

# Stormwater Financial Incentives

City of Hamilton

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# E1 Executive Summary

Based on feedback received during the public consultation, consideration of the unique features within the City of Hamilton, a gap analysis of existing stormwater incentives programs, and a review of stormwater financial incentive programs at other municipalities, it is recommended that the City of Hamilton consider the following stormwater financial incentive program in conjunction with the implementation of its new stormwater fee.

## E1.1 Residential Properties < 6 dwelling units

It is recommended that the City of Hamilton increase promotion of the following existing programs to provide grants and subsidies to any properties with six or fewer dwelling units:

- City of Hamilton's rain barrel program
- Enhanced Green Venture's NATURhoods program for all residents across the City, and
- City of Hamilton's Protective Plumbing Program that promotes downspout disconnection as well as backwater valves.

These programs will also be complemented by other City of Hamilton, Green Venture and Conservation Authority initiatives that promote private property measures that reduce the quantity or improve the quality of stormwater runoff.

## E1.2 Industrial, Commercial, Institutional and Multi-residential Properties >6 dwelling units

It is recommended that the City of Hamilton offer three credit streams for its industrial, commercial, institutional, and multi-residential properties with more than six dwelling units, as outlined below. A property can only be eligible for one credit stream.

### Green Space Credit

- Considers percentage of property that is green space
- Automatic enrollment – no application needed
- Only available for properties with no direct stormwater connection and only contribute overland flow via green space
- Credit up to 97%

### Hamilton Harbour Discharge Credit

- Property owners can apply for up to a 90% credit if they can demonstrate their property's stormwater discharges to Lake Ontario which is provincial jurisdiction.

### Stormwater Infrastructure Credit

- Property owners will be able to apply for a credit of up to 50% if they reduce the quantity and/or improve the quality of stormwater that runs off their property.

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# 1. Introduction

In June 2022, Council directed staff to perform a stormwater funding model review and in November 2023, Council approved Guiding Principles for the stormwater funding model evaluation. The resulting evaluation of various stormwater funding options against the Guiding Principles is shown in the following table.

**Table 1: Stormwater Funding Model Evaluation with Guiding Principles**

Stormwater Funding Model	Used By	Stormwater Rate Based On	Guiding Principles						
			Fair & Equitable	Climate Resilient & Environmentally Sustainable		Affordable & Financially Sustainable		Justifiable	Simple to Understand & Manage
				Climate Resilient	Environmentally Sustainable	Affordable	Financially Sustainable		
1. General Tax Levy	Brantford	Assessed value	✗	✗	✗	⦿	✗	✗	✓
2. Dedicated Tax Levy	Markham	Assessed value	✗	✗	✗	⦿	⦿	✗	✓
3. Water/Wastewater Rate	Hamilton Toronto	Water consumption	✗	⦿	✗	⦿	⦿	✗	✓
4. Stormwater Rate – Tiered Flat Fee	Ottawa Vaughan London	Property type, size	✗	⦿	⦿	⦿	✓	⦿	⦿
5. Stormwater Rate – ERU	Guelph	Impervious area (but all residential types pay the same)	⦿	✓	✓	⦿	✓	✓	⦿
6. Stormwater Rate – SFU	Windsor	Impervious area (but all single family dwellings pay the same)	✓	✓	✓	⦿	✓	✓	⦿
7. Stormwater Rate – Tiered SFU	Mississauga Kitchener	Impervious area	✓	✓	✓	⦿	✓	✓	✗

Currently, Hamilton mostly funds its stormwater program through its water/wastewater rate (Option 3 above) but also partially through the General Tax Levy (Option 1 above).

On June 28, 2023 Council approved the new stormwater fee structure (Option 6 in the previous table) & directed staff to consult the public on a financial incentive program. Although the formal public consultation period was October 2023-January 2024, various forms of public consultation occurred from June 2023 to April 2024.

This report summarizes this financial incentive review and makes recommendations for the City of Hamilton. A more detailed review of the public consultation process is provided in a separate public consultation report.

## 1.1 Financial Incentives

Financial incentive programs have been very popular with Canadian municipalities that have implemented stormwater user fees and continue to be requested by stakeholders and members of the public, even though many property owners don't apply for them. There are many types of financial incentives related to a stormwater user fee including:

- fee credits;
- fee subsidies;

- rebates, and
- subsidized programs.

### Fee Credits

A stormwater credit program offers a reduction in the stormwater charge to landowners who implement measures, practices, or activities that help reduce the load on the City's stormwater management (SWM) services. That is, property owners who reduce the amount or improve the quality of the stormwater that runs off their property into the municipal engineered and natural SWM system may qualify for a credit and receive a reduction in their fee. Credits are typically provided on an on-going basis for as long as the landowner has the measure, practice or activity implemented and can demonstrate that it is being maintained.

### Fee Subsidies

Some municipalities have decided to subsidize stormwater charge for certain groups such as veteran facilities and places of worship. In these cases – the municipality typically uses revenue collected from property taxes to pay the stormwater utility fee for subsidized properties.

### Rebates

Rebates are a one-time contribution towards the implementation of on-site stormwater controls such as rain barrels, rain gardens, disconnected roof leaders, etc. Typically, the municipality reimburses the homeowner after the measure has been installed. This "one-time" cost reduction can help encourage the implementation of on-site stormwater controls but since there is no follow-up, there is no mechanism to ensure that the measure is maintained and continues to control a property's stormwater run-off.

### Subsidized Programs

To avoid the administrative cost of managing credits or rebates to individual property owners, stormwater utilities may simply provide financial support to programs that encourage and support property owners to reduce their impact on the stormwater system. This can include reducing the cost of materials such as rain barrels or providing subsidized consulting services for on-site measures.

There are many benefits to the implementation of a stormwater financial incentive program, as listed below.

- Provides incentive to landowners to reduce stormwater runoff and pollutant discharge from their properties.
- Provides opportunity to landowners to reduce their stormwater fee.
- May reduce the City's operation/maintenance and capital costs by managing stormwater before it is discharged into the municipal SWM system.
- May reduce the impact of stormwater runoff on the environment through a "treatment train" approach that includes widespread management of stormwater runoff at its source.
- Increases environmental awareness for individual landowners through the credit application process as well as a broader outreach through new public education programs and other credit/subsidy eligible activities.
- Increases landowner acceptance of a new stormwater fee, by offering a means by which they can reduce the rate.
- Encourages property owners to maintain on-site measures when they apply to renew their credit.
- Helps the City establish an inventory of on-site measures and allows the City to confirm that they are being maintained.
- Reinforces the link between cost of service and fairness/equity of the charge allocation (i.e. if the philosophy of the rate is "the more you contribute; the more you pay" then the opposite case underlies the philosophy for a credit program "the less you contribute, the less you pay").

