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Information Item No. 1
Regional Watersheds Advisory Board
April 8, 2015

TO: Chair and Members of Regional Watersheds Advisory Board
Original Signed

SUBMITTED BY: _____
Bob Bjerke, Chief Planner and Director, Planning & Development

DATE: February 18, 2015

SUBJECT: Model Community Plan Environmental Section

INFORMATION REPORT

ORIGIN

On October 3, 2013 the Environment and Sustainability Standing Committee moved and passed a motion recommending Regional Council direct staff to develop a standardized Environmental Section template, for future secondary planning projects.

On December 5, 2013 the Environment and Sustainability Standing Committee moved and passed a motion to:

1. Request that the Regional Watersheds Advisory Board review the report: Boilerplate Environmental Section for Community Plans, completed by Genivar, and provide comments directly to staff to inform a Model Community Plan Environmental Section; and
2. Direct staff to prepare a Model Community Plan Environmental Section for consideration of the Environmental and Sustainability Standing Committee recommendation to Regional Council.

LEGISLATIVE AUTHORITY

Part VIII of the *Halifax Regional Municipality Charter* enables the Municipality to adopt municipal planning strategies and land use by-laws consistent with the interests of the Province, and establishes a consultative process for public participation in the formulation of planning strategies and by-laws.

BACKGROUND

This initiative is part of a larger policy project to consolidate the approach to meet the current community objectives with respect to stormwater management, as addressed by the Environment and Sustainability Standing Committee in October 2013 (see Attachment 1).

The Municipality's Office of Energy and Environment commissioned Genivar to review environmental policies included in 21 Community Plans and the third draft of the Regional Plan (2014), and identify those to be considered in a Model Community Plan Environmental Section.¹

In response to the Environment and Sustainability Standing Committee's December 5, 2013 motion, the Regional Watersheds Advisory Board spent 6 meetings between July 9 and December 10, 2014 reviewing policies in the Genivar report that staff identified as falling within the Regional Watersheds Advisory Board's mandate.

DISCUSSION

125 policies were presented to the Regional Watersheds Advisory Board for their commentary by the conclusion of the Board's final meeting in 2014 (December 10), and the Board responded to staff on the policies during that same meeting. Given the range and number of policies under review, staff developed a classification scheme to characterize the Board's responses. Four classes were identified, and the number of policy responses falling into each classification is as follows:

1. Support as Worded- 24 policies
2. Specific Recommendations for Improvement- 34 policies
3. Do Not Support – No Recommendation for Improvement- 28 policies
4. No Opinion- 39 policies

Summary Report: Model Community Plan Environmental Section (Attachment 2) summarizes the Board's response to these policies. The purpose of this report is to review feedback received from the Board, as directed by the Environment and Sustainability Standing Committee. Staff will use these classifications to inform a report to the Environment and Sustainability Standing Committee on this topic at a later date.

FINANCIAL IMPLICATIONS

At this point in the development of a Model Community Plan Environmental Section, there are no financial implications.

COMMUNITY ENGAGEMENT

The Regional Watersheds Advisory Board's feedback can be used to inform future community planning projects, which require public engagement. Board meetings of the Board are open to the public, and meeting documents (agendas and minutes are public documents hosted at Halifax.ca.

ATTACHMENTS

1. Staff Report dated October 3, 2013
2. Summary Report: Model Community Plan Environmental Section

¹ See *Boilerplate Environmental Section for Community Plans*, Genivar, October 2013

A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Katie Neale, Planning Intern, 902-490-1782

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Report Approved by:

Peter Duncan, Planning & Development, 902-490-5449

Environment & Sustainability Standing Committee
October 3, 2013

TO: Chair and Members of Environment & Sustainability Standing Committee

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SUBMITTED BY: _____
Peter Stickings, Acting Director, Planning & Infrastructure

DATE: September 11, 2013

SUBJECT: Regulatory and Policy Strategy: Stormwater Management

ORIGIN

- Regional Plan, SU-28: HRM shall, in consultation with the Nova Scotia Provincial Government, prepare a Stormwater Management Functional Plan with recommendations to be considered for adoption under the Municipal Service Systems Specification document or HRM's operational and administrative programs and land use policies and regulations;
- April 16, 2013, Environment & Sustainability Standing Committee;
- October 6, 2011, Environment & Sustainability Standing Committee; and
- June 25, 2013, Regional Council.

LEGISLATIVE AUTHORITY

HRM Charter, Power to make By-Laws, 188

RECOMMENDATION

It is recommended that the Environment and Sustainability Standing Committee recommend to Regional Council to direct staff to:

1. Prepare, for Public Hearing, a consolidated Regional Lot Grading By-Law based on the objectives outlined in this report;
2. Develop a Memorandum of Understanding on Erosion and Sedimentation Control with Halifax Water, Nova Scotia Environment, Clean Nova Scotia, and the Nova Scotia Homebuilders Association;
3. Continue to develop a Stormwater Management By-Law based on the objectives outlined in this report;
4. Develop a standardized Environmental Section template for consideration of objectives outside the scope of the Lot Grading By-Law or Stormwater Management By-Law, for future secondary planning projects; and

(continued on next page)

5. Align the Streets By-Law to the Wastewater Rules and Regulations with respect to substances originating on private property, crossing the right-of-way and entering the storm system.

BACKGROUND

Currently, the Municipality administers a number of By-Laws with respect to Lot Grading and Stormwater Management including the following:

- HRM By-Law L300, Respecting Lot Grading and Drainage
- HRM By-Law S300, Respecting Streets
- City of Dartmouth W100, Obstruction of Waterflow
- City of Halifax Ordinances 142, Streams and Drains
- Halifax County By-Law 40, Topsoil
- Halifax County By-Law 41, Excavation
- Town of Bedford By-Law 23290, Grade Alteration
- 22 Land Use By-Laws
- Regional Subdivision By-Law

The intent of this policy project is to consolidate the approach to meet the current community objectives with respect to stormwater management.

DISCUSSION

Objectives: At the June 25, 2013, Regional Council meeting, a motion was passed directing staff to undertake consultation and prepare a report for the consideration of Regional Council with respect to the objectives of a Stormwater Management and Lot Grading By-Law. The Community Engagement section of this report overviews the results of the consultation. Summarily, there are three primary public service objectives of a Stormwater Management and Lot Grading By-law:

1. Public Safety;
2. Protection of Environment; and
3. Encouragement of Economic Development

Recommendation #1: Prepare, for Public Hearing, a consolidated Regional Lot Grading By-Law based on the objectives outlined in this report:

Lot Grading By-Law: Based on best practices review, and community consultation, Staff is recommending the development and preparation of a standard Lot Grading By-Law that addresses the following objectives, focusing primarily on Public Safety:

- Simplified to focus solely on activity of Lot Grading in two instances:
 - Alignment with Development Agreement Master Grading Plans; and
 - Lot grading on property where there is no Master Grading Plan.
- Includes all of HRM;

- Streamlines the deposit system and considers an alternative remedy approach to meet compliance objectives;
- Provides clear technical requirements by embedding the instructions from the Lot Grading and Drainage General Specifications;
- Includes a conservative minimum soil depth;
- Tightens the time frame and requirements for unfinished grading/landscaping; and
- Continues to outsource approval (Qualified Individual).

The expected outcome of this regulation will be an effective by-law that is efficiently administered and achieves the stormwater management objectives of flood protection. The primary outcome of good lot grading is maximizing the use of overland flow for protection of homeowners and the public. This by-law would be prepared by HRM Legal Services and return to Regional Council for Public Hearing process. This would be completed within this HRM fiscal year.

The key primary progressions to the By-Law from the consolidation will be:

Extension across the municipality
The developed by-law will, as per direction from Regional Council, cover the entire municipality.
Streamlining of the deposit system by considering alternative remedy approaches
The existing deposit system was articulated by industry as a barrier to business and is administratively cumbersome to manage. Alternative remedy solutions may be considered to achieve the compliance objectives of the by-law. This may include removal or reduction of the deposit system with a legislated ability for the municipality to affect remedy and recoup via lien. The streamlining of the system will enhance economic development in HRM and improve compliance. The current deposit system requires homebuilders to provide a deposit of \$1,000 per property to guarantee completion of the Lot Grading Certificate. The deposit system neither provides sufficient funding to complete lot grading/landscaping requirements nor an efficient means to achieve the desired outcomes.
Tightening of requirements for acceptance of Undertaking of Completion (unfinished landscaping at time of issuance of Occupancy Permit)
Experience suggests that there are too many lots obtaining an occupancy permit and not completing lot grading in a timely or compliant manner. This is a public safety risk, due to increased flooding risk exposure and a threat to environmental protection (relating to erosion and siltation exposure on unfinished homes). The development of a solution that enables the clear obligation transfer from owner to homeowner will ensure that homeowners understand what they need to do with respect to lot grading. The primary challenge stems from homeowners looking to complete landscaping on their own (through sweat equity) and not being aware of lot grading requirements or obligations. An information activity will need to support the regulation.

Minimum soil depth

Having good soil depth provides a number of benefits to residents and the municipality including:

- Healthier Lawns and less pests and pressures for pesticide control
- Better water absorption to reduce storm water impacts on municipal infrastructure
- Filtering pollution

There are other Canadian municipalities that have introduced minimum soil depth regulations in recent years. Staff recommends presenting a by-law with a minimum 4" soil depth (compacted) to achieve this objective. The cumulative outcome of reduced rainwater leaving properties helps reduce impacts on stormwater systems, including infrastructure and the natural environment.

Recommendation #2: Develop a Memorandum of Understanding on Erosion and Sedimentation Control with Halifax Water, Nova Scotia Environment, Clean Nova Scotia and the Nova Scotia Homebuilders Association:

The prevailing community concern with respect to environmental protection objectives related to stormwater management is improved Erosion and Sedimentation control and behaviour. The prevailing instruction and standard on this activity, related to construction and development, is the Nova Scotia Erosion and Sedimentation Control Guidelines. There are two tools the municipality can consider with respect to this objective: regulatory/enforcement and information/education.

Staff is recommending a focus on the information/education tool at this time, and have broached stakeholders from Nova Scotia Environment and Nova Scotia Homebuilders Association regarding a collaborative approach towards increased information and education. With Regional Council approval, a Memorandum of Understanding will be drafted with the stakeholders and returned to Regional Council. This would be completed within this HRM fiscal year. The improved collaboration will enable an integrated enforcement approach.

Recommendation #3: Continue to develop a Stormwater Management By-Law based on the objectives outlined in this report:

Upon best practices review and informed by community consultations, there are a number of options and topics to improved stormwater management behaviour that can be considered in a Stormwater Management or Drainage By-Law. This scope of tools aligns well with the integrated Stormwater Policy in development between Halifax Water and HRM.

Potential options identified include:

- Mandatory Downspout disconnection
- Foundation drainage disconnections
- Downspout distances
- Roof drainage disconnections
- Pool emptying restrictions
- Pet Waste
- Stormwater Treatment
- Maintenance of interceptors
- Prohibited materials
- Car washing

- Snow Disposal
- Sump Pumps
- Storm retention
- Stormwater Source Control
- Tree removal
- Solutions to Infill projects
- Erosion control measures

Development of this By-Law would continue in conjunction with the Integrated Stormwater Policy, and presentation for Public Hearing would be expected in conjunction with the Policy delivery to Regional Council in 2014/15. Further consultation is required on this By-Law, which would require input from business, Regional Watershed Advisory Board, and the general public. Some of the aforementioned items are complex and further analysis is required.

Recommendation #4: Develop a standardized Environmental Section template for consideration of objectives outside the scope of the Lot Grading By-Law or Stormwater Management By-Law for future secondary planning projects:

In preparation of future community planning projects, staff are reviewing and comparing the 22 Land Use By-Laws and the policy direction provided for environmental objectives. Included in that scope, is management of stormwater. Topics identified during consultations on Stormwater Management include the following items: Riparian Buffers; Low Impact Development solutions; Urban Forestry Objectives; Bioretention Ponds/Swales; and Policy triggering Pollution Prevention Plans.

Preparation of a draft Environmental Section template for the consideration in future Secondary Plan revisions can be completed during the preparation of the integrated stormwater policy. Further consultation with Developers and the Regional Watershed Advisory Board is required.

Recommendation #5: Align the Streets By-Law to the Wastewater Rules and Regulations with respect to substances originating on private property, crossing the right-of-way, and entering the storm system:

It is recommended that HRM extend the prohibition of substances entering the stormsystem, as outlined in the Halifax Water Rules and Regulations, to be prohibited from entering the entire Right-of-Way and develop an aligned enforcement service delivery with Halifax Water.

Integrated Stormwater Policy: All five recommendations align with the recommended scope for the Integrated Stormwater Policy project.

FINANCIAL IMPLICATIONS

Lot Grading By-Law: No financial impacts have been identified at this time. However, any that arise will be presented with the drafted By-Law to Council.

Stormwater Management By-Law: This By-Law may consider options that are currently not enforced or programmed that may have future financial implications, which would be articulated upon development.

Erosion and Sedimentation Control MOU: No financial impact to the 2013/14 Operating or Project budget but may have future financial implications, which would be articulated in the presentation of the MOU to Regional Council for approval.

Standardized Environmental Section, Land Use By-Laws: No financial impact.

Alignment of Streets By-Law with Halifax Water Rules & Regulations: The impact of this activity would be addressed under the Roles and Responsibilities Agreement with Halifax Water.

COMMUNITY ENGAGEMENT

Nova Scotia Home Builders Association: On August 8, 2013, NSHBA held a two hour lunch presentation and discussion on objectives for a municipal stormwater by-law. Primary comments included:

- Administration of deposits
- Challenge with infill lots
- Sharing of information
- Educational opportunities (for homeowners and builders)
- Challenge of impacts from other stakeholder (i.e. homeowner changing grade post-closing)
- Challenge of surveyors/landscapers complying to master lot grading plan
- Challenge of updating “as built” to master lot grading plan

Public Comments: from mid-July until September 15, 2013, HRM provided a Survey on www.halifax.ca, a summary of comments includes:

- Environmental protection
- Protection of property
- Public Safety
- Consistency
- Use of current technology and practices
- Fair to residents
- Information sharing
- Reuse stormwater to recharge groundwater

Regional Watershed Advisory Board: On August 14, 2013, The Board provided comments related to Stormwater Regulations. A summary of comments included:

- Environmental Protection and importance of balancing water flows
- Clear jurisdiction and roles
- Minimize sediment impacts
- Information sharing
- Training
- Practices during construction/development
- Reporting metrics
- Improved solutions: green roofs, engineered wetlands, permeable pavement

Halifax Water: Halifax Water staff has been engaged during the development of this report and will continue to provide comment and input to policy development.

It should be noted that there was a high degree of commonality between groups consulted, specifically the need for enhanced information sharing, environmental protection, flood protection, and efficiency.

Upon development of a draft by-law, there is further Public Engagement opportunity through the Public Hearing process required in the repeal and adoption of By-Laws.

ENVIRONMENTAL IMPLICATIONS

This policy work has implications on stormwater quantity (flooding) and water quality.

ALTERNATIVES

Council has a variety of alternatives with respect to exclusion or inclusion of specific topics in the respective prepared policy.

ATTACHMENTS

None

A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/cc.html> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Original Signed

Report Prepared by:

Richard MacLellan, Manager, Energy & Environment, 490-6056

Summary Report

Model Community Plan

Environmental Section

**Municipal Staff Compilation of Recommendations as
Received from the Regional Watersheds Advisory
Board**

Prepared by:

Cameron Deacoff
Planning & Development
February 18, 2015

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1 Introduction

In October 2013, Regional Council of the Halifax Regional Municipality directed municipal staff to develop a standardized Environmental Section template for consideration of objectives outside of the scope of the Lot Grading By-Law or Stormwater Management By-Law, for future secondary planning projects.

Pursuant to Regional Council direction, municipal staff contracted Genivar (now WSP Canada) to conduct a review of all Community Plans and the Regional Plan to identify policies that could form part of the Environmental Section template.

In December 2013, the Environment and Sustainability Standing Committee (ESSC) of Regional Council directed the Regional Watershed (sic) Advisory Board (RWAB) to review the report submitted by Genivar, and provide comments directly to staff to inform a Model Community Plan Environmental Section.

1.1 Project Scope

Genivar's report recommended identified 27 policy categories, with a total of 226 policies. Only 13 of the 27 categories fell within the RWAB's jurisdiction, as summarized below in Table 1.

Table 1 Policy categories presented to RWAB for review.

#	Category Name	# Policies
1	Central Services	19
2	Potable Water	9
3	On-Site Sewage	14
4	Storm Water Management	15
5	Regional Watersheds	4
6	Watercourses & Wetlands Protection	15
7	Salt Marshes	3
8	Floodplain Protection	8
9	Lake & Stream Protection	10
10	Coastal Lands / Shoreline / Waterfront	7
11	Tree Management	13
12	Slopes	4
13	Public Awareness	4

Ultimately, staff presented 125 individual policies for RWAB'S review.

In June 2014, staff presented the report, a proposed workplan, and associated background material to RWAB, and noted that the Board was expected to provide feedback to staff regarding all policies in the context of an environmental policy template for consideration in future community planning processes.

2 Methodology

2.1 Work Plan & Schedule

Introduction, June. Work start – July. Work Plan 124 policies/ 6 months = ~ 20 policies per month. Policy Review schedule presented in Table 2.

Table 2. Policy Review Schedule as Completed.

Meeting Date	Topics / Policy Categories addressed
June 2014	Introduce Project, Discuss Work Plan
July 2014	Central Services
August 2014	Potable Water, On-Site Sewage
September 2014	Floodplain Protection
October 2014	Slopes, Stormwater Management, Regional Watersheds
November 2014	Salt Marshes, Lake & Stream Protection, Coastal Lands/ Shoreline/ Waterfront
December 2014	Watercourse and Wetland Protection, Tree Management, Public Awareness

2.2 Presentation of Information

July – 28 page document, Policy Categories excerpted from the Genivar report. Presented in tandem with the Genivar report itself.

August - Table format, tabloid paper size (11x17), policies listed in rows (records), related information provided in columns (fields).

September – December. Repeated table format presentation, with minor variations in the number, size, and content of each column (field). In December, a major variation was deployed: two separate documents were issued from the same data table. The first document provided the policy statement, and the second document provided background information related to the policy statement.

Proceedings of each meeting were recorded via digital recorder by the Legislative Support clerk, and by staff of Planning & Development. Comments were also recorded either by hand, on a tracking spreadsheet, or both.

3 Results

All policies were presented to RWAB for their commentary by the conclusion of Board's final meeting in 2014 (December 10), and the Board responded to HRM staff on the policies during that same meeting. Given the range and number of policies under review, HRM staff developed a classification scheme to characterize the Board's responses. Four classes were identified, and the number of policy responses falling into each classification is as follows:

1. Support as Worded;
2. Specific Recommendations for Improvement;
3. Do Not Support – No Recommendations for Improvement; and
4. No Opinion.

Table 3. Summary of Responses by Class

Response Class	# Responses
Support as Worded	24
Specific Recommendations for Improvement	34
Do Not Support: No Recommendations for Improvement	28
No Opinion	39
Total	125

3.1 Support as Worded

RWAB indicated their support for 24 out of the 125 presented policies as presented, without amendment. These policies are identified below in Table 4.

Table 4. Policies Supported as Worded

Policy #	Policy	Policy Category	Rationale
E-4	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 Map (Map #). 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.	Central Services	n/a

Policy #	Policy	Policy Category	Rationale
E-5	<p>Notwithstanding Policy E-4, 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:</p> <p>1) areas identified as experiencing problems related to insufficient quality and/or poor quality of existing sources of water supply;</p> <p>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</p> <p>3) areas which would provide looping of existing infrastructure thereby enhancing reliability of the water system in the local area.</p> <p>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:</p> <p>(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;</p> <p>(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</p> <p>(c) environmental considerations related to the long term integrity of on-site sewage disposal systems as well as natural water drainage systems.</p>	Central Services	n/a
E-6	It shall be the intention of Council to undertake the necessary studies to determine the level of sewer and water services currently offered and to upgrade deficient sections of the system.	Central Services	n/a
E-7	Sewer and water service shall be installed concurrently in order to avoid problems with on-site disposal systems which can result through increased water usage where only central water service is provided.	Central Services	n/a
E-11	Extension of sewer and water service to existing or proposed lots which are located on a private road, or which are created under lot frontage exemptions, shall be entirely at the expense of property owners on such roads.	Central Services	n/a

Policy #	Policy	Policy Category	Rationale
E-15	It shall be the intention of Council to encourage the use of special assistance from Federal and Provincial agencies to assist in the installation of inside plumbing in those households where it currently does not exist and where central servicing systems are to be installed.	Central Services	n/a
E-17	It shall be the intention of Council to closely monitor all development proposals on the basis of the amount of effluent that will be generated in order to ensure that design flow levels are not exceeded.	Central Services	n/a
E-29	It shall be the intention of Council, in co-operation with the Department of Health, to seek solutions to the provision of adequate sewerage disposal systems and/or water supplies in areas of known septic system failure or inadequate water supplies. In this regard, Council shall give priority to on-site alternatives to municipal central servicing.	Potable Water	n/a
E-38	It shall be the intention of Council to encourage the Department of the Environment to enforce its On-Site Sewage Disposal System Regulations, which governs the design and installation of such systems, consistently throughout the Plan Area.	On-Site Sewage	n/a
E-41	It shall be the intention of Council to request the Board of the Environment to investigate the use of options such as cluster systems and waste water management districts to help rectify problems, in areas where waste is being dumped directly into water courses.	On-Site Sewage	n/a
E-42	It shall be the intention of Council to request the Department of the Environment to review its regulations governing setback of septic systems from water courses to ensure that the existing standards fully protect the environment.	On-Site Sewage	n/a
E-43	It shall be the intention of Council to encourage the use of innovative storm water management systems which reduce the impact of urban development on the environment. Such systems include incorporation of stormwater retention/detention ponds into the storm sewer system, use of open ditch drainage systems where appropriate, and directing roof drains to the surface rather than connecting directly to the storm sewer system where appropriate. Storm sewer systems are to avoid the direct discharge of stormwater into water bodies where possible.	Stormwater Management	n/a
E-53	It shall be the intention of Council to prepare and adopt a Lot Grading and Drainage By-law to control the grading of subdivisions and individual lots in order to reduce erosion and sedimentation of watercourses which result from improper or inappropriate drainage practices.	Stormwater Management	n/a

E-62	It shall be the intention of Council not to consider any rezoning application which will result in the development, excavation, infilling or alteration of any wetland, watercourse, water resource or floodplain, unless it is clearly demonstrated by detailed study that any such area, in whole or in part, does not meet any definition or fulfill such natural functions, as described in this planning strategy, or is otherwise not hazardous for development.	Watercourse & Wetland Protection	n/a
E-64	It shall be the intention of Council to encourage the Departments of Transportation and Environment to enforce compliance with the Province of Nova Scotia Environmental Construction Practice Specifications. Through the land use by-law, setbacks from watercourses shall be required in order to provide further environmental protection for watercourses within the Plan Area.	Watercourse & Wetland Protection	n/a
E-67	The Municipality shall establish standards, insofar as it has the power, for maintaining lake systems and their watersheds in a healthy state. These standards should address the infilling of lakes or their tributaries, the preservation of natural resources which are visually or ecologically complementary to those lakes and their tributaries, the control of discharges into lakes or tributaries resulting from public or private developments which would cause long-term degradation of the water quality, and the prevention of any other environmentally damaging effects.	Watercourse & Wetland Protection	n/a
E-70	It shall be the intention of Council to discourage the removal of trees and other vegetation within the setback areas [text omitted], and to encourage all property owners, when developing property bordering watercourses, to maintain a natural woodland buffer within setback areas.	Watercourse & Wetland Protection	n/a
E-71	The Municipality shall also encourage the respective provincial and federal approval authorities to refer any marine related infrastructure or infilling requests and applications occurring within Halifax Harbour, including the Northwest Arm, to the Development Officer for review of compliance with the Land Use By-law.	Watercourse & Wetland Protection	n/a
E-72	Features of environmental significance shall be delineated as non-disturbance areas under development agreements. Non-disturbance areas shall be located to allow for continuity non-disturbance areas on abutting lots, municipal parkland and open space dedications, and natural areas adjacent to watercourses.	Watercourse & Wetland Protection	n/a
E-77	It shall be the intention of Council to request the Department of the Environment to prohibit infilling or drainage of the coastal wetlands in the Plan Area, as shown on the Coastal Wetlands Map (Map 2).	Salt Marshes	n/a
E-94	It shall be the intention of Council to retain all lands in the sub-watershed of Lamont and Topsail Lakes as a conservation area in perpetuity.	Lake & Stream Protection	n/a

Policy #	Policy	Policy Category	Rationale
E-96	The Municipality shall establish standards, insofar as it has the power, for maintaining lake systems and their watersheds in a healthy state. These standards should address the infilling of lakes or their tributaries, the preservation of natural resources which are visually or ecologically complementary to those lakes and their tributaries, the control of discharges into lakes or tributaries resulting from public or private developments which would cause long-term degradation of the water quality, and the prevention of any other environmentally damaging effects.	Lake & Stream Protection	n/a
E-97	HRM shall, through the applicable land use by-law, prohibit all residential development on the coast within a 3.8 metre elevation above Canadian Geodetic Vertical Datum (CGVD 28). Provisions shall be made within the by-law to permit residential accessory structures, marine dependent uses, open space uses, parking lots and temporary uses within the 3.8 metre elevation. Consideration may be given to amending the by-law requirements where an updated system of measurement has been adopted or studies have been undertaken which recommend that such amendments are deemed prudent to provide a reasonable level of safety or to conform with guidelines or statements of interest adopted by the Province.	Coastal Lands/ Shoreline/ Waterfront	n/a
E-98	It shall be the intention of Council to work in cooperation with appropriate agencies to improve the quality of water in Bedford Basin to a level where it will support various recreational uses, including safe swimming, and permit the restoration of fish habitat	Coastal Lands/ Shoreline/ Waterfront	n/a
E-103	The Bedford Basin is a substantial water body characterized by mix of industrial uses, public parks, historic assets, commercial uses and a variety of residential uses. Halifax Regional Municipality recognizes that unfocused subdivision, development and water lot infilling activities along the Bedford Basin may result in undesirable impacts on the character of the area, on traditional views of the Bedford Basin, on its recreational use and on its marine environment. As a means of protecting the character of the Bedford Basin, the Municipality shall control development and subdivision on lots and water lots along the Bedford Basin between the southern boundary of PID 00279786 and the northern boundary of the Halifax Plan Area. Specific measures will include limiting the type of structures that will be allowed on both infilled and non-infilled water lots, implementing a setback from the Bedford Basin, limiting the type and size of structures to be built within the Bedford Basin setback, and preventing infilled and non-infilled water lots from being used in lot area and setback calculations.	Coastal Lands/ Shoreline/ Waterfront	n/a

Policy #	Policy	Policy Category	Rationale
E-171	It shall be the intention of Council to establish a Public Awareness and Education program for the general public which emphasizes the protection of Morris and Russell Lakes. The programs should at least incorporate the following: a) information programs for land owners on buffer zone management and the use of fertilizers; b) a program for local schools; c) application of an Animal Defecation By-law throughout the entire watershed area and actively enforce it; d) encourage local property owners to hold "Cleanup" days for litter collection in public areas; and e) establish a stormwater wetland as an educational demonstration site on the importance of protecting lakes.	Public Awareness	n/a

3.2 Specific Recommendations for Improvement

The Board indicated their support for 34 out of the 125 presented policies, based on the adoption of specific recommendations for improvement. These amended policies are identified below in Table 5, where the amendments are identified through bolding (added text) and red strikeouts (deleted text).

