

Item No. 4
Halifax Regional Council
April 15, 2014

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed

SUBMITTED BY: _____
Carl D. Yates, M.A.Sc., P.Eng. General Manger, Halifax Water

DATE: April 4, 2014

SUBJECT: Stormwater Service Charges

INFORMATION REPORT

ORIGIN

Request from HRM Regional Council at the March 18, 2014 meeting for the Management of Halifax Water to address Regional Council on the recently initiated stormwater charges.

LEGISLATIVE AUTHORITY

Halifax Regional Water Commission Act and the Nova Scotia Public Utilities Act.

BACKGROUND / DISCUSSION

In response to the request from HRM Council, our Director of Finance and Customer Service/CFO, Ms. Cathie O'Toole, BA, CGA, MBA, and our Director of Environmental Services, Mr. John Sheppard, P.Eng., will be in attendance at the April 15th Council Session to provide a formal presentation.

Attached for your information in advance of our presentation, is an Information Report that was submitted to the Halifax Water Board on March 27, 2014 pertaining to the subject matter. We trust the enclosed information and presentation by senior staff will clarify issues around the recent charges for stormwater service to customers in the suburban areas of HRM. In the meantime, if you have questions on any aspect of our service, please do not hesitate to call the undersigned at 490-4840, Ms. Cathie O'Toole at 490-3572, or Mr. John Sheppard at 488-0142.

ATTACHMENTS

Halifax Water Board Report, Item 5-I, Stormwater Billing Update, March 27, 2014
Stormwater Costs of Service and Rates Presentation, March 2014

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

Report Prepared by: Carl Yates, M.A.Sc., P.Eng., General Manager, Halifax Water, 490-4840

TO: Colleen Purcell, C.A., Chair, and Members of the Halifax Regional Water Commission Board
Original Signed

SUBMITTED BY: Cathie O'Toole, CGA, MBA Director of Finance & Customer Service
Original Signed

APPROVED: Carl Yates M.A.Sc., P.Eng., General Manager

DATE: March 19, 2014

SUBJECT: Stormwater Billing Update

ORIGIN

2013 Urban Core and Satellite Systems Rate Hearing Decision effective July 1, 2013

BACKGROUND

On July 11, 2013 the Nova Scotia Utility and Review Board (NSUARB) approved rate increases for water, wastewater and stormwater services effective July 1, 2013 and April 1, 2014. The approved rate structure also ushered in a distinct and separate stormwater charge.

Prior to July 1, 2013, stormwater charges were combined with wastewater charges and billed based on water consumption. However, there is no direct relationship between the amount of stormwater entering the system and water consumption.

Throughout 2011 and 2012, Halifax Water conducted a Cost of Service study, as directed by the NSUARB. The subsequent NSUARB decision and approval of stormwater as a separate charge recognizes that impervious area is the fairest and most cost effective billing determinant.

Residential properties (up to three sq.m) will be charged based on an average impervious area of 224.5 square metres(sq.m). For this customer group, effective July 1, 2013, an annual stormwater charge of \$29.86/year (or \$7.47/quarter) has been implemented. Effective April 1, 2014, the annual stormwater charge for residential customers will be \$33.39/year (or \$8.35/quarter).

Multi-residential, commercial, industrial and institutional properties will be charged based on impervious area. The rate effective July 1, 2013 is \$0.133/ sq.m. The rate effective April 1, 2014 is \$0.1490/sq.m.

DISCUSSION

After the transfer of Wastewater/Stormwater Services from HRM to HRWC in 2007, it was determined there was a group of residents/customers who had been receiving stormwater service (from HRM prior to 2007), but not paying for it since 1997 either on a property tax bill or water bill. The stormwater services provided to these customers were paid by funds collected from customers receiving a water bill for wastewater services. The new rate structure recognizes this inequity and corrects it on a go forward basis.

