

P.O. Box 1749 Halifax, Nova Scotia B3J 3A5 Canada

Item No. 12.1.1 Environment and Sustainability Standing Committee January 10, 2019

TO:	Chair and Members of Environment and Sustainability Standing Committee
SUBMITTED BY:	-Original Signed-
	John Traves, Q.C., Director Legal, Insurance and Risk Management -Original Signed-
	Jacques Dubé, Chief Administrative Officer
DATE:	November 21, 2018
SUBJECT:	Regional Watersheds Advisory Board Review

<u>ORIGIN</u>

April 5, 2018 Environment and Sustainability Standing Committee (Item 12.1.2) | **MOVED** by Councillor Cleary, seconded by Councillor Blackburn

THAT the Environment and Sustainability Standing Committee recommend that staff be directed to review the Regional Watersheds Advisory Board's Terms of Reference and mandate and take into consideration the suggestions made by the Board, as outlined in the discussion section of the report from the Regional Watersheds Advisory Board, dated March 15, 2018.¹

LEGISLATIVE AUTHORITY

The Municipality has Legislative Authority in the Halifax Regional Municipality (HRM) Charter to enact bylaws, manage development, create policies, and expend money in a variety of authorities that may affect water quality.

Section 1 of the Terms of Reference of the Environment and Sustainability Standing Committee (ESSC)², which states that the Committee shall: (c) promote policies appropriate to protect water resources, parks, open spaces and green environment in the Municipality.

Section 6 of the Terms of Reference of the ESSC, which states that the Committee shall: (a) be involved in policy development and oversight of policies appropriate to promote and protect water resources in the Municipality; (b) liaison with Halifax Water including the nomination to the Council of one (1) Member of the Standing Committee as one (1) of the Council appointments to the Board of Halifax Water and the nominee shall act as a liaison between the Standing Committee and Halifax Water; and (c) perform other

¹ See <u>https://www.halifax.ca/sites/default/files/documents/city-hall/standing-committees/180405esscMinutes.pdf</u> (Item 12.1.2)

² See Environment and Sustainability Standing Committee Terms of Reference

related activities in the area of Water Resource management as identified by the Standing Committee and approved by the Council.

Section 13 of the Terms of Reference of the ESSC, which identifies the Regional Watershed Advisory Board (RWAB) as an advisory committee to the ESSC.

Part 1, Section 21, "Standing, Special and Advisory Committees" of the HRM Charter.

Section 25.3 (m) of Administrative Order 2016-005-ADM, Procurement Administrative Order states that Sole Source Purchase may occur for the procurement of Goods, Services, Construction or Facilities from a public body or a not-for-profit corporation.

RECOMMENDATION

It is recommended that Environment and Sustainability Standing Committee recommend that Halifax Regional Council:

- 1. Commence the process to dissolve the Regional Watershed Advisory Board by:
 - a) initiating the process to amend the Regional Municipal Planning Strategy and all applicable municipal planning strategies and land use by-laws referencing the Regional Watersheds Advisory Board and predecessor watershed advisory boards;
 - b) adopting the public participation program as presented in Attachment 11 of this report; and
 - c) directing staff to return to Council to dissolve the Regional Watershed Advisory Board and make the necessary amendments to Administrative Order One at the same time as the adoption of the MPS amendments.
- Direct staff to enter into discussions with the Centre for Water Resource Studies (Dalhousie University) to provide water resource management expertise at pre-arranged prices, under set terms and conditions, if and when required, in accordance with Section 25.3 of Procurement Administrative Order.
- 3. Direct staff to prepare an annual report on water resource management for the Environment and Sustainability Standing Committee (including, as appropriate, wetlands protection, riparian buffers, floodplains, coastal inundation and watershed planning).

EXECUTIVE SUMMARY

Having reviewed the terms of reference and work of the Regional Watershed Advisory Board ("RWAB"), and having assessed the existing, alternate mechanisms for public engagement and soliciting expert advice, staff are of the view that the RWAB should be dissolved. The Discussion section of this report is broken into two (2) parts. Part I provides an overview of the evolving role of watershed advisory boards in Halifax and provides staff's rationale for dissolving the RWAB. Part II provides staff's go-forward recommendations, including entering into a standing offer arrangement to solicit expert water sector advice (on an as needed basis) and adding an annual water resource management presentation to ESSC's agenda. The Alternatives section of this report addresses the RWAB members' recommendations regarding amending the Board's terms of reference (including mandate, composition and governance).

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BACKGROUND

The purpose of a watershed advisory board is to provide community subject matter expertise to preserve and protect watersheds and water-related natural assets in the municipality.³ Prior to 2012, the Municipality had three watershed advisory boards (Dartmouth Lakes Advisory Board, Halifax Watershed Advisory Board, and Bedford Watershed Advisory Board). The three boards had broad, but not equal, watershed management mandates. Prior to consolidation, all three watershed bodies had created their own status sheets by bringing forward non-planning application matters that were not directed by Community Councils or Regional Council, and were often within the mandate of the Environment and Sustainability Standing Committee or other bodies of elected officials. This situation created duplicate work and confusion with respect to jurisdiction and direction to staff. To streamline governance, Regional Council directed staff to consolidate the three advisory boards into a Regional Watersheds Advisory Board (RWAB) that would act as an advisory group to the Environment and Sustainability Standing Committee.⁴

In March 2018, the Regional Watersheds Advisory Board requested that Environment and Sustainability Standing Committee direct staff to review the RWAB's mandate and Terms of Reference (TOR). This represents the third request to review RWAB's mandate and/or TOR in four years (see Attachment 5).⁵ In 2014 and again in 2015, Environment and Sustainability Standing Committee declined to revise RWAB's mandate and reaffirmed RWAB's policy advisory role.

The RWAB's members discussed proposed changes to their mandate and TOR at their February 14, 2018 and March 14, 2018 meetings.⁶ Mandate and TOR changes proposed by the RWAB's members are captured in Table 1. Proposed changes represent additional scope, rather than a replacement of current scope.

³ Watersheds are areas of land draining into a watercourse (river, lake, dam, estuary, etc.). The watercourse of interest defines the boundaries of the associated watershed. 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.

⁴ See <u>Regional Council July 22, 2014 (Item 11.1.7)</u>

⁵ All three requests have originated with the Regional Watersheds Advisory Board itself.

⁶ See <u>Regional Watersheds Advisory Board February 14, 2018 (Item 7.1)</u> and <u>Regional Watersheds Advisory Board</u> <u>March 14, 2018 (Item 7.1)</u>

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	CURRENT	PROPOSED (BY RWAB)
PURPOSE	 As subject matter experts, with respect to watershed management, the Watersheds Advisory Board: Advises the Environment and Sustainability Standing Committee on municipal policy projects as required under the HRM Charter, the Regional Municipal Planning Strategy, and Secondary Planning Strategies, and as may be specifically assigned by the Environment & Sustainability Committee; As required by the HRM Charter, the Regional Municipal Planning Strategy, and Secondary Planning Strategies, to fulfil the legislated requirements with respect to municipal development activities; Performs duties as directed by Regional Council on matters described in the Municipal Planning Strategies. 	 Advise on solid waste management issues (e.g. if a composting or waste facility were to be built near a watershed). Advise on joint projects between HRM and Halifax Water.
COMPOSITION	 Up to five (5) water related professionals at large Up to two (2) seats for current faculty members at post-secondary institutions or for research scientists, with doctoral training, working in watershed management Up to two (2) representatives of Environmental NGO's or Recreational Organizations One (1) Citizen at large may be appointed by each Community Council 	 Have representation from a member of Halifax Regional Council to establish and create a link (liaison) between Council and the Regional Watersheds Advisory Board. Replace the word 'NGO' with Environmental Community Group as more friendly terminology. Remove the doctoral training clause and have a less limiting academic connection requirement. The individuals should be active professionals.
GOVERNANCE	On behalf of Regional Council, The Environment and Sustainability Standing Committee shall provide oversight to the Advisory Board Workplan, Terms of Reference, Appointments, and other Governance matters.	 Have formal mechanisms to receive feedback from the outcomes of the recommendation made by the Regional Watersheds Advisory Board. Have the Environment and Sustainability Standing Committee and other business units, such as Energy and Environment and Solid Waste Resources, provide yearly work plans to the Regional Watersheds Advisory Board.

TABLE 1: CURRENT VERSUS PROPOSED RWAB MANDATE AND TERMS OF REFERENCE7

⁷ No changes were proposed by RWAB members regarding the following Terms of Reference items: term; staff complement; officers; meetings; quorum; appointments; vacating a position or procedure. These headings have, therefore, been omitted from the Table.

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The Halifax Regional Municipality is enabled through the HRM Charter, as an act of Provincial legislation, to be the primary authority for planning within its jurisdiction. The Municipal Planning Strategies enacted by Regional Council are the overarching municipal policy set. The HRM Charter defines the mandate and authority of the municipality in planning matters and municipal planning provides statements of policy to guide the development and management of the municipality including establishing policies to provide a framework for the environmental, social and economic development within the Municipality. All assigned policy projects must comply with these policies and legislative directions.

 Have a mechanism to be able to bring municipal water related issues that represent the public interest to the attention of the Environment and Sustainability Standing Committee and highlight concerns at the earliest stage for possible policy and planning considerations (e.g. land based issue such as winter road maintenance operations, or beach and lake water quality testing).

DISCUSSION

REVIEW PROJECTS

PART I – RATIONALE FOR DISSOLVING RWAB

It is staff's view that: (a) RWAB's volume of work has been low and is declining; (b) RWAB's subject matter expertise role is (or can be) substantially filled by contracting outside experts; and (c) RWAB's role in providing citizen-at-large input is largely covered by other forms of water sector related public engagement and consultation. Staff recommends that outstanding functions of the RWAB be served by the Environment and Sustainability Standing Committee.

(A) HISTORICAL WATERSHED ADVISORY BOARD FUNCTION

Halifax's Watershed Advisory Boards (WABs) emerged in the 1970's, at a time of mostly unchecked and unmonitored development. At that time, the WABs played a key role in advising the municipality on how to minimize developments' effects on water bodies. RWAB's predecessor WABs were most active in the 1970s and 1980s and the technical expertise, provided through Board appointments, contributed to research documents on baseline water quality studies and synoptic water quality surveys. WABs were also responsible for highlighting the need to implement water sector best practices, including the use of riparian buffers, settling ponds, oil grit separators/hydrodynamic separators and watershed analyses.

Originally, the review of proposed developments represented the bulk of the WABs work. In the later 1990s, and especially since amalgamation, the role of WABs, in reviewing development plans, diminished. The lack of applications for WAB review reduced the WABs' effectiveness and was a significant factor in the decision to consolidate RWAB's three predecessor Boards into a single WAB with a policy focus.

(B) VOLUME AND NATURE OF CURRENT WORK

The Regional Watersheds Advisory Board has been in existence since 2013. A summary of the RWAB's activities is provided in Table 2. Additional detail on the RWAB's activities is provided in Attachments 6-10.

