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# MEMORANDUM

To: Chairperson and Members of the North West Planning Advisory Committee

From: Shayne Vipond, Senior Planner, Development Approvals

Date: November 15, 2013

Subject: **Case 18686: Application by the Halifax Regional Municipality to extend the water service boundary from Lucasville Road to the McCabe Lake North, Upper Sackville.**

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## Overview

HRM is proposing to consider extending the water service boundary in the Regional Subdivision By-law from Lucasville Road to the McCabe Lake North subdivision (Maps 1, 2 and 3), and amend the Beaver Bank, Hammonds Plains, and Upper Sackville Municipal Planning Strategy (MPS). The boundary extension would serve to permit construction of central potable water services along a service road to the McCabe Lake Lands which contain a current subdivision approval for approximately 385 lots (Maps 2 and 3).

Staff have reviewed the relevant policies of the Regional Municipal Planning Strategy and have found authority to consider the boundary extension in accordance with Policies SU-14 and SU-15 (Attachment A). However, Policies in the Beaver Bank, Hammonds Plains, and Upper Sackville MPS do not provide authority to consider the boundary extension. Accordingly an amendment would be required to the MPS. In addition, should Regional Council approve extending the water service boundary, the Regional Subdivision By-law would also require an amendment.

Staff have had preliminary discussions with Halifax Water and have determined that:

- 1) There is adequate supply to provide potable drinking water from the central water service of the Pockwock water system; and,
- 2) Construction for a new water main would be a temporary solution to bringing water service to McCabe Lake North until such time as there is a full build out of Margeson Drive (Map 1) south towards Hammonds Plain Road.

## Existing Use

Vacant land containing a Class "L" crown reserve access road created for agricultural access to privately held lands during the creation of Highway 101.

### **Designation**

Rural Commuter under the Regional Plan and a Mixed Use B Policy Designation under the Beaver Bank, Hammonds Plains and Upper Sackville MPS (refer to Map 1).

### **Zoning**

Mixed Use 2 (MU-2) under the Beaver Bank, Hammonds Plains and Upper Sackville Land Use By-law (LUB) (refer to Map 2).

### **Proposal**

HRM is proposing to consider extending the water service boundary in the Regional Subdivision By-law from Lucasville Road to the McCabe Lake North subdivision (Maps 1, 2 and 3).

### **RMPS Policy**

Policies SU-14 and SU-15 of the Regional Plan require that the extension of an existing water service boundary systems must extend west from Lucasville road and must be necessary to the over functioning of the system (Attachment A).

### **Options for Potable Water Servicing**

Should the extension of the service boundary be deemed appropriate a number of options exist which include:

1. Extend the entire boundary westward to service the McCabe Lake North Lands (Map 2).

Extending the entire service boundary west could provide an opportunity open lands adjacent to the Highway 101 for rural development if the access is upgraded to public road standards. However, as the Class L Crown Reserve is a Provincial right of way, this access and its status must be reviewed with the Province to determine if future development is an option. Further, land owners must also be considered within this alternative as HRM does not fund public infrastructure.

2. Extend a single lined water service boundary through the area along the crown road and restrict the service boundary to that line (Map 3).

There is also an option to create a single lined water service boundary that would run the length of the Class L Crown Reserve within which a water main could be located. In this scenario potable water would be to the sole benefit of the McCabe Lake North development. Costs for infrastructure and required upgrades to the road allowance would be attributed to the development.

