

**Environment & Sustainability Standing Committee**  
**October 3, 2013**

**TO:** Chair and Members of Environment & Sustainability Standing Committee

Original Signed

**SUBMITTED BY:** \_\_\_\_\_  
Peter Stickings, Acting Director, Planning & Infrastructure

**DATE:** September 11, 2013

**SUBJECT:** Regulatory and Policy Strategy: Stormwater Management

**ORIGIN**

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

**LEGISLATIVE AUTHORITY**

HRM Charter, Power to make By-Laws, 188

**RECOMMENDATION**

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

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

*(continued on next page)*

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

## **BACKGROUND**

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

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

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

## **DISCUSSION**

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

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

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

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

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

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

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

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

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

**Minimum soil depth**

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

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

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

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

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

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

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

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

*Potential options identified include:*

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

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

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

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

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

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

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

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

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

## **FINANCIAL IMPLICATIONS**

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

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

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

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

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

## **COMMUNITY ENGAGEMENT**

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

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

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

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

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

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

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

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

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

### **ENVIRONMENTAL IMPLICATIONS**

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

### **ALTERNATIVES**

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

### **ATTACHMENTS**

None

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

Original Signed

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