## 2. Hamilton Stormwater Priorities

A well-designed stormwater financial incentive program supports the following City Council approved Guiding Principles for stormwater funding:

1. Fair & equitable;
2. Climate resilient & environmentally sustainable;
3. Affordable & financially sustainable;
4. Justifiable; and
5. Simple.

A stormwater user fee's financial incentive program should also reinforce the City of Hamilton's stormwater management priorities. The Hamilton Watershed Action Plan's #1 ranked action is to develop a stormwater management rate to help finance work to reduce pollution to Hamilton Harbour.

On August 8, 2023 AECOM led City staff through a brainstorming and prioritization exercise to:

- Identify and prioritize stormwater management needs in the City of Hamilton (e.g. reduce CSO's, reduce flooding from intense storms, etc.), and
- Identify and prioritize the objectives that will best achieve the stormwater management needs identified in step 1 above (e.g. reduce peak flow & volume, etc.).

First the stormwater management needs were identified and then staff were invited to vote on those that they felt were highest priority. The resulting stormwater management needs in order from highest to lower priority are listed below. The number of votes that each need received is shown in brackets.

1. Reduce CSO's (7)
2. Green infrastructure (6)
3. Practices such as salt management plans (5)
4. Reduce phosphorous, ammonia and total suspended solids (4)
5. Reduce flooding (3)

Secondly, the objectives that will best achieve the stormwater management needs identified above were identified and then staff were invited to vote on those that they felt were highest priority. The resulting objectives in order from highest to lower priority are listed below. The number of votes that each objective received is shown in brackets.

1. Reduce stormwater run-off volumes (10)
2. Reduce peak flows (9)
3. Reduce impervious areas and increase infiltration (5)
4. Improve phosphorous removal (3)
5. Improve ammonia removal (3)
6. Better understand and prioritize green infrastructure in combination with grey infrastructure (3)
7. Salt management operational plans (3)
8. Improve total suspended solids (TSS) removal (2)
9. Reduce flooding impacts that cause erosion (e.g. shoreline & escarpment) (1)

Based on these prioritized objectives, a draft financial incentive program was developed and is presented later in this report.



### 3. Applying Credits

A property's stormwater fee consists of a base charge along with any associated adjustments (e.g. credit). Once a property's base charge has been calculated a credit could then be applied to reduce that fee. A credit can be applied to properties with existing measures or as a property redevelops and new measures are installed. The initial credit application process typically includes supporting documentation such as:

- An engineering design report for any constructed facilities such as a detention pond
- Certified letter stating that the property owners will operate and maintain the facilities as prescribed and granting property access to City staff for inspection.

Credit applications are often renewed on a regular basis, typically every 1-5 years, sometimes with requirements to provide documentation of maintenance (e.g. cleaning receipt of an oil-grit separator). Offering credits does reduce a utility's revenue which should be considered in the development of stormwater rates to ensure that the program still has the total revenue required. Most Canadian municipalities that offer credit programs have found it results in a revenue reduction of less than 5% but the amount will depend on the extent of the credit program offered, how well it is promoted and whether it is easy for property owners to apply for the credit.

A maximum credit allowance for any individual property is typically assigned based on the expected reduction in municipality-wide capital and operating costs resulting from the implementation of on-site measures. Efforts to reduce the amount and improve the quality of stormwater runoff from properties will result in some cost savings in the operation, maintenance, and renewal of the municipal stormwater management (SWM) system. Even if a property were to reduce all stormwater run-off from their site for a typical storm, there are some base fixed costs that will be incurred by the City to maintain the drainage system for properties (particularly during large storm events, or when the ground is frozen or saturated) and the roadways required to access these properties. Therefore, it is important that properties still contribute to these base (fixed) costs of operating, maintaining, and renewing the municipal SWM system even if they can reduce the amount and improve the quality of stormwater runoff from their site. To account for this, other municipalities in North America who have implemented stormwater utilities typically provide credits up to a maximum of 40-50% of the total stormwater rate, although it varies widely from 25-100%. The Cities of Kitchener and Waterloo determined a maximum credit of 45% reflected the proportion of each City's stormwater program costs that could potentially be influenced by stormwater measures or activities on private properties. The City of Mississauga identified a maximum allowable credit of 50% but does not charge properties that don't discharge to the municipal stormwater system.

It is more cost-effective, from an administrative standpoint, to only offer credits to non-residential and large multi-residential properties as they typically represent a small number of large properties whose stormwater run-off and any on-site controls tend to have a larger impact on runoff contribution and pollutant loading to the City's stormwater system. As the typical residential stormwater user fee across Canada ranges from \$75 to \$250 per year, a 10-50% credit does not offer significant savings or incentive to a homeowner to implement measures that reduce their impact on the municipal SWM system. The administrative cost to offer a credit program to residential properties can sometimes outweigh the savings realised by the property owner. Despite that, some municipalities have elected to offer a residential credit program because residential landowners have strongly asked for it and offering credits can therefore lead to greater acceptance of a stormwater fee. To reduce the administrative costs for offering credits to residential properties, municipalities such as the City of Waterloo have developed an on-line credit application system for residential properties with random site visits to check for compliance.

Even though many stakeholders ask for a credit program, when a new stormwater fee is being proposed, Ontario municipalities have found that less than 10% of eligible properties apply for credits. Greater credit uptake has been found in municipalities, such as the City of Waterloo where they have an on-line application process, and a third-party non-profit organization supporting the implementation of measures that qualify for the credit program.

Once a property's credit is approved, a property owner should be required to renew its credit application on a regular basis (e.g. every 1-5 years) to ensure that the measure is still in place and being regularly maintained.

## **4. Example Incentives Programs**

### **4.1 Credit/Rebate Programs**

The following table summaries different credit/rebate program offered by North American municipalities towards the implementation of on-site stormwater measures.