For three policy categories (Stormwater Management, Slopes, and Tree Management), RWAB recommended the adoption of one or two policies for the entire policy category, and expressed no opinion for the remaining policies in the respective categories. This approach is evident in Tables 5 and 7, respectively. For Tree Management in particular, the Board expressed general support for the Urban Forest Master Plan (UFMP), but did not wish to support all Best Management Practices identified with associated UFMP documentation.

Table 5. Amended Policies

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-6	It shall be the intention of Council to undertake the necessary studies to determine the level of sewer and water services currently offered and to upgrade deficient sections of the system.	Central Services	n/a
E-10	Developers of new buildings or subdivisions shall be responsible for installation and connection charges, and any additional charges to meet system capacity , for central sewer and water in all new developments.	Central Services	To address system capacity management.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-16	It shall be the intention of Council to consider the feasibility of establishing wastewater management districts for communities situated within the Plan Area as alternatives to central systems. Such systems may involve communal septic tanks and disposal fields operated and maintained by a public agency, and shall be monitored to ensure adequate performance.	Central Services	To address septic system performance.
E-18	It shall be the intention of Council, in consultation and cooperation with local groups and associations as well as senior government departments and agencies the Province of Nova Scotia and Government of Canada , to develop a long range servicing strategy which is consistent with clearly identified community and regional objectives related to the that provides for the environmental preservation and protection of the Shubenacadie waterway system watersheds and watercourses.. Particular attention shall be given to wastewater disposal system alternatives and development densities. Until such time as this servicing strategy is completed, it shall be the intention of Council to encourage the Department of Health and Fitness Province of Nova Scotia to require tertiary treatment for all new or expanded sewage treatment plants.	Central Services	To generalize the applicability of the original policy.
E-19	It shall be the intention of Council, in cooperation with the Department of Public Health, Province of Nova Scotia , to seek solutions to the provision of adequate sewage disposal systems in areas of known septic system failure. In this regard, Council shall seek solutions which are capable of conforming to the servicing strategy for the Plan Area.	Central Services	To generalize the applicability of the original policy.
E-20	HRM shall, through the applicable land use by-law, establish a Protected Water Supply Zone which shall be applied to all publicly owned lands which serve as a water supply watershed, including emergency water supply watersheds and well head protection areas, whether for publicly owned or privately owned communal well systems. This Zone may also be applied to private lands within these watersheds deemed necessary to protect the public water supply. The Zone shall permit water distribution and purification facilities, passive parks and trails, conservation related uses, and other uses as provided by the existing secondary planning strategies for these areas. The zone shall establish a minimum 30.5 metre riparian buffer around water supply sources.	Potable Water	To extend protection to privately-owned communal well systems.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-21	For any lands within a watershed or ground water supply area where a public or private water supply system has been established or is proposed, Council shall consider amendments to land use by-laws deemed necessary to: a) protect the water supply; (b) ensure that a consistent regulatory approach within each watershed; or (c) conform with any Statement of Provincial Interest Regarding Drinking Water.	Potable Water	To extend protection for private ground water supply areas and private ground water supply systems.
E-26	It shall be the intention of Council to consider the impact of uses which require large quantities of ground water on surrounding wells when considering any development agreement or an amendment to the land use by-law (EC-5) . It shall further be the intention of Council, in cooperation with the Province of Nova Scotia Nova Scotia Department of Health and Fitness and the Environment , to monitor well water quality through a mandated periodic testing program (to include, at minimum, bacteria and metals) to identify sources of well water contamination in areas not serviced by central water systems and to provide information to residents on water quality issues , methods of well construction and maintenance and on ways of obtaining potable water (EH-2) .	Potable Water	To merge the originating policies, statements, broaden applicability of the original policies, establish testing requirements, and ensure the provision of water quality information to residents reliant upon private ground water wells.
E-27	It shall be the intention of Council to seek the cooperation of the Province of Nova Scotia Department of Transportation and Communications in substituting for the use of de-icing agents such as road salt , in managing surface runoff in areas where runoff may contaminate local water wells leads to contamination of local wells or affects water quality in the Lake Major Watershed.	Potable Water	To generalize the applicability of the original policy.
E-30	It shall be the intention of Town Council, to maximize the use of the existing sewer system, by directing development to the Regional Centre and Growth Centres. these areas where services are available and only permit the development of on-site disposal systems on lots which are not presently serviced at the end of Shore Drive and on lots outside the Residential Development Boundary.	On-Site Sewage	To modernize the policy and extend consideration to Growth Centres.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-31	It shall be the intention of Town Council to enact a by-law enabling the Town to enforce property owners to undertake corrective measures to eliminate deficiencies which have been identified with their connection to the sanitary sewer system. To protect public health and the environment, HRM shall investigate a means to ensure that private on-site sewage disposal systems are maintained. Without limiting the generality of the foregoing, consideration shall be given to adopting a private on-site sewage disposal system by-law, establishing Wastewater Management Districts and establishing a mechanism for funding and administration.	On-Site Sewage	To modernize the policy. The original policy was completely eliminated in favour of Regional Plan (2014) policy SU-20.
E-40	It shall be the intention of Council to request the Province of Nova Scotia Board of the Environment to investigate the feasibility of introducing a monitoring system for new subdivisions to ensure that new septic systems are operating to design standards and that densities are not exceeding the ability of the soil to handle waste matter, and to consider the feasibility of accomplishing the foregoing through a waste water management district.		To modernize the policy and extend original considerations to waste water management districts.
E-50	No development shall be entered into unless a master storm water management plan has been prepared for the entire Wentworth/Bedford South master plan area and accepted by the Municipality. The management plan shall: - identify significant constraints and sensitivities with regard to flood potential, and environmental features; - provide estimates of pre-development and post development flow rates at critical locations within watercourses such as at culverts and fish passages other road crossings and at downstream developments; provide an estimate of the assimilative capacity of a wetland; - specify water quality and quantity objectives which are consistent with all municipal and provincial guidelines and identify the means of preventing adverse changes to the quantity and quality of watercourses and groundwater; - specify the type and location of storm water management facilities and the design requirements to protect receiving waters from contamination, excessive flow rates and loss of aquatic habitat and to protect the quantity and quality of groundwater flows; - prepare a program for implementation and monitoring before, during and after construction, including securities and any remedial action to be taken in the event that water quantity or quality objectives are not achieved.	Stormwater Management	To generalize the applicability of the original policy and identify measures to address wetland protection.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-58	<p>HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed. The study area shall be the entire watershed or sub-watershed. The studies, where appropriate, shall be designed to: (a) recommend measures to protect and manage quantity and quality of groundwater resources; (b) recommend water quality objectives for key receiving watercourses in the study area; (c) determine the amount of development and maximum inputs that receiving lakes and rivers can assimilate without exceeding the water quality objectives recommended for the lakes and rivers within the watershed; (d) determine the parameters to be attained or retained to achieve marine water quality objectives; (e) identify sources of contamination within the watershed; (f) identify remedial measures to improve fresh and marine water quality; (g) identify any areas around watercourses where increased flow from development could cause flood damage to properties or environmental damage and estimate the maximum increase in flow from the area to be developed that would not cause damage to the areas identified; (h) recommend strategies to adapt HRM's stormwater management guidelines to achieve the water quality objectives set out under the watershed study; (i) recommend methods to reduce and mitigate loss of permeable surfaces, native plants and native soils, groundwater recharge areas, and other important environmental functions within the watershed and create methods to reduce cut and fill and overall grading of development sites; (j) identify and recommend measures to protect and manage natural corridors and critical habitats for terrestrial and aquatic species, including species at risk; (k) identify appropriate riparian buffers for the watershed; (l) identify areas that are suitable and not suitable for development within the watershed; (m) recommend potential regulatory controls and management strategies to achieve the desired objectives; and (n) recommend a monitoring plan to assess if the specific water quality objectives for the watershed are being met.</p>	Regional Watersheds	To specify the spatial extent (scope) of watershed studies.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-59	HRM may consider preparing a water quality monitoring protocol for all watercourses to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners.	Regional Watersheds	To strengthen the commitment made in the original policy statement.
P-30	It shall further be the intention of Council to seriously consider the acquisition of acquire such marshes as public open space at the time of subdivision, and to develop these marshes as an educational resource or leave them in a natural condition as wildlife refuges.	Salt Marshes	To strengthen the commitment made in the original policy statement.
E-68	It shall be the intention of Council, through the land use by-law, to establish increased setback requirements for all new buildings and structures as follows: (a) to a minimum of fifty (50) feet from the Little Salmon River; (b) to a minimum of one hundred (100) feet from watercourses and waterbodies within the Lake Major Watershed; and (c) to a minimum of two hundred and fifty (250) feet from Lake Major. The setback of buildings and structures from watercourses is a necessary feature of land use management system. Future development must be appropriately setback to protect structures from peak floods and to prevent siltation of waterbodies, destruction of habitat and the incidence of flooding on downstream developments. The land use by-law will, therefore, control the location of new buildings or structures relative to watercourses, except for those that require direct access to water such as boat sheds.	Watercourse & Wetland Protection	To strengthen the commitments made in the original policy statements for E-68 and E-69 by replacing E-68 with the text provided as the Policy Rationale (verbatim).
E-78	It shall be the intention of Council to encourage conduct the necessary scientific studies to identify any coastal wetlands requiring specific protection, and to consider amending amend this strategy to establish and apply conservation zoning in such areas.	Salt Marshes	To strengthen the commitment made in the original policy statement.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-79	No development, grade alteration, excavation, fill, pavement or removal of natural vegetation shall be permitted within one hundred (100) feet of the high water mark, or within the limits of any 1 in 20 50 year flood plain of Kearney Lake, Kearney Lake Run or Black Duck Brook or within sixty-six (66) feet of the high water mark of any other watercourse, or within the limits of any 1 in 20 50 year flood plain of any watercourse, except as provided for by development agreement in accordance with an approved water management plan. In order to effectively address servicing and development concerns, and to provide protection for the lake as a recreation and aesthetic resource in the interim period, prior to installation of central sewerage services, new development in the immediate area of Springfield Lake was prohibited by the application of a RR-1 (Restricted Residential) Zone which only permitted the existing residential uses, accessory uses, offices in conjunction with the permitted uses and open space uses.	Floodplain Protection	To increase floodplain protection measures.
E-80	In recognition of the need to minimize the consequences of flooding along the watershed system and in recognition of the environmental importance of the river and its role in the natural storm drainage system, and consistent with the policies of the municipal planning strategy, it shall be the intention of Council to establish a Floodplain Designation as shown on the Generalized Future Land Use Maps (Maps 1A, 1B, 1C, 1D, 1E). This Designation shall encompass the 4:20 1:50 and the 1:100 floodplains as defined through detailed floodplain mapping. Within the Floodplain Designation it shall be the intention of Council to establish a FP(Floodplain) Zone, encompassing the 4:20 1:50 year floodplain, in which conservation related uses, resource activities, recreation uses, and public and private parks and playgrounds shall be permitted. Notwithstanding that these uses shall be permitted, any structures intended for human habitation, whether permanent or temporary, shall be prohibited. It shall be the intention of Council, in the interests of orderly development and public safety, to encourage and co-operate with the Province of Nova Scotia and Government of Canada senior levels of government in the development of floodplain mapping for the Plan Area. Upon completion of any floodplain mapping, Council shall review the Regional Plan in order to implement more appropriate	Floodplain Protection	To modernize the policy and increase floodplain protection measures by substituting the 1:50 floodplain for the 1:20 floodplain adopted in the original policy. The proposed policy also includes the body of policies E-81 and E-84.

	development controls.		
Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-81	See Policy E-80	Floodplain Protection	See Policy E-80
E-83	In order to minimize the effects upon natural stormwater flows it shall be the intention of Council to exercise control over the placement and stabilization of fill necessary for the floodproofing of structures permitted within the Floodplain Designation. Septic systems shall not be permitted to be constructed within the 1:50 or 1:100 floodplains. Further, through the review of subdivision applications, it shall be the intention of Council to co-operate with the Province of Nova Scotia Department of Transportation to ensure that any roadways proposed within the Floodplain Designation meet the requirements of the Halifax County Storm Drainage Task Force.	Floodplain Protection	To enhance floodplain protection and modernize the policy.
E-84	See Policy E-80.	Floodplain Protection	See Policy E-80.
E-86	It shall be the intention of Council to permit the redevelopment of existing uses within the 4:20 1:50 year floodway through the development agreement process, subject to the proponent agreeing to maintain, or enhance where possible, the water retention capabilities of the floodway.	Floodplain Protection	To increase floodplain protection measures.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-87	<p>A water quality monitoring program shall be undertaken for the major watershed, illustrated on Schedule BW-2 to track the eutrophication process water quality parameters. The program is to be designed in accordance with national guidelines established by the Canadian Council for Ministers of the Environment (the CCME guidelines) and undertaken by a qualified persons retained by the Municipality and financed in whole or in part by developers within the watershed area. Specifics of the program are to be negotiated under the terms of a development agreement in consultation with the Regional Watershed(s) (sic) Advisory Board. The monitoring program shall: a) specify the duration of monitoring for the pre-construction, construction and post-construction phases of development. Pre-construction phase means a period of time before construction activity starts. Post-construction phase means a period of time that commences at full build out of the area permitted by a development agreement. Construction phase means the full time period between the pre-construction and post-construction phase); b) specify the physical and chemical water quality indicators to be measured, the location and frequency of testing and the format of submissions to the Municipality in each phase referenced under clause (a); c) establish physical and chemical water quality indicator threshold levels for the recreational uses of the lakes which would be used as a basis for reevaluating watershed management controls and future development potential within the area. The threshold indicators are to be established prior to any development approvals being granted; d) conform with all water quality policies, specifications, protocols and review and approval procedures approved by Regional Council. Alternatively, the program may be long-term in nature, providing ongoing indications of water quality conditions.</p>	Lake & Stream Protection	To generalize the applicability of the original policy, to direct monitoring effort to parameters that may indicate conditions of concern inclusive of but not limited to eutrophication, and to accommodate the establishment of a long-term (baseline) monitoring program.
E-89	<p>In the event that water quality threshold levels, as specified under clause (c) of policy BW-3, for Paper Mill Lake or Kearney Lake, are reached, the Municipality shall undertake an assessment and determine an appropriate course of action respecting watershed management and future land use development in the area. An assessment shall consider the CCME guidelines. Water quality thresholds and any assessment reports shall be made available to the public.</p>	Lake & Stream Protection	To generalize the applicability of the original policy.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-90	<p>It shall be the intention of Council to encourage all new development near the lakes to meet certain basic design objectives as follows: a) to reproduce the pre-development hydrological conditions; b) confine development and construction activities to the least critical areas of the site and consider clustered development to minimize land disturbance; c) maintain the overall desired density of development by allocating higher densities to areas most suitable for development; d) minimize changes to the existing topography; and e) preserve and utilize the natural drainage system. In addition, the municipality should initiate true watershed planning, conduct stream gauging, and initiate a municipality-wide watershed monitoring program.</p>	Lake & Stream Protection	To increase lake and stream protection measures.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-91	<p>It shall be the intention of Council to require all new development situated on lands requiring a Development Agreement within the plan area to incorporate specific design standards which maximize the protection of water quality in Morris and Russell Lakes. The following shall be used as guidelines: a) all lands with slopes greater than 30% should not be developed; b) for all lands with slopes between 15% and 30%, a soil assessment will need to be completed and development staff will need to ensure proper engineering and testing is completed to ensure erosion will not be a problem – and of 15% or greater should not be developed unless additional environmental control measures are implemented and maintained to minimize the amount of erosion generated from the site; b) c) all wetlands (as defined by the presence of characteristic wetland vegetation) should be excluded from development; c) d) all shorelines should be protected by a 100 foot buffer zone except that the width of the buffer zone may be decreased to 75 feet if, through detailed study, the topography and vegetation conditions warrant the reduction. Within the buffer zone, no vegetation or soil shall be removed or altered unless under a management plan has been approved to provide for restoration of vegetation, shoreline access paths, view corridors, habitat management, safety and welfare or shoreline recreation where such provisions may be made without adversely affecting the primary purpose of preserving water quality in the lake. Any study or management plan submitted pursuant to this clause shall be prepared by a person qualified to make the required determinations and an approval procedure shall be established under the terms of a development agreement; d) e) all wetlands and watercourses should be protected with a buffer strip within which no vegetation or soil should be removed or altered unless approved under a management plan approved pursuant to the provisions of clause (e) (d). For wetlands, the buffer strip should be at least 25 feet in width for wetlands less than 0.5 acres in size and 50 feet for wetlands over 0.5 acres. All streams shall have a minimum 50 foot buffer strip on each side; e) f) the amount of impermeable surfaces created should not exceed 25% of the gross area of the proposed development. Minor increases in this figure may be considered provided the amount of proposed undisturbed land</p>	Lake & Stream Protection	To generalize the applicability of the original policy, to increase lake and stream protection measures, and to incorporate slope policies adopted through Policies E-151 through E-154.

	substantially exceeds the guideline described in section ML-11(f) and such undisturbed lands are incorporated into the final drainage plan; g g) a minimum of 25% of the natural vegetation on the site should be retained in an undisturbed state and incorporated into the final drainage plan; h h) the public, landowners, developers and the Municipality are encouraged to maximize phosphorous reduction to the fullest extent possible through the use of best management practices as recommended by the Morris Lake Stormwater Management Plan (Jacques Whitford, 2004); and h i) no development shall be permitted on septic systems.		
Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-92	It shall be the intention of Council to undertake a study of habitats and species within the Morris-Russell Lake area all watersheds within the municipality.	Lake & Stream Protection	To generalize the applicability of the original policy.
E-95	It shall be the intention of Council to provide funds through the capital budget to acquire lands for the purpose of lake protection and the provision of conservation and recreational lands adjacent to the lakes.	Lake & Stream Protection	To increase lake and stream protection measures.
E-100	It shall be the intention of Council to ensure compatible zoning and development standards are applied to areas of existing and future infill along the coast line. HRM may, through secondary planning strategies and land use by-laws, consider measures to regulate development of water lots that have been infilled, including establishing setbacks of buildings and structures from the water.	Coastal Lands/ Shoreline/ Waterfront	To increase coastal lands protection measures by inserting, verbatim, Policy E-20 from the HRM Regional Plan (2014).
E-102	It shall be the intention of Council, through the land use by-law, to establish a building setback and buffer of two hundred (200) feet for any those coastal lands as shown on Map 4—Environmental Constraints. designated as conservation lands. No structure, excavation, infilling or grade alteration shall be permitted to occur within the setback/buffer area and the retention of natural vegetation within the area shall be part of these requirements. The land use bylaw shall contain provisions to reduce this requirement to one hundred (100) feet for those lots in existence on the effective date of this planning strategy and if otherwise development would be prohibitive.	Coastal Lands/ Shoreline/ Waterfront	To generalize the applicability of the original policy.

Policy #	Amended Policy	Policy Category	Rationale for Amendment
E-139	Within any watercourse protection setback established under policy BW-7, no vegetation or soil shall be removed or altered unless a management plan has been approved to provide for restoration of vegetation, shoreline access paths, habitat management, safety and welfare or shoreline recreation where such provisions may be made without adversely affecting the primary purpose of preserving water quality in the lake. Any study or management plan submitted pursuant to this clause shall be prepared by a person qualified to make the required determinations and an approval procedure shall be established under the terms of a development agreement.	Tree Management	This policy represents RWAB's interests in and support for trees and vegetation.
E-151	Development of major land areas on slopes in excess of twenty-five percent (25%) thirty percent (30%) shall be prohibited. Development of major land areas on slopes of fifteen to thirty percent (15-30%) shall be prohibited under any development agreement except where, through extensive studies , it can be demonstrated that such development would not create any hazard and could better preserve open spaces or areas of environmental value.	Slopes	To increase slope protection measures, and therefore reduce the potential for erosion.

3.3 Do Not Support – No Recommendations for Improvement

RWAB indicated a lack of support for 28 out of the 125 presented policies as presented, without amendment. These policies and the associated rationale for their response are identified below in Table 6.

Table 6. Policies Not Supported

Policy #	Policy	Policy Category	Rationale
E-2	Notwithstanding Policy E-1, 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.	Central Services	Rationale not documented.

Policy #	Policy	Policy Category	Rationale
E-13	It shall be the intention of Council to monitor the possibility of participating in a regional approach to the treatment of sewage wastes as a long-term solution to improving the quality of Halifax Harbour. Piped water services in Cole Harbour/Westphal are owned and operated by the City of Dartmouth Water Utility. Water is supplied to the community through a 24 inch main from the Mount Edward Reservoir which is located within the City boundary at its intersection with Highway No. 7.	Central Services	Board agreed with Staff that the policy is redundant.
E-22	It shall be the intention of Town Council to ensure a long term potable water supply and adequate fire flows from the present water supply system, and to protect by appropriate means the ground water aquifer in the unserved areas of the Town.	Potable Water	Board agreed with Staff that the policy is redundant.
E-23	It shall be the intention of Town Council to ensure the provision of adequate fire flows in new developments through the servicing specifications of the Town's Subdivision By-law.	Potable Water	Board agreed with Staff that the policy is redundant.
E-24	It shall be the intention of Town Council to encourage the creation of a joint Water Utility Board with representation from Halifax County and the Town of Bedford, so that the Town has input into matters affecting the distribution of water within its boundaries.	Potable Water	Board agreed with Staff that the policy is redundant.
E-25	It shall be the intention of Town Council, through its representation on the Metropolitan Area Planning Commission, to seek inter-municipal cooperation on the establishment of a regional water supply and distribution system.	Potable Water	Board agreed with Staff that the policy is redundant.
E-32	The goal of the regional sewage system shall be to eliminate discharge of untreated waste to the Herring Cove area, directly to the ocean or indirectly through the McIntosh Run.	On-Site Services	Board agreed with Staff that the policy is redundant.
E-33	HRM shall pursue a funding plan that reduces connection charges for existing dwellings to the equivalent of the provincial average cost for on-site installation.	On-Site Services	Board agreed with Staff that the policy is redundant.
E-34	It shall be the intention of Council to request that the Department of the Environment take steps to ensure the environmental integrity of the McIntosh Runs river system.	On-Site Services	Board agreed with Staff that the policy is redundant.
E-35	It shall be the intention of Council, in cooperation with the provincial Department of the Environment, to investigate the use of alternative on-site sewage disposal systems where appropriate in the Plan Area.	On-Site Services	Board agreed with Staff that the policy is redundant.

Policy #	Policy	Policy Category	Rationale
E-36	It shall be the intention of Council in cooperation with the Nova Scotia Department of Health to investigate, through the Board of Health, the feasibility of introducing an on-site sewage disposal system maintenance programme.	On-Site Services	Board agreed with Staff that the policy is redundant.
E-37	It shall be the intention of Council to prohibit the establishment in the Plan Area of any industry whose effluent cannot be disposed of by means of an on-site sewage disposal system.	On-Site Services	Board believes that the management of industrial effluent can be addressed in ways other than as directed by this policy.
E-39	It shall be the intention of Council, in cooperation with the Provincial Departments of Health and Environment, to investigate both the licensing of septic tank cleaning firms and the provision of an adequate treatment and disposal system for septic tank wastes.	On-Site Services	Board agreed with Staff that the policy is redundant.
E-63	It shall be the intention of Council to encourage the provincial Department of the Environment to improve enforcement of regulations and guidelines concerned with the infilling of watercourses within the Plan Area.	Watercourse & Wetland Protection	Board finds the policy unnecessary and unhelpful.
E-65	It shall be the intention of Council to request that the Regional Waters Advisory Committee provide a written comment on developments being undertaken by a development agreement prior to a recommendation being made by the Bedford Planning Advisory Committee.	Watercourse & Wetland Protection	Board agreed with Staff that the policy is redundant.
E-66	It shall be the intention of Council to request the Regional Waters Advisory Committee to implement a water quality sampling program of all lakes and rivers in the Plan Area in an attempt to provide an historical data base for water quality.	Watercourse & Wetland Protection	Board agreed with Staff that the policy is redundant.
E-69	It shall be the intention of Council to establish setback and buffer requirements for all watercourses within the plan area, including but not limited to those as generally shown on Map 4 - Environmental Constraints. No structure, excavation, infilling or grade alteration shall be permitted to occur within one hundred (100) feet of any watercourse. The retention of natural vegetation within the setback/buffer area shall be part of these requirements. The land use bylaw shall contain provisions to reduce this requirement to fifty (50) feet for lots in existence on the effective date of this planning strategy where otherwise development would be prohibitive.	Watercourse & Wetland Protection	Board substituted in its place a new policy – see Policy E-68.