## **Public Meeting**

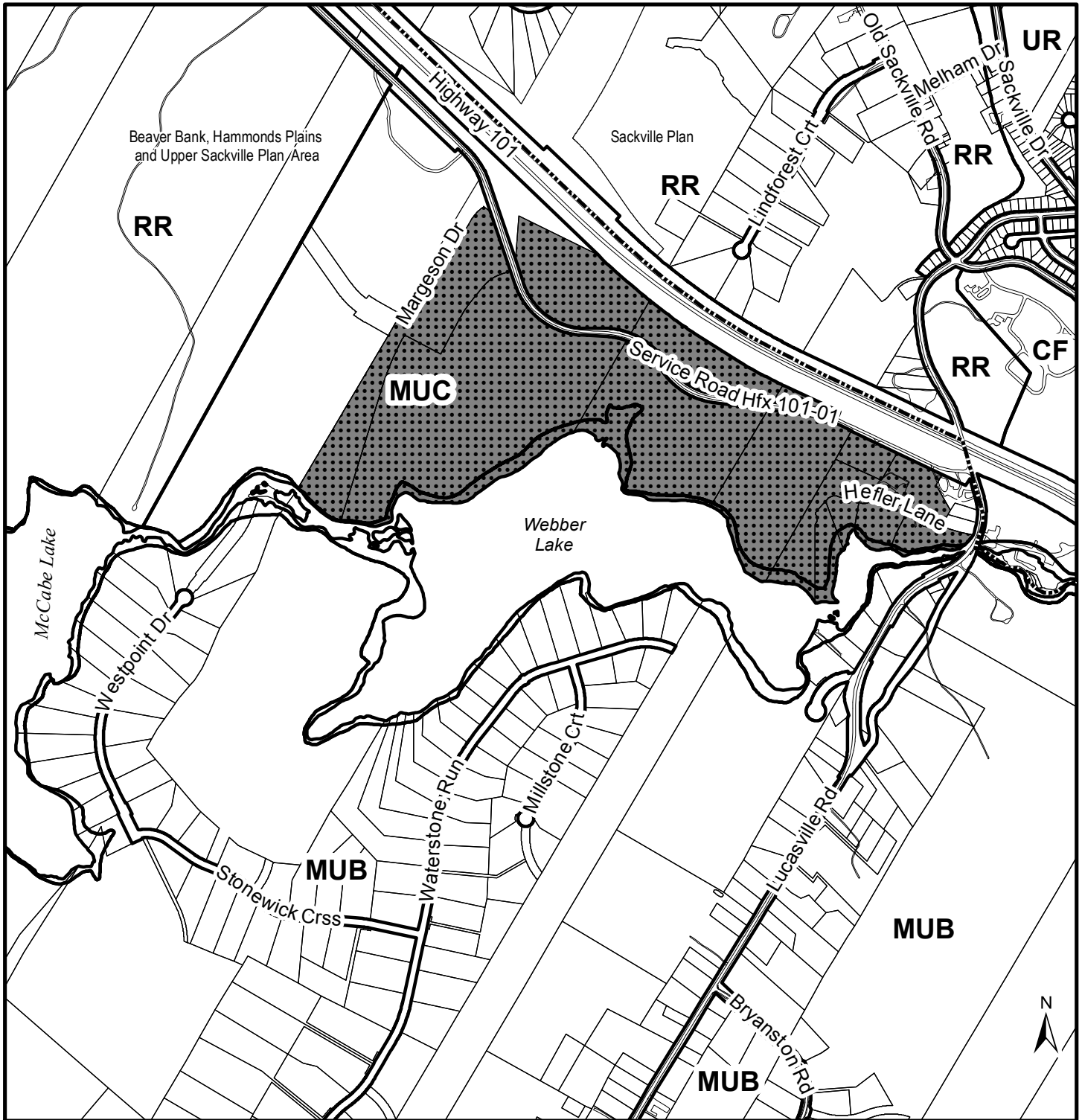
The Community engagement process is consistent with the intent of the HRM Community Engagement Strategy. The level of community engagement was consultation, achieved through a Public Information Meeting (PIM) held by the NWPAC on November 4, 2013. Notices of the Public Information Meeting were posted on the HRM website, in the newspaper and mailed to property owners and tenants within a broad area.

### **Input Sought from the Committee:**

Pursuant to the Committee's Terms of Reference, feedback is sought from the Committee relative to the potential amendment of the municipal water service boundary. The Committee's recommendations will be included in the staff report to North West Community Council.


### **Attachments:**

- Map 1                   MPS Generalized Future Land Use Map
- Map 2                   Zoning Map
- Map 3                   Water Service Boundary Amendment
- Attachment A        Relevant Regional Plan and MPS Policies