**Table 2: Stormwater Financial Incentive Programs Offered by Municipalities**

Municipality	Description of incentives	Properties eligible for credits	Maximum credit amount
City of Victoria	Victoria's Rainwater Rewards program provides financial incentives to property owners for rain gardens, green roofs, bioswales, permeable paving, infiltration chambers, cisterns, and rain barrels. Rainwater Rewards credits must be renewed every five years. Credits and rebates are available for low density residential properties and credits are available for Condos, Apartments, Institutions and Businesses.	Low density residential properties, condos, apartments, institutions, and businesses	50%
City of Ottawa	Rebates up to \$5,000 may be available to help install rainwater management projects. Rebates available in priority retrofit areas where studies have shown that actions on private property like redirecting downspouts and installing rain gardens are effective ways to manage rainwater.	Only rebates	n/a
City of Edmonton	Credits available to non-residential properties. To be eligible, must demonstrate that the property contributes significantly less stormwater discharge to the stormwater system during rainfall compared to standard contribution for similarly zoned properties. The program has three types of credits: the Requested Reduction, Standard Reduction, and Reduction Reserved for Property Used as a Cemetery.	Non-residential properties	25%
City of Philadelphia	Types of credits include the open space credit, Managed Impervious Area (IA/GA) credit, Impervious Area Reduction (IAR) credit and NPDES Credit. Offers Stormwater Grants that pay for the design and construction of stormwater retrofit projects on non-residential properties.	non-residential, condominium, and multi-family residential	80-90%
City of Cleveland	Credits provided for runoff reduction by disconnecting downspouts, installing rain barrels, or planting rain gardens. Credits apply to residential and non-residential stormwater fees.	residential and non-residential	100%
City of Saskatoon	Credits provided for quantity and quality measures. Available to multi-residential or non-residential property owners.	multi-residential or non-residential	50%
City of Seattle	Credits offered through three different programs: Low Impact Rates, Stormwater Facility Credit Program (SFCP), and Rainwater Harvest Credit.	Residential & commercial	60%
City of Halifax	Credits offered to non-residential properties if their post-development peak flow rate matches the pre-development peak flow rate for, at minimum, the 1:5-year storm event. Acceptable measures include detention ponds, detention tanks, in-line pipe storage, roof storage, engineered wetlands and green infrastructure. Stormwater credit must be renewed annually. Credit program is for non-residential customers but residential customers may apply but will then be billed as a non-residential property.	non-residential properties or residential properties billed as non-residential	50%
City of Kitchener	Credits up to 45% for reducing the flow and or improving the quality of stormwater runoff from a property. Different credit guidelines are available to residential and non-residential property owners.	residential and non-residential	45%
City of Mississauga	Credits for non-residential or multi-residential properties for quality and quantity control measures. Total maximum of 50% Stormwater Credit is available for a single property. Only charges properties that drain to the City of Mississauga's stormwater system (includes sewers, ditches, outfalls and watercourses).	non-residential or multi-residential	50%
City of Guelph	Credits up to 50% for Industrial, commercial, institutional, and multi-residential properties of six units or more. Up to \$2,000 (2023) rain garden rebate available. Rainwater harvesting system rebate program provided to households installing approved seasonal outdoor rainwater harvesting tank (maximum of \$2000).	Industrial, commercial, institutional, and multi-residential properties of six units or more	50%
City of Waterloo	Stormwater credit up to 45 percent for on-site run-off quantity control, quality control and/or education measures. Different guidelines and alternatives apply to residential and non-residential properties.	residential and non-residential	45%
City of Portland	Up to 100% credit for on-site measures through the City's 'Clean River Rewards'. Acceptable measures include rain gardens, swales, landscaped areas, drywells, French drains, soakage trenches, rain barrels, cisterns, planters, ponds, detention facilities, trees, reduced impervious surfaces and ecoroofs. Applicable to residential and commercial customers. Additional financial incentives include tree rebates and green grants for large scale green infrastructure projects.	residential and commercial	100%
City of Brampton	Stormwater credit up to 50 percent for on-site volume, peak flow, quality treatment and pollution prevention measures.	Non-residential and multi-residential	50%

Since the City of Hamilton has a significant agricultural community, how other Ontario municipalities with stormwater rates provide credits or exemptions to agricultural properties was also reviewed. A summary of the findings is provided in the following table. The only municipality that currently exempts agricultural properties is the City of London. Their fee was developed nearly 20 years ago and was only applied to urban areas. The County of Brant is also looking at exempting agricultural properties from their proposed new stormwater fee because most stormwater funding and infrastructure in rural areas is managed through municipal drains and the Drainage Act.

**Table 3 Stormwater Credits and Exemptions for Agricultural Properties**

Municipality	Basis of Charge for Non-Residential	Exempt/Subsidize Agricultural Properties?	Farm-specific Credits	Eligible for General Credits	Other charge adjustments for agricultural/farm property
Mississauga	Impervious Area	Working farms are subsidized		Y (unsubsidized farms)	
Vaughan	Land Use				Flat rate for all agricultural properties
London	Land Use	Charge only applies to urban areas			
Kitchener	Impervious Area			Y (quality only)	Treated as residential
Guelph	Impervious Area			Y	
Ottawa	Land Use, Assessed Value		50% rate reduction for non-connected rural properties		
Newmarket	Land Use			Y (major commercial farms only)	Most assigned Low runoff code (<10% IA)
Brampton	Impervious area			Y	
Waterloo	Impervious area			Y	

In 2022, The City of Hamilton spent \$2.6 million on rural drainage projects plus another \$11.7 million on joint rural/urban initiatives, which includes contributions to the Conservation Authorities and the maintenance of rural ditches.

## 5. Hamilton's Existing Stormwater Programs & Financial Incentives

There are already several programs and financial incentives that are offered by the City of Hamilton and other organizations to support better on-site management of stormwater. These programs should be included and leveraged within a future City of Hamilton stormwater fee financial incentive program.

It is important to note that the City is developing new Low Impact Design requirements for all new development which will help address the quantity and quality of stormwater run-off from new development.

### 5.1 City of Hamilton Programs

Listed below are existing and recently offered City programs and grant opportunities that have the potential to positively impact stormwater management.