Policy #	Policy	Policy Category	Rationale
E-73	It shall be the intention of Council to establish a larger setback requirement from a watercourse or well for intensive livestock operations, forest processing operations, greenhouses, facilities associated with extractive facilities and industrial uses as such uses can have a substantial impact on the natural environment.	Watercourse & Wetland Protection	Board believes that there are other mechanisms to address the environmental impacts of operations, facilities and uses addressed in the policy.
E-74	It shall be the intention of Council to encourage the provincial Department of Natural Resources to evaluate the recreational potential of the watercourses in the Plan Area in order to be selected for the Recreational Waterways Program under the provincial Trails Act. Furthermore, Council shall recognize and support the actions of the province for watercourses designated under the Recreational Waterways Program.	Watercourse & Wetland Protection	Board declared the policy redundant.
E-75	It shall be the intention of Council to encourage the federal Departments of Fisheries and Oceans and Environment Canada to hold public information meetings to explain shellfish closures when they occur.	Watercourse & Wetland Protection	Board declared the policy redundant.
E-82	Within the Floodplain Designation it shall be the intention of Council to apply the MU-2 (Mixed Use 2) Zone established by Policy P-11 to those lands beyond the 1:20 year floodplain but within the 1:100 year floodplain. Notwithstanding the provisions of Policy P-11 and with the exception of buildings permitted in the floodplain zone, Council may only consider permitting buildings within the 1:100 year floodplain by development agreement and according to the provisions of the Municipal Government Act. In considering any such agreement, Council shall have regard to the following: (a) that adequate flood proofing measures are undertaken for any building; (b) that the type of residential development is consistent with that permitted by the zone within which the lands are located and that the minimum standards for such developments are no less than those required by the zone unless necessary for reasons of safety; and (c) the environmental protection of the watercourse with respect to proper storm drainage	Floodplain Protection	Board is not convinced that it is possible to adequately flood proof structures.

Policy #	Policy	Policy Category	Rationale
E-85	In order to minimize the effects upon natural stormwater flows it shall be the intention of Council to exercise control over the placement and stabilization of fill necessary for the floodproofing of structures permitted within the Floodplain Designation. Further, through the review of subdivision applications, it shall be the intention of Council to co-operate with the Department of Transportation to ensure that any roadways proposed within the Floodplain Designation meet the requirements of the Halifax County Storm Drainage Task Force.	Floodplain Protection	Policy is identical to E-83, which the Board provided specific recommendations.
E-88	Where the Community Council is satisfied that a development agreement application has been made for a development proposal which could not be reasonably expected to impact the quality of water within the Paper Mill Lake watershed, the requirements of policy BW-3 may be waived.	Lake & Stream Protection	The Board felt that this policy was location-specific and could not be adequately amended to make it applicable more broadly across the municipality.
E-93	It shall be the intention of Council to monitor the water level of major lakes to maintain it at a level sufficient for recreational use and to prevent further eutrophication of the lake.	Lake & Stream Protection	Board declared the policy redundant.
E-99	It shall be the intention of Council to request the Halifax Port Authority to forward applications for infilling of Bedford Bay shoreline to the Regional Waters Advisory Committee and the Provincial Department Environment for comment.	Coastal Lands/ Shoreline/ Waterfront	Board declared the policy redundant.
E-101	Council shall require the Regional Waters Advisory Committee to report on any environmental impact assessment (i.e. changes in water circulation patterns, effect of project on sewage treatment plant discharge, etc.,) of the proposed waterfront development projects before entering into a development agreement.	Coastal Lands/ Shoreline/ Waterfront	Board declared this policy to be no longer applicable (out of date).
E-172	The Municipality should encourage educational programs to further an understanding and appreciation of the environment.	Public Awareness	Board believes the intent of this policy was better presented in Policy E-171.

3.4 No Opinion

The Board indicated no opinion for 39 out of the 125 presented policies. These policies are identified below in Table 7.

For three policy categories (Stormwater Management, Slopes, and Tree Management), RWAB expressed no opinion for a majority of presented policies, but recommending the adoption of one or two amended policies to represent their interests for the entire policy category. This approach is evident in Tables 5 and 7, respectively.

Table 7. Policies on which no opinion was expressed

Policy #	Policy	Policy Category	Rationale
E-1	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.	Central Services	Policy E-23 (RP 2014) achieves the policy objective.
E-3	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.	Central Services	Provincial regulations achieve policy objectives
E-8	Central sewer and water services shall be required for all new development in the service district, except for lots with no road frontage, and except for lots subdivided with frontage on existing public streets prior to the installation of central sewer and water service by the municipality.	Central Services	n/a
E-9	Connection charges for existing dwellings shall be determined on a per dwelling unit basis.	Central Services	n/a
E-12	Siting of the Herring Cove water tower shall give consideration to reducing visual impact of the facility, while recognizing that minimizing cost is the chief factor in detailed design.	Central Services	The Board commented that this was an aesthetic issue rather than an environmental issue.
E-14	In order to ensure that critical sewer and water problems will not be created within or beyond development areas, the amount of development shall be related to capacity of existing (including potential rehabilitation) and planned sewer, water and pollution control systems, by drainage area, and shall not exceed the capacities of those systems as determined by the standard practices of the City. This shall be accomplished by Implementation Policy 5.	Central Services	Policy SU-4 (RP 2014) achieves the policy objective.

Policy #	Policy	Policy Category	Rationale
E-28	In the interests of ensuring an acceptable potable water supply to existing and future residents, it shall be the intention of Council to monitor consumption levels, maintain an adequate level of fire flow and preclude the use of water from the municipal central water system for uses other than domestic or light commercial purposes. In this regard, Council shall discourage the use of municipally supplied water for industrial and heavy commercial purposes.	Potable Water	n/a
E-44	It shall be the intention of Council through the Engineering and Works Department to identify areas where deficiencies exist in the existing storm water system and prepare and implement a budget program to overcome these deficiencies.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-45	It shall be the intention of Council to require the Engineering and Works Department to involve the Parks and Recreation Department and the Regional Waters Advisory Committee in the review of storm water systems which will discharge to parkland.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-46	In recognition of the need to protect the Plan Area's lakes and rivers, it shall be the intention of Council to implement the Stormwater Policy and Design Criteria for types of development and portions of the Plan Area where it is determined to be appropriate and feasible, through necessary amendments to the Subdivision By-law.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-47	It shall be the intention of Council to encourage the Departments of Transportation and Communications and the Environment to enforce compliance and implement the Province of Nova Scotia Environments Construction Practice Specifications in the Plan Area.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-48	HRM shall seek ways to mitigate any negative impact of runoff and storm sewer from existing development on surface water resources in the watersheds.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-49	It shall be the intention of Council to adopt a comprehensive stormwater management system for the Plan Area. Preparatory to its adoption, Council, through the Engineering and Works Department, should undertake: (a) the identification of watersheds, watercourses and waterbodies within the Plan Area; (b) to identify areas within the Plan Area which have deficiencies in their existing storm drainage systems; and (c) the preparation of urban drainage master plans appropriate to the Plan Area.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.

Policy #	Policy	Policy Category	Rationale
E-51	No development agreement shall be entered into unless the detailed design specifications conform with the master stormwater management plan approved under Policy E-50.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-52	No stormwater shall be discharged directly into any natural watercourse without the use of mitigative measures as stipulated in under the stormwater management plan and in accordance with municipal and provincial guidelines.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-53	It shall be the intention of Council to prepare and adopt a Lot Grading and Drainage By-law to control the grading of subdivisions and individual lots in order to reduce erosion and sedimentation of watercourses which result from improper or inappropriate drainage practices.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-54	It shall be the intention of Council to seek the cooperation of the Municipality in monitoring site construction and storm drainage practices within the watersheds of shared lakes and watercourses and to establish methods of improving storm drainage in order to improve the level of water quality.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-55	Within the Land Use By-law a minimum pervious surface requirement shall be established and applied to all zones.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-56	Within the Land Use By-law and Erosion and Sediment Minimization Plan shall be required for all Zones. The sedimentation and erosion control measures shall be employed where a vacant lot exists or change in grade is proposed. The Plans shall show the proposed erosion and sediment controls to be employed, where the measures will be found, the timing of installation (before construction begins), the inclusion of drainage controls up-slope of the construction site; inspection and monitoring, and timing of removal (after the entire site has been stabilized).	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.
E-57	It shall be the intention of Council, in cooperation with the Provincial Departments of Environment and Transportation, to review and implement siltation and erosion control provisions.	Stormwater Management	Board feels that amended policy E-50 represents its interests in this policy category.

Policy #	Policy	Policy Category	Rationale
E-60	It shall be the intention of Council to enter into an inter-municipal planning strategy or to seek co-ordination of municipal planning strategy policies with adjacent municipalities in order to establish site construction and land use practice standards within regional watersheds, specifically the Sackville River, Kearney Lake, Sandy Lake, Rocky Lake, Marsh Lake, Paper Mill Lake, and Anderson Lake watersheds, to protect regional water resources.	Regional Watersheds	Board felt that amended versions of policies E-58 & E-59 addressed this policy category.
E-61	It shall be the intention of Council upon the adoption of this plan to undertake an in-depth environmental study of the Sandy Lake watershed which will include input from the N.S. Department of Environment as well as area residents, and shall examine present water quality, watershed land use practices increased rates of sedimentation, and the development of a recovery and protection program for Sandy Lake if warranted by the study.	Regional Watersheds	Board felt that amended versions of policies E-58 & E-59 addressed this policy category.
E-76	It shall be the intention of Council to continue to support and cooperate with the Shubenacadie Lakes Advisory Board by referring subdivisions and developments within three hundred (300) metres of the streams and lakes of the Shubenacadie-Stewiacke system.	Watercourse & Wetland Protection	n/a
E-137	The recommendations of the Urban Forest Master Plan, adopted in principle by HRM in September 2012, shall be considered in planning, programming and regulatory activities related to managing and enhancing the urban forest cover in HRM. No development agreement shall be entered into over lands on which trees have been removed except: (a) as may be required for a bonafide land survey; (b) to satisfy any provincial or federal requirements; or (c) where, in the opinion of Council, the extent of such cutting would not preclude achieving the three objectives stated above.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-138	It shall be the intention of Council, in consultation with the community of Upper Hammonds Plains and the Department of Natural Resources, to provide support in identifying measures to resolve problems which exist with the community use of the Melvin Tract Lands. In particular, Council shall assist the community in investigating the establishment of a Forest Management Plan for these lands or a crown land transfer to obtain community land outside of the Tomahawk Lake watershed.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.

Policy #	Policy	Policy Category	Rationale
E-140	Wetlands, lakes, watercourses, endangered species habitat and any other features of environmental significance shall be delineated as non-disturbance areas under development agreements. Non-disturbance areas shall be located to allow for continuity of non-disturbance areas on abutting lots, municipal parkland and open space dedications, and natural areas adjacent to watercourses.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-141	A tree replanting program shall be incorporated into development agreements. The program shall specify the locations, number, type and diameter of trees to be planted. The type of trees shall be indigenous to Nova Scotia.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-142	It shall be the intention of Council through the Tree Committee to ensure proper management of trees on Plan Area land (including but not limited to, maintenance, and planting) and provide assistance and encouragement to the private land owner to do the same. In addition the Tree Committee shall work to establish an ongoing Tree Planting Program on Plan Area parkland and in existing and new residential, commercial, and industrial developments with the cooperation of developers/subdividers and residents of the area.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-143	It shall be the intention of Council through the Tree Committee to identify unique stands of trees and through such means as the adoption of a Tree Protection By-Law and/or acquisition through the parkland dedication process, to seek to protect these trees to conserve them as an environmental resource.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-144	The Municipality shall continue its tree-planting program to ensure that all streets benefit.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-145	In all cases in which landscaping or buffering is required, the use of coniferous trees on the north, west and east sides of the property, and deciduous trees on the south side shall be encouraged unless inappropriate to the specific use or site.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-146	Means of improving the environment of minor commercial areas shall be investigated. Improvements should include such items as public benches for use by shoppers, the use of planters or trees along the street, and improvements of sidewalk conditions.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.

Policy #	Policy	Policy Category	Rationale
E-147	The Municipality shall maintain the planting and protection of shade trees within its control, and should develop a tree planting program which will improve the quality of the urban environment.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-148	The Municipality should protect existing green areas and attempt to create new green areas. Every effort should be made to protect existing boulevards, tree-lined streets, and small parks.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-149	No development agreement shall be entered into over lands on which trees have been removed except as may otherwise be required for a bonafide land survey or as may be agreed upon with the Municipality to protect property or ensure safety.	Tree Management	Board feels that amended policy E-139 represents its interests in this policy category.
E-152	The Municipality may allow for modifications to the service system specifications adopted under subdivision regulations where such modifications would enhance the ability to preserve the natural environment without compromising the intended objectives of the service systems.	Slopes	Board feels that amended policy E-151 represents its interests in this policy category.
E-153	It shall be the intention of Council to identify on a map areas which are environmentally sensitive to development. This map shall be known as the Environmentally Sensitive Areas Map. These areas, which require special consideration in their development because of the presence of certain hydrologic and geomorphic features, are slopes which exceed 20% and water retention areas [lakes, ponds, swamps, bogs, marshes]. Environmentally sensitive areas within the two large undeveloped portions of the Plan Area located within the Residential Development Boundary have been studied and identified: a) Union Street RCDD, and b) Papermill Lake RCDD.	Slopes	Board feels that amended policy E-151 represents its interests in this policy category.
E-154	Every effort shall be made to ensure that vegetation remains undisturbed on slopes 16% and greater.	Slopes	Board feels that amended policy E-151 represents its interests in this policy category.
E-173	Where possible, new public awareness and education opportunities for the Little Sackville River, such as a new bridge, observation platforms, and a river centre, shall be encouraged as generally described in the Action Plan.	Public Awareness	n/a

Appendix – Policy Statement Fact Sheets

<u>CENTRAL SERVICES</u>	
Municipal Policy Interest	The municipal interest in central services is founded in the recognition that servicing and infrastructure provide support for development; central service boundaries effectively determine the location of the most densely populated communities within municipal boundaries. As such, careful planning is important to ensure that infrastructure is strategic and efficient, that communities have adequate potable water and proper collection, and that treatment and disposal of sewage wastewater protects the natural environment and public health.
Jurisdiction	<p>HRM has jurisdiction over most of the policy areas in this section, as the Regional Plan provides direction to support a sewage disposal system by-law, establishing Wastewater Management Districts, determining service area boundaries. HRM can also control central services through Municipal Planning Strategies and Land Use Bylaws.</p> <p>In 2007, Halifax Regional Water Commission (Halifax Water) took control of the operation and administration of municipal waste-water facilities and stormwater facilities within the defined core area. As such, municipal planning that pertains to servicing within this boundary requires collaboration with Halifax Water.</p> <p>Sewer licencing is a responsibility of the Province of Nova Scotia.</p>
Regional Plan Comments	<p>SU-4 When considering any expansion of the Urban Service Area, HRM shall have regard to the following:</p> <p>(e) the need to oversize the water, wastewater or stormwater systems to allow for future development within an Urban Settlement or Urban Reserve designation;</p> <p>SU-6 HRM shall consider the extension of municipal wastewater and water distribution services to these properties to allow for a residential subdivision by development agreement subject to the following criteria:</p> <p>(e) that the development is capable of utilizing existing municipal trunk sewer and water services without exceeding capacity of these systems;</p> <p>(g) that, if required by Halifax Water, a sewage flow monitoring program is established for the development and that provisions are made for its phasing</p>

	<p>in relation to achieving sewage flow targets;</p> <p>(h) that the sewage flow monitoring program proposed by the developer for implementation under clause</p> <p>(g) addresses, in a form acceptable to Halifax Water, target sewage flows to be achieved in relation to development phasing and the method, duration, frequency and location of monitoring needed to verify that target sewage flows have been achieved;</p> <p>(i) provisions for the proper handling of stormwater and general drainage within and from the development;</p> <p>SU-13 In recognition of the Water Service Districts established under the former Halifax County Municipality Subdivision By-law, HRM shall, through the Regional Subdivision By-law, establish Water Service Areas where 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 developments 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.</p> <p>SU-15 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:</p> <p>(a) the lands are in proximity to a water transmission main planned or constructed by Halifax Water to improve the performance of the water distribution system;</p> <p>(b) a study has been prepared by a qualified person verifying that there is a water quality</p> <p>or quantity problem that cannot reasonably be rectified by an alternative means;</p> <p>(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</p> <p>accordance with Policy SU-19; and</p> <p>(d) an area charge needed to pay for growth related improvements to the water, or stormwater services has been approved by the Review Board or</p>
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	<p>Halifax Water has advised that an area charge is not required.</p> <p>SU-17: HRM shall encourage, where appropriate soil conditions exist, the development of conservation design developments serviced by private wastewater facilities on lands within the Rural Commuter, Rural Resource and Agricultural Designations, provided that the systems comply with the requirements of the Nova Scotia Department of Environment.</p> <p>SU-18 HRM shall, through secondary planning processes, consider the potential for establishing Wastewater Management Districts within Rural Commuter, Rural Resource and Agricultural Centres.</p> <p>SU-19 HRM may consider establishing wastewater Management Districts in areas that have failing on-site sewage disposal systems that cannot be remediated by private on-site sewage disposal systems.</p> <p>SU-20 To protect public health and the environment, HRM shall investigate a means to ensure that private on-site sewage disposal systems are maintained. Without limiting the generality of the foregoing, consideration shall be given to adopting a private on-site sewage disposal system by-law, establishing Wastewater Management Districts and establishing a mechanism for funding and administration.</p>
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<u>Policy E-1</u>	
Policy Statement	E-1- 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.
Origin	Beaverbank, Hammonds Plains & Upper Sackville (P-82)
Policy Rationale	Most privately operated central services offer such problems primarily related to inadequate maintenance, although in some cases poor design and installation have contributed. In general, long-term performance records have been poor. 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.
RWAB Position	<p>Recommendation not given.</p> <p>No Opinion</p>

<u>Policy E-2</u>	
Policy Statement	Notwithstanding Policy E-1, 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.
Origin	Beaverbank, Hammonds Plains & Upper Sackville (P-83)
Policy Rationale	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.
RWAB Position	RWAB recommended that this policy not be adopted. Do Not Support- No Recommendation for Improvement

<u>Policy E-3</u>	
Policy Statement	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.
Origin	Beaverbank, Hammonds Plains & Upper Sackville (P-84)
Policy Rationale	<p>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.</p> <p>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>
RWAB Position	Recommendation not given. No Opinion

<u>Policy E-4</u>	
Policy Statement	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 Map (Map #). 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.
Origin	Beaverbank, Hammonds Plains & Upper Sackville (P-85); Chebucto Peninsula (E-9); Eastern Passage / Cow Bay E-7(a); North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston EH-4(a); Shubenacadie Lakes (P-8(a))
Policy Rationale	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 extension of trunk services to these areas also resulted in new development being able to access central water increasing the populations and development of these areas. 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.
RWAB Position	Support as Worded

Policy E-5

Policy Statement	<p>Notwithstanding Policy E-4, 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:</p> <ul style="list-style-type: none"> 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. <p>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:</p> <ul style="list-style-type: none"> (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. (C-Aug 29/94;M-Oct 21/94)
Origin	Beaverbank, Hammonds Plains & Upper Sackville (P-86); Chebucto Peninsula (E-10); Eastern Passage / Cow Bay E-7(b)); North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston (EH-4(b)); Shubenacadie Lakes (P-8(b))
Policy Rationale	Council may 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.
RWAB Position	Support as Worded

<u>Policy E-6</u>	
Policy Statement	It shall be the intention of Council to undertake the necessary studies to determine the level of sewer and water services currently offered and to upgrade deficient sections of the system.
Origin	Bedford (E-29)
Policy Rationale	<p>Domestic water flows relate to supplies of water for household and business purposes. As well, the Town must also be concerned about the adequacy of water supplies with regard to 'fire flows', the pressure and volume of water supplied for firefighting purposes.</p> <p>Policy E-29 refers to the need for Council to undertake the studies required to make decisions on extensions to the Development Boundary from a servicing perspective and on capital expenditures to upgrade or expand this infrastructure.</p>
RWAB Position	Support as Worded

<u>Policy E-7</u>	
Policy Statement	Sewer and water service shall be installed concurrently in order to avoid problems with on-site disposal systems which can result through increased water usage where only central water service is provided.
Origin	Chebucto Peninsula (E-25)
Policy Rationale	Self-evident.
RWAB Position	Support as Worded

<u>Policy E-8</u>	
Policy Statement	Central sewer and water services shall be required for all new development in the service district, except for lots with no road frontage, and except for lots subdivided with frontage on existing public streets prior to the installation of central sewer and water service by the municipality.
Origin	Chebucto Peninsula (E-26)
Policy Rationale	<p>Regional Subdivision By-law</p> <p>14 (2) Within the Herring Cove Serviceable Area as identified in the Chebucto Peninsula Municipal Planning Strategy, the Development Officer may approve lots</p> <p>served by on-site sewage disposal and water systems with frontage on existing</p> <p>public streets or highways, prior to the installation of central sewer and water services by the Municipality</p>
RWAB Position	<p>No consensus expressed by the Board.</p> <p>No Opinion</p>

<u>Policy E-9</u>	
Policy Statement	Connection charges for existing dwellings shall be determined on a per dwelling unit basis.
Origin	Chebucto Peninsula (E-28)
Policy Rationale	Rationale not given.
RWAB Position	No Opinion

<u>Policy E-10</u>	
Policy Statement	Developers of new buildings or subdivisions shall be responsible for installation and connection charges for central sewer and water in all new developments.
Origin	Chebucto Peninsula (E-29)
Policy Rationale	<p>Traditional sources of public funding for municipal infrastructure have been reduced and new infrastructure will need to be funded without public financing available in the past.</p> <p>In order to help facilitate continued growth without imposing an excessive financial burden on the existing taxpayers of the Municipality, it is Council's intention to recover infrastructure-related costs associated with new growth in the form of Infrastructure Charges in accordance with the provisions of the Municipal Government Act (MGA).</p> <p>Recovery of Infrastructure Charges will enable the Municipality to allocate the capital costs associated with new infrastructure to developers and subdividers deriving servicing benefits from the new infrastructure.</p>
RWAB Position	<p>Proposed amended policy:</p> <p>Developers of new buildings or subdivisions shall be responsible for installation and connection charges, and any additional charges to meet system capacity, for central sewer and water in all new developments.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-11</u>	
Policy Statement	Extension of sewer and water service to existing or proposed lots which are located on a private road, or which are created under lot frontage exemptions, shall be entirely at the expense of property owners on such roads.
Origin	Chebucto Peninsula (E-30)
Policy Rationale	Traditional sources of public funding for municipal infrastructure have been reduced and new infrastructure will need to be funded without public financing available in the past.

	<p>In order to help facilitate continued growth without imposing an excessive financial burden on the existing taxpayers of the Municipality, it is Council's intention to recover infrastructure-related costs associated with new growth in the form of Infrastructure Charges in accordance with the provisions of the Municipal Government Act (MGA).</p> <p>Recovery of Infrastructure Charges will enable the Municipality to allocate the capital costs associated with new infrastructure to developers and subdividers deriving servicing benefits from the new infrastructure.</p>
RWAB Position	Support as Worded

<u>Policy E-12</u>	
Policy Statement	Siting of the Herring Cove water tower shall give consideration to reducing visual impact of the facility, while recognizing that minimizing cost is the chief factor in detailed design.
Origin	Chebucto Peninsula (E-31)
Policy Rationale	Not given.
RWAB Position	<p>Board feels this is a community aesthetics issue, not an environmental one.</p> <p>No Opinion</p>

<u>Policy E-13</u>	
Policy Statement	It shall be the intention of Council to monitor the possibility of participating in a regional approach to the treatment of sewage wastes as a long-term solution to improving the quality of Halifax Harbour. (Text in red applies only to CHW policy). Piped water services in Cole Harbour/Westphal are owned and operated by the City of Dartmouth Water Utility. Water is supplied to the community through a 24 inch main from the Mount Edward Reservoir which is located within the City boundary at its intersection with Highway No. 7.
Origin	Cole Harbour/ Westphal (E-9); Sackville (E-11)
Policy Rationale	Although Plan Area residents will not be directly involved in or affected by proposals to improve the quality of the harbour, there is a strong degree of

	<p>community support for such a program provided that no direct costs are borne by the community.</p> <p>As a long-term solution to improving the quality of water in Halifax Harbour, Council shall consider the feasibility of participating in a regional approach to the treatment of sewage wastes</p>
RWAB Position	<p>Agreed with staff that the proposed policy is redundant.</p> <p>Do Not Support – No Recommendation for Improvement</p>

<u>Policy E-14</u>	
Policy Statement	In order to ensure that critical sewer and water problems will not be created within or beyond development areas, the amount of development shall be related to capacity of existing (including potential rehabilitation) and planned sewer, water and pollution control systems, by drainage area, and shall not exceed the capacities of those systems as determined by the standard practices of the City. This shall be accomplished by Implementation Policy 5.
Origin	Halifax (10.2)
Policy Rationale	To ensure that critical sewer and water problems will not be created within or beyond development areas.
RWAB Position	No Opinion

<u>Policy E-15</u>	
Policy Statement	It shall be the intention of Council to encourage the use of special assistance from Federal and Provincial agencies to assist in the installation of inside plumbing in those households where it currently does not exist and where central servicing systems are to be installed.
Origin	North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston (EH-8)
Policy Rationale	It is obvious that a comprehensive assistance program is required for many residents, combining the provision of basic water and sewage works with individual dwelling improvements. This has been the approach used in the North Preston servicing project.

