

Manual for Non-Residential Customers Stormwater Credits

Halifax Regional Water Commission

July 1, 2017



Non-Residential Customer Stormwater Credit Program:

On July 1, 2017, the Halifax Regional Water Commission (HRWC) enabled stormwater credits for the Site Related Flow charge for Non-Residential stormwater Customers (NSUARB Matter M07731, Decision April 12, 2017). In order to qualify for the credit program, the private stormwater management system for the property must match the post-development peak flow rate with the pre-development peak flow rate for, at minimum, the 1:5 year storm event. This can be achieved utilizing a number of design components such as, but not limited to:

- Detention Ponds
- Detention Tanks
- In line pipe storage
- Roof Storage
- Engineered Wetlands and/or
- Green Infrastructure

Eligibility

A Non-Residential Customer that demonstrates their Site Related Flows are detained on their property or an adjacent property, as part of an overall stormwater management plan, is eligible to receive a credit. The initial credit application (**Non-Residential Customer Stormwater Credit Application**, Attachment A) must be accompanied by a record drawing for the site specific stormwater management plan or site grading plan prepared and stamped by a professional engineer. The record drawing must include the calculations confirming the stormwater management system for the property either matches the post-development peak flow rate with the pre-development peak flow rate the 1:5 year storm event, or betters the post-development peak flow rate to a larger storm event. Record drawings prepared in support of a Building Permit Application process can be considered. The Building Permit Application process shall include information on the recommended maintenance and cleaning activities and the respective frequency.

The stormwater credit must be re-applied for annually and the application (**Stormwater Credit Renewal Application** Attachment B) shall provide confirmation that the private stormwater management system was maintained and cleaned as per the recommendations of the professional engineer or the manufacturer's recommendations. The certification can be provided by the person responsible for maintaining and managing the property or site.

In areas where combined stormwater and wastewater systems exist, a credit cannot be provided, as the detention achieved in these sewersheds may be used to create wastewater capacity for development.

Residential Customers that would like to apply for a credit and be billed as a Non-Residential Customer, must complete the Application Form (Attachment A) and submit all of the same documentation for review. They are also required to reapply annually with the Stormwater Credit Renewal form.

By undertaking the above, the Customer is eligible for a credit between 30% and 50% on their Non-Residential, Site Related Flow Stormwater bill.

NOTES:

Pervious asphalt promotes groundwater recharge and this area can be removed from the impervious area calculation. It cannot be used in obtaining a credit where its functionality is

seasonal in nature. It shall be cleaned regularly to ensure it is functional. A Customer will be required to apply annually for this billing adjustment and provide certification that the pervious asphalt is functioning as designed.

For properties sharing a private stormwater management system, HRWC may request letter(s) from the respective property owners outlining how the system operates and agreements that exist to enable the sharing of the system(s). Details on the design functionality of the system are to be supplied by an engineer.

HRWC reserves the right to audit a property and the private stormwater management components being utilized to obtain the peak flow reduction. Audits will be as required, in response to a reported operational issue, or at least once within a 24 month period, as determined by HRWC.

Halifax Regional Municipality is eligible for the credit program, provided they meet the established criteria:

A stormwater management system(s), as noted above, has been installed on property owned by Halifax Regional Municipality

An engineered stamped stormwater management plan has been submitted, illustrating the area tributary to the stormwater management component, the amount of stormwater detained, annual application is required.

Credits will **not** be issued for private infrastructure installed to manage stormwater quality.

If you wish to apply for a Stormwater Credit, please complete the Application forms found our website at Halifaxwater.ca.

Credit Amounts

Over the years various design approaches have been used in meeting the detention requirements. The HRWC Design and Construction Specification current detention requirements. However, in order to recognize past and current methodologies and their associated benefits, Table 1 was developed.

Standard detention design has two pathways:

1. Discharging to the HRWC pipe system (Over Detention). In this approach higher level storms are detained on-site to meet the pre-development peak flow to the **1:5 YEAR STORM**. That is, for example, the 1:100 year, 1:25 year, and 1:10 year post-development storms are detained such that the peak flow from the detention facility is no more than the pre-development 1:5 year storm.
2. Discharging overland or to watercourses (Matching Detention). In this approach, all post development storms are detained such that the peak flow from the post-development site is **MATCHING** to the pre-development flows for each return period. That is, the 1:5 year post development flow matches the 1:5 year pre-development flow, and so on respectively for each of the higher level storms up to the 1:100 year storm.