Activity	2018 ⁸	2017 ⁹	2016	2015	2014	2013	Total
Meetings Held	6	10	6	8	11	6	47
Meetings Cancelled	1	2	5	4	1	0	13
Policies/Studies Considered	1	1	2	5	7 ¹⁰	7	23
Planning Cases Considered	0	2	0	1	2	0	4
By-Laws Considered	0	0	1 ¹¹	0	0	1	2
Letters/Reports to ESSC	1	0	0	1	4	0	6
Items Referred to Board by ESSC	0	0	0	2 ¹²	1 ¹³	3	6
Motions Passed	1	4	0	2	9	5	21
Motions Withdrawn	0	3	0	0	0	0	3
Board Vacancies	6	4	6	3	1	0	20

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Table 2: Activity Summary for Regional Watersheds Advisory Board (2013-2018)

The RWAB has met a total of forty-seven (47) times and had thirteen (13) meetings cancelled. Positions are available for twelve (12) RWAB members. RWAB has had between one (1) and six (6) vacancies per year, meaning that the rate of vacancy has ranged between a high of fifty percent (50%) and a low of eight per cent (8%).

Of the twenty-one (21)¹⁴ formal motions made during the RWAB's history, five (5) motions relate to RWAB's Terms of Refence, mandate and/or timing of advisory input. Three (3) motions endorse planning applications or request additional planning application details. Six (6) motions accept reports/studies as background for future community planning (subject to caveats from individual RWAB members). Three (3) motions recommend that the Municipality take or re-instate actions/activities relating to watershed management planning or to water quality monitoring. One (1) motion relates to a RWAB request for progress updates on water resource management projects or policies reviewed, or commented upon, by the RWAB.

The RWAB's members have reviewed and provided feedback on one By-Law (L-400 Respecting Lot Grading), one (1) municipal policy (Russell Lake Water Quality Policy), four (4) municipal plans (Centre Plan; Green Network Plan; Master Storm Water Management Plan; and Model Community Plan) and one (1) protocol (Water Quality Monitoring Protocol). Extensive feedback was provided by RWAB on the Model Community Plan (MCP).¹⁵ Varying degrees of input were provided on the balance of plans and policies (see Attachments 6-10).

During its lifespan, the RWAB has considered and offered advice on fifteen (15) watershed, flood risk and water quality testing studies and reports. This represents an average of three (3) studies and/or reports per year. These studies/reports have dealt with water resources located across the municipality, including: Bedford, Musquodoboit Harbour, Paper Mill Lake, Porters Lake, Preston area, Russell Lake, Sandy Lake, Shubenacadie Lakes, and Tantallon area.

⁸ Incomplete year – activity summary statistics are accurate as of August 2018.

⁹ One special meeting held for Advisory Board orientation.

¹⁰ Figure includes re-consideration of one matter reviewed in the previous calendar year.

¹¹ Reconsideration of By-Law L-400 Respecting Lot Grading.

¹² Referrals for information purposes.

¹³ Referral for information purposes.

¹⁴ Excludes motions to withdraw.

¹⁵ 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). See <u>Environmental Boilerplate Final Report</u>

Like its predecessors, RWAB is tasked with reviewing some, but not all planning applications. If a requirement for input is written into an applicable municipal planning strategy, then RWAB is asked to comment. In the absence of a requirement to do so, planning applications are not referred to RWAB. Since 2013, RWAB's members have only reviewed five (5) planning cases (relating to development occurring in Bedford West, Beaverbank and Waverley).

Over a span of five (5) years, the Environmental Sustainability Standing Committee has referred six (6) items to RWAB, three (3) of which were referred for information purposes. From 2014 forward, ESSC has not referred any matters to RWAB for its advice or comment.

(C) EVOLVING APPROACH TO WATER RESOURCE MANAGMENT

Over time, HRM's approach to wetlands protection, riparian buffers, floodplains¹⁶, stormwater management, coastal inundation and watershed planning has become more sophisticated. Many of the progressive steps advocated for by WABs have made their way into regional and secondary planning documents, by-laws, policies, RFPs and protocols. As municipal policies, protocols, by-laws and plans have matured and evolved, the water resource management environment has become both better defined and more prescriptive. These water sector developments have meant that WABs' advisory roles have contracted, since there is less discretionary approval requiring comment from the Board.

The following are examples of planning-related policy/regulatory developments that have diminished the WAB advisory role (e.g. by reducing the need to provide input on watershed study design, comment on water monitoring protocols, and/or assess the sufficiency of riparian buffers, setbacks or floodplain restrictions).

- Riparian buffers around watercourses and along the coastline are important for the protection of water quality, wildlife and property.¹⁷ The Regional Municipal Planning Strategy (2014) (Regional Plan (2014))¹⁸ adopts riparian buffers as established by the Department of Natural Resources.¹⁹ These setbacks are considered adequate for stream bank stability, water temperature regulation and aesthetic value. They also provide minimal protection of wildlife, flood mitigation and partial benefits for sediment removal. Policy statement E-16 of the Regional Plan (2014) stipulates that land use by-laws require the retention of a minimum 20-metre-wide riparian buffer along all watercourses throughout HRM (see Attachment 4).²⁰ Through a secondary planning process, the width of the riparian buffer may be increased.
- Development of land is one of the major activities which impact the natural environment. The Regional Plan requires that, prior to conducting a process to prepare a secondary municipal planning strategy or amendment to an existing secondary municipal planning strategy, HRM must complete watershed studies which investigate a range of environmental issues within the watershed(s) or sub-watersheds (study areas) affected by the plan. With the introduction of

¹⁶ 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 considerable damage to property and infrastructure and risk to life.

¹⁷ In addition to the functions of flood regulation, riparian buffers reduce the impacts of sedimentation, erosion and nutrient loading on watercourses, regulate the temperature of adjacent watercourses, provide important wildlife habitat and add aesthetic value to HRM.

¹⁸ The municipality's first Regional Plan was adopted in 2006. After five years, it underwent a detailed review (RP+5) to make sure it still reflected the region's goals for growth and development. RP+5 was replaced by the Regional Plan on June 25, 2014 following a public hearing.

¹⁹ This approach was recommended in Dillon Consulting Ltd. *HRM Water Resource Management Study*. Dec. 2002. Halifax.

²⁰ 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.

explicit policy direction in policy statement E-23 of the Regional Plan (2014), watershed study terms of reference are now clear and consistent (see Attachment 3).²¹

- Policy statement E-24 of the Regional Plan (2014) states that HRM may consider preparing a water quality monitoring protocol to provide guidance for water quality monitoring plans.²² In 2013, staff engaged Stantec Consulting to develop a water quality monitoring protocol that would address location, timing, techniques, guidelines, procurement, oversight, and reporting (see Attachment 2).²³ The protocol's procedures are based on best practice, can be implemented in lakes and in rivers and provide a consistent approach to water quality monitoring across the municipality.²⁴
- Policy statement E-21 of the Regional Plan (2014) states that 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.²⁵
- The alteration of wetlands falls under provincial jurisdiction.²⁶ However, policy statement E-15 of the Regional Plan (2014) states that in relation to all applications for development approval, HRM's by-laws are to require the proponent to verify the existence and extent of any wetland, Municipal by-laws must also prohibit development (within any such wetland) except as required to allow for public infrastructure.²⁷

(D) EVIDENCE BASED DECISION-MAKING AND OUTSIDE EXPERTISE

HRM recognizes the value of having access to volunteer advisors. However, the limits of volunteerism²⁸ necessitate that the municipality contract external water sector expertise. Outside expertise has, for example, been sought to: undertake watershed studies; conduct water quality monitoring; assess flooding risks, model floodplains; study leachate; develop water monitoring protocols, analyse nutrient loading; evaluate green fields; undertake stream gauging and develop storm water management guidelines (see Table 3). Water sector specialists, including chemists, aquatic scientists, engineers and technicians, employed by leading private sector firms (e.g. CBCL, AECOM, Dillon, and Stantec) are regularly contracted to strengthen evidence based decision-making and advise on water-policy development.

²¹ To date, ten (10) watershed studies have been completed: Sandy Lake; Preston Area; Shubenacadie River; Fall River and Port Wallace; Birch Cove Lakes; Tantallon, Porters Lake and Lake Echo.

²² As presented in Chapter 2, Environment, Energy, and Climate Change. See <u>Regional Municipal Planning Strategy</u> (2014) (p.357).

²³ See Environment and Sustainability Standing Committee May 14, 2015 (Item 9.1.1)

²⁴ The protocol provides staff with the discretion necessary to expand the suite of parameters measured, or the procedures followed, for a given monitoring project (should circumstances require changes to established standards).
²⁵ As presented in Chapter 2, Environment, Energy, and Climate Change. See <u>Regional Municipal Planning Strategy</u> (2014) (p.35).

²⁶ 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 Act*.

²⁷ Except in cases where a developer has been issued a Wetland Alteration permit by Nova Scotia Environment . The *Environment Act* requires an approval for certain activities that impact wetlands. These activities are referred to as "alterations".

²⁸ These volunteerism limits include limited time commitment. Board members meet infrequently and may, or may not, be able to commit time, outside of meetings, to reviewing study/report findings and/or recommendations. Moreover, areas of expertise (represented among volunteers serving on RWAB) may, or may not, mesh with the water sector expertise needed to provide expert feedback on a given matter.

Table 3: Watershed-Related and Waste Management Reports Commissioned by Municipality

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V.		A	Outlinet
Year	Report / Study	Author	Subject
2018	Leachate Feasibility Study for Otter Lake Landfill ²⁹	TBD	Landfill leachate study ³⁰
2018	Lake MicMac/Lake Banook Pollution Control Study ³¹	Stantec ³²	Pollution control study
2017	Organics Management and Expansion of Recycling Facility ³³		
2017	Russell Lake Water Quality	Stantec	Water quality monitoring
2017	Sackville Rivers Floodplain Study (Phase 2)	CBCL	Floodplain study
2017	Aquatic Weed Harvest Monitoring Annual Report	Stantec	Nuisance weeds
2017	Surface Water Quality Monitoring Annual Report	AECOM	Water quality monitoring
2016	Aquatic Weed Harvest Monitoring Annual Report	Stantec	Nuisance weeds
2016	Assessing Sources of Fecal Contamination and Pathogen Presence at Four Freshwater Beaches	Dalhousie ³⁴	Water quality research
2016	Surface Water Quality Monitoring Annual Report	AECOM	Water quality monitoring
2016	Paper Mill Lake Watershed Assessment	Dalhousie ³⁵	Nutrient loading
2016	Paper Mill Lake Watershed Assessment Study ³⁶	CBCL	
2015	Green Network Plan State of the Landscape Report ³⁷	02	Open space planning
2015	Sackville Rivers Floodplain Study (Phase 1)	GHD	Floodplain study
2015	Paper Mill Lake Watershed Total Phosphorus Characterization Project	CBCL	Nutrient loading
2015	Aquatic Weed Harvest Monitoring Annual Report	Stantec	Nuisance weeds
2015	Paper Mill Lake Watershed Assessment Study	Dalhousie ³⁸	
2015	Surface Water Quality Monitoring Annual Report	AECOM	Water quality monitoring
2015	Lake Banook Bathymetry and Aquatic Vegetation Data Processing	Stantec	Nuisance weeds
2015	Opportunities for the Reduction of Sediment Delivery to Lake Banook	Stantec	Nutrient loading
2015	Bedford West Water Quality Report ³⁹	SNC-Lavalin	
2014	Sandy Lake Watershed Study ⁴⁰	AECOM	Watershed study
2014	Musquodoboit Harbour Watershed Follow-up Study ⁴¹	CBCL	
2014	Assessment of Aquatic Vegetation Overgrowth in Lake Banook	Stantec	Nuisance weeds
2014	Preston Area Watershed Study ⁴²	AECOM	Watershed study
2013	Russel Lake Nutrient Source Desktop Assessment ⁴³	Dillon	Nutrient loading
2013	Birch Cove Lakes Watershed Study	AECOM	Watershed study
2013	Bedford West Water Quality Report ⁴⁴	SNC-Lavalin	· · · · · ·
2013	Porters Lake Watershed Servicing Study ⁴⁵	CBCL	

²⁹ See Budget Committee January 24, 2018 (Item 3)

³⁰ Per Wikipedia, A leachate is any liquid that, while passing through matter, extracts soluble or suspended solids, or any other component of the material through which it has passed.