To determine who should receive stormwater bills, topographic maps were used to create watershed boundaries, which were correlated with the location of HRWC owned stormwater infrastructure to determine which properties receive stormwater service from HRWC. It is estimated that approximately 5,000 properties were exempted through this initial screening. Recognizing this approach had limitations, the new Rates, Rules and Regulations incorporate a mechanism for customers to appeal whether their property should be exempt. The appeal process has both an informal and formal component. When bills are initially sent out, inquiries from customers with respect to their stormwater bill are reviewed by Customer Service and Environmental Services staff. Some inquiries have resulted in a property being exempted and other cases confirm the billing for the property. The customer is provided with an explanation of why and how their property is being billed. If the customer continues to have concerns, they can then file a formal Notice of Objection, which commences a more formal appeal process. After the formal exemption appeal process, the customer can file a complaint with the Nova Scotia Utility and Review Board if they are still concerned with the billing.

In August 2013 Halifax Water went live with Phase I of the Stormwater billing system. Phase 1 included the charge calculation and issuance of bills for Halifax Water's approximately 83,000 base of piped water and wastewater customers. There were several requests to review exemption status from Phase 1 of Stormwater billing, which have been addressed. To date, only one customer has elected to file a Notice of Objection and move to a formal exemption appeal.

In March 2014 Halifax Water went live with Phase II of the Stormwater Billing system and commenced billing the approximately 15,000 customers who only receive stormwater service. These are customers who receive stormwater service, but have on-site septic and private wells. The volume of calls and emails associated with Phase II of Stormwater Billing is much higher than Phase I, primarily due to the fact that customers are disputing whether they receive a service, or are confused with respect to whether we are billing them for something they also pay for through property taxation. Halifax Water staff have met and are available to meet with groups of customers/residents as required, and will use the attached presentation to explain stormwater costs and charges.

ITEM #5-I
HRWC Board Meeting
March 27, 2014

In the 2013 Rate Hearing Decision, the NSUARB directed that the portion of stormwater costs related to the right of way runoff should be billed to HRM. In March 2014 HRM Council passed a motion to request that HRWC bill the Right of Way (ROW) portion of the stormwater charges to residents on HRM's behalf. The motion established a per property charge of \$39, to be levied to properties receiving the HRWC stormwater charge for site-generated flow commencing in 2014/15. As a result of this motion, there will be a Stormwater Billing Phase III project to reflect the ROW charge. Staff view this as a positive step with all stormwater charges captured on one bill for full transparency to the customer.

BUDGET IMPLICATIONS

In recognition that the bills to stormwater only customers were going to result in further exemptions of properties from the stormwater charges, when preparing the 2014/15 Operating Budget a 10% allowance was made for reductions in stormwater revenue due to exemptions, as noted below.

Halifax Water				
Reconciliation of 2014/15 Revenue Requirement and Operating Budget				
	Impervious Area (sq. meters)	Rate per sq. meter		\$
2014/15 Revenue Requirement per Compliance Filing				
Right of Way Charge (HRM)				\$3,881,408
Site Generated Charge				
Residential	20,235,102			
ICI	22,681,794			
	42,916,896	\$0.149		\$6,406,347
				\$10,287,755
Less:				
Potential reduction due to exemptions (10% of 42,916,896 square metres)	4,291,690	\$0.149		(\$640,635)
2014/15 Operating Budget				
Right of Way Charge (HRM)			\$3,881,408	
Site Generated Charge	38,625,206	\$0.149	\$5,765,712	\$9,647,120

ATTACHMENTS

Stormwater Costs and Charges Presentation

Report Prepared by: Original Signed
Debby Leonard, Manager of Customer Service & Metering, 490-4995

Financial Review by: Original Signed
Cathie O'Toole, CGA, MBA, Director of Finance, 490-3572