RWAB Position	Support as Worded
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<u>Policy E-16</u>	
Policy Statement	It shall be the intention of Council to consider the feasibility of establishing wastewater management districts for communities situated within the Plan Area as alternatives to central systems. Such systems may involve communal septic tanks and disposal fields operated and maintained by a public agency.
Origin	North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston (EH-9)
Policy Rationale	Communities pose a number of challenges in their development and settlement patterns. East Preston has, in recent years, experienced rapid urbanization on the periphery of the community, but with a relatively large land area, new development will likely be more dispersed. Therefore, it may be desirable to consider alternative methods of central servicing, such as servicing on the basis of wastewater management districts in East Preston.
RWAB Position	Specific Recommendations for Improvement

<u>Policy E-17</u>	
Policy Statement	It shall be the intention of Council to closely monitor all development proposals on the basis of the amount of effluent that will be generated in order to ensure that design flow levels are not exceeded.
Origin	Sackville (E-3)
Policy Rationale	It is important to recognize that development in Sackville and subsequent related capital investment has occurred as a direct result of decisions which designated the community for urban development based upon a defined serviceable area. It shall be a policy of this planning strategy to maintain the integrity of the serviceable area concept.
RWAB Position	Support as Worded

Policy E-18

Policy Statement	It shall be the intention of Council, in consultation and cooperation with local groups and associations as well as appropriate senior government departments and agencies, to place a priority upon the preparation of a long range servicing strategy which is consistent with clearly identified community and regional objectives related to the environmental preservation and protection of the Shubenacadie waterway system. Particular attention shall be given to wastewater disposal system alternatives and development densities. Until such time as this servicing strategy is completed, it shall be the intention of Council to encourage the Department of Health and Fitness to require tertiary treatment for all new or expanded sewage treatment plants.
Origin	Shubenacadie Lakes (P-3)
Policy Rationale	In 1986 a pollution control study was conducted in the area. The primary objective of the pollution control study was to determine the extent of the malfunctioning systems and to develop an alternative wastewater disposal method to resolve existing problems and to reduce the potential for the creation of similar problems in the future. The study's findings identified the wastewater disposal problems as a function of the development density, surficial geology and hydrogeology of the area, the condition of the disposal systems and the standards of construction of the systems. Over fifty percent of systems were malfunctioning including over eighty dwelling units, a club and an office/business complex. Development along the lake, combined with soil and ground water characteristics, was identified as having a significant impact on the lake. The study concluded that the only practical measure to alleviate the present problem was the installation of a central sewage collection and treatment system.
RWAB Position	<p>Proposed amended policy:</p> <p>It shall be the intention of Council, in consultation and cooperation with local groups and associations as well as the Province of Nova Scotia and Government of Canada, to develop a long range servicing strategy that provides for the environmental protection of watersheds and watercourses. Particular attention shall be given to wastewater disposal system alternatives and development densities. Until such time as this servicing strategy is completed, it shall be the intention of Council to encourage the Province of Nova Scotia to require tertiary treatment for all new or expanded sewage treatment plants.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-19</u>	
Policy Statement	It shall be the intention of Council, in cooperation with the Department of Public Health, to seek solutions to the provision of adequate sewage disposal systems in areas of known septic system failure. In this regard, Council shall seek solutions which are capable of conforming to the servicing strategy for the Plan Area.
Origin	Shubenacadie Lakes (P-4)
Policy Rationale	The impetus for the 1985 pollution control study was a growing awareness by both Department of Health officials and area residents of widespread on-site sewage disposal system malfunction causing a public health risk. There was also concern with the potential and real effects on the quality of lake water and drinking water supplies.
RWAB Position	<p>Proposed amended policy:</p> <p>It shall be the intention of Council, in cooperation with the Province of Nova Scotia, to seek solutions to the provision of adequate sewage disposal systems in areas of known septic system failure. In this regard, Council shall seek solutions which are capable of conforming to the servicing strategy for the Plan Area.</p> <p>Specific Recommendations for Improvement</p>

<u>POTABLE WATER</u>	
Municipal Policy Interest	The Province of Nova Scotia's Statement of Provincial Interest Regarding Drinking Water articulates the importance of careful municipal management of drinking water: "a safe supply of drinking water is a basic requirement for all Nova Scotians. Inappropriate development in municipal water supply watersheds may threaten the quality of drinking water. Some water supply watersheds are located outside the municipality using the water. The municipality depending on the water therefore has no direct means of protecting its supply." As such, the Province requires municipalities to address the protection of drinking water in their planning documents.
Jurisdiction	<p>The <i>Halifax Regional Municipality Charter</i> gives HRM a range of tools to protect potable water. Of particular relevance to this section:</p> <ul style="list-style-type: none"> • s. 229.1 (c) states enables HRM to include statements of policy with respect to the protection, use and development of lands within the Municipality including steep slopes and environmentally sensitive areas in its Municipal planning strategy. • s. 234.5 (p) enables HRM, through land use bylaw, to prohibit development on land that has steep slopes. • s. 281 enables HRM, through subdivision by-law, to control the stormwater drainage system. • s. 190.2 enables HRM to make by-laws, requiring that existing trees or vegetation be retained or only removed pursuant to a municipal permit in serviced areas. • s. 246.1 allows HRM, through site-plan approval, to require the retention of existing vegetation.
Regional Plan Comments	<p>2.3.1: Activities and practices within the provincially designated watersheds (Pockwock Lake, Lake Major and Bennery Lake) are subject to regulations prescribed under the Environment Act. Watershed Advisory Boards have been established as a liaison between the Province and communities in developing regulations within each watershed.</p> <p>E-13: HRM shall, through the applicable land use by-law, establish a Protected Water Supply Zone which shall be applied to all publicly owned lands which serve as a water supply watershed, including emergency water supply watersheds and well head protection areas. This Zone may also be applied to private lands within these watersheds deemed necessary to protect the public water supply. The Zone shall permit water distribution and purification facilities, passive parks and trails, conservation related uses, and other uses as provided by the existing secondary planning strategies for these areas. The zone shall establish a minimum 30.5 metre riparian buffer</p>

	<p>around water supply sources.</p> <p>E-14: For any lands within a watershed or ground water supply area where a public water supply system has been established or is proposed, Council shall consider amendments to land use by-laws deemed necessary to: a) protect the water supply; (b) ensure that a consistent regulatory approach within each watershed; or (c) conform with any Statement of Provincial Interest Regarding Drinking Water.</p> <p>8.1 states as an objective, to coordinate municipal initiatives with the Halifax Regional Water Commission for the provision of water, wastewater and stormwater services.</p> <p>8.5: 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 radionuclides, base metals or contamination from former mining operations.</p> <p>8.5.3: The Municipality seeks to ensure that development in rural areas has an adequate and sustainable water supply. Hydrogeological studies can address this objective through testing to assess long-term sustainable yield of larger subdivisions with many lots or any potential impact on existing wells in adjacent subdivisions. By an amendment to the Charter, the Province has enabled HRM to require hydrogeological studies as a condition of subdivision approval.</p>
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<u>Policy E-20</u>	
Policy Statement	<p>HRM shall, through the applicable land use by-law, establish a Protected Water Supply Zone which shall be applied to all publicly owned lands which serve as a water supply watershed, including emergency water supply watersheds and well head protection areas. This Zone may also be applied to private lands within these watersheds deemed necessary to protect the public water supply. The Zone shall permit water distribution and purification facilities, passive parks and trails, conservation related uses, and other uses as provided by the existing secondary planning strategies for these areas. The zone shall establish a minimum 30.5 metre riparian buffer around water supply sources.</p>

Origin	HRM Regional Plan (E-13)
Policy Rationale	Water, a limited and precious resource, is one of HRM's most highly valued environmental assets. Protection of this resource for potable water supply, wildlife habitat, recreational enjoyment, and aesthetic value is crucial for HRM.
RWAB Position	<p>Lund recommended that after phrase "wellhead protection areas", the phrase "whether for publicly owned or privately owned communal well systems" be added. Additional wording may be required to specify "local water service districts", as distinct from those serviced by Halifax Water.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-21</u>	
Policy Statement	For any lands within a watershed or ground water supply area where a public water supply system has been established or is proposed, Council shall consider amendments to land use by-laws deemed necessary to: a) protect the water supply; (b) ensure that a consistent regulatory approach within each watershed; or (c) conform with any Statement of Provincial Interest regarding Drinking Water.
Origin	HRM Regional Plan (E-14)
Policy Rationale	Water, a limited and precious resource, is one of HRM's most highly valued environmental assets. Protection of this resource for potable water supply, wildlife habitat, recreational enjoyment, and aesthetic value is crucial for HRM.
RWAB Position	Lund recommended amending by inserting, after "public", "and private". Group believes HRM does not have authorization to make the recommended change. Specific Recommendations for Improvement

<u>Policy E-22</u>	
Policy Statement	It shall be the intention of Town Council to ensure a long term potable water supply and adequate fire flows from the present water supply system, and to protect by appropriate means the ground water aquifer in the unserved areas of the Town.
Origin	Bedford (E-30)
Policy Rationale	This is to ensure that adequate water services are provided.
RWAB Position	The board agreed with staff that the policy is redundant. Do Not Support – No Recommendation for Improvement

<u>Policy E-23</u>	
Policy Statement	It shall be the intention of Town Council to ensure the provision of adequate fire flows in new developments through the servicing specifications of the Town's Subdivision By-law.
Origin	Bedford (E-31)
Policy Rationale	This is to ensure that adequate water services are provided.
RWAB Position	The board agreed with staff that the policy is redundant. Do Not Support – No Recommendation for Improvement

<u>Policy E-24</u>	
Policy Statement	It shall be the intention of Town Council to encourage the creation of a joint Water Utility Board with representation from Halifax County and the Town of Bedford, so that the Town has input into matters affecting the distribution of water within its boundaries.
Origin	Bedford (E-32)
Policy Rationale	It is recommended that the Town have greater input into the provision of water services in the Town to ensure that the concerns about all aspects of water services are addressed.
RWAB Position	The board agreed with staff that the policy is redundant. Do Not Support – No Recommendation for Improvement

<u>Policy E-25</u>	
Policy Statement	It shall be the intention of Town Council, through its representation on the Metropolitan Area Planning Commission, to seek inter-municipal cooperation on the establishment of a regional water supply and distribution system.
Origin	Bedford (E-33)
Policy Rationale	The water supply for the Town of Bedford is provided through the regional Pockwock water system operated by the Halifax Water Commission. Water supply, like transit or solid waste management, may best be viewed as a regional concern requiring inter-municipal cooperation and co-ordination.
RWAB Position	The board agreed with staff that the policy is redundant. Do Not Support – No Recommendation for Improvement

<u>Policy E-26</u>	
Policy Statement	It shall be the intention of Council to consider the impact of uses which require large quantities of ground water on surrounding wells when considering any development agreement or an amendment to the land use by-law (EC-5). It shall be the intention of Council, in cooperation with the Nova Scotia Department of Health and Fitness and the Environment, to monitor well water quality, to identify sources of well water contamination in areas not serviced by central water systems and to provide information to residents on methods of well construction and maintenance and on ways of obtaining potable water (EH-2).
Origin	Musquodoboit Valley/Dutch Settlement (EC-5); North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston (EH-2)
Policy Rationale	<p>1. Within the Plan Area, the majority of the residents obtain water from private wells located on-site. When development occurs in a watershed, the resulting increase in impervious surfaces such as roads, rooftops and driveways and the consequent increase in overland runoff may reduce the amount of ground water available to domestic wells.</p> <p>2. Road salts and poor road construction and maintenance practices, particularly in the case of dug wells, were found to be major causes of contamination problems. In addition, a majority of all wells in the area have high chemical content and corrosive tendencies which not only lower water</p>

	quality but also lead to costly repairs and replacement of plumbing and fixtures.
RWAB Position	<p>Discussion around application to rental properties-stalled, believe exceeds municipal authority. Walter recommends amendment: apply to entire municipality; mandate testing program with test year 1: bacteria; test year 2 metals (arsenic, etc.). Peter Lund recommends that Council should also include information to residents about water quality. Walter asked that policy also require that hydrogeology assessments include determination of adequate water quality. This last request was not adopted due to complications (available treatment technologies, inability to determine water quality that would come out of a given well). September 10 notes: Tom Mills says that registered water supplies are already sampled biannually, registered owners of these facilities already have this data. TM circulated an excerpt of the Environment Act or Regulations to this effect.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-27</u>	
Policy Statement	It shall be the intention of Council to seek the cooperation of the Department of Transportation and Communications in substituting for the use of de-icing agents such as road salt, where this leads to contamination of local wells or affects water quality in the Lake Major Watershed.
Origin	North Preston, Lake Major, Lake Loon, Cherry Brook and East Preston (EH-3)
Policy Rationale	With the exception of North Preston and that part of Cherry brook serviced by central water, communities within the Plan Area obtain potable water for domestic use primarily from a combination of dug and drilled wells. Based upon limited water sampling, undertaken in conjunction with the original planning process, a high percentage of dug wells do not meet accepted chemical and bacteriological criteria. In many cases, this situation arises from...contamination from such water borne pollutants as road salts and domestic fertilizers.
RWAB Position	<p>The board recommends generalization of the policy to eliminate reference to road salts / de-icing agents, and including reference to surface runoff.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-28</u>	
Policy Statement	In the interests of ensuring an acceptable potable water supply to existing and future residents, it shall be the intention of Council to monitor consumption levels, maintain an adequate level of fire flow and preclude the use of water from the municipal central water system for uses other than domestic or light commercial purposes. In this regard, Council shall discourage the use of municipally supplied water for industrial and heavy commercial purposes.
Origin	Shubenacadie Lakes (P-12)
Policy Rationale	The Waverley/Cobequid Road water system was initially installed in order to provide an alternate source of water to residents of areas suffering from well water contamination. Although there is water capacity beyond the present usage levels in the system, it is important that the potable water supply be assured for existing and future domestic consumption. The Insurance Advisory Organization suggests that 1,500 IGPM17 is sufficient fire flow capacity for development in the area. Maintaining this standard would allow for the connection of approximately 2,400 homes to the system.
RWAB Position	Board recommends that the last statement may no longer be relevant or necessary. No Opinion

<u>On-Site Sewage</u>	
Municipal Policy Interest	HRM includes many rural areas where it is not feasible to provide municipal sewage connections, therefore making on-site sewage systems a necessity. However, a system that is poorly designed, installed, used, or maintained could contaminate a water supply, a watercourse, wetland, or marine water body, and harm human health and the natural environment. Municipal policy is needed to protect against such adverse outcomes.
Jurisdiction	<p>HRM has jurisdiction over most of the policy areas in this section, as the Regional Plan provides direction to support a sewage disposal system by-law, establishing Wastewater Management Districts, and determining service area boundaries. HRM can also control central services through Municipal Planning Strategies and Land Use Bylaws. Council may also prescribe standards and specifications for connections to wastewater facilities and stormwater systems and the conditions under which connections may be made. The On-Site Sewage Disposal Regulations, enacted under the <i>Environment Act</i>, enable the municipality to establish an on-site sewage maintenance program.</p> <p>In 2007, Halifax Regional Water Commission (Halifax Water) took control of the operation and administration of municipal waste-water facilities and stormwater facilities within the defined core area. As such, municipal planning that pertains to servicing within this boundary requires collaboration with Halifax Water. Water services charges are now set by Halifax Water upon approval of the NS Utility and Review Board.</p> <p>Nova Scotia Department of the Environment is responsible for supervising water resources within the province, and holds the authority to adopt strategies to protect watersheds for specific uses. It also holds the authority to determine acceptable sewage disposal systems, as per its On-Site Sewage Disposal Regulations established through the authority granted by the <i>Environment Act</i>.</p>
Regional Plan Comments	<p>2.3: Water, a limited and precious resource, is one of HRM's most highly valued environmental assets. Protection of this resource for potable water supply, wildlife habitat, recreational enjoyment, and aesthetic value is crucial for HRM.</p> <p>E-16: HRM shall, through the applicable land use by-law, require the retention of a minimum 20 metre wide riparian buffer along all watercourses throughout HRM to protect the chemical, physical and biological functions of marine and freshwater resources. Through a secondary planning process, the width of the riparian buffer may be increased. Lands designated Halifax</p>

	<p>Harbour on the Generalized Future Land Use Map (Map 2), industrial lands within the port of Sheet Harbour and lands within the Waterfront Residential (R-1C) Zone under the Shubenacadie Lakes Secondary Planning Strategy shall be exempted from the buffer requirement.</p> <p>8.3: This Plan seeks to focus development in areas where infrastructure can be provided in a cost-effective manner with consideration given to both capital and operating costs. HRM also seeks to support a competitive housing market by maintaining a 15 year supply of serviced lands. A primary tool for achieving these objectives will be directing the supply and location of lands to be serviced with wastewater and water services.</p> <p>8.5.2: Malfunctioning on-site sewage disposal systems may cause bacteria and other contaminants to enter groundwater and surface water which may pose health risks and cause environmental degradation ...HRM shall encourage, where appropriate soil conditions exist, the development of conservation design developments serviced by private wastewater facilities on lands within the Rural Commuter, Rural Resource and Agricultural Designations, provided that the systems comply with the requirements of the Nova Scotia Department of Environment.</p> <p>SU-18: HRM shall, through secondary planning processes, consider the potential for establishing Wastewater Management Districts within Rural Commuter, Rural Resource and Agricultural Centres... HRM may consider establishing Wastewater Management Districts in areas that have failing on-site sewage disposal systems that cannot be remediated by private on-site sewage disposal systems.</p> <p>SU-20: To protect public health and the environment, HRM shall investigate a means to ensure that private on-site sewage disposal systems are maintained. Without limiting the generality of the foregoing, consideration shall be given to adopting a private on-site sewage disposal system by-law, establishing Wastewater Management Districts and establishing a mechanism for funding and administration.</p>
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<u>Policy E-29</u>	
Policy Statement	It shall be the intention of Council, in co-operation with the Department of Health, to seek solutions to the provision of adequate sewerage disposal systems and/or water supplies in areas of known septic system failure or inadequate water supplies. In this regard, Council shall give priority to on-site alternatives to municipal central servicing.

Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-89)
Policy Rationale	There are areas within all three electoral districts of the Plan Area where residents have complained of septic system failures. The traditional response to sewage pollution has been the installation of central municipal systems but senior governments have recently altered this funding and as a result, the costs of new central systems are cost prohibitive. In addition, residents have concerns with septic system failures and water quality and quantity problems, as well as a desire to protect their "country atmosphere". Solutions to existing servicing problems should where possible, involve measures which will not interfere with large lots, low density, privacy and open space which these people value. Among the alternatives are the replacement of individual tanks, the drilling of community wells and the identification of local wastewater management areas.
RWAB Position	Support as Worded

<u>Policy E-30</u>	
Policy Statement	It shall be the intention of Town Council, to maximize the use of the existing sewer system, by directing development to those areas where services are available and only permit the development of on-site disposal systems on lots which are not presently serviced at the end of Shore Drive and on lots outside the Residential Development Boundary.
Origin	Bedford (E-34)
Policy Rationale	To encourage only that growth for which the Town can afford to provide these services; to manage and regulate development and land use practices in the Town in order to minimize adverse impacts on the natural environment.
RWAB Position	In applying this policy to other communities, the board wanted the policy to reflect the growth centres established in the Regional Plan. Specific Recommendations for Improvement

<u>Policy E-31</u>	
Policy Statement	It shall be the intention of Town Council to enact a by-law enabling the Town to enforce property owners to undertake corrective measures to eliminate deficiencies which have been identified with their connection to the sanitary sewer system.
Origin	Bedford (E-35)
Policy Rationale	Infiltration creates inefficiency in the operation of the treatment plant and results in the reduction of treatment capacity. There are a number of causes of infiltration, including: improper connections from sump pumps, roof drains, or yard drains to the sanitary sewer system; defective service laterals; cross-connections between storm and sanitary sewer laterals; as well as such items as manholes which require repairs. Council's intention is to require property owners to correct deficiencies identified with their connections to the sanitary sewer system.
RWAB Position	Peter Lund suggested it should include the Regional Plan comment as well. Specific Recommendations for Improvement

<u>Policy E-32</u>	
Policy Statement	The goal of the regional sewage system shall be to eliminate discharge of untreated waste to the Herring Cove area, directly to the ocean or indirectly through the McIntosh Run.
Origin	Chebucto Peninsula (E-1)
Policy Rationale	This policy was created in accordance with recommendations from The Halifax Harbour Solutions Plan of 1998, which identified City of Halifax's practice of dumping untreated water into the McIntosh Runs as adversely affecting the water quality.
RWAB Position	Agreed with staff that the proposed policy is redundant, and is satisfactorily addressed by revised policy E-31. Do Not Support – No Recommendation for Improvement

<u>Policy E-33</u>	
Policy Statement	HRM shall pursue a funding plan that reduces connection charges for existing dwellings to the equivalent of the provincial average cost for on-site installation.
Origin	Chebucto Peninsula (E-2)
Policy Rationale	No rationale is given.
RWAB Position	Agreed with staff that the proposed policy is redundant, and is satisfactorily addressed by revised policy E-31. Do Not Support – No Recommendation for Improvement

<u>Policy E-34</u>	
Policy Statement	It shall be the intention of Council to request that the Department of the Environment take steps to ensure the environmental integrity of the McIntosh Runs river system.
Origin	Chebucto Peninsula (E-5)
Policy Rationale	This policy was created in accordance with recommendations from The Halifax Harbour Solutions Plan of 1998, which noted that action is required to protect the long-term quality of the McIntosh Runs, which had deteriorated due to habitual problems of raw sewage disposal and high levels of stormwater runoff.
RWAB Position	Agreed with staff that the proposed policy is redundant, and is satisfactorily addressed by revised policy E-31. Do Not Support – No Recommendation for Improvement

<u>Policy E-35</u>	
Policy Statement	It shall be the intention of Council, in cooperation with the provincial Department of the Environment, to investigate the use of alternative on-site sewage disposal systems where appropriate in the Plan Area.
Origin	Eastern Shore (West)(E-1); Eastern Shore (East) (E-2)
Policy Rationale	Innovations in sewage disposal technology may be appropriate in the Plan Area. In areas where standard septic tank applications would be expensive and likely to malfunction, consideration should be given to alternate methods of ensuring that development rights and public health maintenance do not conflict. Such alternatives as clustered septic tanks with a single jointly managed disposal field or humus toilets should be examined as alternatives to conventional on-site septic disposal systems.
RWAB Position	Agreed with staff that the proposed policy is redundant, as satisfactorily addressed by revised policy E-31. Do Not Support – No Recommendation for Improvement

<u>Policy E-36</u>	
Policy Statement	It shall be the intention of Council in cooperation with the Nova Scotia Department of Health to investigate, through the Board of Health, the feasibility of introducing an on-site sewage disposal system maintenance programme.
Origin	Lake Echo/ Porters Lake (P-1)
Policy Rationale	There is much evidence that many malfunctions of on-site systems are due to improper or inadequate maintenance. There are no regulations requiring such maintenance and many homeowners are unaware that periodic removal of solids from the septic tanks is even necessary.
RWAB Position	Agreed with staff that the proposed policy is redundant, as satisfactorily addressed by revised policy E-31. Do Not Support – No Recommendation for Improvement

<u>Policy E-37</u>	
Policy Statement	It shall be the intention of Council to prohibit the establishment in the Plan Area of any industry whose effluent cannot be disposed of by means of an on-site sewage disposal system.
Origin	Lawrencetown (P-22); Beaver Bank, Hammonds Plains and Upper Sackville (P-88); St. Margarets Bay (E-7)
Policy Rationale	A potential source of pollution results from industrial uses. This is related to waste water from the industrial process, but also to sewage, if the industry is particularly large. To reduce the risk of environmental damage from this industrial development, any effluent must be capable of being treated by on-site treatment systems. If this cannot be done, such an industry will not be permitted to establish in the Plan Area. It is felt that there are adequate sites available in the Municipality's industrial parks and serviced areas to accommodate industries which require more complex treatment facilities.
RWAB Position	<p>The Board is of the opinion that the management of industrial effluent can be addressed in ways other than proposed in this policy.</p> <p>Do Not Support- No Recommendation for Improvement</p>

<u>Policy E-38</u>	
Policy Statement	It shall be the intention of Council to encourage the Department of the Environment to enforce its On-Site Sewage Disposal System Regulations, which governs the design and installation of such systems, consistently throughout the Plan Area.
Origin	Musquodoboit Valley/Dutch Settlement (EC-3)
Policy Rationale	Many malfunctions of on-site systems are due to improper or inadequate maintenance which, if left untreated, may result in ground water contamination. The province has established provincial regulations respecting on-site septic systems which relate to site conditions (soils characteristic) and the size of the lot required for an approved building lot, however there are no regulations requiring regular maintenance and many home owners are unaware that periodic removal of solids from septic tanks are necessary.
RWAB Position	Support as Worded

<u>Policy E-39</u>	
Policy Statement	It shall be the intention of Council, in cooperation with the Provincial Departments of Health and Environment, to investigate both the licensing of septic tank cleaning firms and the provision of an adequate treatment and disposal system for septic tank wastes.
Origin	Shubenacadie Lakes (P-6); Beaver Bank, Hammonds Plains and Upper Sackville (P-88)
Policy Rationale	Because of overall design capacity limitations at municipal treatment plants, septic tank effluent cannot normally be handled at these locations. If adequate maintenance of private on-site sewage systems is to be encouraged, it may be necessary to license septic tank pumping firms and to establish an appropriate method and location for the final disposal for septic tank effluent.
RWAB Position	Do Not Support – No Recommendation for Improvement

<u>Policy E-40</u>	
Policy Statement	It shall be the intention of Council to request the Board of the Environment to investigate the feasibility of introducing a monitoring system for new subdivisions to ensure that new septic systems are operating to design standards and that densities are not exceeding the ability of the soil to handle waste matter.
Origin	St. Margarets Bay (E-2); Beaver Bank, Hammonds Plains and Upper Sackville (P-88)
Policy Rationale	A concern is that new subdivisions are being constructed in the plan area with relatively high densities. It is felt that a monitoring system should be put in place for such new development in order to ensure that additional problems are not created and that densities do not overtax the ability of the soil to dissipate waste.
RWAB Position	Specific Recommendations for Improvement