³¹ See Environment and Sustainability Standing Committee February 1, 2018 (Item 12.1.1)

³² Report is not yet written but consulting services have been contracted.

³³ See Committee of the Whole Feb 8, 2017 (Item 7)

³⁴ Conducted by the Centre for Water Resource Studies (CWRS), Dalhousie University

³⁵ Conducted by the Centre for Water Resource Studies (CWRS), Dalhousie University

³⁶ See North West Community Council November 15, 2016 (Item 11.3.1)

³⁷ See Green Network Plan | State of the Landscape Report (2015)

³⁸ Conducted by the Centre for Water Resource Studies (CWRS), Dalhousie University

³⁹ See Regional Watersheds Advisory Board August 12, 2015 (Item 2)

⁴⁰ See Sandy Lake Watershed Final Report Aug 2014

⁴¹ See Harbour East-Marine Drive Community Council June 12, 2014 (Item 10.2.1)

⁴² See <u>Harbour East-Marine Drive Community Council December 4, 201 (Item 13.1.2)</u>

⁴³ See <u>Russel Lake Nutrient Source Desktop Assessment January 2013</u>

⁴⁴ See Regional Watersheds Advisory Board August 12, 2015 (Item 2)

⁴⁵ See <u>Regional Watersheds Advisory Board November 13, 2013</u>

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2013	Tantallon Watershed Servicing Study ⁴⁶	CBCL	
2013	Shubenacadie Lakes Subwatershed Study47	AECOM	Watershed study
2013	Review of Green Infrastructure Options, Lake Banook & Lake Micmac	Genivar	Water quality protection
2013	Urban Lake Protection Strategies	Genivar	Water quality protection
2012	Analysis of the HRM Lakes Water Quality Monitoring Program Data	Stantec	Water quality analysis
2012	Analysis of Regional Centre Lakes Water Quality	Stantec	Water quality analysis
2011	Harbour Water Quality Monitoring Program Report ⁴⁸	AMEC	Water quality analysis
2010	Water Quality Monitoring Functional Plan Report	Stantec	Water quality monitoring
2009	Regional Planning Greenfield Sites Report	CBCL	Land use planning
2007	Musquodoboit Harbour Watershed Study	CBCL	Watershed study
2007	Source Water Protection Plan – Lake Major Watershed	Halifax Water	Source water planning
2006	Stormwater Management Guidelines	Dillon	
2004	Greenfield Areas Servicing Analysis.	CBCL	
2002	Water Resource Management Study	Dillon	Water resource management

In addition to items presented above in Table 3, staff are also managing ongoing contracts for aquatic weed harvesting and aquatic weed harvest monitoring, as well as the acquisition and processing of lidar data for the Municipality and adjacent coastline.

(E) PUBLIC PARTICIPATION

As noted in the municipality's Public Appointment Policy,⁴⁹ commitment to community participation and service is a key to HRM's success. Part of that commitment can be fulfilled by recruiting and selecting HRM residents to provide high-caliber direction to volunteer Agencies, Boards and Committees (ABCs). The appointment of members of the public to serve is important for a variety of reasons, including: (a) reflecting the diversity of the community; (b) representing stakeholder groups (where appropriate); (c) bringing specific skills and expertise that contribute to good governance; (d) representing specific groups of service users, and (e) bringing volunteers or profile to a service.

Meaningful and effective government-resident engagement can take many forms. Citizen consultation is taking place (using mechanisms other than the RWAB) on a range of matters including municipal stormwater and wastewater management, planning and development and waste management. This engagement includes both (a) ongoing citizen oversight of municipal water sector practices and procedures; and (b) input on municipal strategies, policies and plans that effect water resources.

Examples include:

• Halifax Regional Water Commission: The Halifax Regional Water Commission (Halifax Water) is an autonomous, self-financed water utility providing water, fire protection, wastewater and stormwater services to HRM residents.⁵⁰ Halifax Water was established pursuant to the *Halifax Regional Water Commission Act* and is regulated by the Nova Scotia Utility and Review Board

⁴⁶ See <u>Regional Watersheds Advisory Board November 13, 2013</u>

⁴⁷ See Harbour East-Marine Drive Community Council November 14, 2013 (Item 9.2.1)

⁴⁸ See Final Report April 2011

⁴⁹ See Public Appointment Policy

⁵⁰ Halifax Water is a separate corporate body and reports to a Board of Directors. In 1996, water utility amalgamation saw the formation of Halifax Water. In 2007, wastewater and storm water services were transferred from the municipality to Halifax Water (as described in the Wastewater and Storm Water Transfer Agreement). See <u>Halifax</u> Regional Council May 29, 2007 (Item 11.1.22)

(Review Board).⁵¹ The *Public Utilities Act* applies to Halifax Water and any water, wastewater or stormwater facility or system owned, operated, managed or controlled by Halifax Water is deemed to be a public utility.⁵² The Review Board establishes policies, rules and regulations governing the operations of Halifax Water which includes approvals for operating and capital budgets, user fees and charges that can be levied for new connections to its facilities.

Halifax Water maintains source water protection plans for twelve separate water supplies across the municipality. As part of the plan, every source water area has a WAB to liaise with Halifax Water on issues related to the water supply. Each advisory board has members representing the utility, Halifax Regional Municipality, the Province of Nova Scotia and private landowner representatives. These committees are an effective mechanism for keeping the community apprised of Halifax Water activity and for keeping Halifax Water in touch with the local community.⁵³

Halifax Water's formal stakeholder engagement includes Nova Scotia Utility and Review Board (NSUARB) public hearings on changes in rates, development charges, changes to regulations and capital expenditures greater than \$250,000.⁵⁴ Halifax Water also conducts stakeholder consultation processes as part of major capital projects and during the development of strategic initiatives. Halifax Water regularly participates on multiple committees to ensure stakeholder consultation, including the Halifax Utility Coordination Committee, and the Development Liaison Group.⁵⁵

 Waste Management: As reflected in the Regional Plan, the Municipality's solid waste strategy is based on source separation of waste with the objective of diversion from the landfill by reducing waste, recycling, reusing waste materials, composting and administering the diversion of construction and demolition waste.⁵⁶ In 1995, Regional Council's adoption in principle of the Community Stakeholders Committee (CSC) solid waste strategy followed an extensive community engagement process. In 2012, HRM undertook a comprehensive municipal waste strategy review.⁵⁷ As part of that review, HRM committed to an engagement process to obtain resident and stakeholder feedback.⁵⁸

The municipality must engage the public as part of major waste management capital projects and during the development of strategic initiatives. Policy statement SU-28 of the Regional Plan requires that the municipality conduct periodic reviews of its Integrated Solid Waste Strategy

53 Ibid

⁵¹ See Halifax Regional Water Commission Act Chapter 55 of the Acts of 2007 as amended

⁵² Halifax Water must comply with all provincial and federal regulations established for the design and operation of municipal water, wastewater and stormwater systems. See <u>Public Utilities Act Chapter 380 of the Revised Statutes of</u> <u>1989 as amended</u>

⁵⁴ Groups that typically participate in these formal public hearing processes include the Consumer Advocate, Urban Development Institute, Investment Property Owners Association of N.S., Ecology Action Centre, Conserve N.S, Sierra Club and Retail Association of Canada.

⁵⁵ See Halifax Water 2018/2019 Business Plan Halifax Regional Council March 20, 2018 (Item 9.1)

⁵⁶ Halifax's solid waste strategy evolved from a public engagement process. The Citizens Stakeholder Committee (CSC) vision for processing the residual garbage waste stream was intended to divert materials from landfill and produce marketable compost and recover marketable recyclables.
⁵⁷ The review incorporated three years of staff research and analysis, the Stantec Review, the SNC Lavalin Peer

⁵⁷ The review incorporated three years of staff research and analysis, the Stantec Review, the SNC Lavalin Peer review, Community Consultation, ICI input, CMC input, the Dillon report commissioned by MIRROR NS and the Arnold memo commissioned by Dillon Consulting Ltd, letters and petitions sent to Regional Council and National Public Relations' consultation report. See <u>Committee of the Whole June 24, 2012 (Item 3)</u>

⁵⁸ HRM contracted National Public Relations to facilitate the community engagement consultation process. The engagement consisted of 14 in-person events held throughout the HRM and ongoing online engagement via the ShapeYourCityHalifax.ca website. See <u>Committee of the Whole January 14, 2014 (Item 3)</u>

(ISWS).⁵⁹ Policy statement SU-29 stipulates that ISWS reviews must be informed by a citizen led, multi-stakeholder, consensus decision-making process.

Construction and demolition facilities are another type of waste receiving, sorting, and disposal site regulated by the Municipality. In 2002, HRM adopted policies in each plan area to regulate these uses, inclusive of specific watercourse setback requirements. All construction and demolition related facilities require an amendment to the applicable Land Use By-law and as such are subject to a typical planning process public consultation program concluding in a Public Hearing.

Citizen oversight is also mandated by an Agreement between Halifax Regional Municipality (HRM) and the Halifax Waste-Resource Society.⁶⁰ The Community Monitoring Committee (CMC), established through the agreement, monitors the operation of the Otter Lake landfill facility.⁶¹ The existence of the CMC is also a requirement of the Approval to operate the landfill, as issued by the Minister of the Environment.⁶²

Public engagement is also required in the context of wastewater. In 1999, HRM began the process to create wastewater treatment plants (WTPs) in the region to address untreated sanitary and stormwater runoff. Each community, where a WTP was to be located, formed a Community Liaison Committee (CLC). These CLCs act to advance the interests of the community in the development and operation of the local wastewater treatment plant.⁶³

- Watershed Studies: The Regional Plan requires that HRM complete watershed or subwatershed studies prior to undertaking secondary planning strategies in areas where new or additional development could adversely affect watercourses within the watershed.⁶⁴ Watershed studies include requirements for public consultation. In the case of the Preston Area Watershed Study (2014), for example, the Consultant (AECOM) hosted three community forums (at the beginning, middle and the end of the study) to inform residents of the watershed study and to solicit feedback into its development and results. The municipality also hosted a community meeting, prior to the initiation of the watershed study, to obtain feedback from community leaders on how best to engage community members throughout the course of the study.
- Planning Advisory Committees (PACs): Historically, Planning Advisory Committees (PACs) were formed as a means of ensuring public input on community planning initiatives. PACs advise Regional Council and Community Councils on planning applications for rezoning, land use by-law amendments, development agreement applications and municipal planning strategy amendments including planning applications that impact water resources.⁶⁵ Planning Advisory Committees are defined by standard terms of refence (TOR) that describe the legislative duties of the PAC,

⁵⁹ As presented in Chapter 8, Municipal Water Services, Water Services, Utilities and Solid Waste. See <u>Regional</u> <u>Municipal Planning Strategy (2014)</u> (p.104).