- Rain Barrel Sale - <https://www.hamilton.ca/home-neighbourhood/house-home/gardens-trees/rain-barrel-sale>
- Free Tree Giveaways (planted on the side or backyard of private property) – <https://www.hamilton.ca/home-neighbourhood/house-home/gardens-trees/free-tree-giveaway>
- Street Tree Planting Program (planted on city-owned road allowance) - <https://www.hamilton.ca/home-neighbourhood/house-home/gardens-trees/street-tree-planting-program>
- Protective Plumbing Program for single family dwellings - <https://www.hamilton.ca/home-neighbourhood/house-home/basement-flooding/protective-plumbing-program>
- City Enrichment Fund (Environmental Stream) - <https://www.hamilton.ca/people-programs/community-funding-grant-programs/city-enrichment-fund>
- Clean and Green Grant Program - The program is currently administered by the Clean and Green Advisory Committee. The Committee has been paused at the direction of Council and the future of the grant program is unknown at this time. In speaking with the Coordinator, they will be referring people to the Placemaking Grants for things like Depave projects that could fit within their scope. - <https://www.hamilton.ca/home-neighbourhood/environmental-stewardship/clean-green-neighbourhood-grant#funding-decisions>

### 5.2 Programs Available in Hamilton Offered by Others

#### Green Venture

Green Venture was started in 1994 as a creation of the former Region of Hamilton-Wentworth. Originally designed as an umbrella group connecting small environmental organizations of the day, Green Venture became the Region's, and later the City of Hamilton's, lead agency to promote sustainable living ideas. Green Venture's mandate is to "empower Hamiltonians to implement greener practices in their homes and communities to make our city a climate champion". Their objectives are to:

1. Reduce hard surfaces and replace them with green infrastructure that is better for filtering water and absorbing carbon;
2. Increase our urban forest coverage with community restoration plantings and improved approaches to street tree, park, and private property tree planting and stewardship; and
3. Reduce runoff from driveways, asphalt roofs and other polluting surfaces with on-site solutions such as rain barrels, rain gardens, and other green stormwater infrastructure methods and education programs that can help prevent flooding and improve water quality.

Green Venture operates several programs that help improve stormwater management in Hamilton including:

- **Depave Paradise:** a project of Green Communities Canada and Green Venture that engages volunteers and neighbourhoods in Canadian communities to remove pavement (by hand!) and plant gardens filled with native species or install permeable surfaces in its place. <https://greenventure.ca/depave-paradise/>
- **Canopy for Community:** This program currently or has included the Tree Equity Project (tree inventory and developing tree stewards), Youth Stewardship and Professional Skills Program, Educational Programs for Schools, and tree plantings. <https://greenventure.ca/canopy-for-community/>
- **Hamilton Stewardship Network:** aims to help volunteers and local residents that are caring for depave gardens, tree planting sites, pollinator patches, raingardens, and restoring woodland, shoreline, and prairie habitats on public lands to connect and share resources, know-how, and tools to help create a greener city. <https://sites.google.com/greenventure.ca/hamilton-stewardship-network>
- **NATURhoods:** The Green Venture NATURhoods **residential rebate program** provides several incentives, including a rebate from Green Venture, for Hamilton residents to install approved green infrastructure projects on their own or by hiring a contractor. A limited number of projects will be funded in 2024 (up to \$500 per household). Projects are selected if they meet program requirements and will be assessed on the expected impact to stormwater management, as well as integration of design workshop elements demonstrated in applications and home consultations. [Residential Rebate Program - Green Venture](#)

## Halton Conservation Authority

The Halton Conservation Authority has several programs that could incentivize on-site stormwater control, some of which are described below. More information can be found at the following website:

<https://www.conservationhalton.ca/financial-assistance-programs/>.

- **Water Quality and Habitat Improvement Program** - supports landowners who are carrying out projects that contribute to water and habitat quality. Project types that are considered for this program include agricultural best management practices, creek restoration, tree planting, meadow creation/enhancement, wetland restoration, rainwater conservation, and invasive plant management. Information about financial incentives for urban properties can be found at the following website: <https://www.conservationhalton.ca/wp-content/uploads/2022/05/WQHIP-Urban-Guideline.pdf>.
- **Tree Planting Program**
- **Rainwater Conservation Fund** - supports urban landowner projects that divert and infiltrate rainwater into the ground on their property. Projects that are eligible include bioswales, infiltration trenches, soakaway pits/rain gardens, water retention/storage systems, detention basins, permeable pavement/pavers, and other projects that demonstrate the retention, infiltration, or conservation of rainwater. Landowners are eligible to receive a grant of up to \$2,500 or 50 percent of the project cost.
- **Healthy Neighbourhoods** - a series of workshops to help local residents learn about low impact landscaping that can manage rainwater, use less energy and resources, and benefit local water quality and wildlife. With practical information and expert insights from Conservation Halton staff, Healthy Neighbourhoods can help local residents design and create their own low impact garden.

### Hamilton Conservation Authority

The Hamilton Conservation Authority offers the Hamilton-Halton Water Quality and Habitat Improvement Program. Landowners of natural areas and watercourses in the watersheds of Conservation Halton and Hamilton Conservation Authority may be eligible to receive a grant toward a portion of the cost of approved projects that reflect beneficial management practices to improve water quality and habitat.

Projects that improve water quality and habitat may fall into the following categories: livestock waste management, erosion control, fragile land retirement, conservation cropping practices, naturalization or planting to increase streamside/riparian habitat, wetlands, prairies, woodlands, removal of barriers to fish passage in watercourses, enhance in-stream habitat, fertilizer management, septic and well management. More information can be found at the following website: [Hamilton-Halton Water Quality and Habitat Improvement Program - Hamilton Conservation Authority \(conservationhamilton.ca\)](http://conservationhamilton.ca)

### Grand River Conservation Authority

The Grand River Conservation Authority has the Rural Water Quality Program which offers grants to farmers to help them undertake projects that protect water quality and soil health. Projects eligible for grants include stream fencing, tree planting, cover crops, erosion control, manure storage, and well decommissioning. More information can be found at the following web-site: <https://www.grandriver.ca/en/our-watershed/Rural-Water-Quality-Program.aspx#gsc.tab=0>.

### Niagara Peninsula Conservation Authority

The Niagara Peninsula Conservation Authority has the Trees for All Program and the NPCA Restoration Program. More information can be found at the following web-sites: <https://getinvolved.npca.ca/trees-for-all> and <https://npca.ca/restoration>.

### Federation of Canadian Municipalities (FCM)

The FCM offers low interest loans and grants for projects that remove contaminants and improve stormwater runoff quality in communities. The program is available to Canadian municipal governments or municipal partners applying in partnership with a municipal government. The proposed project should involve several properties or sites, implement low-impact solutions that engage and involve local residents, and be community-run.

Regular loans and grants can receive a low-interest loan of up to \$5 million and a grant worth up to 15% of the loan, to cover up to 80% of eligible costs. High ranking projects may qualify for a loan of up to \$10 million. More details can be found at: <https://greenmunicipalfund.ca/funding/capital-project-stormwater-quality-community-project>.