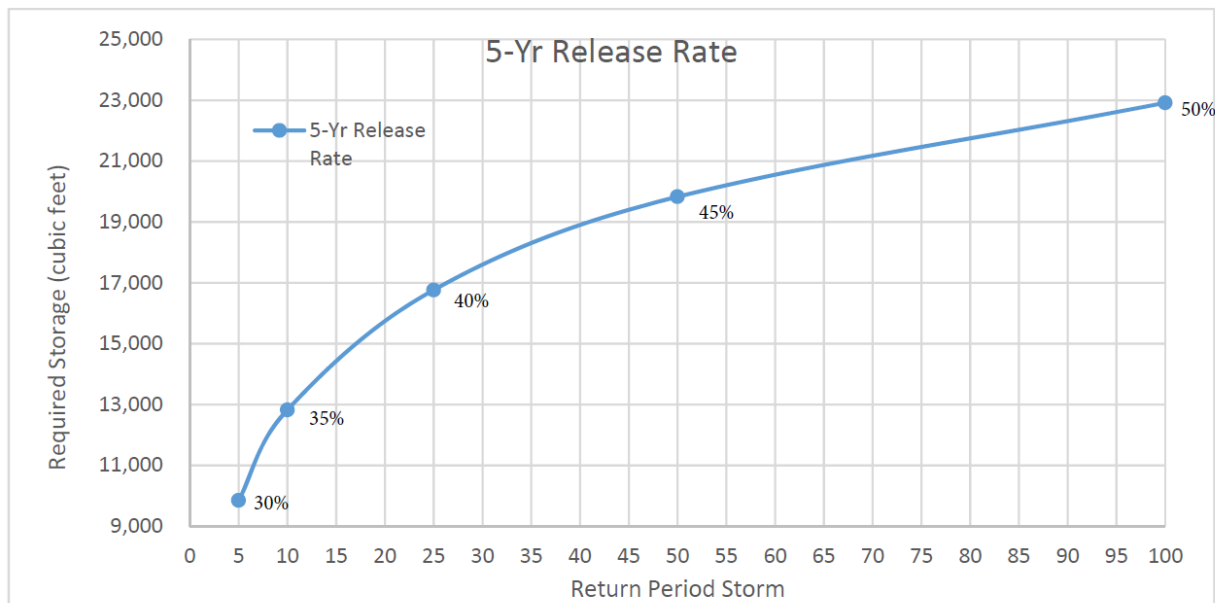
Credit levels are determined based on a combination of volume retained and key return period storm reduction capabilities. No credit will be given for practices that do not reduce flows to either

the 1:5 year level for the over-detention approach nor will credit be given for peak flow matching that does not include at least the 1:5 year storm. Table 1 provides credit amounts for over-detention designs or matching.

Table 1 –Detention Credit

Storms	Over Detain to Pre-Development	Match to Pre-Development	Credit Percent
1:5 year	1:5 year	1:5 year	30%
1:10 year	1:5 year	1:10 year	35%
1:25 year	1:5 year	1:25 year	40%
1:50 year	1:5 year	1:50 year	45%
1:100 year	1:5 year	1:100 year	50%

If an application is submitted for a storm not listed in Table 1, adjustments will be made to the credit to reflect the relative benefit to the system. The benefit to the system is not linear as reflected in the graph below:



Essentially, a 30% system benefit in detention relates to a 5% credit between the storms identified in the graph above. For the detention of storms not noted in Table 1, HRWC staff will prorate the credit utilizing data from the graph.

Application of the Credit to the Customer’s Bill

When a Customer applies and is approved for a credit, the Customer will receive the calculated amount of the credit in the form of a credit for each applicable billing period for the year. For example if a Customer is billed on a monthly basis, and their stormwater Site Related Flow charge would normally be \$5,000 a year, or \$416.67 per month and they are eligible for a 30% credit, the \$1,500 annual credit would be divided by 12 and a credit of \$125 would appear on each monthly bill. For Customers billed on an annual or quarterly basis, the same credit will be applied in accordance with the frequency of billing. HRWC will coordinate the application of the credit to the bill or rebate as necessary with the Customer.