⁶⁰ The Halifax Waste/Resource Society is registered under the Nova Scotia Society's Act. See <u>Bylaws of the Halifax</u> <u>Waste/Resource Society</u>

⁶¹ See Community Monitoring of Solid Waster Agreement (February 1999)

⁶² See Otter Lake Landfill Community Monitoring Committee (CMC) Website

⁶³ HRM Council created a Community Integration Fund (CIF) of one million dollars to support projects or development in neighbourhoods close to Wastewater Treatment Plants. See <u>Halifax Wastewaters Treatment Plant Community</u> <u>Liaison Committee Report July 2007</u>

⁶⁴ These studies must provide solutions to existing issues or issues arising from the anticipated form and degree of development. The aim is to identify those lands most suitable for development through a land and receiving water capacity analysis and analysis of options for the provision of cost efficient and sustainable water and wastewater services.

⁶⁵ As of Regional Council's February 19, 2013 decision to delegate authority, each Community Council may create up to two PACs. Two PACs are now in existence: North West PAC (advises North West Community Council); and Halifax Peninsula PAC (advises Halifax and West Community Council).

membership, appointments and meeting procedures.⁶⁶ Individual PACs are responsible for planning matters relating to development taking place within TOR-specified geographic boundaries and PAC appointees represent local interests.

- Development Agreement (DAs): HRM's Development Agreement (DAs) review process likewise offers opportunities for public engagement on proposed developments that may include its potential impact on water resources. Following internal review, municipal staff write a staff report with a recommendation to either approve or reject the DA.⁶⁷ At this point staff's recommendation, and the DA itself, become public. Following internal review, DA applications are advertised to the public through: (a) signage on the site itself; (b) a page on halifax.ca providing details on the submission; (c) a Public Information Meeting (PIM); and (d) a mailout to nearby residents. At the PIM, members of the public can hear of the application, ask questions of staff and the applicant, and provide their feedback in a public forum. Prior to making a decision, Council holds a public hearing. Once a decision is rendered on a DA, there is a 14-day appeal period. Aggrieved persons⁶⁸ can appeal to the Nova Scotia Utility and Review Board, providing a further forum for public input on the proposed development.
- **Provincial Watershed Advisory Boards:** Activities and practices within the provincially designated watersheds (Pockwock Lake, Lake Major and Bennery Lake) are subject to regulations prescribed under the Environment Act.⁶⁹ WABs have been established as a liaison between the Province and communities in developing regulations within these provincially designated watersheds.⁷⁰ These WABs review and make recommendations to the Minister of Environment on activities or policy issues affecting the water quality, flows, levels, storm water, development and forest management in protected water areas (as designated under the Environment Act).⁷¹ Citizen-at-large representatives, drawn from the communities within the protected water areas, sit on these WABs.⁷²
- Citizen-led Organizations: Residents' interests are also represented through several local, citizen-led organizations that advocate for environmental stewardship and responsible water resource management. Numerous non-profit community-based organizations in HRM focus on water quality, habitat protection and trail construction. These environmental community groups include, but are not limited to the Oathill Lake Conservation Society, Soil & Water Conservation Society of Metro Halifax, Portland Estates and Hills Residents' Association, Shubenacadie Watershed Environmental Protection Society, Sackville Rivers Association, Five Bridges Wilderness Heritage Trust, Friends of First Lake, North West Trails Association, and St. Mary's River Association. A few of these community groups conduct environmental monitoring and make scientifically-based recommendations on policies and activities that impact the health and integrity of HRM's lakes and rivers.

It is staff's position that the various mechanisms for public engagement outlined above provide viable mechanisms for public engagement on water resource management related issues. Staff also note that at each Environment Sustainability Standing Committee meeting, any member of the public may come forward and address the committee for five minutes on any matter not related to a public hearing or

⁶⁶ See <u>North West Planning Advisory Committee Terms of Reference</u> and <u>Halifax and West Halifax Planning Advisory</u> <u>Committee Terms of Reference</u>

⁶⁷ Staff draft the Development Agreement in concert with the Developer.

⁶⁸ Including the Developer if the DA proposal is rejected.

⁶⁹ Before designating a protected water area there must be public consultation about the proposed designation (s.106(7)). See <u>The Environment Act</u>

⁷⁰ The Minister may identify qualified persons, including watershed advisory boards, to provide

advice and promote public participation on watershed management (s.105(4)). See <u>The Environment Act</u> ⁷¹ See for example the <u>Lake Major Watershed Advisory Board Terms of Reference</u>

⁷² Technical expertise is provided by way of appointees from Halifax Water, Halifax Regional Municipality Planning and Development Services, Nova Scotia Environment and Nova Scotia Department of Natural Resources.

appeal hearing. The dissolution of the RWAB would not, therefore, undermine HRM's commitment to citizen participation in the stewardship of community water resources.

PART II – MOVING FORWARD

(A) STANDING OFFER ARRANGEMENT

Staff recommend that the municipality enter into discussions with the Centre for Water Resource Studies (Dalhousie University) to provide water resource management expertise at pre-arranged prices, under set terms and conditions, when and if required in accordance with the Procurement Policy.

The Centre for Water Resources Studies (CWRS) was established in 1981 by Dalhousie University's Faculty of Engineering to address water issues facing Atlantic Canada. The Centre's objective is to pool the applied research resources of Dalhousie University (including Masters students, PhD students, staff, and faculty members) to address challenges faced by the water community. The CWRS provides a platform for the development and appropriate application of water technology; water quality analysis and advancement; and outreach through knowledge transfer to stakeholders.

The CWRS has provided technical support to many government agencies, municipalities and private sector end-users in the water sector, including Halifax. The Centre has delivered value to its partners through technical research projects, analytical laboratory support and training workshops.⁷³ The current Water Studies team engages faculty members from across Dalhousie University and retains a core staff of personnel (including research engineers, analytical chemists, and field research technicians) that enables professional project deployment and management.

A standing offer with the CWRS would allow staff, and the ESSC itself, to refer matters to water sector experts on an as needed basis. CWRS expertise would substitute for the outside expertise currently provided by RWAB's water resource professionals and academics. Staff assert that this approach better ensures that science advising input is timely, of high calibre, informed by current applied research and vetted by water sector professionals and/or members of academia. Where appropriate, the Centre for Water Resource Studies (Dalhousie University) can act as peer reviewers for water sector studies and reports commissioned by the Municipality.⁷⁴

(B) ANNUAL WATER SECTOR REPORT TO ESSC

Staff recommend that an annual report on water resource management be prepared for the Environment and Sustainability Standing Committee (including, as appropriate, wetlands protection, riparian buffers, floodplains, coastal inundation and watershed planning).⁷⁵

The Office of the Municipal Clerk could publicly advertise, including internet and social media advertising, in advance of the annual report being brought forward to ESSC. Official invitations could be sent to individuals and organizations to provide an opportunity for input. These individuals could include, but not be limited to, representatives of Centre for Water Resource Studies (Dalhousie University), Ecology Action Centre, Community Monitoring Committee (CMC), Bedford Institute of Oceanography, Nova Scotia Health Research Foundation, Community Planning Association of Canada (Nova Scotia), Canadian Institute of Planners, Urban Development Institute of Nova Scotia, Senobe Aquatic Club,

⁷³ The Centre's highlighted research projects are available online, organized by theme: Drinking Water, Wastewater, Watersheds and Geo-Environmental. See <u>Centre for Water Research Studies</u>.

⁷⁴ Review of water resource management related studies and reports accounts for a significant portion of RWAB's agendas since consolidation. See Attachment 9.

⁷⁵ A similar process of wrapping up an advisory body was done for the Youth Advisory Committee in May 2013, once it was determined that the Youth Advisory Committee had achieved its mandate. Council directed staff to provide biannual reports to the Community Planning and Economic Development Standing Committee in regards to youth trends, issues, best practices and actions taken.

Abenaki Aquatic Club, Mic Mac Amateur Aquatic Club, Banook Canoe Club, Oathill Lake Conservation Society, Clean Foundation, Community Based Environmental Monitoring Network, Atlantic Water Network, Portland Estates and Hills Residents' Association, Shubenacadie Watershed Environmental Protection Society, Sackville Rivers Association, Sandy Lake Conservation Association, Shubenacadie Canal Commission, Five Bridges Wilderness Heritage Trust, Friends of First Lake, St. Mary's River Association, the Williams Lake Conservation Company, and the Woodens River Watershed Environmental Organization.

The agenda could include an opportunity for a staff presentation as well as public participation. Residents could also choose to provide written correspondence. Establishing water resource management as an annual ESSC agenda item would provide a designated opportunity for public input to be provided directly to the ESSC and Energy and Environment staff. This direct line of communication would emphasize the importance HRM and Council place on preserving and protecting watersheds and water-related natural assets in the municipality. As ESSC is live web-streamed, this approach would also allow the public at home to watch the discussion. It is recommended that this annual report be brought forward each fall to provide staff with an opportunity to adjust their proposed budget for the following fiscal year in accordance to public participation and direction from ESSC.

(E) PLANNING DOCUMENT AMENDMENTS

Staff recommend that the process to dissolve the Regional Watersheds Advisory Board be commenced by: (a) initiating the process necessary to amend all applicable planning documents referencing the Regional Watersheds Advisory Board; and (b) adopting the public participation program as presented in Attachment 11 of this report and (c) directing staff to return to Council to dissolve the Regional Watersheds Advisory Board, and make the necessary amendments to Administrative Order One, once the planning amendments are in force.

(F) CLOSING RECEPTION

The Municipality has been fortunate to have had the engagement of citizens committed to protecting the health of our lakes, streams, rivers, wetlands, and ocean. Staff recommend that if the RWAB is dissolved, that a closing reception be held and that all past and present Board members, and staff liaisons, be invited to attend. The purpose of this reception would be to recognise and thank the volunteers who have served on the Board for their time and their service to the Municipality.

FINANCIAL IMPLICATIONS

Council approval of the recommendations would conclude the work of the Regional Watersheds Advisory Board. This would create limited financial savings to the Municipality including staff support costs contracting legislative support, members mileage and meals (as per Council policy), and staff mileage and overtime.

If Council chooses to enter into a standing offer arrangement with the Centre for Water Resources Studies (CWRS), advisory costs would be dependent on the terms of the Agreement and the frequency of consultation. Currently there is no budget for this consultation. However, there is a budget for studies within Fiscal Services, which could receive application to access these funds when a cost estimate is available. This should occur during the budget process. The majority of advisory and peer review costs can be absorbed in study budgets on a go-forward basis, and will also qualify for external and developer funding where appropriate. The financial impacts of retaining CWRS can be more accurately described if a review of the water quality monitoring program is approved in the 2019/2020 operating budget.