## 5.3 Examples of Grant & Loan Programs Offered Elsewhere

As previously shown, many Canadian municipalities offer credits and residential rebates for on-site stormwater management controls but there are fewer municipalities that offer grants and loans, particularly to non-residential properties. Described below are a few stormwater public grant/loan programs offered in the U.S.

- Portland's Percent for Green grant program is open to community groups who would like to complete large-scale green infrastructure projects that provide broad benefits for watershed health and the community. Portland also has a Watershed Stewardship grant program for smaller projects. More information about Portland's grant programs can be found at [Environmental Grants and Incentives | Portland.gov](http://EnvironmentalGrantsandIncentives.Portland.gov).
- New York state offers grants for green stormwater infrastructure. More information can be found at <https://efc.ny.gov/green-stormwater-infrastructure>.



- The Delaware Water Pollution Control Revolving Fund provides stormwater infrastructure loans for green infrastructure. More information can be found at <https://dnrec.delaware.gov/environmental-finance/stormwater-infrastructure/>.

## 6. Gap Analysis

The following table shows parts of a desired stormwater incentive program and where they are already covered by existing programs and recommendations for new features in a future stormwater incentive program.

**Table 4: Gap Analysis of Existing Stormwater Incentive Programs Offered to City of Hamilton Property Owners**

	Stormwater Quality	Peak Flow Reduction	Volume Reduction
<b>How to information</b>	Conservation Halton's Water Habitat and Quality Improvement Program	<ul style="list-style-type: none"> <li>CoH Pre-qualified list of contractors for protective plumbing program</li> <li>CoH Web info on basement flooding preparedness, protective plumbing devices, protective plumbing program, sewer back-up &amp; blocked drains</li> </ul>	
		<ul style="list-style-type: none"> <li>Halton CA Healthy Neighbourhood Workshops</li> <li>Green Venture's Hamilton Stewardship Network and NATURhoods program</li> </ul>	
<b>Reduce stormwater fee (credits)</b>	Recommended for future non-res, multi-res credit program		
<b>Grants/subsidies</b>	Conservation Authorities' Water Habitat and Quality Improvement Programs	<ul style="list-style-type: none"> <li>CoH rain barrel sales but not year-round. Subsidy amount tbc.</li> <li>CoH Annual tree giveaway (1 per property)</li> <li>CoH Street tree planting program</li> <li>CoH Protective plumbing program</li> <li>Halton CA Tree Planting Program</li> <li>Halton CA Rainwater Conservation Fund</li> </ul>	
		Green Venture's NATURhoods program	
		Protective plumbing program	

The following areas were noted as possible gaps that should be addressed as part of any new stormwater incentive program.

- Financial incentives for existing multi-residential and non-residential properties to address the quantity and quality of stormwater run-off.
- Expand protective plumbing program to include disconnecting weepers.
- Shouldn't limit one rain barrel per house or allow for larger rain barrels.
- Explore future opportunities for loans to large multi-residential, industrial, commercial, or institutional properties where the City wants to promote on-site stormwater controls. This may be more critical in combined sewer areas.
- Review of programs offered by Green Venture and Conservation Authority to assess their effectiveness and whether additional resources are required.

## 7. First Draft Financial Incentive Program

Based on the City's stormwater priorities, a review of existing programs within the City of Hamilton, the resulting gap analysis, and review of incentive programs in other municipalities, we proposed the following draft stormwater financial incentive program. This program was reviewed by City staff and then presented to the public during the public consultation process.

### 7.1 Residential Properties < 6 units

We recommend that the City continue supporting the following subsidized programs to residential customers:

- Free Tree Giveaways (planted on the side or backyard of private property)
- Street Tree Planting Program (planted on city-owned road allowance)
- Protective Plumbing Program (grants and loans)
- City Enrichment Fund (Environmental Stream)
- Placemaking Grant for depave and other projects

We recommend that the City modify its following residential programs:

- Subsidized Rain Barrels that are available beyond June. The amount of subsidy should be reviewed to encourage participation.

The City should review the amount that these programs are funded and whether the funding should come from the new stormwater utility. It is likely that only some of these programs (e.g. rain barrel sale and protective plumbing program) will fall under the new stormwater utility. These programs and their funding allotments should be reviewed annually. In addition, the scope of these programs may need to be reviewed. For instance, the protective plumbing program currently focusses on the backwater valve initiative but should also be driving downspout disconnection.

The City's programs complement other subsidized programs offered by other entities, which are outlined below.

- Hamilton Conservation Authority's Water Quality and Habitat Improvement Program (WQHIP), Tree Planting Program, Hamilton Watershed Stewardship Program, and Rainwater Conservation Fund
- Halton Conservation Authority's Healthy Neighbourhood Workshops, Tree Planting program and Rainwater Conservation Fund
- Green Ventures programs including NATURhoods, Depave Paradise, Canopy for Community, and Hamilton Stewardship Network
- Grand River Conservation Authority's Rural Water Quality Program
- Niagara Peninsula Conservation Authority's Trees for All Program and the NPCA Restoration Program

Note that all the entities named above receive funding from the City of Hamilton. The City may want to provide targeted funding from its future stormwater utility for some of these programs such as Green Venture's NATURhoods. The City is also working with Green Venture on the scale and scope of its NATURhoods program to better complement the future implementation of a stormwater fee.

### Industrial, Commercial, Institutional and Multi-residential Properties > 6 units

In addition to the subsidized programs outlined previously, we recommend that the City consider a credit program for ICI and larger multi-residential properties that offers credits in the following areas:

1. Peak flow reduction (by grey and green infrastructure)
2. Run-off volume reduction (by grey and green infrastructure)
3. Run-off quality control (prevention & treatment) that addresses phosphorous, ammonia, sediment, and salt

Typically credits for the above measures are maximized at approximately 50% of the stormwater charge. The City may want to consider additional credits under the following circumstances:

- There isn't any grey or green infrastructure that services the property including access roads to the property
- The site reduces the peak flow/volume and/or improves the quality of run-off from outside its property

The table below outlines the proposed draft credit program for ICI and larger multi-residential properties.

**Table 5: Proposed Draft Credit Program for ICI and Large Multi-residential properties**

Objective	Maximum Credit Amount	Description
1. Peak Flow Reduction	40%	Total max. <b>50%</b>
2. Water Quality Treatment	25%	
3. Runoff Volume Reduction	40%	
4. Pollution Prevention	15%	
		Percent reduction of the 100-year storm post-development flow to pre-development conditions of the site.
		Remove ammonia, sediment, and phosphorous
		Percent capture of first 28 mm of rainfall during a single rainfall event.
		Develop and implement a pollution prevention plan (e.g., salt management plan, pesticide/manure management, sweeping, spill response plan, public education etc.)