Stormwater Costs of Service and Rates

March 2014



Providing world-class services for our customers and our environment

▶ Halifax Water - the Basics

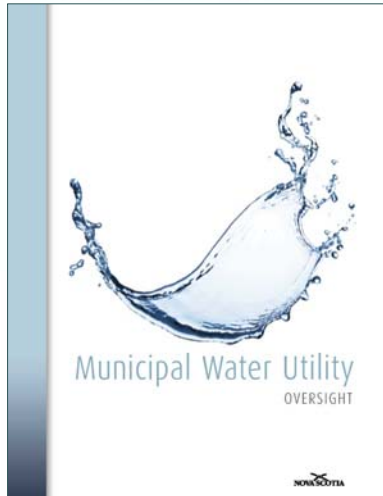
- Origin – 1945 Public Service Commission (later renamed as Halifax Water Commission)
- 1996 water utility amalgamation saw the formation of Halifax Regional Water Commission
- August 1, 2007 wastewater/stormwater transfer to Halifax Water
- First regulated water, wastewater and stormwater utility in Canada
- Operates in accordance with an Act of Provincial Legislature with rates, rules and regulations approved by Halifax Water Board and the Nova Scotia Utility and Review Board [NSUARB]
- Operates like a business and is self financed directly from user fees and fire protection revenue

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▶ The Regulators of Halifax Water



- **NOVA SCOTIA ENVIRONMENT**
 - REGULATES WATER SAFETY ISSUES
- **NOVA SCOTIA UTILITY AND REVIEW BOARD**
 - REGULATES WATER, WASTEWATER, STORMWATER RATES

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▶ Halifax Water's Customer Base

- Slightly over 83,000 piped customer connections – water and/or wastewater, plus approximately 15,000 stormwater only customers
- The majority of customers (80%) receive all three services, however there are some that receive only one service, or two services
- Service boundaries are approved by HRM Council and differ slightly for water, wastewater and stormwater service
- The stormwater service boundary is defined in the 2007 Agreement which transferred wastewater and stormwater assets to Halifax Water

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Challenges for the Utility

- Establishing a cost of service based rate design for wastewater and stormwater services
- Meeting existing wastewater standards, and new federal regulations
- Aging wastewater infrastructure and insufficient funding
- Lack of historical data on age, location, condition and capacity of some wastewater and stormwater assets

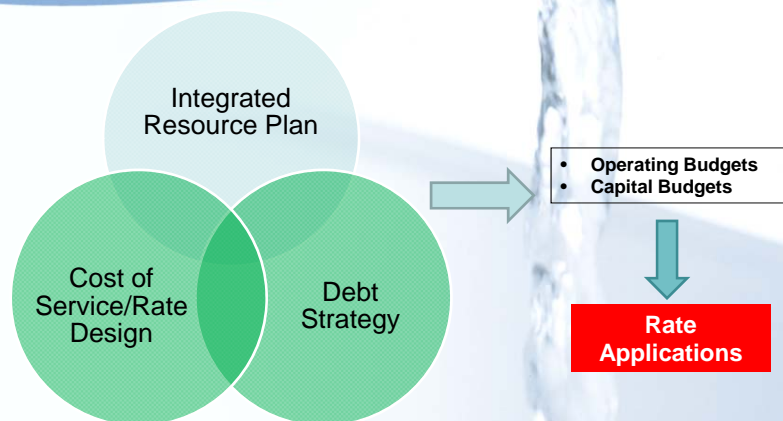
The NSUARB ordered some initiatives that have helped the utility address some of these challenges

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Strategic Initiatives.... Keeping us Fiscally Healthy





Financing Strategies that support Environmental Stewardship

- Using pricing signals to promote conservation. Higher volumetric charges versus base charges for water consumption and wastewater discharge
- Establishing separate stormwater charges that reflect cost causation
- Charges that will influence behavior to reduce stormwater getting into the wastewater system (do not currently exist)
- Surcharging for over-strength WW flows (in addition to other enforcement mechanisms)
- Separating “growth” related costs and projects, and implementation of development charges.

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How do other jurisdictions bill for stormwater service?

- Based on water consumption
- Frontage charges
- Per lot charges
- Based on size of structure
- Based on assessed value through property taxation
- Based on an assigned category of run-off factor
- Based on a proxy for impervious area, or assigned category
- Based on actual impervious area

Using impervious area as a billing determinant has a stronger correlation to cost causation, is defensible and objective because it can be measured, and is administratively cost effective

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▶ Development of the billing determinant – Impervious Area

- Halifax Water purchased satellite imagery and impervious area is measured from 8 spectral layers
- Selected parcels were ground-truthed with actual survey of impervious area and the variance between the survey results and satellite imagery was 0.16%, indicating 99.84% accuracy
- In 2009 looked at 20,000 properties and determined that even though lot sizes differ, the ratio of impervious area to pervious area does not change much, therefore it is possible to develop a residential average impervious area
- For ICI customers (Institutional, Commercial, Industrial) it is necessary to specifically measure the impervious area for each property

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▶ How did we determine who gets a stormwater bill?

