area. We have erected signs on the approximate boundaries of the watershed depicting emergency phone numbers and the watershed boundary map for that area.

We note that you are responsible to control and pay for cleanup of any spills and releases from your property in accordance with the Nova Scotia Environment Act. We request that you make sure your heating fuel storage tank is in good condition, so that any leaks or spills that may potentially contaminate the water supply can be prevented. If you have an on-site sewage disposal system, we ask that you ensure that it is properly operated and maintained. We also request that you take extra care if you possess any other means of fuel or chemical storage on your property.

Richmond County Public Works Department is dedicated to the preservation and protection of the Arichat / Petit de Grat Watershed, and we would appreciate your cooperation in helping us provide safe drinking water to the residents of Arichat and Petit de Grat. If you have any question please call the Municipal Office in Arichat at 226-2400.

**IF YOU ENCOUNTER A CHEMICAL OR FUEL SPILL, PLEASE CALL ONE OF THE FOLLOWING PHONE NUMBERS:**

**1-800-565-1633 OR 226-2400**

Sincerely,

Jason Mac Millan CET  
Engineering Technologist



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### **Water Supply Emergency Response Plan**

#### **Executive Summary**

This Emergency Response Plan will serve as a tool and a resource in the event of an incident which threatens the water supply system and its recharge area. The intention of the plan is to make provision for a rapid, systematic and effective response to any emergency which threatens the recharge area. This emergency response plan contains information on available emergency response resources, both personnel and equipment, and also outlines a response procedure and responsibilities, including key emergency response personnel and associated contact information.

**Organizations** involved in an emergency response in the Louisdale/Evanston Watershed Protection Area may include the following, depending on the severity of the situation:

- The Municipality of the County of Richmond;
- The Louisdale/Arichat Volunteer Fire Department;
- The Nova Scotia Department of Environment and Labour;
- The Nova Scotia Department of Transportation and Public Works;
- The Nova Scotia Department of Natural Resources;
- The Cape Breton HazMat Team;
- Point Tupper Marine Services;
- The Canadian Coast Guard;
- Local Emergency Measures Organization (EMO);
- Local Contractors;
- Local Equipment and Service Providers; and/or
- RCMP/Ambulance.

The response effort will be lead by the **Municipality's Response Team** which will be comprised of:

#### **1. Response Team Leader**

The responsibilities of the **Response Team Leader** will include but are not limited to:

- Notification
- Evaluation and Response Coordination
- Documentation
- Post Emergency Monitoring
- Updating



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### **2. The Site Health and Safety Officer**

The responsibilities of the **Site Health and Safety Officer** will include but are not limited to:

- selecting and maintaining protective clothing and equipment;
- monitoring on-site hazards and conditions; and
- knowing emergency procedures, evacuation routes, and telephone numbers of the ambulance, local hospital, poison control centre, fire department and police department.

### **3. The Public Relations Contact**

The **Public Relations Contact** will be the only communication link between the Municipality and the public/media. Any public statements or announcements regarding the emergency response will be made by the **Public Relations Contact**, upon direction of the **Response Team Leader**.



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**Proposed Wording of Provincial Water Supply Area Designation for  
Louisdale/Evanston/Whiteside Water Supply:**

**PART I - DESIGNATED AREA**

1. WITNESSETH that the Undersigned, the Minister of the Department of the Environment for the Province of Nova Scotia, pursuant to Section 106 of the *Environment Act*, hereby

(a) designates an area of land and the water therein, situate at or near the Shannon Lake, in the County of Richmond, Province of Nova Scotia, as a Protected Water Area for the water works constructed and operated by the Municipality of the County of Richmond's Public Works Department, the said area of land being more fully described in Schedule 'A' and more fully shown on a plan marked Schedule 'B', with schedules attached to and forming part of this Order; and

(b) approves the name of the said Protected Water Supply Area to be the "Shannon Lake Protected Water Supply Area.

**PART II - REGULATIONS**

AND FURTHER WITNESSETH that the Undersigned, pursuant to Section 106 of the *Environment Act*, does hereby order:

(a) that every person shall protect the quality of water in Shannon Lake and all streams, lakes and other watercourses in the Shannon Lake Protected Water Supply Area so that the water therein may continue to be used as a potable water supply by the Richmond County Public Works Department, its successors and assigns; and

(b) that the following terms and conditions shall apply within the Protected Water Supply Area pursuant to subsection (6) of Section 106 of the *Environment Act*.