**Map 1 - Generalized Future Land Use**

Middle Sackville

 Subject Area of the Proposed Amendment

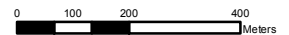
Planning Districts  
15, 18, & 19

Sackville

**Designation**

MUB Mixed Use B  
MUC Mixed Use C  
RR Rural Residential

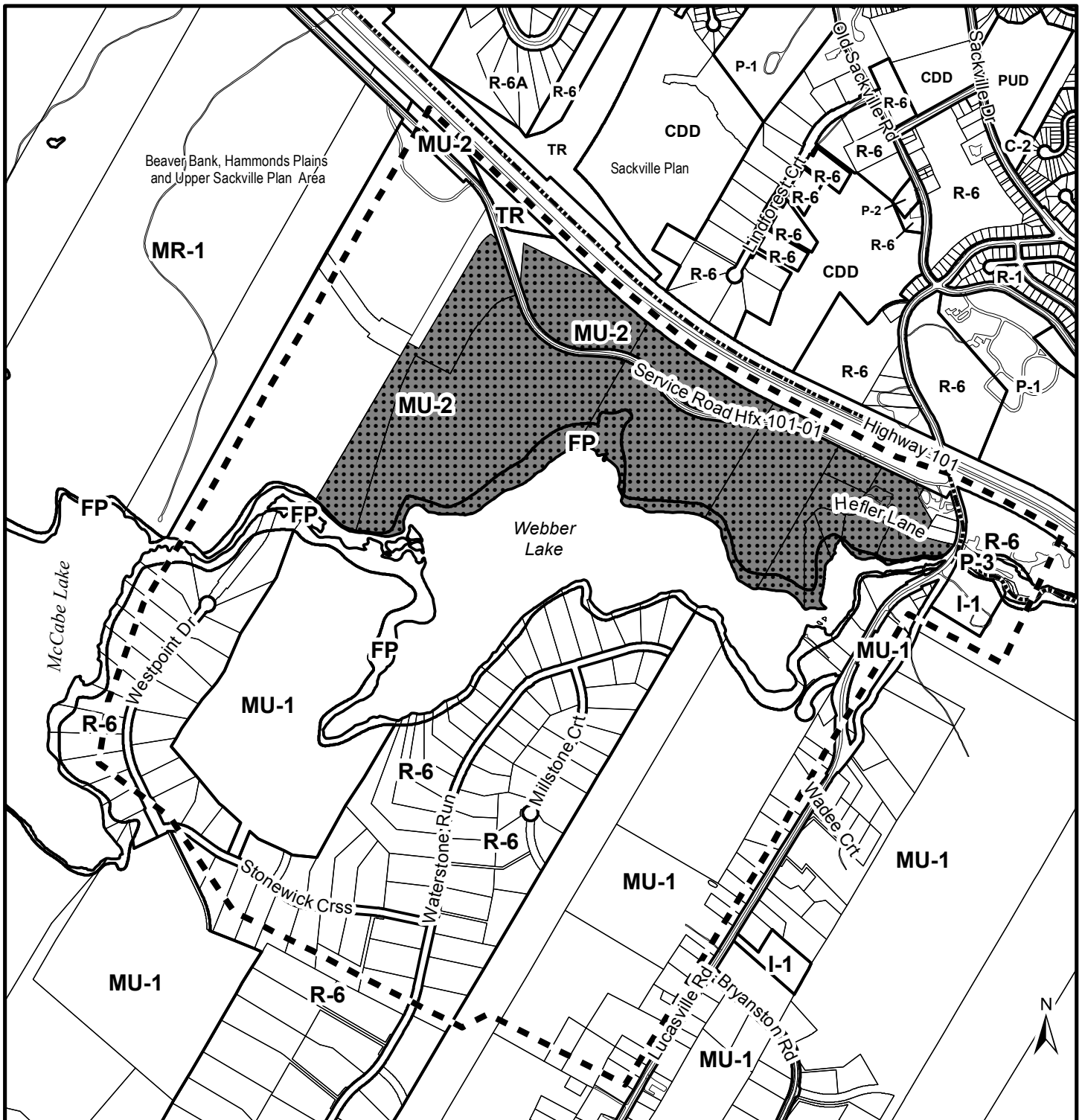
UR Urban Residential  
RR Rural Residential  
CF Community Facility



This map is an unofficial reproduction of a portion of the Generalized Future Land Use Map for the plan area indicated.


HRM does not guarantee the accuracy of any representation on this plan.