RISK CONSIDERATION

Risk	Likelihood (1-5)	Impact (1-5)	Risk Level (I/L/M/H/VH)	Mitigation
Financial	-	_	_	N/A
Environmental	_	_	_	N/A
Service Delivery	_	_	_	N/A
People	-	_	_	N/A
Reputation	1	1	L	
Legal and Compliance	-	-	-	N/A

Recommendation 1: Commence the process to dissolve the RWAB

COMMUNITY ENGAGEMENT

All meetings of the Environment and Sustainability Standing Committee are open to the public. Moreover, the Environment and Sustainability Standing Committee provides a legislatively and policy prescribed venue for engagement.

The Regional Watersheds Advisory Board is an advisory body to the Environment and Sustainability Standing Committee and is comprised of members of the public, with a composition for up to twelve (12) members. The Board is made up of water resource management sector specialists and citizens at large. The Regional Watersheds Advisory Board meetings are open to the public and the agendas and minutes are posted on Halifax.ca in advance of the meetings.

ENVIRONMENTAL IMPLICATIONS

The purpose of the Regional Watersheds Advisory Board is to provide community subject matter expertise to preserve and protect the many watersheds and water related natural assets in the municipality related to the specified policy and development activities.

ALTERNATIVES

1. The Environment and Sustainability Standing Committee could maintain the Regional Watersheds Advisory Board as is.

This course of action is not recommended. In staff's view there is not sufficient justification to support the continuance of the RWAB. As outlined in Parts I and II of the Discussion section of this report, alternate means of engaging water sector specialists and members of the public (on water resource management and waste management matters) exist.

2. The Environment and Sustainability Standing Committee could recommend to Halifax Regional Council that RWAB's Terms of Reference be amended to expand its scope, expand its mandate and/or alter its composition, as requested by the Board. If Halifax Regional Council elected to proceed in this way, direction to staff would be required on which amendments to include, and a supplementary staff report would be required.

This course of action is not recommended. In staff's view there is not sufficient justification to support the continuance of the Board. As outlined in Parts I and II of the Discussion section of this report, alternate means of engaging water sector specialists and members of the public (on water resource management and waste management matters) exist.

If Standing Committee votes to continue the RWAB, staff recommend that the scope and

mandate of the Board continue to be restricted to policy matters. Staff further recommend that staff's advice, as outlined below, be followed.

1. RWAB Recommendation: Advise on joint projects between HRM and Halifax Water.

Citizen at large input into the activities of Halifax Water is facilitated through longstanding and well-established public engagement protocols and activities. As such, staff do not support expanding RWAB's mandate to include providing input on joint projects undertaken by HRM and Halifax Water.

Given Halifax Water's longstanding engagement of academics and researchers, staff suggest that conferring a Halifax-Water-related advisory role upon the RWAB would be inadvisable. Water resource management expertise is already available to Halifax Water, both through its compliment of on-staff chemists, technicians and engineers and through its connections with academia and professional bodies.

2. *RWAB Recommendation:* Advise on solid waste management issues (e.g. if a composting or waste facility were to be built near a watershed).

Community engagement on waste management is embedded in regulatory requirements and stipulated by the municipality's Regional Plan. Adequate provision has been made for citizen at large oversight of waste management activities. RWAB oversight is, therefore, not recommended by staff.

Waste-management facility monitoring protocols are consistent with industry best practices and overseen by both internal and external waste-management professionals and engineering/monitoring firms. Facilities are also inspected by Nova Scotia Environment. A professional/expertise based advisory role for the RWAB is, therefore, not warranted.

3. RWAB Recommendation: Have representation from a member of Halifax Regional Council to establish and create a link (liaison) between Council and the Regional Watersheds Advisory Board.

Members of Halifax Regional Council sit as members on many of Halifax's Advisory Boards, Committees, and Commissions. Staff acknowledge that a direct link to a parent body can be helpful as a mechanism for establishing and maintaining interconnectivity. Staff note, however, that Regional Council has expressed an interest in limiting Regional Council appointments on these bodies. As such, staff view the appointment of a member of Regional Council to RWAB as a matter of ESSC discretion and take no position on the matter.

4. RWAB Recommendation: Replace the word 'NGO' with Environmental Community Group as more friendly terminology.

Staff recommend that the TOR be amended to read as follows: Up to two (2) representatives of Environmental NGO's, Recreational Organizations or Environmental Community Groups.

5. **RWAB Recommendation:** Remove the doctoral training clause and have a less limiting academic connection requirement. The individuals should be active professionals.

Staff do not support the removal of the doctoral training requirement. As noted in the Municipality's Public Appointment Policy,⁷⁶ the needs of HRM's Agencies, Boards and Committees (ABCs) are best met by candidates who match the needs of the individual ABC's requirements. Council approves qualifications relevant to the responsibility of the Board or Committee and ensures, in making appointments, that the appointments collectively cover the range of skills and experience required to effectively make decisions.

Where an advisory committee acts to provide expert advice, that advice should be of the highest calibre possible. Competency-based recruitment and nomination of citizens for appointment should support this objective.⁷⁷ The existing RWAB Terms of Reference already allow for the appointment of up to five (5) water related professionals. There are only two (2) positions allocated to candidates with doctorial/ academic qualifications, one (1) of which is presently filled.⁷⁸

6. **RWAB Recommendation:** Have formal mechanisms to receive feedback from the outcomes of the recommendation made by the Regional Watersheds Advisory Board.

Staff regularly provide updates to RWAB on water-management-related initiatives, activities and studies, (including the results of water quality monitoring programs and the findings of watershed studies/flood risk assessments). Staff likewise routinely advise RWAB members of proposed and implemented watershed-related amendments to planning documents. For a complete list of RWAB agenda items see Attachment 9.

Historically, staff added water sector related staff reports (as information items) to the RWAB agenda.⁷⁹ Reports that dealt with matters previously considered by RWAB provided a feedback mechanism. Staff recommend that this practice be reinstated. Staff further recommend that the Board periodically review ESSC minutes as a best practice.⁸⁰

7. *RWAB Recommendation:* Have the Environment and Sustainability Standing Committee and other business units, such as Energy and Environment and Solid Waste Resources, provide yearly work plans to the Regional Watersheds Advisory Board.

Staff recommend that the RWAB be provided with copies of the Multi-Year Budget and Business Plan for Transportation and Public Works and the Multi-Year Budget and Business Plan for Planning and Development. This approach will provide the RWAB with business-unit-level work plans and budgetary overviews. As has been done in the past, the Multi-Year Budget and Business Plan can serve as the basis for a work plan for the RWAB itself.⁸¹

The Environment and Sustainability Standing Committee provides advice to Council relating to solid waste, energy security, sustainable parks, forests, open spaces, and water resource management. The Standing Committee is not a business unit and, therefore, does not produce a work plan. ESSC's agenda is set monthly and is driven by

⁷⁶ See Public Appointment Policy

 ⁷⁷ See staff's prior recommendations concerning science advising <u>Regional Council March 6, 2018 (Item 14.1.7)</u>
 ⁷⁸ Currently, there are six (6) RWAB vacancies: two (2) water related professionals at large; one (1) North West Community Council (resident) representative; one (1) academia representative; and two (2) NGO and/or recreational organization representatives. See <u>Boards, Committees and Commissions (HRM Website)</u>

⁷⁹ Typically, these staff reports had been submitted to Environment and Sustainability Standing Committee and/or Regional Council. Given RWAB's watershed-specific and policy-advice-specific mandate, some of the staff reports dealt with matters that had not been reviewed, and/or commented on, by RWAB.

 ⁸⁰ This step has been recommended previously, see <u>Regional Watersheds Advisory Board May 10, 2017 (Item 9.1.1)</u>
 ⁸¹ See Regional Watersheds Advisory Board May 10, 2017 (Item 9.1.1)

staff reports submitted for the Standing Committee's review. It is, therefore, impracticable to have ESSC provide RWAB with a work plan.⁸²

8. **RWAB Recommendation:** Have a mechanism to be able to bring municipal water related issues that represent the public interest to the attention of the Environment and Sustainability Standing Committee and highlight concerns at the earliest stage for possible policy and planning considerations (e.g. land based issue such as winter road maintenance operations, or beach and lake water quality testing).

Since the establishment of the RWAB in 2013, changes have been made to Administrative Order One⁸³ that provide additional avenues for the public to engage with the Municipality. One key change has been the addition of a standing "Public Participation" item on Standing Committee agendas, including Environment Sustainability Standing Committee. As the Administrative Order notes, under section 43. (1) "The Standing Committees shall be the primary forum for public input at the Council." At each meeting, any member of the public may come forward and address the Standing Committee for five minutes on any matter not related to a public hearing or appeal hearing. Staff submit that the standing public participation item addresses the need for a mechanism to bring water sector matters directly to ESSC's attention.

If RWAB has a project of interest, they may send a notice (via a motion) to the ESSC requesting that the item of interest be allowed for consideration. The ESSC may then determine if this request can be accommodated.

ATTACHMENTS

Attachment 1	Regional Watersheds Advisory Board Terms of Reference (Current)
Attachment 2	Water Quality Monitoring Protocol
Attachment 3	Regional Municipal Planning Strategy (2014) – Watershed Planning Excerpt
Attachment 4	Regional Municipal Planning Strategy (2014) – Riparian Buffers Excerpt
Attachment 5	Terms of Refence Timeline for Regional Watersheds Advisory Board
Attachment 6	Items Referred to the Regional Watersheds Advisory Board by the Environment and Sustainability Standing Committee (2013-2018
Attachment 7	Regional Watersheds Advisory Board Correspondence and Reports
Attachment 8	Regional Watersheds Advisory Board Motions and Recommendations
Attachment 9	RWAB Agenda Items (2013-2018)
Attachment 10	Regional Watersheds Advisory Board Agenda Items
Attachment 11	Proposed Public Participation Process

⁸² Meeting agendas are, however, generally available several days prior to the meeting. Reports are available for meetings, and are linked within the agendas. Minutes are available once approved.

⁸³ See Administrative Order One, Respecting the Procedures of the Council

A copy of this report can be obtained online at <u>halifax.ca</u> or by contacting the Office of the Municipal Clerk at 902.490.4210.

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Report Prepared by: Scott Sheffield, Government Relations and External Affairs, 902.490.3941

Regional Watersheds Advisory Board Terms of Reference⁸⁴

Purpose: As subject matter experts, with respect to watershed management, the Watersheds Advisory Board:

- Advises the Environment and Sustainability Standing Committee on municipal policy projects as required under the HRM Charter, the Regional Municipal Planning Strategy, and Secondary Planning Strategies, and as may be specifically assigned by the Environment & Sustainability Committee;
- As required by the HRM Charter, the Regional Municipal Planning Strategy, and Secondary Planning Strategies, to fulfil the legislated requirements with respect to municipal development activities;
- Performs duties as directed by Regional Council on matters described in the Municipal Planning Strategies.

Composition:

- Up to five (5) water related professionals at large
- Up to two (2) seats for current faculty members at post-secondary institutions or for research scientists, with doctoral training, working in watershed management
- Up to two (2) representatives of Environmental NGO's or Recreational Organizations
- One (1) Citizen at large may be appointed by each Community Council

Terms: To build and maintain technical and procedural expertise, six (6) of the twelve (12) members shall be appointed for a two-year term and the remaining six (6), for a three-year term.

Governance: On behalf of Regional Council, The Environment and Sustainability Standing Committee shall provide oversight to the Advisory Board Workplan, Terms of Reference, Appointments, and other Governance matters.