**CITATION**

1 These regulations shall be cited as the "Shannon Lake Protected Water Supply Area Regulations".

**DEFINITIONS**

2. In this Order,

(a) "*Act*" means the *Environment Act*, and regulations made pursuant thereto;

(b) "administrator" means a person employed by the Department and appointed by the Minister under Section 16 of this Order;



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- (c) “biocide” means a substance capable of killing living organisms that is not registered as a pest control product and includes a toxic chemical;
- (d) “County” means the Municipality of the County of Richmond, operator of the water works, Its successors and assigns;
- (e) “Committee” means the Shannon Lake Protected Water Supply Area Management Committee established to provide advice to the Minister and the County with respect to the management of the Shannon Lake Protected Water Supply Area with a membership made up of representatives of Nova Scotia Departments of the Environment and Labour and the County;
- (f) “Department” means the Department of Environment and Labour;
- (g) “grab sample” means a sample collected at a time and place which represents only the composition of the source at that particular time and place;
- (h) “Minister” means the Minister of the Department of the Environment;
- (i) “pest control product” means a pest control product defined in the *Pest Control Products (Nova Scotia) Act*, R.S.N.S. 1989, c.341, as amended from time to time;
- (j) “Protected Water Area” means the land and water areas designated as the Shannon Lake Protected Water Supply Area shown more fully described in Schedule ‘A’ and shown on the plan marked Schedule ‘B’.,
- (k) “vehicles” means any vehicle propelled or driven otherwise than by muscular power, whether or not the vehicle is registered pursuant to the *Motor Vehicle Act*;
- (l) “vessel” means a means of conveyance of a kind used on water and includes any accessory to the vessel;
- (m) “watercourse” means a watercourse as defined in the *Environment Act* or any statute which replaces the *Environment Act*.

### **PUBLIC NOTIFICATION**

- 3 (1) In consultation with the Department, the County shall post signs at appropriate locations to provide notice to the general public that Shannon Lake Protected Water Supply Area has been designated as a Protected Water Area.
- (2) The County shall replace any signs posted under subsection (1) which have been damaged or have been removed.
- (3) The County shall take appropriate measures to advertise and provide notice to the general public of these regulations.



## **Municipality of the County of Richmond - Water Utility Source Water Protection Plan**

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(4) No person shall remove or alter any sign, notice, or advertisement posted under these regulations.

### **FIRE RESTRICTIONS**

4 (1) No person shall light or be responsible for an open fire in the Protected Water Supply Area from April 1st to October 31st, inclusive, in any year.

(2) No person involved in a forestry operation or activity within the Protected Water Supply Area shall fail to comply with Chapter 179 of the R.S.N.S. 1989, the *Forests Act*, and regulations made pursuant thereto, including the *Forest Fire Protection Regulations*, as amended from time to time.

### **VEHICLE AND VESSEL RESTRICTIONS**

5 (1) No person shall wash a vehicle in any watercourse or within sixty (60) metres of the shoreline or bank of any watercourse located within the Protected Water Area.

(2) No person shall at any time operate a motorized vessel of any kind on, through, or over Shannon Lake or any watercourse in the Protected Water Supply Area unless authorized by the County.

(3) No person shall at any time operate a vehicle, including an off-highway vehicle as defined in the *Off-Highway Vehicles Act*, R.S.N.S. 1989, c.323, or any type of recreational vehicle on, through, or over Shannon Lake, or any watercourse in the Protected Water Area.

(4) Off-highway vehicles as defined in the *Off-Highway Vehicles Act*, R.S.N.S. 1989, c.323, or any type of recreational vehicles shall be restricted to the abandoned rail-way right-of-way subject to legislation typically applicable to the operation of such vehicles.

(5) No person shall fill a gasoline tank or transfer any liquid fuel from tank to tank on or within sixty (60) metres of the shoreline or bank of Shannon Lake or any watercourse within the Protected Water Area.

(6) Any machinery leaking gas, oil or other fluids shall not be operated until properly repaired.

### **LAKE AND WATERCOURSE RESTRICTIONS**

6 No person shall swim, bathe, wash, or cut ice at any time in any lake or any tributary to Shannon Lake, or any watercourse which is located within the Protected Water Area.

### **FISHING RESTRICTIONS**

7 (1) No person shall fish at any time from a vessel in any lake or watercourse in the Protected Water Supply Area.