A reminder notice will be sent to the Customer two months prior to the annual expiry of the credit.

Enforcement for Non-Compliance

If a Customer fails to re-apply for the credit, they will be immediately removed from the credit program on the first day of the month following expiration of the first annual credit period. If as a result of Audit it is determined that a stormwater management system has not been properly maintained, the Customer will be given 30 days to provide a corrective action plan and 60 days to implement the plan. If the customer is still in a noncompliance situation, they will be removed from the credit program on the first day of the following month.

ATTACHMENT A – Non Residential Customer Stormwater Credit
Application



HALIFAX WATER

450 Cowie Hill Road, PO Box 8388, RPO CSC
Halifax, Nova Scotia, B3K 5M1
Phone: (902) 490-6950
Fax: (902) 490-1584
Email: Stormwater@HalifaxWater.ca

**NON RESIDENTIAL CUSTOMER
STORMWATER CREDIT APPLICATION**

Customer & Premise Information

Date: _____ HRWC Account Number: _____
Name: _____ Email: _____
Phone Number: (____) _____ Fax Number: (____) _____
Location/Address: _____
Property Identification Number (PID): _____ Lot Number: _____
Premise Use: _____
Type of Premise: Residential Multi-Unit Res. Industrial Commercial Institutional

Private Stormwater Management System

Credit Applying for Type: Over-Detention Matching Detention Percentage: _____

Check or complete all that apply and attach manufacturer's technical product sheet:


Stormwater Management Pond: Yes No Stormwater Tank: Yes No
Inline Pipe Storage: Yes No Rooftop Storage: Yes No
Engineered Wetland: Yes No
Other: _____ Other: _____

Maintenance & Cleaning Requirement

Type of Maintenance Required: _____
Maintenance Period: 3 months 6 months 1 year 2 years 3 years _____

Professional Engineer's Certification

I certify the private stormwater management system and their respective appurtenances have been installed as indicated in the approved engineering design and in accordance with the HRWC Design Specification and HRWC Supplementary Standard Specification and manufacturer's specification.

Name: _____ Professional Engineer (Print) _____ (Signature)
Company: _____ Seal: 
Address: _____
City, Province: _____
Postal Code: _____
Email: _____

Properties are subject to audit by HRWC. Failure to comply to the requirements set out in this application within 30 days as directed by HRWC will result in removal from the credit program.

ATTACHMENT B – Stormwater Credit Renewal Application



HALIFAX WATER

450 Cowie Hill Road, PO Box 8388, RPO
Halifax, Nova Scotia, B3K 5M1
Phone: (902) 490-6950
Fax: (902) 490-1584
Email: Stormwater@HalifaxWater.ca

**STORMWATER CREDIT
RENEWAL APPLICATION**

Customer & Premise Information

Date: _____ HRWC Account Number: _____
Name: _____ Email: _____
Phone Number: (____) _____ Fax Number: (____) _____
Location/Address: _____
Property Identification Number (PID): _____ Lot Number: _____
Premise Use: _____
Type of Premise: Residential Multi-Unit Res. Industrial Commercial Institutional

Private Stormwater Management System

Credit Type: Over-Detention Matching Detention Percentage: _____
Check or complete what is currently installed:
Stormwater Management Pond: Yes No Stormwater Tank: Yes No
Inline Pipe Storage: Yes No Rooftop Storage: Yes No
Engineered Wetland: Yes No
Other: _____ Other: _____

Maintenance & Cleaning Requirement

Type of Maintenance Required: _____
Maintenance Period: 3 months 6 months 1 year 2 years 3 years _____

Professional Engineer's Certification

I certify the private stormwater management system and their respective appurtenances have been maintained as indicated in the HRWC Non Residential Stormwater Credit Application approval.

Name: _____
Property Owner/Maintenance Personnel (Print) (Signature)
Company: _____
Address: _____
City, Province: _____
Postal Code: _____
Email: _____

Properties are subject to audit by HRWC. Failure to comply to the requirements set out in this Application within 30 days as directed by HRWC will result in removal from the credit program.