## 8. Public Consultation

The project team consulted the public on the draft stormwater financial incentive program. Details of this consultation can be found in the consultation summary report. The consultation program included six presentations, three surveys, a video, traditional and social media releases, information posted to the stormwater funding webpage and an Engagement Hamilton webpage, and an email address ([StormWaterFundingReview@hamilton.ca](mailto:StormWaterFundingReview@hamilton.ca)) where the public could send feedback. The project team received feedback during the presentations, from over 100 emailed questions and 791 surveys received.

The key take-aways from the consultation that were used to inform a future stormwater financial incentive program are listed below.

- Majority of agricultural and rural survey respondents consider the City's stormwater services to be not or only somewhat important to them.
- Majority of urban survey respondents consider the City's stormwater services to be important or very important.
- Rural properties with little impervious area and large tracts of green space feel that they control most or all of their stormwater runoff and this should be considered in a stormwater fee.
- Some properties along the harbour collect all their stormwater runoff through private infrastructure, treat it and discharge it directly to Hamilton Harbour, which is provincial jurisdiction.
- The proposed draft residential subsidy program aligned well with the feedback received.
- It was felt that Hamilton is unique and there was a desire to develop a "made in Hamilton" incentive program.

## 9. Revised Financial Incentive Program

Based on feedback received during the public consultation the draft financial incentive program was revised. The revised and currently recommended financial incentive program is described below.

### 9.1 Residential Properties < 6 units

Since, the draft financial incentive program for residential properties with six units or less was generally received favourably by the public and aligned well with the feedback received, it was not recommended to make any revisions for Council consideration. It primarily involves offering subsidies and grants through the following programs:

- Enhanced City of Hamilton's rain barrel program;
- Enhanced Green Venture's NATURhoods program for urban and rural areas; and
- Enhanced City of Hamilton's Protective Plumbing Program that promotes downspout disconnection as well as backwater valves.

These programs will also be complemented by other City of Hamilton, Green Venture and Conservation Authority initiatives that promote private property measures that reduce or improve the quality of stormwater runoff.

### 9.2 Industrial, Commercial, Institutional and Multi-residential Properties > 6 units

In addition to the previously proposed draft credit program for industrial, commercial, institutional, and multi-residential properties with more than six units, it is recommended to add two additional credit streams that address properties with large amounts of green space, such as farms and properties that discharge directly to Hamilton Harbour which is under provincial jurisdiction. These three credit streams are described below. A property will not be eligible for more than one credit stream.

#### Credit Stream 1: Green Space Credit

The green space credit stream would be available for properties with no direct stormwater connection (i.e. no storm service) and only contribute overland flow via green space. The credit would only apply to non-residential impervious area (each residential unit would be charged one billing unit) and all run-off from non-residential impervious areas must drain to green space.

The following picture shows a rural ICI property where not all the hardscape drains to green space (i.e. some of the runoff from private hardscape would end up on the roadway) and would therefore not be eligible for the green space credit. However, they may be eligible for the stormwater management infrastructure credit (see Credit Stream 3 below) if some of their runoff is managed by on-site green space/measures.

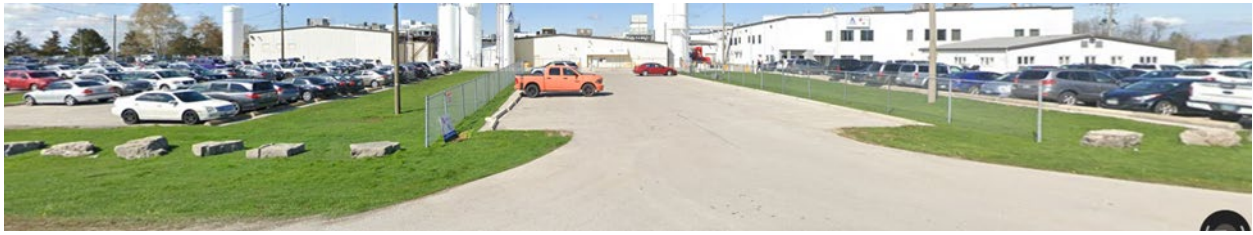


Figure 1: Rural Property that Would Not Qualify for the Green Space Credit



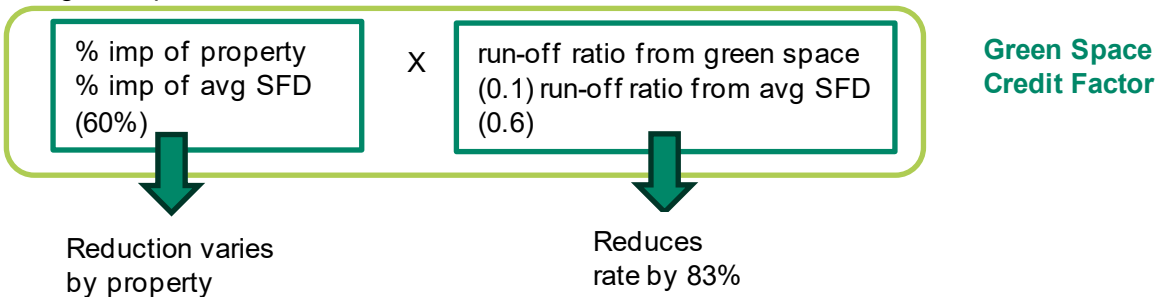
Figure 2: Rural Property that Would Qualify for the Green Space Credit

The picture above shows a rural ICI property where the hardscape appears to drain to green space and would therefore be eligible for the green space credit.

A property's stormwater fee who is eligible for the green space credit is determined using the formulae outlined below. It is assumed that \$170 is the rate per billing unit (BU) but this will be reviewed at a later date. It is also assumed that all residential units are single family detached homes. If the residential units are multi-family dwellings (e.g. townhomes or duplexes) then they would only be charged a fraction of a billing unit.

$$\begin{array}{|c|} \hline \text{Total} \\ \text{stormwater} \\ \text{fee} \\ \hline \end{array} = \begin{array}{|c|} \hline \# \text{ residences} \\ * \$170 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{non} \\ \text{residential} \\ \text{BU} * \$170 \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Green space} \\ \text{credit factor} \\ \hline \end{array}$$

The green space credit factor is shown below.