(2) No person shall fish from the shoreline or bank of any lake or watercourse within the Protected Water Supply Area.

### **FORESTRY RESTRICTIONS**



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8 (1) No person shall construct a bridge, culvert or otherwise alter a watercourse within the Protected Water Supply Area unless a permit or approval is issued by the Minister or a person designated by the Minister which shall only be issued following consultation with the Committee.

(2) No owner, operator or person responsible for a forest access road, bridge or culvert approved under subsection (1) shall

(a) fail to maintain or repair the same; or

(b) remove a bridge or culvert without the prior written approval of the Minister or a person designated by the Minister.

(3) No owner, operator or person responsible for machinery with hydraulic systems working in the Protected Water Supply Area shall allow for the operation of such machinery except where vegetable oils are used in the hydraulic systems.

### **PEST CONTROL PRODUCTS AND BIOCIDES RESTRICTIONS**

9 No person shall spray or otherwise apply a pest control product or biocide, including but not limited to, an insecticide, herbicide, or fungicide, within the Protected Water Area.

### **DISCHARGES PROHIBITED**

10 No person shall deposit, release, discharge, drain, or emit or cause or permit the deposit, release, discharge, drainage or emission of oil, petroleum products, soap, detergent, a toxic chemical, pest control product waste, garbage, litter, solid or liquid waste, or any other matter or substance that causes or may cause an adverse effect to a watercourse or any other area within the Protected Water Supply Area.

### **LANDFILL PROHIBITION**

11 No person, including a municipality, shall establish a dump, landfill or waste disposal site within the Protected Water Supply Area.

### **CORRIDOR RESTRICTION**

12 No road, pipeline, railway, telephone line, power line or other linear development shall be constructed on, over or across the Protected Water Supply Area or an easement granted thereupon following proclamation of these regulations unless the same is approved in writing by the Minister or person designated by the Minister following consultation with the Committee.

### **SOIL EROSION AND SEDIMENTATION CONTROL**



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13 (1) No person shall at any time undertake any activity that causes or might cause soil erosion resulting in sedimentation of a watercourse located within the Protected Water Area.

(2) Where sedimentation occurs, no operator or person responsible shall fail to undertake immediate action to install erosion and sediment control measures, and to notify the County immediately.

(3) No person shall at any time permit water which has a suspended solid concentration greater than 50 milligrams per litre (grab sample) to discharge from any area located within the Protected Water Area.

(4) No person shall commence any activity requiring grubbing and earth moving within the Protected Water Supply Area unless that person develops an erosion and sedimentation control plan which has been approved in writing by the Administrator following consultation with the Committee.

### **ROAD CONSTRUCTION RESTRICTIONS**

14 (1) No person shall undertake any road construction work in the Protected Water Supply Area unless the work is conducted between June 1 and September 30, inclusive, in any year.

(2) No person shall expose at any time more than 1,900 square metres of roadway sub-base in the Protected Water Area.

### **EDUCATIONAL EXEMPTIONS**

15 Without restricting the generality of these regulations, and subject to any municipal, provincial, or federal approvals which may be required to conduct any type of operation or do any activity within the Protected Water Supply Area, the use of Shannon Lake or any watercourse in the Protected Water Supply Area by Richmond Academy students, local boys or girls clubs (e.g. Scouts, Guides, etc.) for educational purposes under the supervision of teachers.

### **APPROVAL REQUIREMENTS**

16 (1) No person shall fail to obtain any municipal, provincial, or federal approvals which may be required to conduct any type of operation or do any activity within the Protected Water Supply Area.

(2) No activities shall be allowed within the Protected Water Supply Area that would or might impair water quality.

### **APPOINTMENT OF ADMINISTRATOR**

17 The Minister may appoint an employee in the Department as an Administrator to administer, on behalf of the Minister and the Department, the provisions of this Order.