Policy Development and Review Projects: The Halifax Regional Municipality is enabled through the HRM Charter, as an act of Provincial legislation, to be the primary authority for planning within its jurisdiction. The Municipal Planning Strategies enacted by Regional Council are the overarching municipal policy set. The HRM Charter defines the mandate and authority of the municipality in planning matters and municipal planning provides statements of policy to guide the development and management of the municipality including establishing policies to provide a framework for the environmental, social and economic development within the Municipality. All assigned policy projects must comply with these policies and legislative directions.

Officers: The Board shall have a Chair and Vice Chair to be elected from among its members at the first meeting following composition and at the first meeting of the calendar year. The Vice Chair shall act a Chair in the absence of the Chair. The Chair and Vice Chair may be reappointed for subsequent terms providing they are still members of the Board.

Staff Complement: The municipality shall supply Board support from the Clerk's Office. The Manager of Energy and Environment shall be the primary staff liaison.

⁸⁴ See <u>https://www.halifax.ca/sites/default/files/documents/city-hall/boards-committees-</u> <u>commissions/180214rwab71.pd</u>

Meetings: The Board shall meet monthly or as required to conduct the business of the Board. Additional meetings may be scheduled at the discretion of the Chair in consultation with the Clerk's Office.

Quorum: The quorum for regular meetings shall be in accordance with Section 74 of Administrative Order 1 – Quorum of Committees.

Appointments: The Environment and Sustainability Standing Committee is designed to be both the nominating and appointing body for members of the Board, except for the members appointed by each of the Community Councils, for which the Community Council will serve as both the nominating and appointing body. Appointments shall be made in accordance with the Public Appointment Policy adopted by Regional Council.

Vacating a Position: During the term of Office a member may vacate their position on the Board in accordance to the procedures set out in Section 68 of Administrative Order 1 – Vacating a Position on Committee.

Procedure: Meeting procedures shall be governed by the HRM Administrative Order 1 – Respecting Procedures of Council as it related to Committee Procedures.

Approved February 19, 2013 Amended: May 14, 2013

Water Quality Monitoring Protocol

In developing water quality management plans and monitoring programs, HRM shall ensure that the following minimum requirements are met:

- 1. All water sampling and analysis shall be done by qualified professionals only.
- A Request for Proposals (RFP) shall be issued to solicit the services of appropriate qualified professionals. The RFP shall, at a minimum, require the satisfaction of all specifications of this protocol.
- 3. At least three qualified professionals or firms shall be invited to submit proposals to undertake sampling and analysis and other functions deemed necessary to the effective execution of a water quality monitoring program pursuant to HRM policy and this protocol. No consultant shall be selected pursuant to said RFP who does not commit to a monitoring program that will meet or exceed the requirements of this protocol.
- 4. (a) Water sampling shall, at the minimum, include collection of the following water quality parameters employing the methods specified: Temperature (In-situ Meter); pH (In-situ Meter); Conductivity (In-situ Meter); Dissolved Oxygen (In-situ Meter); Total Phosphorous (Depth Integrated Sample); Turbidity (Depth Integrated Sample); TSS (Total Suspended Solids) (Depth Integrated Sample); E. coli (Discrete Sample).

(b) Samples shall be collected monthly except during a designated winter period not to exceed three months during which only one sample shall be required.

(c) Samples shall be collected from at least one deep location within each subject lentic watercourse and at one location at the mouth of any tributary entering or exiting said watercourse. Lotic watercourses should be sampled in the centre of flow with the number of samples to be determined on a case by case basis.

(d) Samples shall be handled and assessed consistent with the specifications of the most recent edition of the Environment Canada publication *Inspector's Field Sampling Manual*.

(e) If in the opinion of responsible staff, circumstances require the expansion of the parameters to be followed or modification of procedures to be followed, staff may make such modifications as are deemed necessary provided any change from this protocol is documented in the RFP to be issued pursuant to point 2.

- Payment for water quality sampling and analysis undertaken to monitor the impact of land development and/or construction shall be paid for by the developer or other responsible individual or organization party to the development agreement establishing the need for a monitoring program.
- 6. HRM will receive all data collected by the selected consultant as well as associated reports, and shall provide them for review by the Regional Watersheds Advisory Board.
- 7. Based on its interpretation of results and reports submitted, HRM staff may direct the expansion of water quality monitoring in terms of criteria collected, timing of collection, or location(s) of sampling. In the event that staff is uncertain of the scope or specific nature of such additional effort, they may arrange further research by qualified professionals in a manner consistent with the prevailing procurement policies of the Municipality. Any additional costs associated with such expansion of water quality monitoring or study of the need for further water quality monitoring

shall be borne by the party identified under point 4.

8. HRM will receive all invoices for services rendered by the selected consultant and shall arrange their payment by the party identified under point 4.

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Regional Municipal Planning Strategy (2014) – Watershed Planning Excerpt

2.4 WATERSHED PLANNING

The Water Resources Management Study⁸⁵, 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.

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.

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:

- 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 watershed11 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;
- I) 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.

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.

⁸⁵ Dillon Consulting Ltd. *HRM Water Resource Management Study*. Dec. 2002. Halifax.

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Regional Municipal Planning Strategy (2014) – Riparian Buffers Excerpt

2.3.3 Riparian Buffers

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. In addition to the functions of flood regulation, riparian buffers reduce the impacts of sedimentation, erosion and nutrient loading on watercourses, regulate the temperature of adjacent watercourses, provide important wildlife habitat and add aesthetic value to HRM.

The Water Resource Management Study⁸⁶ recommends the adoption of riparian buffers as established by the Department of Natural Resources. These setbacks are considered adequate for stream bank stability, water temperature regulation and aesthetic value. They also provide minimal protection of wildlife, flood mitigation and partial benefits for sediment removal. They will be used as general riparian buffer protection for the whole of HRM until buffers that meet the specific needs of each watershed can be determined through the watershed studies and implemented through secondary planning processes.

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. In some cases it may also be determined that HRM should consider the ownership of riparian buffers to protect public interest and public access.

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 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-18 HRM shall, through the applicable land use by-law, relax the riparian buffer requirement for lots in existence on August 26, 2006, where otherwise development would be prohibitive. No relaxation to the buffer shall be permitted for lots created after August 26, 2006.

E-19 HRM shall consider a by-law to protect existing trees and to manage the retention and the removal of existing trees within riparian buffer zones.

HRM recognizes that development and water lots that have been infilled may result in undesirable impacts on the marine environment and the aesthetic character of the surrounding environment.

⁸⁶ Dillon Consulting Ltd. *HRM Water Resource Management Study*. Dec. 2002. Halifax.

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.

Terms of Refence Timeline for Regional Watersheds Advisory Board

Table 4: Terms of Refence Timeline for Regional Watersheds Advisory Board

Nov 27/2012	Regional Council directs staff to consolidate three Watersheds Advisory Boards ⁸⁷ into a single entity and to initiate the processes necessary to amend all applicable planning documents. ⁸⁸
Feb 19/2013	Regional Council approves the Terms of Reference for the new Regional Watersheds Advisory Board. ⁸⁹
May 14/2013	Regional Council directs staff to amend the Terms of Reference for the Regional Watersheds Advisory Board (membership, term length and composition). ⁹⁰
Feb 6/2014	Regional Watershed Advisory Board requests that Environment and Sustainability Standing Committee direct staff to review the Regional Watersheds Advisory Board's mandate and Terms of Reference. ⁹¹
Mar 6/2014	Environment and Sustainability Standing Committee directs that no changes be made to the Regional Watersheds Advisory Board's mandate or Terms of Reference. ⁹²
Jan 28/2015	Regional Watersheds Advisory Committee requests that it be allowed to review matters outside of its mandate. ⁹³
Mar 11/ 2015	Environment and Sustainability Standing Committee directs that no changes be made to the Regional Watersheds Advisory Board's mandate or Terms of Reference. ⁹⁴
Mar 14/2018	Regional Watersheds Advisory Board requests that Environment and Sustainability Standing Committee direct staff to review the Regional Watershed Advisory Board's mandate and Terms of Reference. ⁹⁵
Apr 5/2018	Environment and Sustainability Standing Committee directs staff to review the Regional Watersheds Advisory Board's mandate and Terms of Reference. ⁹⁶

⁸⁷ Halifax Watershed Advisory Board; Bedford Watershed Advisory Board; and Dartmouth Lakes Advisory Board

⁸⁸ See <u>Regional Council November 27, 2012 (Item 10.1.2)</u>

⁸⁹ See Regional Council February 19, 2013 (Item 11.3.1)

⁹⁰ See Regional Council May 14, 2013 (Item 10.3.1)

⁹¹ See Regional Watersheds Advisory Board February 12, 2014 (Item 8.1) and Environment and Sustainability Standing Committee February 6, 2014 (Item 1)

⁹² See Environment and Sustainability Standing Committee March 6, 2014 (Item 7.1) and Environment and Sustainability Standing Committee March 6, 2014f

⁹³ See Regional Watersheds Advisory Board January 28, 2015 (Item 9.2.1)

⁹⁴ See Environment and Sustainability Standing Committee February 5, 2015 (Item 9.2.1) and Regional Watersheds Advisory Board (Item 6.1.1) ⁹⁵ See Regional Watersheds Advisory Board March 14, 2018 (Item 7.1) ⁹⁶ See Environment and Sustainability Standing Committee April 5, 2018 (Item 12.1.2)

Items Referred to the Regional Watersheds Advisory Board by the Environment and Sustainability Standing Committee (2013-2018

Table 5: Items Referred to the Regional Watersheds Advisory Board by the Environment and Sustainability Standing Committee (2013-2018)⁹⁷

Date	Motion/Recommendation	Matter
<u>May 2/2013</u>	MOVED by Councillor Karsten, seconded by Councillor Fisher that the Environment and Sustainability Standing Committee refer to the Regional Watersheds Advisory Board the analysis of the HRM Lakes Water Quality Monitoring Program Data 2006-2011, with direction to provide the Standing Committee with observations and interpretation of the data with respect to those identified lakes that should be considered by staff prior to future land use planning projects.	HRM Lakes Water Quality Monitoring Program Data 2006-2011
<u>June 6/2013</u>	MOVED by Councillor Nicoll, seconded by Councillor Watts that the Environment and Sustainability Standing Committee request that Regional Council direct staff to: [] Consult with the Regional Watersheds Advisory Board to help identify objectives and desired outcomes of a Stormwater Management and Lot Grading By-law;	Stormwater Management and Lot Grading By-law
<u>Dec 5/2013</u>	MOVED by Councillor Nicoll, seconded by Councillor Watts that the ESSC: 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 []	Model Community Plan Environmental Section
<u>Jan 9/2014</u>	MOVED by Councillor Watts, seconded by Councillor Craig that the Environment and Sustainability Standing Committee accept the Rain Yards Final Report for 2013 and forward a copy of the Report to the Regional Watersheds Advisory Board for its information.	Rain Yards Final Report (Information Purposes)
<u>May 14/2015</u>	MOVED by Deputy Mayor Nicoll, seconded by Councillor Johns that the Environment and Sustainability Standing Committee direct this report [Water Quality Monitoring Protocol] to the Regional Watersheds Advisory Board for its information.	Water Quality Monitoring Protocol (Information Purposes)
<u>July 2/2015</u>	MOVED by Deputy Mayor Nicoll, seconded by Councillor Karsten that the Environment and Sustainability Standing Committee direct the [Water Quality Overview] staff report dated May 7, 2015 to the Regional Watersheds Advisory Board for its information.	Water Quality Overview (Information Purposes)

⁹⁷ Excludes motions made by Environment and Sustainability Standing Committee to appoint members of the Regional Watersheds Advisory Board

Regional Watersheds Advisory Board Correspondence and Reports

Table 6: Regional Watersheds Advisory Board Correspondence and Reports⁹⁸

Date	Correspondence / Reports
Feb 12/2014	Report from RWAB to ESSC re: RWAB Process/Mandate
<u>Jul 3/2014</u>	Tantallon Servicing Study Report
<u>Jul 3/2014</u>	Musquodoboit Harbour Watershed Studies Report
<u>Jul 3/2014</u>	Porters Lake Watershed Servicing Study Report
<u>Feb 5/2015</u>	Correspondence from Mr. Allan Billard, Chairperson, Regional Watersheds Advisory Committee re Board's mandate.
<u>Apr 5/2018</u>	Review of Regional Watersheds Advisory Board's Terms of Reference and Mandate

⁹⁸ Correspondence and reports directed to the Environment and Sustainability Standing Committee by the Regional Watersheds Advisory Board.