Planning Districts 15, 18, & 19  
And Sackville Plan Area



## Map 2 - Zoning and Notification

Middle Sackville

 Subject Area of the Proposed Amendment

 Area of notification

Planning Districts 15, 18, & 19  
And Sackville Plan Area

### Zone

Planning Districts  
15, 18, & 19

Sackville

R-6 Rural Residential  
MU-1 Mixed Use 1  
MU-2 Mixed Use 2  
I-1 Mixed Industrial  
MR-1 Mixed Resource  
FP Floodplain

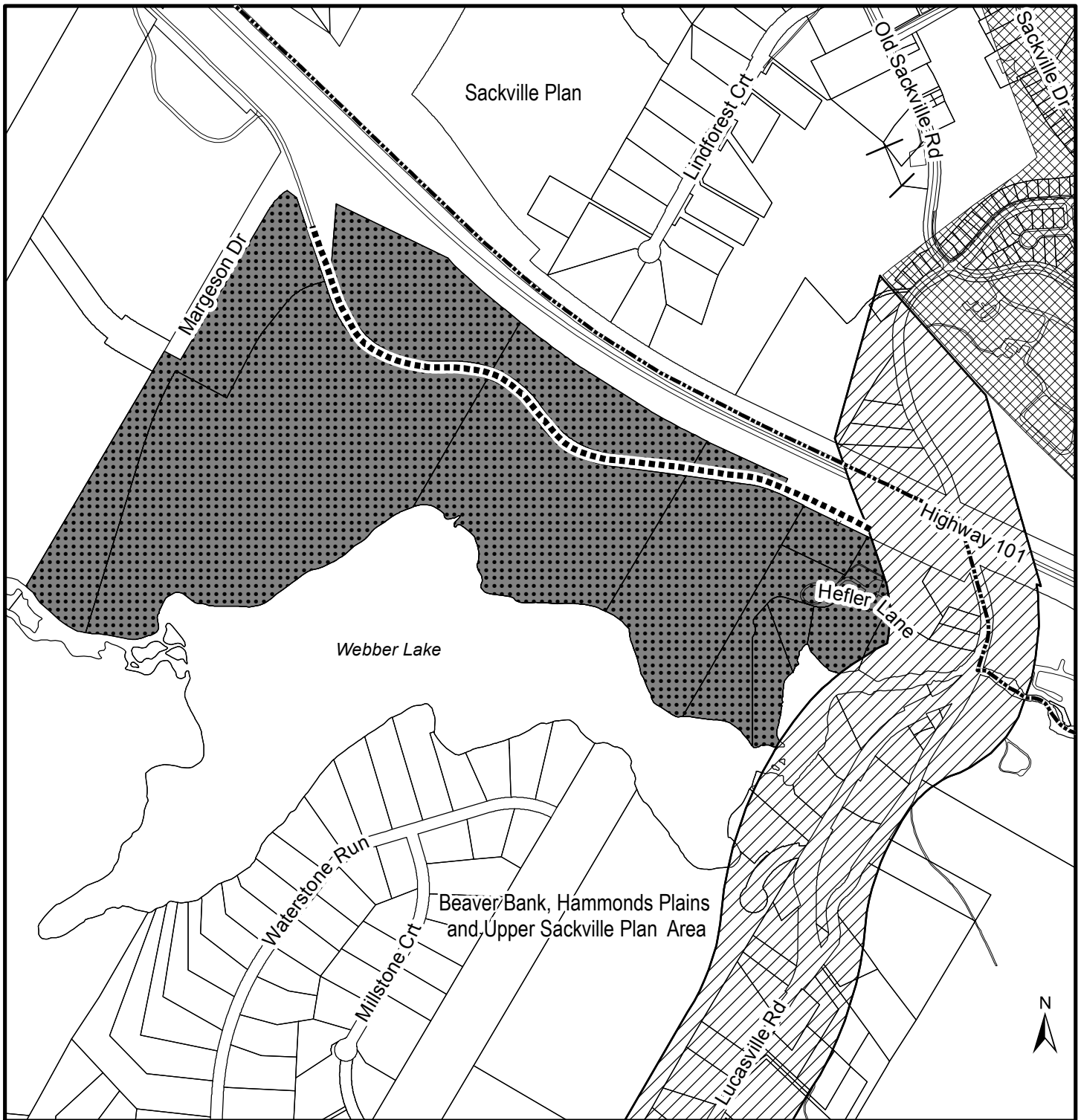
R-1 Single Unit Dwelling  
R-6 Rural Residential  
R-6A Rural Residential Single Unit Dwelling  
C-2 Community Commercial  
P-1 Open Space  
P-2 Community Facility  
CDD Comprehensive Development District  
TR Transportation Reserve  
PUD Plan Unit Development

**HALIFAX**  
REGIONAL MUNICIPALITY  
DEVELOPMENT APPROVALS

0 105 210 420 Meters





This map is an unofficial reproduction of a portion of the Zoning Map for the plan area indicated.