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Appendix A

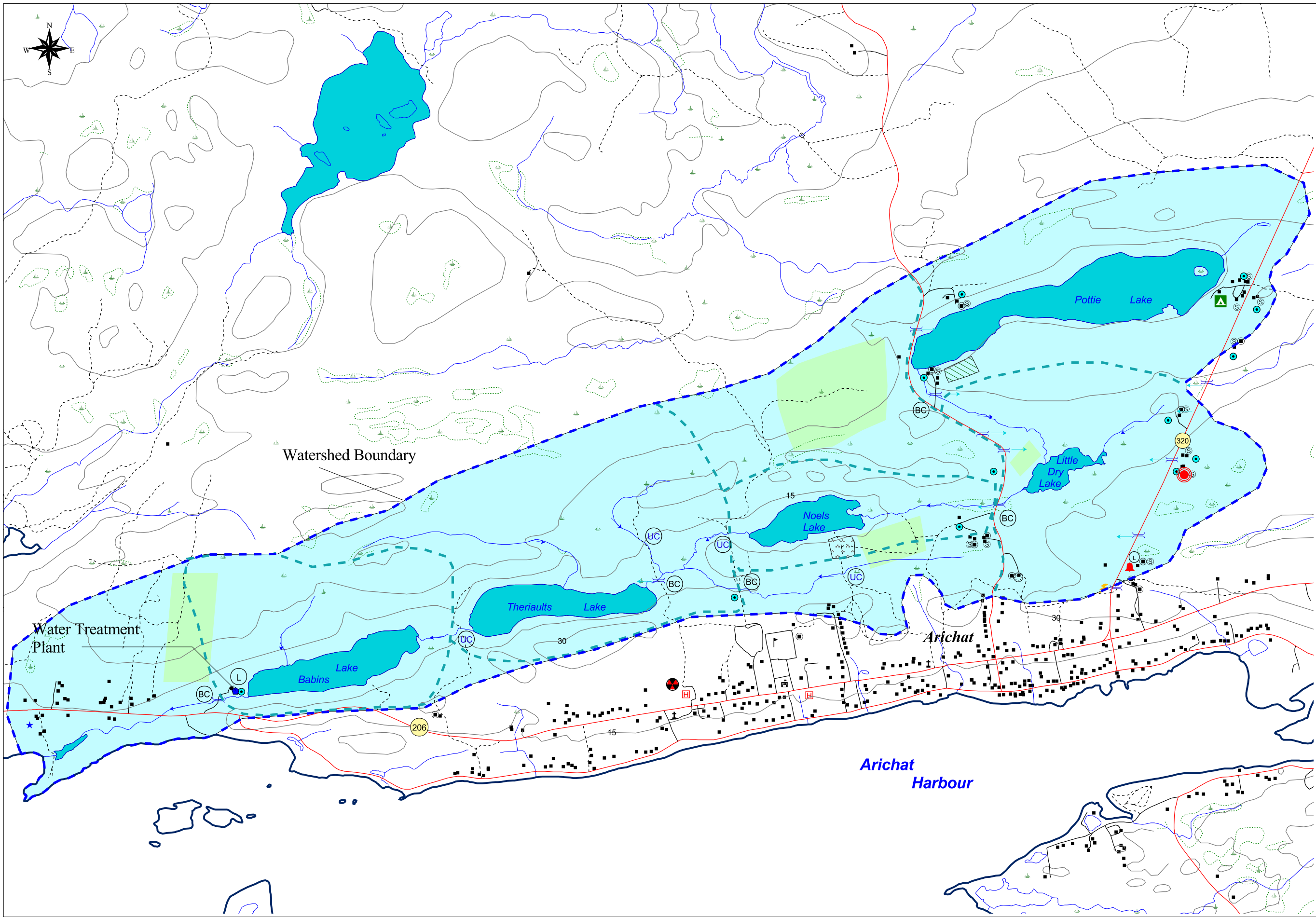
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# Watershed Protection Area Map

## Babins Lake Watershed

### Arichat Water Supply



- Watershed
- Intermediate Watershed
- ◆ Water Treatment Plant
- Drilled Well
- Municipal Building
- Hospital
- ▲ Firestation
- ★ Police
- ▲ School
- ▲ Campground
- ⚡ NSP Transformers
- ⊙ MTT Communications Tower
- Wetland
- Bulk Petroleum Storage
- Clearcut
- Illegal Dumping
- Farmed Land
- ⊙ Bio Waste Disposal
- Major Culvert
- Fuel Tank
- ⊙ Septic System
- Foot/ATV Path
- ~ Watercourse
- L Lay Down Area
- UC Unbridged Crossing
- BC Bridged Crossing
- Direction of Flow