<u>Policy E-41</u>	
Policy Statement	It shall be the intention of Council to request the Board of the Environment to investigate the use of options such as cluster systems and waste water management districts to help rectify problems, in areas where waste is being dumped directly into water courses.
Origin	St. Margarets Bay (E-3); Beaver Bank, Hammonds Plains and Upper Sackville (P-88)
Policy Rationale	There are existing areas where raw sewage is being discharged into watercourses or the ocean, either directly, or through such primitive devices as 45 gallon drums, ancient cesspools and so on. The eventual solution to these problems may require the use of alternative technology or the use of cluster systems, waste water management districts and other like systems.
RWAB Position	Support as Worded

<u>Policy E-42</u>	
Policy Statement	It shall be the intention of Council to request the Department of the Environment to review its regulations governing setback of septic systems from water courses to ensure that the existing standards fully protect the environment.
Origin	St. Margarets Bay (E-6); Beaver Bank, Hammonds Plains and Upper Sackville (P-88)
Policy Rationale	Even properly functioning septic systems can cause damage to the environment if they are located too close to watercourses. At present, the Department of the Environment requires that septic systems be located a minimum of one hundred feet from a body of water. However, given the importance of groundwater in the St. Margarets Bay area, there is concern that this is not always adequate.
RWAB Position	Support as Worded

STORMWATER MANAGEMENT

Municipal Policy Interest	<p>Common stormwater management problems include increased volume and velocity of watercourses in developed areas, decreased base flows in receiving waters, and contaminants being carried into watercourses. Although the Transfer Agreement delegates responsibility for the operation and administration of publicly owned stormwater facilities to Halifax Water within the core boundary, HRM can play an important role in stormwater management. On a broadest level, a commitment has been made to undertake watershed studies where new growth areas are being considered. There are also opportunities to mitigate consequences associated with stormwater management through by-laws.</p>
Jurisdiction	<p>In 2007, Halifax Regional Water Commission (Halifax Water) took control of the operation and administration of municipal waste-water facilities and stormwater facilities within the defined core area. As such, municipal planning that pertains to stormwater infrastructure within this boundary requires collaboration with Halifax Water. However municipal parkland and areas outside of the core boundary are within HRM's jurisdiction.</p> <p><i>HRM Charter</i> provides HRM with the following powers regarding stormwater:</p> <ul style="list-style-type: none"> • s. 229 (d) permits an MPS to include statements of policy regarding stormwater management. • s. 235.5 (d) allows HRM, through land-use bylaw, to "in connection with a development, regulate, or require the planting or retention of, trees and vegetation for the purposes of landscaping, buffering, sedimentation or erosion control" and (l) enables HRM, to "prescribe methods for controlling erosion and sedimentation during the construction of a development". Other sections that apply include s. 242 (development applications) and s. 282 (subdivision by-law). • s. 242.1 enable HRM to require a development agreement to contain terms for stormwater management. • s. 353 allows HRM to make bylaws regarding stormwater, including provisions for grading and drainage. • s. 281.3(f) of the enables HRM to include stormwater system design criteria in the Subdivision By-Law. <p>Section 8.4 of the Regional Plan, policies SU-7 to SU-11 provide municipal policy direction for stormwater, which include a number of possible interventions outlined in the following section.</p>
Regional Plan Comments	<p>Stormwater Management 8.4: On a broadest level, a commitment has been made to undertake watershed studies where new growth areas are being considered (Section 2.4 of this Plan). An appropriate stormwater</p>

	<p>management strategy is to be included in the recommendations...</p> <p>... A study prepared for HRM identified source control measures that could reduce the quantity and improve the quality of runoff being directed to public stormwater systems and watercourses. One of the recommended implementation tools is a stormwater management and erosion control by-law whereby control of lot grading could be among the stormwater management measures (Stormwater Management 8.4 preamble).</p> <p>SU-7: HRM shall consider adopting a stormwater management and erosion control by-law with provisions made that may be area specific and may vary by type of development and, where required, be subject to approval by the Review Board. When considering adoption or amendments to the by-law, the following matters may be considered:</p> <ul style="list-style-type: none"> (a) the cost and effectiveness of methods to reduce increased stormwater flows caused by development with consideration given to problems associated with downstream flooding, stream bank erosion, groundwater contamination and inflow and infiltrations into wastewater systems; (b) the potential for employing naturally occurring soils and native plant species in stormwater management plans; (c) means to reduce site disturbance and impervious surfaces in new developments; (d) methods of reducing sediments, nutrients and contaminants being discharged into watercourses; and (e) the recommendations contained in a watershed study undertaken pursuant to policy E-23 of this Plan. <p>SU-8: HRM may consider regulatory and operational measures to reduce the quantity and improve the quality of stormwater entering public stormwater facilities and watercourses including, but not limited to, public education programs, animal waste control, spill prevention plans, removing illegal connections, enhanced street sweeping, reduction in road salts, land use restrictions and revisions of development standards. Any such measures may apply in whole or in part of HRM and may require approval of the Review Board.</p> <p>SU-9: HRM may consider supporting retrofits to existing stormwater facilities where it has been determined that such retrofits could be expected to mitigate flooding or to improve the quality of stormwater entering watercourses.</p>
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	<p>SU-10: Where public stormwater collection infrastructure must undergo significant repair or replacement, HRM may consider supporting funding for daylighting of the watercourse involved with consideration given to: (a) feasibility in relation to the surrounding environment, land use and ownership, adequacy of space, drainage and potential flooding issues, safety and other practical or engineering considerations as appropriate. (b) replacement of culverts with bridges or a three-sided culvert rather than straight pipe is preferred wherever possible; (c) the potential for legal and liability issues arising; and (d) costs and the availability of funding.</p> <p>SU-11: In the event that the Province of Nova Scotia considers imposing standards on the quality of stormwater entering watercourses, HRM shall participate in consultations and shall consider amending any stormwater management by-law approved pursuant to Policy SU- 7 to be consistent with or complement standards adopted by the Province of Nova Scotia.</p> <p>SU-12: HRM shall support efforts by Halifax Water to create a rate structure for stormwater management services that provides incentives for the retention of on-site stormwater and may consider any amendments to municipal by-laws which would assist in facilitating these efforts.</p>
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<u>Policy E-43</u>	
Policy Statement	It shall be the intention of Council to encourage the use of innovative storm water management systems which reduce the impact of urban development on the environment. Such systems include incorporation of stormwater retention/detention ponds into the storm sewer system, use of open ditch drainage systems where appropriate, and directing roof drains to the surface rather than connecting directly to the storm sewer system where appropriate. Storm sewer systems are to avoid the direct discharge of stormwater into water bodies where possible.
Origin	Bedford (E-3); Eastern Passage/Cow Bay (EP-8)
Policy Rationale	This policy refers to Town Council's intention to encourage the use of innovative storm water management mechanisms to reduce the development impacts on watercourses. These mechanisms will work to reduce the increase of storm water runoff as well as minimize the effect on water quality.
RWAB Position	Support as Worded

<u>Policy E-44</u>	
Policy Statement	It shall be the intention of Council through the Engineering and Works Department to identify areas where deficiencies exist in the existing storm water system and prepare and implement a budget program to overcome these deficiencies.
Origin	Bedford (E-38)
Policy Rationale	Stormwater management must deal with any deficiencies which currently exist with the storm system. This need is identified in Policy E-44. The deficiencies may involve problems with the quantity of runoff which may cause flooding or erosion problems or they may involve quality problems such as siltation of water bodies from storm water runoff. Storm water flows must be managed to correct any deficiencies which currently exist and to prevent problems arising in the future due to improper design of new systems.
RWAB Position	No Opinion

<u>Policy E-45</u>	
Policy Statement	It shall be the intention of Council to require the Engineering and Works Department to involve the Parks and Recreation Department and the Regional Waters Advisory Committee in the review of storm water systems which will discharge to parkland.
Origin	Bedford (E-39)
Policy Rationale	Two committees appointed by Council are concerned about storm water management as mentioned in Policy E-45. The Bedford Waters Advisory Committee is concerned with water quality matters in the Town and is interested in the storm water projects which discharge to water bodies. The Parks and Recreation Advisory Committee has an interest when storm sewers discharge into streams and water bodies in areas which are parkland or are used for recreational purposes.
RWAB Position	No Opinion

<u>Policy E-46</u>	
Policy Statement	In recognition of the need to protect the Plan Area's lakes and rivers, it shall be the intention of Council to implement the Stormwater Policy and Design Criteria for types of development and portions of the Plan Area where it is determined to be appropriate and feasible, through necessary amendments to the Subdivision By-law.
Origin	Chebucto Peninsula (E-36); Cole Harbour/Westphal (E-13); Eastern Passage/Cow Bay (E-8); Lawrencetown (P-25); Musquodoboit Valley/Dutch Settlement (EC-8); Shubenacadie Lakes (P-17)
Policy Rationale	Stormwater Management has recently assumed a higher priority in the Municipality following Council's adoption of a Stormwater Task Force Report, development of stormwater design criteria, and with more engineering attention during the subdivision stage. The implementation of stormwater management policies, procedures, and the co-operation of adjacent areas and jurisdictions are important if impacts on the Plan Area's rivers and lakes are to be minimized.
RWAB Position	No Opinion

<u>Policy E-47</u>	
Policy Statement	It shall be the intention of Council to encourage the Departments of Transportation and Communications and the Environment to enforce compliance and implement the Province of Nova Scotia Environments Construction Practice Specifications in the Plan Area.
Origin	Chebucto Peninsula (E-18)
Policy Rationale	The infilling of any water body can have detrimental effects on stormwater management and the maintenance of environmental quality. In addition, protection of lakes and rivers can be encouraged with adequate development setbacks and implementation of proper construction practices. The McIntosh Runs, and the Governors Lake-Ocean Run river systems are two watershed areas largely untouched by development within the Municipality. As these are significant natural resources in the Plan Area, setbacks are supported along these systems for the purpose of environmental protection and provision of future stormwater management. As a further protective measure, Department of the Environment regulations are supported for lot development in areas

	adjacent to any watercourse.
RWAB Position	No Opinion

Policy E-48

Policy Statement	HRM shall seek ways to mitigate any negative impact of runoff and storm sewer from existing development on surface water resources in the watersheds.
Origin	Chebucto Peninsula (E-36); Sackville Drive (LSR-4)
Policy Rationale	Based on the detailed mapping and physical inventory undertaken as background to the Harrietsfield-Williamswood Pollution Control Study, there is strong community support for ensuring a greater degree of protection is provided to watercourses and wetlands.
RWAB Position	No Opinion

Policy E-49

Policy Statement	It shall be the intention of Council to adopt a comprehensive stormwater management system for the Plan Area. Preparatory to its adoption, Council, through the Engineering and Works Department, should undertake: (a) the identification of watersheds, watercourses and waterbodies within the Plan Area; (b) to identify areas within the Plan Area which have deficiencies in their existing storm drainage systems; and (c) the preparation of urban drainage master plans appropriate to the Plan Area.
Origin	Cole Harbour/Westphal (E-16); Sackville (E-16)
Policy Rationale	The Municipality has had experience with the results of a lack of stormwater management in conjunction with major developments. With the passage of the Halifax County Stormwater Drainage Act, the Municipality now has the opportunity to prepare stormwater management policies and plans including, as a priority, urban drainage master plans.
RWAB Position	No Opinion

Policy E-50

Policy Statement	No development agreement shall be entered into unless a master storm water management plan has been prepared for the entire Wentworth/Bedford South master plan area and accepted by the Municipality. The management plan shall: - identify significant constraints and sensitivities with regard to flood potential, and environmental features; - provide estimates of pre-development and post development flow rates at critical locations within watercourses such as at culverts and other road crossings and at downstream developments; - specify water quality and quantity objectives which are consistent with all municipal and provincial guidelines and identify the means of preventing adverse changes to the quantity and quality of watercourses and groundwater; - specify the type and location of storm water management facilities and the design requirements to protect receiving waters from contamination, excessive flow rates and loss of aquatic habitat and to protect the quantity and quality of groundwater flows; - prepare a program for implementation and monitoring before, during and after construction, including securities and any remedial action to be taken in the event that water quantity or quality objectives are not achieved.
Origin	Halifax (EP-1)
Policy Rationale	Annapolis Group has entered into negotiations with the Province pertaining to the upgrading of the dams and has proposed that control gates be introduced for flood control and storm water management purposes. In support of its development proposal it prepared the study, Water Quality Assessment of Water Bodies Contained in the Bedford West Planning Area Using a Phosphorous Loading Model Approach (Dalhousie University Centre for Water Resource Studies, April 2004), which concluded that best management practices may be needed both during development and afterward to maintain a water quality in the lakes that is satisfactory for recreational activities. Leaching from septic fields from existing development in adjacent areas may also contribute to phosphorous loading and mitigative measures may be needed over the long term. Annapolis Group also prepared the study Bedford West Planning Area: Subwatershed Management Plan (Jacques Whitford, May 2004) which examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans.
RWAB Position	Adopt as amended: No development shall be entered into unless a master storm water management plan has been prepared for the entire area and accepted by the Municipality. The management plan shall: - identify significant constraints and

	<p>sensitivities with regard to flood potential, and environmental features; - provide estimates of pre-development and post development flow rates at critical locations within watercourses such as at culverts and fish passages other road crossings and at downstream developments; provide an estimate of the assimilative capacity of a wetland; - specify water quality and quantity objectives which are consistent with all municipal and provincial guidelines and identify the means of preventing adverse changes to the quantity and quality of watercourses and groundwater; - specify the type and location of storm water management facilities and the design requirements to protect receiving waters from contamination, excessive flow rates and loss of aquatic habitat and to protect the quantity and quality of groundwater flows; - prepare a program for implementation and monitoring before, during and after construction, including securities and any remedial action to be taken in the event that water quantity or quality objectives are not achieved.</p> <p>Specific Recommendations for Improvement</p>
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<u>Policy E-51</u>	
Policy Statement	No development agreement shall be entered into unless the detailed design specifications conform with the master stormwater management plan approved under Policy E-50.
Origin	Halifax (EP-2)
Policy Rationale	Annapolis Group has entered into negotiations with the Province pertaining to the upgrading of the dams and has proposed that control gates be introduced for flood control and storm water management purposes. In support of its development proposal it prepared the study, Water Quality Assessment of Water Bodies Contained in the Bedford West Planning Area Using a Phosphorous Loading Model Approach (Dalhousie University Centre for Water Resource Studies, April 2004), which concluded that best management practices may be needed both during development and afterward to maintain a water quality in the lakes that is satisfactory for recreational activities. Leaching from septic fields from existing development in adjacent areas may also contribute to phosphorous loading and mitigative measures may be needed over the long term. Annapolis Group also prepared the study Bedford West Planning Area: Subwatershed Management Plan (Jacques Whitford, May 2004) which examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans.
RWAB	No Opinion

Position	
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<u>Policy E-52</u>	
Policy Statement	No stormwater shall be discharged directly into any natural watercourse without the use of mitigative measures as stipulated in under the stormwater management plan and in accordance with municipal and provincial guidelines.
Origin	Halifax (EP-3)
Policy Rationale	Annapolis Group has entered into negotiations with the Province pertaining to the upgrading of the dams and has proposed that control gates be introduced for flood control and storm water management purposes. In support of its development proposal it prepared the study, Water Quality Assessment of Water Bodies Contained in the Bedford West Planning Area Using a Phosphorous Loading Model Approach (Dalhousie University Centre for Water Resource Studies, April 2004), which concluded that best management practices may be needed both during development and afterward to maintain a water quality in the lakes that is satisfactory for recreational activities. Leaching from septic fields from existing development in adjacent areas may also contribute to phosphorous loading and mitigative measures may be needed over the long term. Annapolis Group also prepared the study Bedford West Planning Area: Subwatershed Management Plan (Jacques Whitford, May 2004) which examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans.
RWAB Position	No Opinion

<u>Policy E-53</u>	
Policy Statement	It shall be the intention of Council to prepare and adopt a Lot Grading and Drainage By-law to control the grading of subdivisions and individual lots in order to reduce erosion and sedimentation of watercourses which result from improper or inappropriate drainage practices.
Origin	Cole Harbour/Westphal (E-17); Eastern Passage/Cow Bay (E-12)
Policy Rationale	Subsequent to the preparation and adoption of the Municipality's Stormwater Drainage Act, the focus of efforts leading to the implementation of this legislation has been on amendments on the Subdivision By-law. It has

	become apparent, however, that drainage problems at the single, private lot level especially residential lots, represent the single most critical stormwater management issue in the Municipality. It is, therefore, appropriate for the Municipality to prepare and adopt storm drainage controls at the single lot as well as the subdivision level, in order to reduce the drainage problems associated with the improper grading of subdivisions and individual residential properties.
RWAB Position	The board supported this policy in principal, but knowing that such a by-law is being written to be implemented throughout the region, agreed it was out of date. Support As Worded

<u>Policy E-54</u>	
Policy Statement	It shall be the intention of Council to seek the cooperation of the Municipality in monitoring site construction and storm drainage practices within the watersheds of shared lakes and watercourses and to establish methods of improving storm drainage in order to improve the level of water quality.
Origin	Cole Harbour/Westphal (E-19)
Policy Rationale	Various lakes and their connected watercourses within the Plan Area are shared with the City of Dartmouth. Several of these water systems, including those of Settle and Cranberry Lakes, are surrounded by extensive residential developments such as the Department of Housing's Forest Hills development. Concerns have been expressed by residents that poor construction practices and a lack of effective storm drainage controls are contributing to a deterioration in water quality. A greater degree of consultation and cooperation between the City of Dartmouth and the Municipality is required where the storm drainage practices of either municipal unit may affect the quality of common lakes and watercourses.
RWAB Position	No Opinion

<u>Policy E-55</u>	
Policy Statement	Within the Land Use By-law a minimum pervious surface requirement shall be established and applied to all zones.
Origin	Sackville Drive (LSR-5)
Policy Rationale	One important site design consideration is the provision of pervious surfaces on-site. The greater the amount of impervious surfaces, the more difficult it becomes to sustain the natural rate of surface runoff, which ultimately affects the integrity of the river system.
RWAB Position	No Opinion

<u>Policy E-56</u>	
Policy Statement	Within the Land Use By-law and Erosion and Sediment Minimization Plan shall be required for all Zones. The sedimentation and erosion control measures shall be employed where a vacant lot exists or change in grade is proposed. The Plans shall show the proposed erosion and sediment controls to be employed, where the measures will be found, the timing of installation (before construction begins), the inclusion of drainage controls up-slope of the construction site; inspection and monitoring, and timing of removal (after the entire site has been stabilized).
Origin	Sackville Drive (LSR-6)
Policy Rationale	Erosion and sedimentation control is a critical element in good site design. To control the adverse effects of sediment (and attached phosphorus), controlling erosion strictly will be essential. This means that development must be designed and carried out with erosion minimization as a primary criterion.
RWAB Position	No Opinion

<u>Policy E-57</u>	
Policy Statement	It shall be the intention of Council, in cooperation with the Provincial Departments of Environment and Transportation, to review and implement siltation and erosion control provisions.
Origin	Shubenacadie Lakes (P-20)
Policy Rationale	There is mounting concern over the effects of water borne silts in area lakes and streams. It may be appropriate to examine methods of controlling siltation through the either the stormwater design criteria or by some other means.
RWAB Position	No Opinion

<u>REGIONAL WATERSHEDS</u>	
Municipal Policy Interest	Watersheds are the fundamental unit for understanding water resources. Environmental features such as water, soils, vegetation, and habitat are all interconnected, and land use activities in one part of a watershed can adversely affect the quality and quantity of water in another.
Jurisdiction	Section 2.4 of the Regional Plan, titled “Watershed Planning”, provides the policy direction for HRM to plan on a watershed basis. This section includes policies E-23 & E-24, which are provided in the following section.
Regional Plan Comments	<p>E-23: HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed. The studies, where appropriate, shall be designed to:</p> <ul style="list-style-type: none"> (a) recommend measures to protect and manage quantity and quality of groundwater resources; (b) recommend water quality objectives for key receiving watercourses in the study area; (c) determine the amount of development and maximum inputs that receiving lakes and rivers can assimilate without exceeding the water quality objectives recommended for the lakes and rivers within the watershed; (d) determine the parameters to be attained or retained to achieve marine water quality objectives; (e) identify sources of contamination within the watershed; (f) identify remedial measures to improve fresh and marine water quality; (g) identify any areas around watercourses where increased flow from development could cause flood damage to properties or environmental damage and estimate the maximum increase in flow from the area to be developed that would not cause damage to the areas identified; (h) recommend strategies to adapt HRM's stormwater management guidelines to achieve the water quality objectives set out under the watershed study; (i) recommend methods to reduce and mitigate loss of permeable surfaces, native plants and native soils, groundwater recharge areas, and other

	<p>important environmental functions within the watershed and create methods to reduce cut and fill and overall grading of development sites;</p> <p>(j) identify and recommend measures to protect and manage natural corridors and critical habitats for terrestrial and aquatic species, including species at risk;</p> <p>(k) identify appropriate riparian buffers for the watershed;</p> <p>(l) identify areas that are suitable and not suitable for development within the watershed;</p> <p>(m) recommend potential regulatory controls and management strategies to achieve the desired objectives; and</p> <p>(n) recommend a monitoring plan to assess if the specific water quality objectives for the watershed are being met.</p> <p>E-24: HRM may consider preparing a water quality monitoring protocol to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners.</p>
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<u>Policy E-58</u>	
Policy Statement	<p>HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed. The studies, where appropriate, shall be designed to:</p> <p>(a) recommend measures to protect and manage quantity and quality of groundwater resources; (b) recommend water quality objectives for key receiving watercourses in the study area; (c) determine the amount of development and maximum inputs that receiving lakes and rivers can assimilate without exceeding the water quality objectives recommended for the lakes and rivers within the watershed; (d) determine the parameters to be attained or retained to achieve marine water quality objectives; (e) identify sources of contamination within the watershed; (f) identify remedial measures to improve fresh and marine water quality; (g) identify any areas around watercourses where increased flow from development could cause flood damage to properties or environmental damage and estimate the maximum increase in flow from the area to be developed that would not cause damage to the areas identified; (h) recommend strategies to adapt HRM's stormwater management guidelines to achieve the water quality objectives set out under the watershed study; (i) recommend methods to reduce and mitigate loss of</p>

	<p>permeable surfaces, native plants and native soils, groundwater recharge areas, and other important environmental functions within the watershed and create methods to reduce cut and fill and overall grading of development sites; (j) identify and recommend measures to protect and manage natural corridors and critical habitats for terrestrial and aquatic species, including species at risk; (k) identify appropriate riparian buffers for the watershed; (l) identify areas that are suitable and not suitable for development within the watershed; (m) recommend potential regulatory controls and management strategies to achieve the desired objectives; and (n) recommend a monitoring plan to assess if the specific water quality objectives for the watershed are being met.</p>
Origin	HRM Regional Plan 2014 (E-23)
Policy Rationale	<p>The Water Resources Management Study, which forms the basis of the policies contained in this Chapter, recognizes that watersheds are the fundamental unit for understanding water resources and undertaking watershed planning. Environmental features such as water, soils, vegetation, and habitat are all interconnected, and land use activities in one part of a watershed can adversely affect the quality and quantity of water in another.</p> <p>Planning on a watershed basis will therefore be undertaken in greater detail during the creation of secondary planning strategies and upon completion of watershed studies. This Plan will seek to achieve public health standards for body contact recreation and to maintain the existing trophic status of our lakes and waterways to the extent possible.</p>
RWAB Position	<p>Adopt as amended:</p> <p>After “HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed”, add “The study area shall be the entire watershed or sub-watershed.”</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-59</u>	
Policy Statement	HRM may consider preparing a water quality monitoring protocol to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners.
Origin	HRM Regional Plan 2014 (E-24)
Policy Rationale	<p>The Water Resources Management Study, which forms the basis of the policies contained in this Chapter, recognizes that watersheds are the fundamental unit for understanding water resources and undertaking watershed planning. Environmental features such as water, soils, vegetation, and habitat are all interconnected, and land use activities in one part of a watershed can adversely affect the quality and quantity of water in another.</p> <p>Planning on a watershed basis will therefore be undertaken in greater detail during the creation of secondary planning strategies and upon completion of watershed studies. This Plan will seek to achieve public health standards for body contact recreation and to maintain the existing trophic status of our lakes and waterways to the extent possible.</p>
RWAB Position	<p>Adopt as amended:</p> <p>HRM may consider preparing a water quality monitoring protocol for all watercourses to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-60</u>	
Policy Statement	It shall be the intention of Council to enter into an inter-municipal planning strategy or to seek co-ordination of municipal planning strategy policies with adjacent municipalities in order to establish site construction and land use practice standards within regional watersheds, specifically the Sackville River, Kearney Lake, Sandy Lake, Rocky Lake, Marsh Lake, Paper Mill Lake, and Anderson Lake watersheds, to protect regional water resources.
Origin	Bedford (E-19)
Policy Rationale	Certain physical entities, such as watershed areas, do not respect jurisdiction boundaries. As a result, the protection of features within these watershed areas requires inter-jurisdictional cooperation. The Sackville River and the

	Kearney Lake watersheds are two watershed areas which lie within the Town of Bedford as well as other neighbouring municipal units. To foster a cooperative effort in terms of protecting these and other regional watersheds of which the Town is a part, Town Council shall enter into an inter-municipal planning strategy or seek co-ordination of municipal planning strategy policies with adjacent municipalities regarding site construction and land use practices.
RWAB Position	The board did not comment on policies E-60 & E-61, feeling that their amended versions of E-58 and E-59 adequately addressed these topics. No Opinion

<u>Policy E-61</u>	
Policy Statement	It shall be the intention of Council upon the adoption of this plan to undertake an in-depth environmental study of the Sandy Lake watershed which will include input from the N.S. Department of Environment as well as area residents, and shall examine present water quality, watershed land use practices increased rates of sedimentation, and the development of a recovery and protection program for Sandy Lake if warranted by the study.
Origin	Bedford (E-20)
Policy Rationale	Policy E-61 indicates that immediate attention shall be given to the Sandy Lake watershed area through the undertaking of an in-depth environmental study which examines the present water quality, watershed land use practises, involving residential, commercial, industrial and recreation uses, increased rates of sedimentation, and the development of a recovery and protection program if warranted by the study. The cooperation of the Municipality of Halifax County, if necessary, shall be sought in implementing the recommendations of the study. The study shall give consideration to the fact that the Town intends to develop a major swimming area at Sandy Lake, discuss the potential impacts of the proposed uses, and recommend measures which should be used to minimize the impacts on the quality of the lake.
RWAB Position	The board did not comment on policies E-60 & E-61, feeling that their amended versions of E-58 and E-59 adequately addressed these topics. No Opinion

WATERCOURSE & WETLAND PROTECTION

Municipal Policy Interest	<p>Wetlands and other watercourses are vital components of the hydrological cycle and affect the quality and quantity of groundwater. They are natural filters for removing sediment, contaminants and excessive nutrients which are drawn up by the vegetation and settle out naturally before entering groundwater. They absorb peak stormwater flows, reducing the risk of flooding downstream while offsetting groundwater extraction to reduce the risk of wells running dry. Wetlands also provide habitat for fish and wildlife and provide opportunities for education and research. Moreover, while enhancing the overall aesthetics of a community, wetlands are unsuitable for development as they pose a hazard for the stability of structures. It is essential that wetlands are protected.</p>
Jurisdiction	<p>The Province regulates the alterations of wetlands and watercourses through: 1) the Activities Designation Regulations and 2) the Watercourse Alterations Standard, issued under the authority of the <i>Environment Act</i>.</p> <p>Halifax Water regulates the quality of water discharged into natural water systems from piped systems through its <i>Rules and Regulations</i>, which are in turn regulated by the Province of Nova Scotia.</p> <p>HRM regulates the alterations of wetlands and watercourses through the Regional Plan and the Charter.</p> <p><i>Regional Plan:</i></p> <ul style="list-style-type: none"> • E-23 provides policy direction for HRM to plan on a watershed basis. • E-24 enables HRM to implement a water quality sampling program. <p><i>HRM Charter:</i></p> <ul style="list-style-type: none"> • s. 21 enables Council to establish advisory committees and their terms of references. • s. 190.4 enables Council to make by-laws that establish watercourse buffer zones in which existing trees or vegetation must be retained. • s.228 (b) enables the Municipality to create policies, through MPS, that “provide a framework for the environmental, social and economic development within the Municipality”. • s. 235, "Content of a land-use bylaw", enables the municipality to regulate development. • through zoning, with s. 235 (o), specifically enabling HRM to regulate or prohibit development within a specified distance of a watercourse.