Regional Watersheds Advisory Board Motions and Recommendations

Date	Motion/Recommendation
<u>Sept 11/2013</u>	MOVED by Mr. Regan, seconded by Dr. Thomas that the Regional Watersheds Advisory Board recommends that the Environment and Sustainability Standing Committee request that Harbour East and Marine Drive Community Council direct staff to provide a semi-annual update on the responses to the recommendations made in the June 6th, 2013 Russell Lake Water Quality Policy Review Project.
<u>Oct 9/2013</u>	MOVED by Mr. Lund, seconded by Dr. Thomas that the Regional Watershed Advisory Board recommend to the Harbour East Community Council, that Shubenacadie Lakes Sub-Watershed Study Report (AECOM) be accepted as background for future community planning and further that advanced storm water management practices be included in the Port Wallace development with the objective of not increasing peak flow of storm water quantity and no decrease in storm water quality.
<u>Dec 11/2013</u>	 MOVED by Mr. Hattin, seconded by Mr. Clement, that the Regional Watersheds Advisory Board accepts the Analysis of the 2006-2011 program data; although the Board believes additional information is required as guidance for future land use planning projects. Specific suggestions for future water quality monitoring within urban lakes would include: Dissolved oxygen should be monitored at several depths at all sampling stations. More sampling stations should be identified for each lake; the number will vary on the bathymetry on a lake by lake basis, but be sufficient to develop a lake modeling tool. Samples should be collected more frequently than three times per year and include turbidity. Aluminum should be regularly monitored to assess the quality of fish habitat in association with a suite of metals. Monitoring should be conducted to identify point-specific sources of contamination and their impact on lakes. Lake monitoring should include rigorous sampling at inflows and outflows at a level sufficient to contribute to a lake model.
<u>Dec 11/2013</u>	MOVED by Mr. Regan, seconded by Mr. Clement, that the Regional Watersheds Advisory Board recommend to the Harbour East and Marine Drive Community Council, that the Porters Lake Watershed Servicing Study Report be accepted as background for future community planning, subject to caveats coming in from individual members
<u>Dec 11/2013</u>	MOVED by Mr. Regan, seconded by Mr. Fancy, that the Regional Watersheds Advisory Board recommend to the Northwest Community Council, that the Tantallon Watershed Servicing Study Report be accepted as background for future community planning, subject to caveats coming in from individual members.
<u>Jan 8/2014</u>	MOVED by Mr. Regan, seconded by Mr. Fancy, that the Regional Watersheds Advisory Board (RWAB) request that the Environment & Sustainability Standing Committee direct staff to seek earlier input from RWAB with regard to watershed studies.
<u>Jan 8/2014</u>	MOVED by Mr. Regan, seconded by Mr. Lund, that the Regional Watersheds Advisory Board be provided with a copy of Regional Plan Policy E-17 and be given authority by the

⁹⁹ Excludes motions to approve the following: minutes; agendas; order of business; meeting schedules; workplans; and nominations (Chair/Vice-Chair).

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	Environment & Sustainability Standing Committee to comment on that policy from a professional perspective for future watershed studies
<u>Jan 8/2014</u>	MOVED by Mr. Regan, seconded by Mr. Lund, that the Environment & Sustainability Standing Committee allow the Regional Watersheds Advisory Board (RWAB) to comment on the controls and measures in place for the leachate being transported to the Sackville Landfill, and that all available data on this matter be provided to RWAB for review.
Feb 12/2014	1.0 The Regional Watersheds Advisory Board recommends to the Harbour East-Marine Drive Community Council, that the Porters Lake Watershed Servicing Study Report be accepted as background for future community planning respecting all aspects of the CBCL report.
	1.1 The Regional Watersheds Advisory Board recommends to the Halifax and West Community Council, that the Tantallon Watershed Servicing Study Report be accepted as background for future community planning respecting all aspects of the CBCL report.
	2.0 The Board recommends that HRM respect the best practices specified in the report regarding waste and storm water management to ensure that there is minimal impact on surface waters during and post development.
	2.1 The Board recommends that storm water Treatment discharge be tested by HRM to receiving waters, both for water quantity (zero discharge), and quality (CCME Guidelines).
	 The Board recommends that specific wastewater management districts be established within the study area.
	3.1 The Board recommends that HRM negotiate with the Province to establish maintenance schedules for septic systems based on deficiencies within the reports.
	4.0 The Board recommends that the HRM surface water quality sampling be reinstated with the addition of profile sampling and loading determinations including stream gauging, floodplain mapping and buffer of at least 30 meters.
	5.0 The Board recommends that homes near and on Hubley Mill Lake Road, Flat Lake Road, Stillwater Lake Road and Lane, Cambridge Court and Ensley Road be revisited for testing purposes of wells and septic systems.
	5.1 The Board recommends that the Nova Scotia Department of Environment staff inspect all sewage plants for proper operation for protection of receiving waters.
	6.0 That HRM ensure that a proper hydrogeologic testing program be carried out to ensure that there are proper amounts of ground water for new and existing drinking wells, especially for new house construction.
Feb 12/2014	MOVED by Mr. Lund, seconded by Mr. Mills, that RWAB endorse Case No. 18781 – Application by West Bedford Limited Holdings Limited to enter into a development agreement to permit a mixed use subdivision at Sub-Areas 7 and 8, Bedford West, Kearney Lake Road, Bedford and Hammonds Plains.
<u>Mar 12/2014</u>	MOVED by Mr. Mills, seconded by Mr. Hattin, that:
	1. The Regional Watersheds Advisory Board recommends to the Harbour East-Marine Drive Community Council, that the Porters Lake Watershed Servicing Study Report be accepted as background for future community planning, respecting all aspects of the CBCL report.
	2. The Regional Watersheds Advisory Board further recommends that:
	a) HRM adhere to the best management practices specified in the report regarding wastewater and stormwater management, in order to ensure that there is minimal impact on receiving surface waters during and post development.

b) Discharges from all constructed wastewater treatment plants and stormwater management systems be routinely sampled and tested to ensure no net impact to receiving waters.

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c) Porters Lake development district represents an excellent example of an area that should be considered as a Wastewater Management District(s) as per Policy CU-20 in the Regional Plan (2006).

d) HRM start to develop a plan for regular maintenance of on-site septic systems, to include a schedule for mandatory septic tank pump-outs.

e) HRM re-instate the Surface Water Monitoring Program, to include vertical profile sampling/testing of lakes, stream gauging and contaminant loading calculations.

f) Floodplain mapping in areas of high risk should be conducted in light of Climate Change.

Mar 12/2014 MOVED by Mr. Lund, seconded by Mr. Clement, that:

1. The Regional Watersheds Advisory Board recommends to the North West Community Council, that the Tantallon Watershed Servicing Study Report be accepted as background for future community planning, respecting all aspects of the CBCL report.

2. The Regional Watersheds Advisory Board further recommends that:

a) HRM adhere to the best management practices specified in the report regarding wastewater and stormwater management, in order to ensure that there is minimal impact on receiving surface waters during and post development.

b) Discharges from all constructed wastewater treatment plants and stormwater management systems be routinely sampled and tested to ensure no net impact to receiving waters.

c) Tantallon development district represents an excellent example of an area that should be considered as a Wastewater Management District(s) as per Policy CU-20 in the Regional Plan (2006).

d) HRM start to develop a plan for regular maintenance of on-site septic systems, to include a schedule for mandatory septic tank pump-outs.

e) HRM re-instate the Surface Water Monitoring Program, to include vertical profile sampling/testing of lakes, stream gauging and contaminant loading calculations.

f) Floodplain mapping in areas of high risk should be conducted in light of Climate Change.

g) Homes near and on Hubley Mill Lake Road, Flat Lake Road, Stillwater Lake Road and Lane, Cambridge Court and Ensley Road be revisited for testing for the same items for which they were originally tested.

Apr 9/2014

MOVED by Dr. Soudek, seconded by Mr. Lund, that the Regional Watersheds Advisory Board recommends that Harbour East-Marine Drive Community Council:

1. Accept the Musquodoboit Harbour Watershed Study Final Report and the Musquodoboit Harbour Follow-Up Study Final Report as background for future community planning.

2. Recommend that the Environment & Sustainability Standing Committee request a staff report to consider the following further recommendations, including identifying any policy changes that would be required, financial implications associated, or jurisdictional issues that may arise through these recommendations:

a) The Musquodoboit Harbour area study area be considered as a wastewater management district in order to improve the assimilative capacity of the Musquodoboit and Little Rivers.

This wastewater management district is to include both the Musquodoboit and Little River watersheds.

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b) HRM conduct a floodplain mapping study of the Musquodoboit and Little River watershed.

c) Discharges from all constructed wastewater treatment plants and stormwater management systems be routinely sampled and tested to ensure no net impact on receiving waters, including all HRM owned and operated facilities.

d) HRM develop a plan for regular maintenance of on-site septic systems, to include a schedule for mandatory septic tank pump-outs.

f) HRM consider water quality monitoring within the Musquodoboit and Little River.

g) HRM write a letter to the Province of Nova Scotia recommending that they upgrade the water systems on their properties to meet current standards.

<u>Aug 13/2014</u> **MOVED** by Mr. Regan, seconded by Mr. Hattin that the Chair write a letter to the chair of the ESSC requesting that the Lake Banook weed issue be added to their agenda.

<u>Jan 14/2015</u> **MOVED** by Mr. Regan seconded by Mr. Mills that more current information be requested on the application [HRM File #14900 Concept Subdivision Application] so that the Board can provide greater feedback including the long-term plan on the area, questions regarding water, sewage, and acid slate.

May 13/2015 **MOVED** by Mr. Lund, seconded by Ms. Fenton that the Board approve the Summary Report Model Community Plan Environmental Section, with the comments from their April 8, 2015 and May 13, 2015 meetings included, for staff consideration.