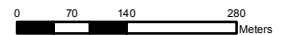
HRM does not guarantee the accuracy of any representation on this plan.



### Map 3 - Water Service Boundary Amendment

Middle Sackville

-  Subject Area of the Proposed Water Service Boundary Extension
-  Water Service Boundary Only
-  Urban Service Boundary (Central Water and Sewer)
-  Potential Future Potable Water Service



This map is an unofficial reproduction of a portion of the Zoning Map for the plan area indicated.

HRM does not guarantee the accuracy of any representation on this plan.

Planning Districts 15, 18, & 19 And Sackville Plan Area

## Attachment A

### Relevant Regional Plan and Beaver Bank, Hammonds Plains, and Upper Sackville MPS Policies

#### REGIONAL PLAN

### **7.3 RURAL SERVICES**

The capability of the land to support rural settlement throughout the Rural Commuter, Rural Resource, and Agricultural Designations (refer to Chapter 3) is constrained to varying degrees by soil, surface water, and groundwater conditions for development. The *Options for On-site and Small Scale Wastewater Management Study*<sup>1</sup> concluded that there are very few inland communities where a municipal wastewater system can be developed. This is due to low flows in river systems during the summer months and provincial requirements for both the dilution of treated wastewater as well as the removal of phosphorous from wastewater that rely on land-based effluent dispersal. However, alternative treatment technologies may be feasible for servicing the levels of wastewater expected from the centres, including those inland from the coast.

Similarly, there are areas with varying degrees of groundwater quality because of the predominant geology. Most areas of HRM require some mitigation of groundwater quality. Others have a higher risk for groundwater quality problems due to the presence of radio nuclides, base metals or contamination from former mining operations.

#### 7.3.1 Water Service Areas

Although this Plan encourages a more compact urban form in which development is serviced with wastewater and water distribution systems, this Plan recognizes that there are already in existence some developments serviced with a water distribution system and on-site sewage disposal systems.

Prior to amalgamation in 1996, the former Halifax County Municipality was allocated a portion of the Pockwock and Lake Major water supplies. HRM intends to recognize the existing Water Service Districts and refer to them as Water Service Areas under the Subdivision By-law. While the establishment of new Water Service Areas is important in supporting the settlement form established in this Plan, HRM should also endeavour to complete the installation of water services within the previously established Water Service Districts.

Water service boundaries were established to limit where water services would be permitted. The boundaries also served to respond to concerns that extending water distribution systems to rural areas would increase the pace of development thereby straining limited community services and possibly

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<sup>1</sup> Land Design Services, Ekistics Planning and Design, John Zuck and Associates and Spatial Metrics Atlantic. *Halifax Regional Municipality Options for On-site and Small Scale Wastewater Management*. 2004. Halifax.

reducing the performance of the water distribution system to unsatisfactory levels. These concerns remain and HRM will therefore only allow for further extensions in accordance with the policies which follow.

SU-12 In recognition of the existing Water Service Districts under the Halifax County Municipality Subdivision By-law, HRM shall, through the Subdivision By-law, establish Water Service Areas within which development shall be permitted which is serviced by a public water distribution system but without a municipal wastewater system. Within these areas, a water distribution system shall be required to service all new subdivisions located adjacent to an existing water distribution system where a new or extended public street or highway is proposed. Further, no water distribution system shall be permitted to extend outside of a Water Service Area.

SU-13 HRM may consider establishing new Water Service Areas, subject to the financial ability of HRM to absorb any related costs, provided a wastewater management plan is also considered in accordance with Policy SU-20, if:

- (a) the area is within a Rural Commuter, Rural Resource or Agricultural centre and it has been determined through a secondary planning process that new growth is to be encouraged in this area;
- (b) an Open Space Design development is proposed within a Rural Commuter, Rural Resource or Agricultural centre pursuant to Policy S-16;
- (c) the lands are adjacent to an existing Water Service Area and an Open Space Design development is proposed within an Urban Reserve designation pursuant to Policies IM-18 and S-16; or
- (d) a study has been prepared by a qualified person verifying that there is a water quality or quantity problem in an existing community that cannot reasonably be rectified by an alternative means.