BU = billing unit  
SFD = single family dwelling  
AVG = average

Figure 3: Green Space Credit Calculation

The green space credit factor attempts to compare properties, their imperviousness, and the amount of runoff from their properties with that of an average single family detached dwelling since that forms the base of the stormwater funding model (i.e. 1 billing unit). Therefore, only properties with a greater green space ratio than a single family detached dwelling (i.e. minimum 40%) should be eligible. We propose that the green space credit would be automatically applied and not require a credit application.

Seven sample agricultural properties were assessed to determine their stormwater fee with and without the green space credit. A comparison of these properties is provided in the following table. Note that it assumes that the rate for one billing unit is \$170.

**Table 6: Stormwater Credit for Seven Example Agricultural Properties**

	1	2	3	4	5	6	7
property size (acres)	104	48	135	49	145	6	158
impervious area (m <sup>2</sup> )	1,513	3,841	36,928	16,063	9,632	15,801	132,492
total # billing units	6.2	14.2	129.9	56.2	34.1	56.3	455.3
<b>Fee Type</b>	<b>Proposed annual rate</b>						
Base Fee with <b>no credit</b>	\$1,054	\$2,584	\$22,082	\$9,554	\$5,798	\$9,570	\$77,402
<b>Fee with Green space credit</b>	\$171	\$182	\$915	\$381	\$196	\$2,009	\$4,455
<b>% credit</b>	<b>84%</b>	<b>93%</b>	<b>96%</b>	<b>96%</b>	<b>97%</b>	<b>79%</b>	<b>94%</b>

Photos and summaries of the seven example agricultural properties are provided in the following figures. Residential impervious area is highlighted in pink, whereas non-residential impervious area is highlighted in orange. Note that each residential unit is charged as one billing unit, regardless of the actual impervious area, whereas non-residential impervious surfaces are charged based on measured area with consideration of the green space credit. The proposed fees are annual fees, assuming a rate of \$170 per billing unit.





<b>Agricultural Property #1</b>	
<b>Res billing units</b>	1
<b>Non-res billing units</b>	5.2
<b>Imperviousness</b>	0.4%
<b>Prop fee with credit</b>	\$171

<b>Agricultural Property #2</b>	
<b>Res billing units</b>	1
<b>Non-res billing units</b>	13.2
<b>Imperviousness</b>	2%
<b>Prop fee with credit</b>	\$182





<b>Agricultural Property #3</b>	
<b>Res billing units</b>	3
<b>Non-res billing units</b>	126.9
<b>Imperviousness</b>	6.8%
<b>Prop fee with credit</b>	\$915



<b>Agricultural Property #4</b>	
<b>Res billing units</b>	1
<b>Non-res billing units</b>	33.1
<b>Imperviousness</b>	6.8%
<b>Prop fee with credit</b>	\$381

<b>Agricultural Property #5</b>	
Res billing units	1
Non-res billing units	55.2
Imperviousness	1.6%
Prop fee with	\$196



<b>Agricultural Property #6</b>	
Res billing units	2
Non-res billing units	54.3
Imperviousness	65%
Prop fee with credit	\$2,009



<b>Agricultural Property #7</b>	
<b>Res billing units</b>	0
<b>Non-res billing units</b>	455.3
<b>Imperviousness</b>	21%
<b>Prop fee with credit</b>	\$4,455

The stormwater fee for other properties eligible for the green space credit are provided in the table below. It also assumes the rate for one billing unit is \$170. The following table shows the restatement (e.g. reduction) of the properties' wastewater fee for properties that are connected to the City's sanitary system, since wastewater revenues will no longer be used to fund stormwater.

**Table 7: Stormwater Charges for Four Rural Properties**

	<b>Ancaster Fairgrounds</b>	<b>Westfield Heritage Village</b>	<b>White Brick Church &amp; Cemetery</b>	<b>Bellstone Christian School</b>
property size (acres)	98.6	377.7	1.5	8.9
impervious area (m <sup>2</sup> )	104,200	18,397	374	5,181
total # billing units	358.1	63.2	1.3	17.8
<b>Fee Type</b>	<b>Proposed Annual Rate</b>			
Base Fee with <b>no credit</b>	\$60,873	\$10,747	\$218	\$3,027
<b>Fee with Green space credit</b>	\$4,415	\$170	\$170	\$170
	<b>Wastewater restatement</b>			
	-\$8,268	unknown	n/a	n/a
	<b>Net change in SW funding</b>			
	<b>-\$3,853</b>	<b>\$170</b>	<b>\$170</b>	<b>\$170</b>

**Credit Stream 2: Hamilton Harbour Discharge**

Property owners can apply for up to a 90% credit if they can demonstrate the entire property discharges its stormwater to Lake Ontario, which is provincial jurisdiction. Similarly to the wastewater abatement program, the application would need to be supported by a professional engineer. The City may also want to specify that it should be a third party independent professional engineer.

The credit would be prorated based on the amount of the property that drains to Lake Ontario. For instance, if half a property's run-off flowed directly to the harbour, then then would receive a 45% credit (i.e. 50% of 90%). The following table shows the impact that the harbourfront credit and wastewater restatement could have on one property. Note that this property's eligibility for a harbourfront credit has not yet been determined.

**Table 8: Stormwater Charges for a Harbourfront Property**

	Bunge Canada
property size (acres)	51.8
impervious area (m <sup>2</sup> )	154,154
total # billing units	529.7
Fee Type	Proposed annual rate
Base Fee with no credit	\$90,056
Fee with 90% harbour credit	\$9,006
	Wastewater restatement
	-\$87,583
	Net change in stormwater funding contribution assuming NO credit
	<b>\$2,473</b>

**Credit Stream 3: Stormwater Management Infrastructure Credit**

This credit stream is the same as the originally proposed draft credit program and is like credit programs offered by other municipalities such as Mississauga, Guelph, Brampton, Kitchener and Waterloo. Property owners will be able to apply for a credit of up to 50% if they reduce the quantity and/or improve the quality of stormwater that runs off their property.

**Table 9: Recommended Stormwater Infrastructure Credit Program**

Objective		Maximum Credit Amount	Description	
1	Slow it down	40%	Total max. <b>50%</b>	Percent reduction of the 100-year storm post-development flow to pre-development conditions of the site.
2	Clean it up	25%		Remove ammonia, sediment, and phosphorous
3	Soak it up	40%		Percent capture of first 28 mm of rainfall during a single rainfall event.
4	Prevent it first	15%		Develop and implement a pollution prevention plan (e.g., salt management plan, pesticide/manure management, sweeping, spill response plan, public education etc.)