<p>Regional Plan Comments</p>	<p>E-9: Where HRM is considering approval of new secondary planning strategies or amendments to existing secondary planning strategies to allow new developments, natural corridors shall first be delineated, consistent with the Greenbelting and Public Open Space Priorities Plan approach, to identify areas to be retained for natural areas and natural corridors.</p> <p>E-15 states HRM's intention to establish a Wetlands schedule and to prohibit development within any such wetland except as required for public infrastructure.</p> <p>E-16 states HRM's intention to require a minimum 20 metre wide riparian buffer, which may be increased through the secondary planning process. Lands designated Halifax Harbour on the Generalized Future Land Use Map (Map 2), industrial lands within the port of Sheet Harbour and lands within the Waterfront Residential (R-1C) Zone under the Shubenacadie Lakes Secondary Planning Strategy shall be exempted from the buffer requirement. Development is generally prohibited within these buffers.</p> <p>E-20: HRM may, through secondary planning strategies and land use by-laws, consider measures to regulate development of water lots that have been infilled, including establishing setbacks of buildings and structures from the water.</p> <p>E -21: HRM shall restrict development and prohibit the placement of fill or alteration of grades in association with development that restricts the capacity of flow or increases flood levels within the 1 in 100 year and 1 in 20 year floodplains for designated watercourses.</p> <p>E-23 states HRM's intention to plan on a watershed basis and establishes measures for maintaining watersheds in a healthy state.</p> <p>E-24: HRM may consider preparing a water quality monitoring protocol to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners.</p> <p>EC-12: HRM shall establish a Halifax Harbour Designation which extends from Hartlen Point in Eastern Passage to Chebucto Head, including Northwest Arm and Bedford Basin, and extends inland generally to the first major roadway paralleling the Harbour.</p> <p>EC-13 states that, within the Halifax Harbour Designation, HRM shall establish zoning under applicable land use by-laws and apply the zone on lands where existing harbour related industrial uses are located and lands or water lots determined by HRM to be suitable for these uses in the future.</p>
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	<p>Corresponding land use regulations will be established under the applicable land use by-laws. Amendments to applicable land use by-laws may be made to:(a) allow for additional lands or water lots for harbour related industrial uses that have not been previously been identified where such lands are considered appropriately situated for these uses; (b) implement regulations that mitigate potential negative impacts of existing and potential marine-dependent industrial and commercial areas on adjacent uses, while maintaining the economic viability of marine-dependent uses; and(c) discourage new residential development from locating in areas that abut lands designated for intensive marine dependent industrial and commercial uses.</p> <p>EC-14: When considering an amendment to secondary planning strategies, land use by-laws or development agreements to permit new residential development in proximity to harbour related industrial uses, consideration shall be given to the potential for nuisances and compatibility issues and the importance to HRM in protecting the viability of the marine related industrial uses (5.3.4 Halifax Harbour Designation).</p> <p>SU-7 enables HRM to create a stormwater management and erosion control by-law with provisions made that may be specific to the area and type of development. Content may include means to reduce: increased stormwater flows caused by development; site disturbance and impervious surfaces, and; sediments, nutrients and contaminants being discharged into watercourses. It may also address recommendations contained in a watershed study undertaken pursuant to policy E-23 of the Regional Plan.</p>
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<u>Policy E-62</u>	
Policy Statement	It shall be the intention of Council not to consider any rezoning application which will result in the development, excavation, infilling or alteration of any wetland, watercourse, water resource or floodplain, unless it is clearly demonstrated by detailed study that any such area, in whole or in part, does not meet any definition or fulfill such natural functions, as described in this planning strategy, or is otherwise not hazardous for development.
Origin	Eastern Passage/Cow Bay (EP-2)
Policy Rationale	The establishment of an Environmental Constraints Map provides a basis on which to establish appropriate zoning standards to protect environmentally sensitive and significant features such as wetlands, watercourses and floodplains. No rezoning applications should be considered which would result in the loss or alteration of such features, unless it is clearly

	demonstrated that areas have been inappropriately included.
RWAB Position	Support as Worded

Policy E-63

Policy Statement	It shall be the intention of Council to encourage the provincial Department of the Environment to improve enforcement of regulations and guidelines concerned with the infilling of watercourses within the Plan Area.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-94)
Policy Rationale	The Department of the Environment has primary jurisdiction with regard to the protection of watercourses. The infilling of any waterbody or watercourse requires either notification of, or a permit from, the department. Infilling can have detrimental effects, including water pollution and the blockage of the watercourse, which may cause flooding upstream.
RWAB Position	Do Not Support – No Recommendation for Improvement

Policy E-64

Policy Statement	It shall be the intention of Council to encourage the Departments of Transportation and Environment to enforce compliance with the Province of Nova Scotia Environmental Construction Practice Specifications. Through the land use by-law, setbacks from watercourses shall be required in order to provide further environmental protection for watercourses within the Plan Area.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-95); Chebucto Peninsula (E-18); Lawrencetown (P-27); Eastern Shores (East) (E-6)
Policy Rationale	Environmental protection practices during construction are critical in waterfront development because it is at this stage that much environmental contamination may occur. The Province of Nova Scotia Environmental Construction Practice Specifications prepared jointly by the Department of Fisheries and Oceans and the Nova Scotia Departments of Transportation and the Environment, and completed in September 1981, contains specifications related to the protection of watercourses during development.
RWAB Position	Support as Worded

<u>Policy E-65</u>	
Policy Statement	It shall be the intention of Council to request that the Regional Waters Advisory Committee provide a written comment on developments being undertaken by a development agreement [text omitted] prior to a recommendation being made by the Bedford Planning Advisory Committee.
Origin	Bedford (E-6)
Policy Rationale	There are several mechanisms which can be employed to minimize the impact of development on the quality of surface runoff. Policies E-3 to E-8 discuss these approaches.
RWAB Position	The board agreed with staff's assessment that the policy is redundant. Do Not Support – No Recommendation for Improvement

<u>Policy E-66</u>	
Policy Statement	It shall be the intention of Council to request the Regional Waters Advisory Committee to implement a water quality sampling program of all lakes and rivers in the Plan Area in an attempt to provide an historical data base for water quality.
Origin	Bedford (E-7)
Policy Rationale	The Bedford Waters Advisory Committee is requested to implement a water quality sampling program of all lakes and rivers in the Town to provide historical data on water quality. This program would be similar to the activities of the Dartmouth Lakes Advisory Board.
RWAB Position	Do Not Support – No Recommendation for Improvement

<u>Policy E-67</u>	
Policy Statement	The Municipality shall establish standards, insofar as it has the power, for maintaining lake systems and their watersheds in a healthy state. These standards should address the infilling of lakes or their tributaries, the preservation of natural resources which are visually or ecologically complementary to those lakes and their tributaries, the control of discharges into lakes or tributaries resulting from public or private developments which would cause long-term degradation of the water quality, and the prevention of

	any other environmentally damaging effects.
Origin	Halifax (8.5)
Policy Rationale	The City shall prepare a strategy statement on the environment as called for in Part III of this document, and shall, as part of such statement, make provision for the detailing and implementation of Policies 8.2 - 8.5.
RWAB Position	Support as Worded

<u>Policy E-68</u>	
Policy Statement	It shall be the intention of Council, through the land use by-law, to establish increased setback requirements for all new buildings and structures as follows: (a) to a minimum of fifty (50) feet from the Little Salmon River; (b) to a minimum of one hundred (100) feet from watercourses and waterbodies within the Lake Major Watershed; and (c) to a minimum of two hundred and fifty (250) feet from Lake Major.
Origin	Cole Harbour/Westphal (E-21)
Policy Rationale	The setback of buildings and structures from watercourses is a necessary feature of land use management system. Future development must be appropriately setback to protect structures from peak floods and to prevent siltation of waterbodies, destruction of habitat and the incidence of flooding on downstream developments. The land use by-law will, therefore, control the location of new buildings or structures relative to watercourses, except for those that require direct access to water such as boat sheds.
RWAB Position	Board advocates adoption of a new policy which adopts verbatim working of policy E-68 policy rationale to replace policies E-68 and E-69. Specific Recommendations for Improvement

<u>Policy E-69</u>	
Policy Statement	It shall be the intention of Council to establish setback and buffer requirements for all watercourses within the plan area, including but not limited to those as generally shown on Map 4 - Environmental Constraints. No structure, excavation, infilling or grade alteration shall be permitted to occur within one hundred (100) feet of any watercourse. The retention of natural vegetation within the setback/buffer area shall be part of these requirements. The land use bylaw shall contain provisions to reduce this requirement to fifty (50) feet for lots in existence on the effective date of this planning strategy where otherwise development would be prohibitive.
Origin	Eastern Passage/Cow Bay (EP-4/EP-7)
Policy Rationale	Buffer areas should be left in their natural state, as the removal of existing vegetation and/or any other disturbances increases eroded soil, nutrients and pollutants into adjacent waters and reduces their capacity to function as filtration areas. Buffers also assist in the prevention of damage to structures from potential peak flooding and erosion, and can serve as wildlife corridors to a number of species. The best means to avoid high levels of suspended solids and silt from reaching watercourses is to establish an effective setback for development.
RWAB Position	Board advocates adoption of a new policy which adopts verbatim wording of policy E-68 policy rationale to replace policies E-68 and E-69. Do Not Support – No Recommendation for Improvement

<u>Policy E-70</u>	
Policy Statement	It shall be the intention of Council to discourage the removal of trees and other vegetation within the setback areas [text omitted], and to encourage all property owners, when developing property bordering watercourses, to maintain a natural woodland buffer within setback areas.
Origin	Eastern Shore (East) (E-7)
Policy Rationale	Inappropriate and careless development near watercourses, including unnecessary and excessive removal of vegetation and mature trees can cause erosion, sedimentation, flooding and other detrimental side effects.
RWAB Position	Support as Worded

<u>Policy E-71</u>	
Policy Statement	The Municipality shall also encourage the respective provincial and federal approval authorities to refer any marine related infrastructure or infilling requests and applications occurring within Halifax Harbour, including the Northwest Arm, to the Development Officer for review of compliance with the Land Use By-law.
Origin	Halifax (8.12.3)
Policy Rationale	The Halifax Regional Municipality recognizes that subdivision, development and water lot infilling activities along the Northwest Arm may result in undesirable impacts on the aesthetic character and traditional built form of the Northwest Arm, on its recreational use and navigability and on its marine environment. As a means of protecting the character of the Northwest Arm, the Municipality shall control development and subdivision on lots and water lots along the Northwest Arm. Specific measures will include limiting the type of structures that will be allowed on both infilled and non-infilled water lots, implementing a setback from the Northwest Arm, limiting the type and size of structures to be built within the Northwest Arm setback, and preventing infilled and non-infilled water lots from being used in lot area and setback calculations.
RWAB Position	Support as Worded

<u>Policy E-72</u>	
Policy Statement	Features of environmental significance shall be delineated as non-disturbance areas under development agreements. Non-disturbance areas shall be located to allow for continuity non-disturbance areas on abutting lots, municipal parkland and open space dedications, and natural areas adjacent to watercourses.
Origin	Halifax (EP-6); Bedford (BW-10)
Policy Rationale	Environmental protection objectives: <ul style="list-style-type: none"> - to preserve and maintain significant environmental features - to minimize site disturbance, maximize tree retention and to restore trees over area which have been disturbed by development activities

RWAB Position	Support as Worded
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<u>Policy E-73</u>	
Policy Statement	[Text omitted] It shall be the intention of Council to establish a larger setback requirement from a watercourse or well for intensive livestock operations, forest processing operations, greenhouses, facilities associated with extractive facilities and industrial uses as such uses can have a substantial impact on the natural environment.
Origin	Musquodoboit Valley/Dutch Settlement; (EC-14)
Policy Rationale	The need for larger setback requirements from watercourses or wells, for certain land uses, is supported by the provincial government through provincial guidelines for such uses as intensive livestock operations and extractive facilities. It is generally felt that greenhouse operations, forest processing uses, kennels, and industrial uses have a similar level of impact on the natural environment as intensive livestock operations and extractive facilities. Therefore, the land use by-law should establish a larger setback requirement from watercourses and wells, for these land uses.
RWAB Position	<p>The board accepted that there are other mechanisms to address this problem, and noted that agriculture is outside their area of expertise.</p> <p>Do Not Support – No Recommendation for Improvement</p>

<u>Policy E-74</u>	
Policy Statement	It shall be the intention of Council to encourage the provincial Department of Natural Resources to evaluate the recreational potential of the watercourses in the Plan Area in order to be selected for the Recreational Waterways Program under the provincial Trails Act. Furthermore, Council shall recognize and support the actions of the province for watercourses designated under the Recreational Waterways Program.
Origin	Musquodoboit Valley/Dutch Settlement (EC-15)
Policy Rationale	Under the provincial <i>Trails Act</i> , the Department of Natural Resources has established a "Recreational Waterways Program" to encourage the public use and enjoyment of selected watercourses. Under this program, the Department of Natural Resources is able to provide for maintenance of the natural quality and characteristics of selected watercourses. Therefore,

	residents are encouraging the Department of Natural Resources to evaluate the recreational potential of the watercourses within the Plan Area in order to be designated under the Recreational Waterways Program.
RWAB Position	<p>The board identified this policy as redundant, given that to date, no watercourses have been designated under the Recreational Waterways Program.</p> <p>Do Not Support – No Recommendation for Improvement</p>

Policy E-75

Policy Statement	It shall be the intention of Council to encourage the federal Departments of Fisheries and Oceans and Environment Canada to hold public information meetings to explain shellfish closures when they occur.
Origin	Prospect (E-12)
Policy Rationale	Residents of Shad Bay are concerned over shellfish fishery in Shad Bay. According to Environment Canada, recent shellfish closures are due to the quality of effluent discharging from residential on-site septic systems in the Shad Bay area. Residents, however, are also concerned with possible contamination of the Nine Mile River by the sewage treatment plant in Timberlea. To help alleviate any concerns over the quality of water in the Nine Mile River and Shad Bay, the federal departments of Fisheries and Environment Canada indicated a willingness to hold public meetings in communities where shellfish closures occur to explain the reasons for their closures.
RWAB Position	Do Not Support – No Recommendation for Improvement

Policy E-76

Policy Statement	It shall be the intention of Council to continue to support and cooperate with the Shubenacadie Lakes Advisory Board by referring subdivisions and developments within three hundred (300) metres of the streams and lakes of the Shubenacadie-Stewiacke system.
Origin	Shubenacadie Lakes (P-48)
Policy Rationale	Many communities and individuals obtain drinking water from lakes and streams in the Shubenacadie-Stewiacke system. In addition, water may eventually be supplied to the airport area from Grand Lake. It is estimated

	<p>that developments within three hundred (300) metres of the lakes or streams are the primary contributors of nutrients such as phosphates from septic tanks and domestic fertilizers which can adversely affect water quality.</p> <p>The Shubenacadie Lakes Advisory Board has been recognized by Council and developments or subdivisions which could affect water quality are referred to the Board for their comment.</p>
RWAB Position	No Opinion

<u>SALT MARSHES</u>	
Municipal Policy Interest	Wetlands and other watercourses are vital components of the hydrological cycle and affect the quality and quantity of groundwater. They are natural filters for removing sediment, contaminants and excessive nutrients which are drawn up by the vegetation and settle out naturally before entering groundwater. They absorb peak stormwater flows, reducing the risk of flooding downstream while offsetting groundwater extraction to reduce the risk of wells running dry. Wetlands also provide habitat for fish and wildlife and provide opportunities for education and research. Moreover, while enhancing the overall aesthetics of a community, wetlands are unsuitable for development as they pose a hazard for the stability of structures. It is essential that wetlands are protected.
Jurisdiction	<p>The Province of Nova Scotia. Regulates the alteration of wetlands. Wetlands less than 2 hectares in area are assessed under the Nova Scotia Wetland Conservation Policy and those more than 2 hectares in area require an environmental impact assessment reviewed under the Environmental Assessment Regulations.</p> <p>HRM Charter:</p> <p>Section 283 enables the Municipality to take land for parkland dedication as part of the subdivision process.</p> <p>Section 235 enables the Municipality to divide the planning area into zones.</p>
Regional Plan Comments	<p>2.3.2 Wetlands Protection: It is HRM's intent to prohibit the development of wetlands until such time as they are made suitable for development in accordance with provincial requirements.</p> <p>E-7: HRM shall, through the applicable land use by-law, establish a Protected Area Zone. This Zone shall be applied to wilderness areas which have been designated under the Wilderness Areas Protection Act, nature reserves designated under the Special Places Protection Act, and conservation-related properties owned by government or private conservation organizations. The Zone shall only permit scientific study and education, trails and similar public, conservation and recreational uses</p> <p>E-17: Where a development may be considered by development agreement, HRM shall consider the acquisition of riparian buffers as public open space</p>

<u>Policy E-77</u>	
Policy Statement	It shall be the intention of Council to request the Department of the Environment to prohibit infilling or drainage of the coastal wetlands in the Plan Area, as shown on the Coastal Wetlands Map (Map 2).
Origin	Lawrencetown (P-29)
Policy Rationale	Coastal wetlands of Lawrencetown, including but not limited to, the salt marshes of Cole Harbour, Lawrencetown Lake, Porters Lake and the West Marsh constitute a significant habitat for many wildlife species. Alteration or reduction of this habitat will have an effect on the numbers and variety of wildlife found in the area as either resident or migrant species. Similar coastal wetlands have been drained and filled elsewhere in Canada and the United States with a consequent change in wildlife populations.
RWAB Position	Support As Worded

<u>Policy P-30</u>	
Policy Statement	It shall further be the intention of Council to seriously consider the acquisition of such marshes as public open space at the time of subdivision, and to develop these marshes as an educational resource or leave them in a natural condition as wildlife refuges.
Origin	Lawrencetown (P-30)
Policy Rationale	Not only are the coastal wetlands an important ecological resource, they could contribute to local tourism by attracting visitors to the area to observe the wildlife.
RWAB Position	<p>Proposed Policy:</p> <p>It shall further be the intention of Council to acquire such marshes as public open space at the time of subdivision, and to develop these marshes as an educational resource or leave them in a natural condition as wildlife refuges.</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-78</u>	
Policy Statement	It shall be the intention of Council to encourage the necessary scientific studies to identify any coastal wetlands requiring specific protection, and to consider amending this strategy to establish and apply conservation zoning in such areas.
Origin	Lawrencetown (P-31)
Policy Rationale	<p>Coastal wetlands can be protected through conservation zoning. At this time there are no scientific studies which identify specific coastal wetlands in Lawrencetown which are of such ecological significance as to warrant this level of protection. However, should such significant wetlands be identified, amendments to this strategy will be considered to establish the necessary conservation zoning.</p> <p>Eastern Passage/Cow Bay has established an Environmental Conservation zone for this purpose. For any parcel of land which is zoned EC, conservation passive recreation, and historical sites and monuments are the only permitted uses. No infilling, excavation, alteration of grade or removal of vegetation shall be permitted.</p>
RWAB Position	<p>Proposed Amendment:</p> <p>It shall be the intention of Council to conduct the necessary scientific studies to identify any coastal wetlands requiring specific protection, and to amend this strategy to establish and apply conservation zoning in such areas.</p> <p>Specific Recommendations for Improvement</p>

<u>FLOODPLAIN PROTECTION</u>	
Municipal Policy Interest	Land adjacent to rivers and streams which are subject to flooding (floodplains) are unsuitable for development. Development or alteration of a floodplain can restrict normal water drainage patterns and cause significant damage to property and infrastructure and risk to life. It is important for the municipality to limit development on these lands to reduce the need for costly flood control infrastructure such as channels, reservoirs and dykes, and to protect the public from property damage and the loss of life.
Jurisdiction	<i>HRM Charter</i> , s234.5 (p) allows HRM , through bylaw, to prohibit development on land that is subject to flooding. Further to this, The Statement of Provincial Interest Regarding Flood Risk Areas made under Section 193 and subsections 194(2) and (5) of the Municipal Government Act requires that municipal planning documents pertaining to identified Flood Risk Areas make certain restrictions on development.
Regional Plan Comments	<p>2.3.4 Floodplains: Land adjacent to rivers and streams which are subject to flooding (floodplains) are unsuitable for development. Development or alteration of a floodplain can restrict normal water drainage patterns and cause significant damage to property and infrastructure and risk to life. Limiting development on these lands reduces the need for costly flood control infrastructure such as channels, reservoirs and dykes, and protects the public from property damage and the loss of life. In the early 1980s, floodplain mapping for the Sackville and Little Sackville Rivers was prepared under the Canada-Nova Scotia Flood Damage Reduction Program and policies and regulations have been adopted under the Sackville planning documents to reduce the risk to property and the need for flood control measures.</p> <p>To minimize effects upon natural stormwater flows, HRM will exercise control over the placement and stabilization of fill necessary for the flood proofing of structures permitted within a floodplain designation of a Secondary Planning Strategy. Through the review of subdivision applications, any roadways proposed within a floodplain designation will need to meet HRM's stormwater requirements. The following policy is intended to mitigate the consequences of flooding along major rivers and emphasize the environmental importance of rivers in regulating and draining water flows through watersheds.</p> <p>E-21: HRM shall restrict development and prohibit the placement of fill or alteration of grades in association with development that restricts the capacity of flow or increases flood levels within the 1 in 100 year and 1 in 20 year floodplains for designated watercourses, under secondary planning strategies and land use by-laws. Water control structures, boardwalks and walkways, conservation uses, historic sites and monuments and wastewater,</p>

	stormwater and water infrastructure shall be permitted within floodplains. Within the 1 in 100 year floodplain, HRM may, through secondary planning strategies and land use by-laws, permit development which has been adequately flood-proofed.
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<u>Policy E-79</u>	
Policy Statement	<p>No development, grade alteration, excavation, fill, pavement or removal of natural vegetation shall be permitted within one hundred (100) feet of the high water mark, or within the limits of any 1 in 20 year flood plain of Kearney Lake, Kearney Lake Run or Black Duck Brook or within sixty-six (66) feet of the high water mark of any other watercourse, or within the limits of any 1 in 20 year flood plain of any watercourse, except as provided for by development agreement in accordance with an approved water management plan.</p> <p>In order to effectively address servicing and development concerns, and to provide protection for the lake as a recreation and aesthetic resource in the interim period, prior to installation of central sewerage services, new development in the immediate area of Springfield Lake was prohibited by the application of a RR-1 (Restricted Residential) Zone which only permitted the existing residential uses, accessory uses, offices in conjunction with the permitted uses and open space uses.</p>
Origin	Beaver Bank, Hammonds Plains and Upper Sackville; Bedford; Halifax; (BW-7, Land Use Policies preamble)
Policy Rationale	Water Quality Assessment of Water Bodies Contained in the Bedford West Planning Area Using a Phosphorous Loading Model Approach (Dalhousie University Centre for Water Resource Studies, April 2004) concluded that best management practices may be needed both during development and afterward to maintain a water quality in the lakes that is satisfactory for recreational activities. Leaching from septic fields from existing development in adjacent areas may also contribute to phosphorous loading and mitigative measures may be needed over the long term. The study recommended that a monitoring program be established on lakes throughout the watershed. The Jacques Whitford study examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans.
RWAB Position	<p>Adopt as amended: 1 in 50/ 1 in 100 (substitute 50 for 20).</p> <p>Specific Recommendations for Improvement</p>

<u>Policy E-80</u>	
Policy Statement	In recognition of the need to minimize the consequences of flooding along the watershed system and in recognition of the environmental importance of the river and its role in the natural storm drainage system, and consistent with the policies of the municipal planning strategy, it shall be the intention of Council to establish a Floodplain Designation as shown on the Generalized Future Land Use Maps (Maps 1A, 1B, 1C, 1D, 1E). This Designation shall encompass the 1:20 and the 1:100 floodplains as defined through detailed floodplain mapping.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-75)
Policy Rationale	The identification and control of development on lands which are located adjacent to rivers and streams and which are subject to flooding during storms is premised upon the assumption that such areas are unsuitable for most developments. Limiting development on these lands, thereby maintaining natural stormwater drainage patterns, will alleviate the need for costly structural approaches to flood control such as channels, reservoirs, and dykes, as well as for providing flood damage compensation to individual property owners, both of which are normally borne by society-at-large.
RWAB Position	Adopt as amended: substitute 1:50 for 1:20. Specific Recommendations for Improvement

<u>Policy E-81</u>	
Policy Statement	Within the Floodplain Designation it shall be the intention of Council to establish a FP (Floodplain) Zone, encompassing the 1:20 year floodplain, in which conservation related uses, resource activities, recreation uses, and public and private parks and playgrounds shall be permitted. Notwithstanding that these uses shall be permitted, any structures intended for human habitation, whether permanent or temporary, shall be prohibited.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-76)
Policy Rationale	The study identified two flood risk areas, one for the 1:20 year storm and another for the 1:100 year storm. The recommendation of the study was that there be no development permitted within the 1:20 year flood area.
RWAB Position	Roll it into policy E-80.