SU-14 HRM may consider expanding existing Water Service Areas to existing communities, subject to the financial ability of HRM to absorb any costs related to the expansion, if:

- (a) the lands are in proximity to a trunk water main planned or constructed by the Water Commission to improve the performance of the water distribution system;
- (b) a study has been prepared by a qualified person verifying that there is a water quality or quantity problem that cannot reasonably be rectified by an alternative means; or
- (c) there are environmental concerns related to the long-term integrity of on-site sewage disposal systems and a wastewater management plan is also considered in accordance with Policy SU-20.



SU-15 Further to clause (a) of Policy SU-14, where the Water Commission has identified a need for trunk water mains, to enhance the reliability of existing water distribution systems, HRM shall consider amending the Water Service Area to include lands around the following mains upon determining their alignment and width:

- (a) between Middle Sackville and Beaver Bank; and
- (b) between Hammonds Plains Road and Sackville Drive east west of Lucasville Road.

### **BEAVER BANK, HAMMONDS PLAINS AND UPPER SACKVILLE MPS POLICIES**

#### **ENVIRONMENTAL HEALTH SERVICES**

Environmental health services include sewerage disposal, water supply and storm drainage. The majority of development in the Plan Area is serviced by means of on-site sewage disposal systems and individual wells. There are however a number of specific developments, which are serviced by private or public central sewerage and water systems. Stormwater systems consist exclusively of ditches and natural drainage systems.

Continuing growth in the area, resulting from the relative ease of road access to the metropolitan centre and the attractive environment the Plan Area offers, has at times burdened the local environment. In the past, there have been inadequacies in the quality and quantity of some water supplies as well as in the proper functioning of on-site sewage disposal systems. In the case of Springfield Lake, malfunctioning sewage disposal systems were identified in a pollution control study which has recommended a new municipal central sewerage collection and treatment system (See Policies P-68 to P-71). There have also been problems with private central sewer and water systems in the Plan Area.

#### **Central Sewerage and Water Systems**

Central sewerage and water systems service the three mobile home parks, the Beaver Bank Villa and Uplands Park. In addition, Woodhaven Campground and the Hammonds Plains School are serviced by sewage treatment plants. All systems except those of the school and Uplands Park are privately owned and operated.

The Uplands Park sewage treatment system, which until recently was located on privately-owned land, is now owned by the Village Service Commission and operated by the Municipality. When first developed, Uplands Park was also serviced by a private central water system. Extensive problems with this system led to an extension of the Pockwock water system, through the Bedford connector.

As discussed in the Mixed Use Designations, there are significant problems with most privately operated central services. These problems are primarily related to inadequate maintenance, although in some

cases poor design and installation have contributed. In general, long-term performance records have been poor.

In the Springfield Estates and Woodbine mobile home parks there have been problems with both the central water and sewerage systems. Through the involvement of the Board of Health, it was determined that problems with the private water system in Woodbine could only be alleviated by means of connection to the public water system. A private water line, extending from Sackville to Woodbine, has recently been installed. The Board of Health is also currently investigating solutions to problems at Springfield Estates. The private systems servicing the Beaver Bank Villa have also experienced problems.

In Uplands Park, the situation was improved with municipal involvement in the operation of the sewerage system. Extension of the Pockwock water system eliminated all water problems. The central services provided in the Timber Trails mobile home park have a history of satisfactory operation which can be attributed to proper daily maintenance on a long-term basis.

Private central systems which have been installed to serve a number of residential lots in small scattered subdivisions have, in the past, resulted in a burden to the Municipality. Upon completion of these developments, the ownership of the systems has often reverted to the residents. As most residents are ill-prepared to deal with central water and sewerage system maintenance, these systems have slowly become municipal responsibilities, as was the case in Uplands Park. Adequate municipal maintenance of scattered systems is costly and as a result the Municipality has a long standing policy to discourage new private central systems.

Under certain circumstances, however, there are situations in which new private central services may have an important positive role to play in serving new development in the Municipality. In the case of developments located on one lot, such as a mobile home park or a campground, the owner maintains responsibility for the on-going maintenance of the system.

Therefore, pressures for municipal takeover are not generally as severe. There is evidence, supported by the Timber Trails mobile home park that, if properly designed and maintained, these private systems are capable of providing adequate service with few environmental hazards.