May 10/2017MOVED by Russell Dmytriw, seconded by Penny Henneberry THAT the Regional
Watersheds Advisory Board has reviewed Case 21012: Application by WSP Canada Inc. on
behalf of Hamton Holdings Limited to enter into a development agreement to permit the
reduction from 100' to 50' of the environmental setback from a wetland near the corner of
Duke Street and Damascus Road, Bedford and recommends to North West Community
Council the approval of the application as outlined in the memorandum and attachments with
consideration to the following:

- Best management construction and sediment control practices are followed by the developer to minimize any negative impacts to the wetland; and
- The redesigned buffer enhances the ecological functions of the area, encourages ground water recharge and creates a viable riparian habitat.
- Aug 9/2017 **MOVED** by Russell Dmytriw, seconded by Rose Featherstone THAT the Regional Watersheds Advisory Board recommends that the Environment and Sustainability Standing Committee recommend that Halifax Regional Council request a staff report on implementing and integrating watershed management planning on a watershed by watershed basis.
- Aug 9/2017 **MOVED** by Kelly Schnare, seconded by Derek Vallis THAT the Regional Watersheds Advisory Board recommends that the Environment and Sustainability Standing Committee recommend that Halifax Regional Council request a staff report on reinstating and expanding the watercourse quality monitoring program and fund it appropriately.
- <u>Sept 20/2017</u> **MOVED** by Tim Boudreau, seconded by Kevin Hooper THAT the Regional Watersheds Advisory Board withdraw their motion to advise on the Sawmill Creek day-lighting project to allow for further discussion on bringing forward a recommendation on future phasing.
- Sept 20/2017 **MOVED** by Russell Dmytriw, seconded by Kevin Hooper THAT the Regional Watersheds Advisory Board withdraw their motion of August 9, 2017 recommending that the Environment and Sustainability Standing Committee recommend that Halifax Regional Council request a staff report on reinstating and expanding the watercourse quality monitoring program and fund it appropriately.

<u>Sept 20/2017</u>	MOVED by Tim Boudreau, seconded by Kevin Hooper THAT the Regional Watersheds Advisory Board withdraw their motion to advise on the Sawmill Creek day-lighting project to allow for further discussion on bringing forward a recommendation on future phasing.
<u>Sept 20/2017</u>	MOVED by Russell Dmytriw, seconded by Kevin Hooper THAT the Regional Watersheds Advisory Board strongly supports implementing and integrating watershed management planning on a watershed by watershed basis.
<u>Mar 14/2018</u>	MOVED by Tim Boudreau, seconded by Kevin Hopper THAT the Regional Watersheds Advisory Board recommends that the Environment and Sustainability Standing Committee recommend that staff be directed to review the Regional Watersheds Advisory Board's Terms of Reference and mandate and take into consideration the suggestions made by the Board.

RWAB Agenda Items (2013-2018)

TABLE 8: RWAB AGENDA ITEMS (2013-2018) Image: Comparison of the second seco

REPORTS/STUDIES	Bedford West Water Quality Report Flood Risk Assessment Study Lake Banook Aquatic Weed Harvesting Project Lake Banook Pollution Control Study Musquodoboit Harbour Watershed Studies Paper Mill Lake Watershed Assessment Study Porters Lake Watershed Servicing Study Report Preston Area Watershed Study Russell Lake Nutrient Source Desktop Assessment Sandy Lake Watershed Study Shubenacadie Lakes Sub-Watershed Study Report Tantallon Watershed Servicing Study Report Urban Lakes Recommendation Report Watershed Management and Water Quality Monitoring Program
PLANS/POLICIES	<u>Centre Plan</u> <u>Green Network Plan</u> <u>Master Storm Water Management Plan</u> <u>Model Community Plan (Environmental Section)</u> <u>Russell Lake Water Quality Policy</u>
CASES	Case 18781: Application for Development Agreement – Mixed Use Subdivision – Bedford West HRM File #12826 Concept Subdivision Application – Carriagewood Estates HRM File #14900 Concept Subdivision Application Case 21012: Application by WSP Canada Inc. on behalf of Hamton Holdings Limited Subdivision Transmittal Form PID#41357237, Montague Road, Montague Gold Mines
BY-LAWS	By-Law L-400 respecting Lot Grading

Regional Watersheds Advisory Board | Agenda Items

Table 9: Regional Watersheds Advisory Board | Agenda Items

Date	Agenda Items
Aug 14/2013	Stormwater Management and Lot Grading By-Law
<u>Sept 11/2013</u>	Leachate at the Sackville Landfill Halifax Water Quality Monitoring Program <u>Russell Lake Water Quality Policy Review Project</u>
<u>Oct 9/2013</u>	Shubenacadie Lakes Sub-Watershed Study Report Halifax Regional Municipality Water Quality Analysis Urban Lakes Recommendation Report Russell Lake Nutrient Source Desktop Assessment
<u>Nov 13/2013</u>	Porters Lake Watershed Servicing Study Report Tantallon Watershed Servicing Study Report
<u>Dec 11/2013</u>	<u>Urban Lakes Report</u> Porters Lake Watershed Servicing Study Report Tantallon Watershed Servicing Study Report
<u>Jan 8/2014</u>	Porters Lake Watershed Servicing Study Report Tantallon Watershed Servicing Study Report Regional Watersheds Advisory Board Terms of Reference
<u>Feb 12/2014</u>	Porters Lake Watershed Servicing Study Report Tantallon Watershed Servicing Study Report Case 18781: Application for Development Agreement – Mixed Use Subdivision – Sub-Areas 7 & 8, Bedford West Master Storm Water Management Plan Area 7 & 8 Clean Nova Scotia Rain Yards' 2013 Final Report
<u>Mar 12/2014</u>	Porters Lake Watershed Servicing Study Report Model Community Plan Environmental Section (Staff Report) Model Community Plan Environmental Section (Genivar Report) Preston Area and Sandy Lake Watershed Studies – Interim Report
<u>Apr 9/2014</u>	Musquodoboit Harbour Watershed Studies Forest Fire Impact on the Preston Lake Watershed Study
<u>Jun 11/2014</u>	Model Community Plan Environmental Section (Staff Report) Model Community Plan Environmental Section (Genivar Report)
<u>Jul 9/2014</u>	Model Community Plan Environmental Section (Staff Report) Model Community Plan Environmental Section (Genivar Report) Lake Banook – Weed Overgrowth
<u>Aug 13/2014</u>	Model Community Plan Environmental Section Update – Potable Water and On-Site Sewage
<u>Sept 10/2014</u>	Preston Area Sandy Lake Watershed Studies Model Community Plan Environmental Section Update – Storm Water Management and Floodplains Protection

<u>Oct 8/2014</u>	Model Community Plan Environmental Section – Storm Water Management, Slopes, and Regional Watersheds <u>HRM File # 12826 Concept Subdivision Application – Carriagewood Estates</u> <u>Preston Area and Sandy Lake Watersheds Studies – Final Report</u>
<u>Nov 12/2014</u>	Model Community Plan Environmental Section – Salt marshes, Lake & Stream Protection, Coastal Lands/Shoreline/Waterfront
<u>Dec 10/2014</u>	Model Community Plan Environmental Section – Watercourse and Wetland Protection, Tree Management, Public Awareness
<u>Jan 14/2015</u>	HRM File #14900 Concept Subdivision Application
<u>Mar 11/2015</u>	Letter from the Chair of the Environment and Sustainability Standing Committee
<u>Apr 8/2015</u>	Model Community Plan Environmental Section Tantallon, Musquodoboit and Porters Lake Watershed Studies
<u>May 13/2015</u>	Information Report Model Community Plan Environmental Section
<u>Jun 10/2015</u>	Water Quality Monitoring Protocol
<u>Aug 12/2015</u>	Water Quality Overview – HRM 2014 Water Quality Overview – Summary of Results Bedford West Water Quality
<u>Dec 9/2015</u>	Regional Plan Overview Halifax Water Caucus
<u>Jan 13/2016</u>	Open Space and Greenbelting Priorities Plan
Feb 10/2016	Lot Grading and Storm Water Bylaw
<u>Apr 13/2016</u>	Paper Mill Lake Watershed Assessment Study
<u>Aug 10/2016</u>	Paper Mill Lake Watershed Assessment Study
<u>Sept 14/2016</u>	Paper Mill Lake Watershed Assessment Study Weed Removal Program in Lake Banook
<u>Nov 9/2016</u>	Paper Mill Lake Watershed Assessment Study Watermark Project
Feb 22/2017	Status of Aquatic Weed Harvesting Project – Lake Banook
<u>Apr 12/2016</u>	Case 21012: Application by WSP Canada Inc. on behalf of Hamton Holdings Limited to enter in to a development agreement to permit the reduction from 100' to 50' of the environmental setback from a wetland near the corner of Duke Street and Damascus Road, Bedford
<u>May 10/2017</u>	Case 21012: Application by WSP Canada Inc. on behalf of Hamton Holdings Limited to enter in to a development agreement to permit the reduction from 100' to 50' of the environmental setback from a wetland near the corner of Duke Street and Damascus Road, Bedford Subdivision Transmittal Form PID#41357237, Montague Road, Montague Gold Mines
<u>Jun 14/2017</u>	Draft Halifax Green Network Plan Review Watershed Management and Water Quality Monitoring Program Review Sawmill Creek Daylighting

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<u>Jul 12/2017</u>	Watershed Management and Water Quality Monitoring Program Review Sawmill Creek Daylighting
<u>Aug 9/2017</u>	Watershed Management and Water Quality Monitoring Program Review Draft Halifax Green Network Plan Review
<u>Sept 20/2017</u>	HRM Watershed Planning Policy Framework Reinstating Lake Monitoring and Sampling Program Sawmill Creek Daylighting
Oct 11/2017	Watershed Management and Water Quality Monitoring Program Review
<u>Nov 8/2017</u>	Watershed Management and Water Quality Monitoring Program Review Halifax Beach Water Quality Monitoring Protocol 2017
<u>Jan 10/2018</u>	Review of Board's Terms of Reference
<u>Feb 14/2018</u>	Review of Board's Terms of Reference Pollution Control Study for Lake Banook
<u>Mar 14/2018</u>	Review of Board's Terms of Reference
<u>May 9 /2018</u>	Water Quality Monitoring <u>Draft 'Package A' Centre Planning Documents</u>
<u>Jun 13/2018</u>	Flood Risk Assessment Study
<u>Jul 11/2018</u>	Green Network Plan
Aug 1/2018	Coastal Protection Consultation

Proposed Public Participation Program

Should Regional Council choose to initiate the MPS amendment process related to references to the Regional Watersheds Advisory Board and its predecessors, the HRM Charter requires that Regional Council approve a public participation program. In February of 1997, Regional Council approved a public participation which provides broad discretion on the consultation process required for MPS amendments that are regional in nature. The 1997 policy provides that, for amendments that are regional in nature, staff would recommend an appropriate public participation program. Staff advise that MPS references to the Regional Watersheds Advisory Board are regional in nature since the board's terms of reference includes all areas of the Municipality. Accordingly, staff recommend that Regional Council solicit stakeholder and public feedback through:

- the Municipal webpage;
- newspaper advertisements; and
- notice to the existing Regional Watersheds Advisory Board.

In addition to this public participation, the *HRM Charter* requires a public hearing to be held before Regional Council can consider approval of any amendments.