	Specific Recommendations for Improvement
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<u>Policy E-82</u>	
Policy Statement	<p>Within the Floodplain Designation it shall be the intention of Council to apply the MU-2 (Mixed Use 2) Zone established by Policy P-11 to those lands beyond the 1:20 year floodplain but within the 1:100 year floodplain. Notwithstanding the provisions of Policy P-11 and with the exception of buildings permitted in the floodplain zone, Council may only consider permitting buildings within the 1:100 year floodplain by development agreement and according to the provisions of the Municipal Government Act. In considering any such agreement, Council shall have regard to the following: (a) that adequate flood proofing measures are undertaken for any building; (b) that the type of residential development is consistent with that permitted by the zone within which the lands are located and that the minimum standards for such developments are no less than those required by the zone unless necessary for reasons of safety; and (c) the environmental protection of the watercourse with respect to proper storm drainage.</p>
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-77)
Policy Rationale	The study identified two flood risk areas, one for the 1:20 year storm and another for the 1:100 year storm. The recommendation of the study was that there be no development permitted within the 1:20 year flood area, and that flood proofing measures for structures located within the 1:100 year area be required.
RWAB Position	<p>Board not convinced there is such a thing as adequate floodproofing.</p> <p>Do Not Support- No Specific Recommendation for Improvement</p>

<u>Policy E-83</u>	
Policy Statement	In order to minimize the effects upon natural stormwater flows it shall be the intention of Council to exercise control over the placement and stabilization of fill necessary for the floodproofing of structures permitted within the Floodplain Designation. Further, through the review of subdivision applications, it shall be the intention of Council to co-operate with the Department of Transportation to ensure that any roadways proposed within the Floodplain Designation meet the requirements of the Halifax County Storm Drainage Task Force.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-78)
Policy Rationale	The identification and control of development on lands which are located adjacent to rivers and streams and which are subject to flooding during storms is premised upon the assumption that such areas are unsuitable for most developments. Limiting development on these lands, thereby maintaining natural stormwater drainage patterns, will alleviate the need for costly structural approaches to flood control such as channels, reservoirs, and dykes, as well as for providing flood damage compensation to individual property owners, both of which are normally borne by society-at-large.
RWAB Position	Board not convinced that there is such a thing as adequate flood proofing. Substitute 1:50 for 1:20. Do not allow septic systems anywhere within 1:50 or 1:100. Specific Recommendations for Improvement

<u>Policy E-84</u>	
Policy Statement	It shall be the intention of Council, in the interests of orderly development and public safety, to encourage and co-operate with senior levels of government in the development of floodplain mapping for the Plan Area. Upon completion of any floodplain mapping, Council shall review the Regional Plan in order to implement more appropriate development controls.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-79)
Policy Rationale	Most of the Sackville River and McCabe and Webber Lakes have been included within the federal/provincial flood reduction program. The anticipated continuation of development and the occurrence of flooding in the Beaver Bank area indicate that additional watercourses should be considered for

	inclusion in this program.
RWAB Position	Role it into policy E-80. Specific Recommendations for Improvement

<u>Policy E-85</u>	
Policy Statement	In order to minimize the effects upon natural stormwater flows it shall be the intention of Council to exercise control over the placement and stabilization of fill necessary for the floodproofing of structures permitted within the Floodplain Designation. Further, through the review of subdivision applications, it shall be the intention of Council to co-operate with the Department of Transportation to ensure that any roadways proposed within the Floodplain Designation meet the requirements of the Halifax County Storm Drainage Task Force.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-80)
Policy Rationale	The identification and control of development on lands which are located adjacent to rivers and streams and which are subject to flooding during storms is premised upon the assumption that such areas are unsuitable for most developments. Limiting development on these lands, thereby maintaining natural stormwater drainage patterns, will alleviate the need for costly structural approaches to flood control such as channels, reservoirs, and dykes, as well as for providing flood damage compensation to individual property owners, both of which are normally borne by society-at-large.
RWAB Position	Do Not Support- No Recommendation for Improvement

<u>Policy E-86</u>	
Policy Statement	It shall be the intention of Council to permit the redevelopment of existing uses within the 1:20 year floodway through the development agreement process, subject to the proponent agreeing to maintain, or enhance where possible, the water retention capabilities of the floodway.
Origin	Bedford (E-11)
Policy Rationale	The recommendation of a 1981 hydrotechnical study of the Sackville River was that no development be permitted within the 1:20 year flood area, and that floodproofing measures be required for structures located within the 1:100 year area. Within Bedford, large portions of both the 1:20 and 1:100

	<p>year flood areas have been infilled and/or developed. Further infilling and/or inappropriate development could disturb the balance which exists presently between the river and its floodway areas. In recognition of the need to minimize the consequences of flooding along the Sackville River, Policy E-11 suggests the establishment of a floodway zone and its application to the 1:20 year floodway. Uses within the 1:20 floodway zone shall be restricted to conservation related uses and limited recreation uses. Structures intended for human habitation shall be prohibited.</p>
RWAB Position	<p>Recommended substituting 1:50 floodplain with 1:20.</p> <p>Specific Recommendations for Improvement</p>

<u>LAKE AND STREAM PROTECTION</u>	
Municipal Policy Interest	The municipality recognizes that land use activities occurring in one part of a watershed can adversely affect the quality and quantity of water in another, and consequently conducts planning on a watershed basis. Riparian buffers are also retained around watercourses and along the coastline to protect water quality and other features and functions.
Jurisdiction	<p>Halifax Charter</p> <p>Section 79 enables the Municipality to spend money on lands required for a municipal purpose.</p> <p>Section 229 "Statements of policy in planning strategy", enables the Municipality, through MPS, to make policy regarding the protection, use and development of lands within the Municipality.</p> <p>Section 235, enables the Municipality to establish zones, such as Environmental Conservation areas.</p> <p>Section 240, enables the municipality to establish criteria, through LUB and MPS, for developments that may be considered by development agreement.</p>
Regional Plan Comments	<p>Section 2.3.3 Riparian Buffers, provides guidance in this area through policies E-17 & E-18</p> <p>Section 3.4.1 Provides a guideline for the consideration of several types of conservation design developments.</p> <p>Section 8.5.2 Private On-site Sewage Disposal Systems and Wastewater Facilities provides guidance in this area, through policies SU-17 through SU-20.</p> <p>E-11: A Greenbelting and Public Open Space Priorities Plan may consider... (g) developing a system of interconnected public and natural undisturbed open spaces throughout HRM to include HRM parks, coastal areas and watercourse shorelines, water route and land-based greenways as illustrated on the Trails and Natural Network Map, multi-functional streets, environmental and cultural conservation areas, schools, natural corridors, habitats as well as other public and community facilities... (i) including a comprehensive planning approach for the retention of coastal and freshwater lake access and incentives for the protection of watercourse buffers.</p> <p>E-16: HRM shall, through the applicable land use by-law, require the retention of a minimum 20 metre wide riparian buffer along all</p>

watercourses throughout HRM to protect the chemical, physical and biological functions of marine and freshwater resources. Through a secondary planning process, the width of the riparian buffer may be increased. Lands designated Halifax Harbour on the Generalized Future Land Use Map (Map 2), industrial lands within the port of Sheet Harbour and lands within the Waterfront Residential (R- 1C) Zone under the Shubenacadie Lakes Secondary Planning Strategy shall be exempted from the buffer requirement.

Development within the riparian buffer shall generally be prohibited but provisions may be made to permit water control structures, boardwalks, walkways and trails of limited width, fences, public road crossings, driveway crossings, wastewater, storm and water infrastructure, marine dependent uses, fisheries uses, boat ramps, wharfs, small-scale accessory buildings or structures and attached decks, conservation uses, parks on public lands and historical sites and monuments within the buffer. In addition, no alteration of land levels or the removal of vegetation in relation to development will be permitted.

E-17: Further to policy E-16, where a development may be considered by development agreement, HRM shall consider the acquisition of riparian buffers as public open space.

E-23: HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed. These studies, where appropriate, shall be designed to... (m) recommend potential regulatory controls and management strategies to achieve the desired objectives; and (n) recommend a monitoring plan to assess if the specific water quality objectives for the watershed are being met

E-24: HRM may consider preparing a water quality monitoring protocol to provide guidance for water quality monitoring plans accepted by HRM under clause (n) of policy E-23 and any other monitoring programs to be undertaken for HRM by landowners

SU-7 stormwater management and erosion control by-law,

Policy E-87

Policy Statement	<p>A water quality monitoring program shall be undertaken for the major watershed, illustrated on Schedule BW-2 to track the eutrophication process. The program is to be designed in accordance with national guidelines established by the Canadian Council for Ministers of the Environment (the CCME guidelines) and undertaken by a qualified persons retained by the Municipality and financed in whole or in part by developers within the watershed area. Specifics of the program are to be negotiated under the terms of a development agreement in consultation with the Regional Watershed Advisory Board. The monitoring program shall: a) specify the duration of monitoring for the pre-construction, construction and post-construction phases of development. Pre-construction phase means a period of time before construction activity starts. Post-construction phase means a period of time that commences at full build out of the area permitted by a development agreement. Construction phase means the full time period between the pre-construction and post-construction phase); b) specify the physical and chemical water quality indicators to be measured, the location and frequency of testing and the format of submissions to the Municipality in each phase referenced under clause (a); c) establish physical and chemical water quality indicator threshold levels for the recreational uses of the lakes which would be used as a basis for reevaluating watershed management controls and future development potential within the area. The threshold indicators are to be established prior to any development approvals being granted; d) conform with all water quality policies, specifications, protocols and review and approval procedures approved by Regional Council.</p>
Origin	Bedford (BW-3)
Policy Rationale	<p>Annapolis Group had two studies prepared in support of its development proposal: Water Quality Assessment of Water Bodies Contained in the Bedford West Planning Area Using a Phosphorous Loading Model Approach (Dalhousie University Centre for Water Resource Studies, April 2004) and Bedford West Planning Area: Subwatershed Management Plan (Jacques Whitford, May 2004).</p> <p>The first study concluded that best management practices may be needed both during development and afterward to maintain a water quality in the lakes that is satisfactory for recreational activities. Leaching from septic fields from existing development in adjacent areas may also contribute to phosphorous loading and mitigative measures may be needed over the long term. The study recommended that a monitoring program be established on</p>

	<p>lakes throughout the watershed.</p> <p>The Jacques Whitford study examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans.</p>
RWAB Position	<p>Support with substitution as follows: Delete "the eutrophication process" and insert "water quality parameters". Emphasis given that the municipality should focus on the setting of standards and the requirement for the establishment of a long-term (baseline) of water quality conditions.</p> <p>Specific Recommendations for Improvement.</p>

<u>Policy E-88</u>	
Policy Statement	Where the Community Council is satisfied that a development agreement application has been made for a development proposal which could not be reasonably expected to impact the quality of water within the Paper Mill Lake watershed, the requirements of policy BW-3 may be waived.
Origin	Bedford (BW-4)
Policy Rationale	None.
RWAB Position	<p>Strike.</p> <p>Do Not Support – No Recommendation for Improvement</p>

<u>Policy E-89</u>	
Policy Statement	In the event that water quality threshold levels, as specified under clause (c) of policy BW-3, for Paper Mill Lake or Kearney Lake are reached, the Municipality shall undertake an assessment and determine an appropriate course of action respecting watershed management and future land use development in the area. An assessment shall consider the CCME guidelines. Water quality thresholds and any assessment reports shall be made available to the public.
Origin	Bedford (BW-5); Dartmouth (ML-31)
Policy Rationale	The actual amount of land that can be developed can only be determined by undertaking a well-designed lake monitoring program and adopting a pre-set maximum permissible limit for total phosphorous. If the results indicate that Total Phosphorus continues to increase, the watershed management plan will have to be revised and development controls strengthened
RWAB Position	<p>Support in principle, so long as the language is generalized.</p> <p>Proposed policy: In the event that water quality threshold levels are reached, the Municipality shall undertake an assessment and determine an appropriate course of action respecting watershed management and future land use development in the area. An assessment shall consider the CCME guidelines. Water quality thresholds and any assessment reports shall be made available to the public.</p> <p>Specific Recommendations for Improvement.</p>

<u>Policy E-90</u>	
Policy Statement	It shall be the intention of Council to encourage all new development near the lakes to meet certain basic design objectives as follows: a) to reproduce the pre-development hydrological conditions; b) confine development and construction activities to the least critical areas of the site and consider clustered development to minimize land disturbance; c) maintain the overall desired density of development by allocating higher densities to areas most suitable for development; d) minimize changes to the existing topography; and e) preserve and utilize the natural drainage system
Origin	Dartmouth (ML-23)
Policy	The design adopted for a subdivision fundamentally affects the hydrology of

Rationale	the site and the quality of the stormwater. Good environmental planning integrates site design and stormwater quality management into one process. If environmentally responsible watershed policies are not supported by environmentally responsible design at a subdivision and site level, the whole endeavor may ultimately fail. The Morris Lake Watershed Management Plan recommends that all development adhere to environmental standards designed specifically to protect Morris Lake and its watershed.
RWAB Position	support. In addition, the municipality should 1) initiate "true" watershed planning, whereby study boundaries include the entire secondary watersheds surrounding lands of interest; 2) conduct stream gauging; and 3) initiate watershed monitoring program on the whole municipality. Specific Recommendations for Improvement

<u>Policy E-91</u>	
Policy Statement	It shall be the intention of Council to require all new development situated on lands requiring a Development Agreement within the plan area to incorporate specific design standards which maximize the protection of water quality in Morris and Russell Lakes. The following shall be used as guidelines: a) all lands with slopes of 15% or greater should not be developed unless additional environmental control measures are implemented to minimize the amount of erosion generated from the site; b) all wetlands (as defined by the presence of characteristic wetland vegetation) should be excluded from development; c) all shorelines should be protected by a 100 foot buffer zone except that the width of the buffer zone may be decreased to 75 feet if, through detailed study, the topography and vegetation conditions warrant the reduction. Within the buffer zone, no vegetation or soil shall be removed or altered unless under a management plan has been approved to provide for restoration of vegetation, shoreline access paths, view corridors, habitat management, safety and welfare or shoreline recreation where such provisions may be made without adversely affecting the primary purpose of preserving water quality in the lake. Any study or management plan submitted pursuant to this clause shall be prepared by a person qualified to make the required determinations and an approval procedure shall be established under the terms of a development agreement; d) all wetlands and watercourses should be protected with a buffer strip within which no vegetation or soil should be removed or altered unless approved under a management plan approved pursuant to the provisions of clause (c). For wetlands, the buffer strip should be at least 25 feet in width for wetlands less than 0.5 acres in size and 50 feet for wetlands over 0.5 acres. All streams shall have a minimum 50 foot buffer strip on each side; e) the amount of

	impermeable surfaces created should not exceed 25% of the gross area of the proposed development. Minor increases in this figure may be considered provided the amount of proposed undisturbed land substantially exceeds the guideline described in section ML-11(f) and such undisturbed lands are incorporated into the final drainage plan; f) a minimum of 25% of the natural vegetation on the site should be retained in an undisturbed state and incorporated into the final drainage plan; g) the public, landowners, developers and the Municipality are encouraged to maximize phosphorous reduction to the fullest extent possible through the use of best management practices as recommended by the Morris Lake Stormwater Management Plan (Jacques Whitford, 2004); and h) no development shall be permitted on septic systems.
Origin	Dartmouth (ML-24)
Policy Rationale	Erosion and sedimentation control is a critical element in good site design. In order to control the adverse effects of sediment (and attached phosphorus), it will be essential to strictly control erosion. This means that development will have to be designed and implemented with erosion minimization as a primary criterion.
RWAB Position	support as amended (insert terms "and maintained" after the term "implemented" within clause a, and to incorporate comments previously made on slopes. Specific Recommendations for Improvement

<u>Policy E-92</u>	
Policy Statement	It shall be the intention of Council to undertake a study of habitats and species within the Morris-Russell Lake area.
Origin	Dartmouth (ML-32)
Policy Rationale	he Morris Lake Watershed Management Plan recommends that all development adhere to environmental standards designed specifically to protect Morris Lake and its watershed. It shall be the intention of Council to require all new development situated on lands zoned CDD within the Morris-Russell Lake secondary plan area to incorporate specific design standards which maximize the protection of water quality in Morris and Russell Lakes.
RWAB Position	Support the proposed policy: It shall be the intention of Council to undertake a study of habitats and species within all watersheds within the municipality.

	Specific Recommendations for Improvement
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<u>Policy E-93</u>	
Policy Statement	It shall be the intention of Council to monitor the water level of major lakes to maintain it at a level sufficient for recreational use and to prevent further eutrophication of the lake.
Origin	Dartmouth (ML-34)
Policy Rationale	The water level of Morris Lake should be maintained at a level sufficient for recreational use and to prevent development of excessive shoreline vegetation. In the near future, two possible events may take place that could negatively impact upon water levels on Morris Lake. The first is the decommissioning of Lamont and Topsail Lakes as a source of water supply and secondly, a change in the amount of water extracted from the lake by Imperial Oil.
RWAB Position	Do not support because deemed redundant. Board did recommend that rivers are gauged and that all policy recommendations be concluded with the following statement "as part of a watershed study" (as appropriate). Do Not Support – No Recommendations for Improvement.

<u>Policy E-94</u>	
Policy Statement	It shall be the intention of Council to retain all lands in the sub-watershed of Lamont and Topsail Lakes as a conservation area in perpetuity.
Origin	Dartmouth (ML-35)
Policy Rationale	None provided.
RWAB Position	Support As Worded

<u>Policy E-95</u>	
Policy Statement	It shall be the intention of Council to provide funds through the capital budget to acquire lands for the purpose of lake protection and the provision of recreational lands adjacent to the lakes.
Origin	Dartmouth (E-1)
Policy Rationale	In June 1974 a report entitled "The Lake Study" was presented to City Council. The analysis used a matrix approach to determine the susceptibility to erosion of the lake shores and consequently the effect that erosion will have on the lakes. Upon completion of the analysis, each lake was reviewed in detail and the areas to be protected were identified. The study in its recommendations proposed a five year capital budget to acquire the lands necessary for this protection. Since 1974, the subdivision agreements for lands adjacent the lakes have included a lake protection package to assist in the protection of the quality of the lakes through preventive construction techniques. There are, however, still significant parcels of land adjacent the lakes to be protected. It is therefore necessary for Council to restate its intention to protect the lakes and continue to acquire the additional lands.
RWAB Position	support as amended: It shall be the intention of Council to provide funds through the capital budget to acquire lands for the purpose of lake protection and the provision of conservation and recreational lands adjacent to the lakes. Specific Recommendations for Improvement

<u>Policy E-96</u>	
Policy Statement	The Municipality shall establish standards, insofar as it has the power, for maintaining lake systems and their watersheds in a healthy state. These standards should address the infilling of lakes or their tributaries, the preservation of natural resources which are visually or ecologically complementary to those lakes and their tributaries, the control of discharges into lakes or tributaries resulting from public or private developments which would cause long-term degradation of the water quality, and the prevention of any other environmentally damaging effects.
Origin	Halifax (8.5)
Policy	Objective: The preservation and enhancement, where possible, of the natural and man-made environment, and especially of those social and cultural

Rationale	qualities of particular concern to the citizens of Halifax.
RWAB Position	Support As Worded

COASTAL LANDS/Shoreline/Waterfront

Municipal Policy Interest	Coastal lands provide significant ecosystem services (buffering from storms, flood control, improved water quality, habitat for fish or shellfish). Traditionally home to residential and industrial development, fishing, transportation and tourism, these uses can result in negative consequences such as property at risk during storms, degraded water quality, reduced public access, and habitat loss. Given the value of coastal areas, the municipality has an opportunity to plan for development that preserves the value of these areas through land-use planning and managing the risks associated with climate change.
Jurisdiction	<p>HRM Charter:</p> <p>Section 21 enables the Municipality to establish advisory committees and their terms of reference.</p> <p>Section 235 enables the Municipality to regulate development through land-use zoning. prohibit or regulate development within a specified distance of a watercourse.</p> <p>Section 235.5 (o) enables the Municipality to prohibit or regulate development within a specified distance of a watercourse.</p> <p>Section 281, Subdivision by-law, enables the Municipality to create requirements for the subdivision of lands. 235, enables the Municipality to regulate development through land-use zoning.</p>
Regional Plan Comments	<p>EC-12 HRM shall establish a Halifax Harbour Designation which extends from Hartlen Point in Eastern Passage to Chebucto Head, including Northwest Arm and Bedford Basin, and extends inland generally to the first major roadway paralleling the Harbour, as shown on the Generalized Future Land Use Map (Map 2). The Designation shall support a range of development opportunities including marine-dependent industrial and commercial uses, transportation uses and facilities including ferries, recreational uses, residential uses, institutional uses and matters related to environmental improvement and protection.</p> <p>EC-13 Within the Halifax Harbour Designation, HRM shall establish zoning under applicable land use by-laws and apply the zone on lands where existing harbour related industrial uses are located and lands or water lots determined by HRM to be suitable for these uses in the future. Corresponding land use regulations will be established under the applicable land use by-laws. Amendments to applicable land use by-laws may be made</p>

	<p>to:</p> <ul style="list-style-type: none"> (a) allow for additional lands or water lots for harbour related industrial uses that have not been previously been identified where such lands are considered appropriately situated for these uses; (b) implement regulations that mitigate potential negative impacts of existing and potential marine-dependent industrial and commercial areas on adjacent uses, while maintaining the economic viability of marine-dependent uses; and (c) discourage new residential development from locating in areas that abut lands designated for intensive marine dependent industrial and commercial uses. <p>E-22 (represented as policy E-97): HRM shall, through the applicable land use by-law, prohibit all residential development on the coast within a 3.8 metre elevation above Canadian Geodetic Vertical Datum (CGVD 28). Provisions shall be made within the by-law to permit residential accessory structures, marine dependant uses, open space uses, parking lots and temporary uses within the 3.8 metre elevation. Consideration may be given to amending the by-law requirements where an updated system of measurement has been adopted or studies have been undertaken which recommend that such amendments are deemed prudent to provide a reasonable level of safety or to conform with guidelines or statements of interest adopted by the Province.</p> <p>E-24 enables HRM to develop a water quality monitoring protocols.</p> <p>G-8: Where minimum setbacks from watercourses established under Secondary Planning Strategies and Land Use By-laws differ from the minimum twenty (20) meter setback specified by this Plan, the more stringent shall prevail.</p>
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<u>Policy E-97</u>	
Policy Statement	HRM shall, through the applicable land use by-law, prohibit all residential development on the coast within a 3.8 metre elevation above Canadian Geodetic Vertical Datum (CGVD 28). Provisions shall be made within the by-law to permit residential accessory structures, marine dependent uses, open space uses, parking lots and temporary uses within the 3.8 metre elevation. Consideration may be given to amending the by-law requirements where an updated system of measurement has been adopted or studies have been undertaken which recommend that such amendments are deemed prudent to provide a reasonable level of safety or to conform with guidelines or statements of interest adopted by the Province.
Origin	Regional Plan 2014 (E-22)
Policy Rationale	Rising sea levels and storm surges can result in increased damage to coastal communities and have significant impacts on coastal infrastructure, environmental assets, utilities, properties and community economic development. This policy is intended as a measure to mitigate the potential impact that coastal inundation and storm surge events could have on human safety.
RWAB Position	Support As Worded

<u>Policy E-98</u>	
Policy Statement	It shall be the intention of Council to work in cooperation with appropriate agencies to improve the quality of water in Bedford Basin to a level where it will support various recreational uses, including safe swimming, and permit the restoration of fish habitats.
Origin	Bedford (E-16)
Policy Rationale	The quality of the Town's water resources for recreational purposes is a major concern. Recent development in Bedford has placed considerable pressure on the quality of the lakes and streams within the Town. Increased building activity has resulted in erosion and siltation problems during construction, while increased impervious surfaces associated with the development have altered the quantity and rates of surface runoff. The quality of the Bedford Basin as well has been compromised over time.