New central water and sewerage systems should be designed and installed to meet appropriate standards of effluent treatment as well as provide an adequate water supply in terms of both quality and quantity. At present, the Departments of Health and the Environment jointly regulate the design and construction of central water and sewerage systems. Approval of plans and specifications and issuance of a joint certificate from these provincial departments is required for all new or expanded central systems.

In addition to system design, a key factor in satisfactory central services relates to ongoing maintenance by qualified personnel. The Departments of Health and the Environment have been concerned with the level of maintenance of private central systems and in particular with sewage treatment plants. The Department of the Environment has recently established a training course for sewerage treatment plant operators and is considering regulations to require that all plant operators be licensed. Such a provincial

requirement would address existing problems and would contribute substantially to an upgraded level of maintenance for such facilities.

- P-82 It shall be the intention of Council to discourage both the expansion of existing privately operated systems and the construction of new central privately operated water and sewerage collection and treatment systems.
- P-83 Notwithstanding Policy P-82, mobile home parks and commercial recreation uses serviced by private central sewerage collection and treatment systems and/or water systems may be considered, in conformity with Policies P-18 and P-27.
- P-84 It shall be the intention of Council to request the Department of the Environment to initiate the appropriate provincial legislation to establish requirements for licensing of all sewerage treatment plant operators.

In early 1993, municipal staff expressed concern to Council about the lack of clear policy direction with respect to development accessing only central municipal water services. Central water service from the Pockwock water system had been extended to a number of areas located outside of designated serviceable areas where both municipal water and sewer services are required. The primary motivation in extending central water to these areas was to resolve identified water quality or quantity problems. However, the extension of trunk services to these areas also resulted in new development being able to access central water. The rapid rate of growth which central water seemed to encourage and the potential scale of development which could occur, coupled with the general lack of policy direction, caused staff to bring the matter before Council. Engineering concerns related to overall water system capacity and the adequacy of internal system design were significant issues as were planning considerations related to development patterns and adequacy and demand placed on other services.

In the fall of 1993, following public input concerning the issue of central water, Council approved the designation of several Water Service Districts in areas served by the Pockwock water system. These Water Service Districts included areas to which central water only had already been extended or committed as well as areas where it was anticipated that central water would be required to resolve a community based water quality or quantity problem. Within the plan area, Water Service Districts included Beaver Bank; the Lucasville Road; the Hammonds Plains Road between English Corner and the Town of Bedford; and a portion of the Kingswood and Blue Mountain development areas located west of Uplands Park (see Maps 4 and 5).

It is the intent of Council that central municipal water services will only be permitted within designated Water Service Districts. Council may, however, consider the expansion of existing Water Service Districts or the establishment of new ones when satisfied that all engineering, financial, and planning concerns have been properly addressed.

- P-85 It shall be the intention of Council to establish Water Service Districts for those areas to which central municipal water services only have or may be extended in the future, as shown on the Water Service District Maps (Maps 4 and 5). It shall be the policy of Council that the extension of

central municipal water services shall not be permitted outside of designated Water Service Districts. It shall further be the policy of Council that within the Water Service Districts, central municipal water services shall be provided to all subdivisions adjacent to existing municipal water services and which propose to provide a new or extended public street or highway.

P-86 Notwithstanding Policy P-85, Council may consider amending this planning strategy and the Municipal Subdivision By-law to permit the expansion of existing or the establishment of new Water Service Districts. When considering new or expanded Water Service Districts, priority shall be given to:

- (1) areas identified as experiencing problems related to insufficient quality and/or poor quality of existing sources of water supply;
- (2) existing communities within a reasonable distance of the central water supply system where there is a demonstrated need and conditional upon the availability of water supply capacity; and
- (3) areas which would provide looping of existing infrastructure thereby enhancing reliability of the water system in the local area.

In addition to the priority criteria outlined above, it shall also be the policy of Council when considering the establishment of new or expanded Water Service Districts, to have regard to the following:

- (a) the engineering and financial implications of such extensions as identified by the Master Infrastructure Plan, Implementation Plan, and Financial Plan carried out pursuant to Municipal Services General Specifications;
- (b) the potential scale of such development and the effects which this may have on existing and future levels of services, as well as the development pattern which is desired and deemed appropriate within this plan area as well as the larger Municipality; and
- (c) environmental considerations related to the long term integrity of on-site sewage disposal systems as well as natural water drainage systems.