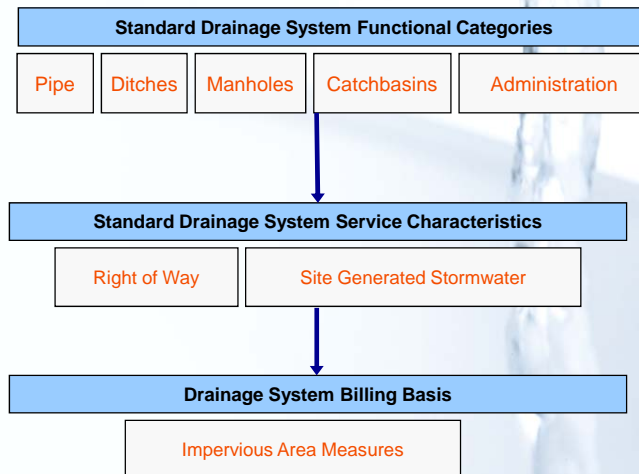
- Topographic maps, watershed boundaries, maps showing location of HRWC owned stormwater infrastructure, and the stormwater boundary were used to do a preliminary assessment of which properties are receiving a service
- Many properties were exempted (approximately 5,000). The result is not perfect; recognized there would be other properties that would ultimately be exempted
- Sections 7 (6) to (13) of the Regulations set out a process to appeal whether a property is exempt or not. It is being administered with two steps, the first step being less formal.
- To date, only one customer/property has moved to the formal process by filing a Notice of Objection. Most inquiries will be resolved through the informal process.

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▶ Cost Allocation Process: Stormwater



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▶ Stormwater Charge Basis

	Historic	Current
Right of Way Flow	0%	38%
Site Generated Flow	0%	62%
Base Charge - based on Wastewater/Stormwater rates	24%	0%
Volumetric Charge - based on Wastewater/Stormwater rates	76%	0%
TOTAL BILL	100%	100%

- Stormwater revenue requirements and services have not changed significantly, but how it is collected, and who pays, changed July 1, 2013
- August 2013 commenced billing stormwater as a separate service for the 83,000 "piped" customers
- March 2014 commenced billing stormwater for the stormwater only customers

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▶ Stormwater Infrastructure Overview

- Halifax Water responsible for municipal stormwater infrastructure in relation to 2007 Transfer Agreement
- Stormwater service costs approximately \$10M a year
- Stormwater infrastructure includes storm pipes, manholes, catchbasins, culverts, ditches, retention ponds and drainage swales
- The street network is also designed to manage stormwater flows (major storms)
- Some residents who are not water or wastewater customers do receive stormwater service, typically ditching maintenance and culvert replacements
 - 480 km of ditches
 - HRWC replaced 185 culverts last year

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▶ Stormwater Rates – Approved by NSUARB July 1, 2014

- Stormwater expenses related to management of stormwater from the street right of way billed to HRM. HRM has asked Halifax Water to collect this on HRM's behalf starting in 2014/15
- Costs related to private property runoff are billed to property owners. Site Generated Flow Charge - \$0.133 per m² for 2013/14, and \$0.149 m² in 2014/15
- Properties that do not ultimately drain to an Halifax Water system are exempt
- ICI Customers billed based on impervious area, as measured by satellite imagery
- Residential Customers billed a uniform charge based on average impervious area - \$29.86 per year for 2013/14 and \$33.39 in 2014/15

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Copies of the Integrated Resource Plan, Cost of Service Manual, Debt Study, Rate Application, and Halifax Water's Rules and Regulations are available on the main page of Halifax Water's website (www.halifaxwater.ca)



Contacts: 490-4820
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