RWAB Position	Support As Worded
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<u>Policy E-99</u>	
Policy Statement	It shall be the intention of Council to request the Halifax Port Authority to forward applications for infilling of Bedford Bay shoreline to the Regional Waters Advisory Committee and the Provincial Department Environment for comment.
Origin	Bedford (E-17)
Policy Rationale	The recent MPS Review raised the concern regarding the infilling of the intertidal area along the shore of Bedford Bay and Bedford Basin.
RWAB Position	Do Not Support – No Recommendation for Improvement

<u>Policy E-100</u>	
Policy Statement	It shall be the intention of Council to ensure compatible zoning and development standards are applied to areas of existing and future infill along the coast line
Origin	Bedford (E-17a)
Policy Rationale	The recent MPS Review raised the concern regarding the infilling of the intertidal area along the shore of Bedford Bay and Bedford Basin.
RWAB Position	support, and bolster with Policy E-20 from RMPS 2014: HRM may, through secondary planning strategies and land use by-laws, consider measures to regulate development of water lots that have been infilled, including establishing setbacks of buildings and structures from the water. Specific Recommendations For Improvement

<u>Policy E-101</u>	
Policy Statement	Council shall require the Regional Waters Advisory Committee to report on any environmental impact assessment (i.e. changes in water circulation patterns, effect of project on sewage treatment plant discharge, etc.,) of the proposed waterfront development projects before entering into a development agreement.
Origin	Bedford (WF-17).
Policy Rationale	The proposed waterfront development project presents the Town with a rare opportunity to increase public use of the shoreline and Bedford Bay while ensuring that appropriate environmental controls are placed on the project.
RWAB Position	Do Not Support – No Recommendation for Improvement

<u>Policy E-102</u>	
Policy Statement	It shall be the intention of Council, through the land use by-law, to establish a building setback and buffer of two hundred (200) feet for those coastal lands as shown on Map 4 - Environmental Constraints. No structure, excavation, infilling or grade alteration shall be permitted to occur within the setback/buffer area and the retention of natural vegetation within the area shall be part of these requirements. The land use bylaw shall contain provisions to reduce this requirement to one hundred (100) feet for those lots in existence on the effective date of this planning strategy and if otherwise development would be prohibitive.
Origin	Eastern Passage/Cow Bay (EP-7)
Policy Rationale	Coastal lands outside of the sheltered area of Halifax Harbour are under constant pressure from ocean wave and wind action and are continually eroding. These areas present a hazard to development which is located too close to the water/land interface or the top of shoreline cliffs. Therefore, the primary objective of establishing a setback along the coast line is to provide increased protection for structures from these hazards. This will help to lessen the costs to homeowners and the Municipality to spend future money to fortify the shoreline against the effects of coastal erosion.
RWAB Position	Specific Recommendations for Improvement

Policy E-103

Policy Statement	The Bedford Basin is a substantial water body characterized by mix of industrial uses, public parks, historic assets, commercial uses and a variety of residential uses. Halifax Regional Municipality recognizes that unfocused subdivision, development and water lot infilling activities along the Bedford Basin may result in undesirable impacts on the character of the area, on traditional views of the Bedford Basin, on its recreational use and on its marine environment. As a means of protecting the character of the Bedford Basin, the Municipality shall control development and subdivision on lots and water lots along the Bedford Basin between the southern boundary of PID 00279786 and the northern boundary of the Halifax Plan Area. Specific measures will include limiting the type of structures that will be allowed on both infilled and non-infilled water lots, implementing a setback from the Bedford Basin, limiting the type and size of structures to be built within the Bedford Basin setback, and preventing infilled and non-infilled water lots from being used in lot area and setback calculations.
Origin	Halifax (6.4)
Policy Rationale	Explained in policy
RWAB Position	Support As Worded

TREE MANAGEMENT

Municipal Policy Interest	Trees enhance the aesthetics of the urban environment and provide measurable economic benefits by shading infrastructure and decreasing air pollution. In addition, they are a critical aspect of the ecological infrastructure of the city's natural environment. Because urban forests are characterized by high concentrations of people and built infrastructure, emphasis in sustainable urban forest management must be given to human health and safety, psycho-social benefits, and interactions of trees with engineered works.
Jurisdiction	<p>The <i>HRM Charter</i> gives HRM to act in numerous ways to manage trees and vegetation within the Municipality:</p> <ul style="list-style-type: none"> • s. 70: (1) The Municipality may (a) beautify, improve and maintain property owned or leased by the Municipality; (b) pay grants to a body corporate for the purpose of promoting or beautifying a business district and for airport, wharf or waterfront development... (2) The Municipality may levy an area rate applicable only to the commercial property and business occupancy assessments in the area benefited by the expenditures in order to recover them." HRM Charter, s.228 (b) enables the Municipality to create policies, through MPS, that "provide a framework for the environmental, social and economic development within the Municipality. • s. 77: The Municipality may... (b) recommend and encourage... (ii) the planting of trees of suitable species at desirable sites within the Municipality. • s. 190.4: The Council may make by-laws, for municipal purposes, establishing watercourse buffer zones in which existing trees or vegetation must be retained or only removed pursuant to a municipal permit. • s. 229 enables HRM, through MPS, to make policy regarding the protection, use and development of lands within the Municipality. <p>Many of the policies in this section align with the policy direction set out in the Urban Forest Master Plan, which HRM officially adopted through Regional Plan policy E-10.</p>
Regional Plan Comments	E-10: The recommendations of the Urban Forest Master Plan, adopted in principle by HRM in September 2012, shall be considered in planning, programming and regulatory activities related to managing and enhancing the urban forest cover in HRM. No development agreement shall be entered into over lands on which trees have been removed except: (a) as may be required for a bonafide land survey; (b) to satisfy any provincial or federal requirements; or (c) where, in the opinion of Council, the extent of such

	<p>cutting would not preclude achieving the three objectives stated above.</p> <p>2.3.3 Riparian Buffers: To maximize the protection benefits of riparian buffers, the trees, shrubs, ground cover vegetation and soils must be protected. Retaining native vegetation and native soils enhances runoff storage capacity, infiltration, and nutrient recycling. The canopy should also be retained over watercourses, soil erosion should be prevented, and activities or land uses which introduce nutrients or contaminants into watercourses need to be excluded.</p> <p>G-15, regarding development agreements, states that HRM shall consider “that the proposed development is suitable in terms of the steepness of grades, soil and geological conditions, locations of watercourses, marshes or bogs and susceptibility to flooding” as well as the recommendations of the Urban Forest Master Plan.</p> <p>E-23: HRM shall undertake watershed or sub-watershed studies concerning natural watercourses prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed. The studies, where appropriate, shall be designed to: ... (j) identify and recommend measures to protect and manage natural corridors and critical habitats for terrestrial and aquatic species, including species at risk.</p>
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<u>Policy E-137</u>	
Policy Statement	The recommendations of the Urban Forest Master Plan, adopted in principle by HRM in September 2012, shall be considered in planning, programming and regulatory activities related to managing and enhancing the urban forest cover in HRM. No development agreement shall be entered into over lands on which trees have been removed except: (a) as may be required for a bonafide land survey; (b) to satisfy any provincial or federal requirements; or (c) where, in the opinion of Council, the extent of such cutting would not preclude achieving the three objectives stated above.
Origin	HRM Regional Plan (2014) (E-10)
Policy Rationale	The Urban Forest Master Plan provides a comprehensive urban forest neighbourhood approach to maximizing the urban forest in the Urban Settlement Designation to ensure a sustainable future for our urban forest.
RWAB Position	As a general rule, RWAB supports UFMP, but, as no board members have read it, would like to mention that they support balancing human interests with those of environmental conservation. I.e., board does not support

	<p>"leaving each tree until it drops dead." The board also recognizes value of trees for erosion control.</p> <p>Support these policies in general, with no specific comments.</p> <p>No Opinion</p>
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<u>Policy E-138</u>	
Policy Statement	It shall be the intention of Council, in consultation with the community of Upper Hammonds Plains and the Department of Natural Resources, to provide support in identifying measures to resolve problems which exist with the community use of the Melvin Tract Lands. In particular, Council shall assist the community in investigating the establishment of a Forest Management Plan for these lands or a crown land transfer to obtain community land outside of the Tomahawk Lake watershed.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-60)
Policy Rationale	A large landholding within the Tomahawk Lake watershed, known as the 'Melvin Tract', is owned by the community of Upper Hammonds Plains and overseen by the Melvin Land Tract Protection Society. These lands have traditionally been used for woodlot purposes by community residents and are viewed as an important community resource. There are several problems which have the potential to interfere with the use of this parcel for community benefit. There is no access to this land from the public road system, and this parcel has not been surveyed since it was originally granted. Therefore, accurate boundary surveys are needed, but costs associated with such a survey are considered prohibitive. There are two options which have been identified as possible solutions to these problems. The first relates to developing the land for its forestry resource. Financial and technical assistance can be obtained through the Department of Natural Resources under its Forest Management Plan program, which includes financial assistance for boundary line surveys, as well as funds to employ workers in silviculture. A second option is a property exchange with the Department of Natural Resources. This provincial department has a policy of considering exchanges of crown and private lands when such a trade serves to benefit an identified community interest. This option would require that a suitable alternative crown land parcel could be identified which would be acceptable to the residents of Upper Hammonds Plains and the Melvin Land Tract Protection Society.
RWAB	No Opinion

Position	
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Policy E-139

Policy Statement	Within any watercourse protection setback established under policy BW-7, no vegetation or soil shall be removed or altered unless a management plan has been approved to provide for restoration of vegetation, shoreline access paths, habitat management, safety and welfare or shoreline recreation where such provisions may be made without adversely affecting the primary purpose of preserving water quality in the lake. Any study or management plan submitted pursuant to this clause shall be prepared by a person qualified to make the required determinations and an approval procedure shall be established under the terms of a development agreement.
Origin	Bedford (BW-9)
Policy Rationale	The Jacques Whitford study (Bedford West Planning Area Subwatershed Management Plan, 2004) examined the characteristics of the watershed and the proposed development and prepared guidance for more detailed stormwater management plans. Among the objectives the study proposed was “ to undertake storm water management planning on a watershed basis with community design based on natural drainage patterns; to prevent flooding of properties and safeguard flood plains; to preserve the water quality of lakes and rivers; to preserve groundwater flows; to support regional initiatives in solid waste recovery, Halifax Harbour remediation and watershed management.”
RWAB Position	Specific Recommendations for Improvement

Policy E-140

Policy Statement	Wetlands, lakes, watercourses, endangered species habitat and any other features of environmental significance shall be delineated as non-disturbance areas under development agreements. Non-disturbance areas shall be located to allow for continuity of non-disturbance areas on abutting lots, municipal parkland and open space dedications, and natural areas adjacent to watercourses.
Origin	Bedford (BW-10)
Policy	The Jacques Whitford study (Bedford West Planning Area Subwatershed Management Plan, 2004) examined the characteristics of the watershed and

Rationale	the proposed development and prepared guidance for more detailed stormwater management plans. Among the objectives the study proposed was “to undertake storm water management planning on a watershed basis with community design based on natural drainage patterns; to prevent flooding of properties and safeguard flood plains; to preserve the water quality of lakes and rivers; to preserve groundwater flows; to support regional initiatives in solid waste recovery, Halifax Harbour remediation and watershed management.”
RWAB Position	No Opinion

<u>Policy E-141</u>	
Policy Statement	A tree replanting program shall be incorporated into development agreements. The program shall specify the locations, number, type and diameter of trees to be planted. The type of trees shall be indigenous to Nova Scotia.
Origin	Bedford (BW-11)
Policy Rationale	None given.
RWAB Position	No Opinion

<u>Policy E-142</u>	
Policy Statement	It shall be the intention of Council through the Tree Committee to ensure proper management of trees on Plan Area land (including but not limited to, maintenance, and planting) and provide assistance and encouragement to the private land owner to do the same. In addition the Tree Committee shall work to establish an ongoing Tree Planting Program on Plan Area parkland and in existing and new residential, commercial, and industrial developments with the cooperation of developers/subdividers and residents of the area.
Origin	Bedford (E-27)
Policy Rationale	Residents in the Town are very concerned over maintaining and enhancing the natural beauty of the Town with trees being a major component. In 1981 Town Council established a Tree Committee. The responsibilities of the committee include developing a program for street tree planting, supervising proper tree management on Town property, and providing advice to private property owners who request information or assistance. Policy E-143 outlines these responsibilities.
RWAB Position	No Opinion

<u>Policy E-143</u>	
Policy Statement	It shall be the intention of Council through the Tree Committee to identify unique stands of trees and through such means as the adoption of a Tree Protection By-Law and/or acquisition through the parkland dedication process, to seek to protect these trees to conserve them as an environmental resource.
Origin	Bedford (E-28)
Policy Rationale	Presently, the Tree Committee does not have the ability to regulate the cutting or pruning of trees on private lands but it may act in an advisory capacity to encourage the retention and continued good health of trees on private property. In some undeveloped areas of the Town, however, unique and significant stands of trees have been identified on private property. Residents in the Town view these stands as unique environmental resources which should be protected. Policy E-143 indicates Town Council's intention to seek authority through a Tree Protection By-law to identify unique tree stands within the Town and work to conserve them as environmental resources.
RWAB Position	No Opinion

<u>Policy E-144</u>	
Policy Statement	The Municipality shall continue its tree-planting program to ensure that all streets benefit.
Origin	Halifax (6.2, Peninsula North Secondary Planning Strategy)
Policy Rationale	Objective: An energy-efficient lifestyle in Peninsula North and an aesthetically pleasing environment for the activities that take place in the area.
RWAB Position	No Opinion

<u>Policy E-145</u>	
Policy Statement	In all cases in which landscaping or buffering is required, the use of coniferous trees on the north, west and east sides of the property, and deciduous trees on the south side shall be encouraged unless inappropriate to the specific use or site.
Origin	Halifax (6.4, Peninsula North Secondary Planning Strategy)
Policy Rationale	Objective: An energy-efficient lifestyle in Peninsula North and an aesthetically pleasing environment for the activities that take place in the area.
RWAB Position	No Opinion

<u>Policy E-146</u>	
Policy Statement	Means of improving the environment of minor commercial areas shall be investigated. Improvements should include such items as public benches for use by shoppers, the use of planters or trees along the street, and improvements of sidewalk conditions.
Origin	Halifax (6.5, Peninsula North Secondary Planning Strategy)
Policy Rationale	Objective: An energy-efficient lifestyle in Peninsula North and an aesthetically pleasing environment for the activities that take place in the area.
RWAB Position	No Opinion

<u>Policy E-147</u>	
Policy Statement	The Municipality shall maintain the planting and protection of shade trees within its control, and should develop a tree planting program which will improve the quality of the urban environment.
Origin	Halifax (8.9, City Wide Objectives and Policies)
Policy Rationale	Objective: The preservation and enhancement, where possible, of the natural and man-made environment.
RWAB Position	No Opinion

<u>Policy E-148</u>	
Policy Statement	The Municipality should protect existing green areas and attempt to create new green areas. Every effort should be made to protect existing boulevards, tree-lined streets, and small parks.
Origin	Halifax (8.10, City Wide Objectives and Policies)
Policy Rationale	Objective: The preservation and enhancement, where possible, of the natural and man-made environment.
RWAB Position	No Opinion

<u>Policy E-149</u>	
Policy Statement	No development agreement shall be entered into over lands on which trees have been removed except as may otherwise be required for a bonafide land survey or as may be agreed upon with the Municipality to protect property or ensure safety.
Origin	Halifax (EP-5)
Policy Rationale	Objectives: - to minimize site disturbance, maximize tree retention and to restore trees over areas which have been disturbed by development activities
RWAB Position	No Opinion

SLOPES

Municipal Policy Interest	It is important that the potential for slope hazards be taken into consideration for development. Slopes greater than 20% when cleared for development create the potential for erosion problems. Development within these identified environmentally sensitive areas shall be prohibited as it may adversely affect the natural environment.
Jurisdiction	<p>The Charter gives HRM the ability to regulate development on slopes in the following ways:</p> <ul style="list-style-type: none"> • s. 190.2 states “HRM may make by-laws, for municipal purposes, requiring that existing trees or vegetation be retained or only removed pursuant to a municipal permit in serviced areas.” • s. 246(1) allows HRM, through site-plan approval, to require the retention of existing vegetation. • s. 229.1 (c) states HRM “may include statements of policy with respect to the protection, use and development of lands within the Municipality including steep slopes and environmentally sensitive areas in its Municipal planning strategy”. • s. 229.1 (o) states “HRM may include statements of policy with respect to the policies governing the establishment of transportation reserves. “ • HRM Charter, s. 234.5(p) states “where a municipal planning strategy so provides, a land use bylaw may prohibit development on land that has steep slopes.” • HRM Charter, s. 282.1(a, c) and s282.1 (b, c) may allow HRM through subdivision by-law to control the stormwater drainage system.
Regional Plan Comments	<p>E-16: Retaining riparian buffers around watercourses and along the coastline is important for the protection of water quality, wildlife and the protection of property from the natural hazards of flooding. HRM shall, through the applicable land use by-law, require the retention of a minimum 20 meter wide riparian buffer along all watercourses throughout HRM to protect the chemical, physical and biological functions of marine and freshwater resources.</p> <p>E-23 addresses slopes on a watershed-specific basis.</p> <p>T-1: Implement a sustainable transportation strategy by providing a choice of integrated travel modes emphasizing public transit, active transportation, carpooling and other viable alternatives to the single occupant vehicle.</p> <p>T-2: The Active Transportation Plan, as approved by Council in 2006, shall provide guidance for the objectives, policies, plans and standards for an</p>

	<p>active transportation network.</p> <p>T-3: When preparing secondary planning strategies or negotiating development agreements, HRM shall consider: (a) protecting greenways from development that would disrupt the continuity of planned greenways.</p> <p>T-5 through T-11 provide guidance for higher quality transit service to increase its attractiveness relative to the private vehicle.</p> <p>T-13: No road network projects shall be approved for construction until the Road Network Functional Plan is prepared that (c) considers sustainable transportation initiatives; and (d) provides capital and operating costs for road construction projects.</p> <p>T-16: Streets shall be designed to support pedestrians, bicyclists, and public transit and to improve public health and safety.</p> <p>S-17: For any conservation design development application made pursuant to policies S-14, S- 15 or S-16, HRM shall consider retention of natural drainage systems, wetlands and other natural detention storage areas as one of the criteria.</p>
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<u>Policy E-151</u>	
Policy Statement	Development of major land areas on slopes in excess of twenty-five percent (25%) shall be prohibited under any development agreement except where it can be demonstrated that such development would not create any hazard and could better preserve open spaces or areas of environmental value.
Origin	(Bedford BW-12)
Policy Rationale	Certain hydrologic and geomorphic features have been identified as environmentally sensitive areas requiring protection. These areas specifically include slopes greater than 20% and water retention areas. Slopes greater than 20% when cleared for development create the potential for erosion problems. Development within these identified environmentally sensitive areas shall be prohibited unless it can be demonstrated, through an environmental impact study as part of a development agreement process, that the environmental constraints are non-existent or can be overcome without adversity to the natural environment.
RWAB Position	<p>Adopt as amended:</p> <p>Development of major land areas on slopes in excess of thirty percent (30%) shall be prohibited under any development agreement. Development of</p>

	<p>major land areas on slopes of fifteen to thirty percent (15-30%) shall be prohibited under any development agreement except where through extensive studies it can be demonstrated that such development would not create any hazard and could better preserve open spaces or areas of environmental value.</p> <p>Specific Recommendations for Improvement</p>
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<u>Policy E-152</u>	
Policy Statement	The Municipality may allow for modifications to the service system specifications adopted under subdivision regulations where such modifications would enhance the ability to preserve the natural environment without compromising the intended objectives of the service systems.
Origin	Bedford (BW-13)
Policy Rationale	Variations to municipal service system standards may be considered where such variations conform with the principles set forth in the Transportation Association of Canada's "A New Vision for Urban Transportation" or any other guidelines or policies acceptable to the Municipality. Consideration shall be given to the objectives and policies established under this Municipal Planning Strategy, public safety, environmental and lifestyle factors, and capital and operating costs as well as other benefits to the Municipality.
RWAB Position	No Opinion

<u>Policy E-153</u>	
Policy Statement	<p>It shall be the intention of Council to identify on a map areas which are environmentally sensitive to development. This map shall be known as the Environmentally Sensitive Areas Map. These areas, which require special consideration in their development because of the presence of certain hydrologic and geomorphic features, are slopes which exceed 20% and water retention areas [lakes, ponds, swamps, bogs, marshes].</p> <p>Environmentally sensitive areas within the two large undeveloped portions of the Plan Area located within the Residential Development Boundary have been studied and identified: a) Union Street RCDD, and b) Papermill Lake RCDD.</p>
Origin	Bedford (E-13)

Policy Rationale	Certain hydrologic and geomorphic features have been identified as environmentally sensitive areas requiring protection. These areas specifically include slopes greater than 20% and water retention areas. Slopes greater than 20% when cleared for development create the potential for erosion problems. Development within these identified environmentally sensitive areas shall be prohibited unless it can be demonstrated, through an environmental impact study as part of a development agreement process, that the environmental constraints are non-existent or can be overcome without adversity to the natural environment.
RWAB Position	No Opinion

Policy E-154

Policy Statement	Every effort shall be made to ensure that vegetation remains undisturbed on slopes 16% and greater.
Origin	Chebucto Peninsula (E-33); Sackville Drive (LSR-3)
Policy Rationale	The Herring Cove Area Settlement and Servicing Strategy (2000) makes specific recommendations which should apply within the Herring Cove community. Based on the detailed mapping and physical inventory undertaken as background to the study, there is strong community support for ensuring a greater degree of protection is provided to watercourses and wetlands.
RWAB Position	No Opinion

<u>PUBLIC AWARENESS</u>	
Municipal Policy Interest	While municipal, provincial, and federal policies and regulations have created many measures to protect the environment, maintaining a healthy environment for current and future generations requires the collaboration of citizens, organizations and businesses. Environmental education programs can increase the capacity of communities to protect the environment through developing awareness of the impacts of their behaviour.
Jurisdiction	Under the <i>HRM Charter</i> , HRM has the authority to undertake educational initiatives under s. 2, which states that it is Council's responsibility to "provide services, facilities and other things that, in the opinion of the Council, are necessary or desirable for all or part of the Municipality".
Regional Plan Comments	<p>SU-20: To protect public health and the environment, HRM shall investigate a means to ensure that private on-site sewage disposal systems are maintained. Without limiting the generality of the foregoing, consideration shall be given to adopting a private on-site sewage disposal system by-law, establishing Wastewater Management Districts and establishing a mechanism for funding and administration.</p> <p>1.3 Environment, Energy, and Climate Change Objectives: 2. Foster a land management and community design approach which integrates preservation of lands and aquatic systems of ecological, cultural and environmental significance; lands suited for renewable resource extraction; and lands suited for parks, trails and corridors which provide recreational and educational opportunities.</p>

<u>Policy E-170</u>	
Policy Statement	In order to improve public awareness of septic system maintenance requirements and other matters of environmental and public health concern, it shall be the intention of Council, in co-operation with senior government departments, to investigate methods of public education and information dispersal.
Origin	Beaver Bank, Hammonds Plains and Upper Sackville (P-88)
Policy Rationale	A study, prepared jointly by the Nova Scotia Departments of Municipal Affairs, Health and the Environment identifies inadequate maintenance as the primary cause of private septic tank and disposal field failure. Many individual home owners are not aware of the maintenance requirements of a septic tank and disposal field, including regular inspection, and the removal by pumping

	<p>of the accumulated solids in the tank.</p> <p>In order to improve public awareness of septic system maintenance requirements, it may be useful to institute a public information program which, in addition to acquainting residents with septic maintenance requirements, could also be used to disperse public information on a wide range of environmental and public health matters. The recently adopted Board of Health by-law requiring the licensing of all septic tank installers will also help to ensure the proper functioning of these systems.</p>
RWAB Position	Specific Recommendations for Improvement

<u>Policy E-171</u>	
Policy Statement	It shall be the intention of Council to establish a Public Awareness and Education program for the general public which emphasizes the protection of Morris and Russell Lakes. The programs should at least incorporate the following: a) information programs for land owners on buffer zone management and the use of fertilizers; b) a program for local schools; c) application of an Animal Defecation By-law throughout the entire watershed area and actively enforce it; d) encourage local property owners to hold "Cleanup" days for litter collection in public areas; and e) establish a stormwater wetland as an educational demonstration site on the importance of protecting lakes.
Origin	Dartmouth (ML-26)
Policy Rationale	If the recommendations contained within the Morris Lake Watershed Management Study are to be successfully implemented there needs to be active involvement of both individual land owners and the general public. The involvement of the public should not just be limited to the residents of Morris-Russell Lake area but to existing developed areas within the entire Morris Lake Watershed, such as the existing development throughout Woodlawn.
RWAB Position	Support as Worded

<u>Policy E-172</u>	
Policy Statement	The Municipality should encourage educational programs to further an understanding and appreciation of the environment.

Origin	Halifax (8.11, City Wide Objectives and Policies)
Policy Rationale	Objective: The preservation and enhancement, where possible, of the natural and man-made environment.
RWAB Position	The Board commented that they preferred policy E-171. Do Not Support- No Specific Recommendation for Improvement

<u>Policy E-173</u>	
Policy Statement	Where possible, new public awareness and education opportunities for the Little Sackville River, such as a new bridge, observation platforms, and a river centre, shall be encouraged as generally described in the Action Plan.
Origin	Sackville Drive (LSR-9)
Policy Rationale	To ensure the long term sustainability of the Little Sackville River, recognizing how their actions may affect the river is important for the public. At present, despite the River's proximity to Sackville Drive, its historical and environmental relevance goes virtually unnoticed by most residents. This is due largely to the fact that the river is basically invisible and inaccessible from the street. As a result, the river is not a part of the community's conscious. To improve the overall awareness of the river, and its social, physical and environmental significance, this Plan should encourage a number of projects on the street.
RWAB Position	No Opinion