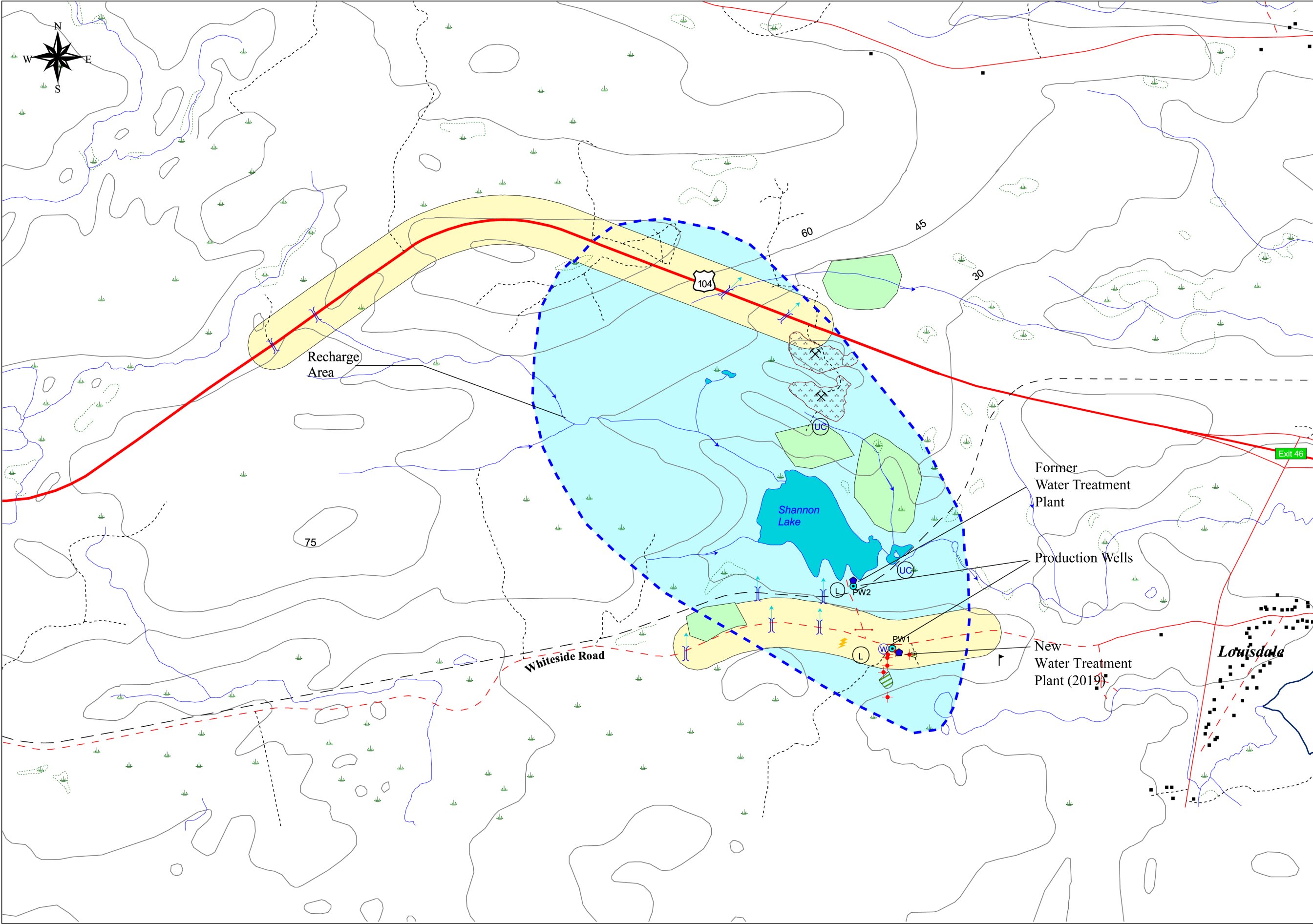
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August 2002

**Watershed Protection  
Area Map  
Shannon Lake  
Watershed  
Louisdale/Evanston  
Water Supply**



- Recharge Area
- Production Well
- ★ Monitoring Well
- ⬢ Water Treatment Plant
- ⚡ NSP Transformers
- ↯ Wetland
- Clearcut
- Former Dumpsite
- Illegal Dumping
- ⚡ Major Culvert
- - - Gravel Road
- - - Trail/Resource Road
- ~ Watercourse
- Gate
- L Lay Down Area
- UC Unbridged Crossing
- W Water Tank
- Direction of Flow
- ⛏ Gravel Pit
- Spill Response Priority Area
- ⤴ School



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