All non-residential and multi-residential properties are eligible for the credit program for all their on-site stormwater facilities. Typically, facilities located within the municipal right-of-way or within a permanent stormwater easement are not eligible. Stormwater Infrastructure Credits are cumulative to a maximum of 50% and note that some facilities may claim credits from multiple categories (e.g. peak flow and runoff volume reductions).

Pollution prevention credits are prescriptive (i.e. credits are only awarded if the applicant has developed and implemented the required plans), whereas credits for the other categories are performance-based (i.e. credits are awarded based on the design function of facilities and their relative degree of performance as demonstrated through calculations, modeling, or monitoring). For example, a facility that is only capable of reducing its 100-year post-development runoff to within 50% of its pre-development runoff can only claim 50% of the maximum Peak Flow Reduction Credit (i.e. a credit of 20%). Similarly, a facility that is designed to capture the first 14 mm of rainfall can only claim 50% of the maximum Runoff Volume Reduction credit (i.e. a credit of 20%).

Participation in the program would be by application only. It is recommended that credits be effective for a maximum term (e.g. 1-5 years) from the date of approval, and may be renewed for subsequent terms. Credit eligibility would be contingent on the applicant's certification that the facility has been properly, designed, installed, and maintained and could be subject to inspection by City staff. If the approved facility is found to not be functioning as intended or has been removed for any reason, the applicable credits would be cancelled.

Although we are proposing the City offer credits towards a property's stormwater fee, some properties owners may struggle with the initial cost of implementing on-site stormwater measures. There currently aren't any municipally offered grants or loans for multi-residential or non-residential properties to implement on-site stormwater controls. New development may need to implement on-site controls as a requirement for development. If the City would like to increase the number of on-site stormwater controls with existing developments, particularly in combined sewer areas, then it many want to introduce a grant or loan program for existing non-residential and multi-residential properties.

For agricultural properties that don't qualify for the green space credit, they could potentially submit an approved NASM (non-agricultural source materials) plan under the provincial Nutrient Management Act to qualify for up to a 40% credit under this credit stream. Recommended on-site stormwater controls can be found in the City of Hamilton's Green Standards and Guidelines for Low Impact Development; an excerpt from which is shown below.

The following table shows the estimated stormwater charge for various properties and the impact of the stormwater infrastructure credit and wastewater restatement on their overall stormwater funding contribution. Highland Packers and Aryzta/Oakrun Farm Bakery are not connected to the City sewer, have not been contributing to stormwater through wastewater payments and would therefore not receive a wastewater restatement. Note that the calculations assume a rate of \$170 per billing unit and the properties' eligibility for a stormwater infrastructure credit has not been confirmed.

**Table 10: Stormwater Charges and Wastewater Restatement for Various Properties**

	Gage City Park	Nora Henderson Highschool	Hamilton Golf & Country	Dundurn Castle	Home Depot	Amazon fulfillment centre	Air Liquide	Redeemer University	Highland Packers	*Aryzta/Oakrun Farm Bakery
property size (acres)	71	20	298	30	10	60	5.1	82.9	15.2	112.6
impervious area (m <sup>2</sup> )	58,450	27,835	55,577	17,907	37,124	201,123	17,582	78,224	22,300	32,471
total # billing units	200.9	95.7	191.0	61.5	127.6	691.1	60.4	268.8	76.6	111.6
<b>Fee Type</b>	<b>Proposed annual rate</b>									
Base Fee with <b>no credit</b>	\$34,146	\$16,261	\$32,468	\$10,461	\$21,688	\$117,495	\$10,271	\$45,698	\$13,027	\$18,969
<b>max 50% credit</b> for on-site measures	\$17,073	\$8,131	\$16,234	\$5,231	\$10,844	\$58,747	\$5,136	\$22,849	\$6,514	\$9,485
	<b>Wastewater restatement</b>									
	-\$22,048	-\$2,898	-\$8,365	-\$1,124	-\$2,176	-\$11,703	-\$469,576	-\$11,859	n/a	n/a
	<b>Net change in stormwater funding contribution assuming NO credit</b>									
	<b>\$12,098</b>	<b>\$13,363</b>	<b>\$24,103</b>	<b>\$9,337</b>	<b>\$19,512</b>	<b>\$105,792</b>	<b>-\$459,305</b>	<b>\$33,839</b>	<b>\$13,027</b>	<b>\$18,969</b>

The following table shows the estimated stormwater charge for various properties and the impact of the stormwater infrastructure credit on their overall stormwater funding contribution. Many of these properties would also be eligible for a wastewater restatement but the amount of the restatement is not available at this time. Note that the calculations assume a rate of \$170 per billing unit and the properties' eligibility for a stormwater infrastructure credit has not been confirmed.

**Table 11: Stormwater Charges and Wastewater Restatement for Various Properties**

	Storage Facilities/Parking Lots						Parks		Other	
	1120 Stonechurch Rd E	9 Aeropark Blvd	145 Dartnell Rd	75 John St N	140 King William St	19 Bay St N	500 King St W	1086 West 5th	YMCA Waterdown	Home Depot Ancaster
property size (acres)	3	3	5	2	1	1	12.9	48.8	4.7	10.5
impervious area (m <sup>2</sup> )	10,688	10,940	17,053	7,792	4,237	3,187	12,372	33,682	12,710	39,262
total # billing units	36.7	37.6	58.6	26.8	14.6	11.0	42.5	115.7	43.7	134.9
<b>Fee Type</b>	<b>Proposed annual rate</b>									
Base Fee with no credit	\$6,244	\$6,391	\$9,962	\$4,552	\$2,475	\$1,862	\$7,228	\$19,677	\$7,425	\$22,937
max 50% credit for on-site measures	\$3,122	\$3,196	\$4,981	\$2,276	\$1,238	\$931	\$3,614	\$9,838	\$3,713	\$11,468

Types of infrastructure that would be eligible for the stormwater infrastructure credit can be found in the City of Hamilton's Green Standards and Guidelines for LID, as shown in the following table. Other infrastructure types and practices that would be eligible for the Stormwater Infrastructure Credit includes oil-grit separators, salt management plans, parking lot sweeping and public education campaigns.

**Table 12: Green Infrastructure Types in the City of Hamilton's Green Standards and Guidelines for LID**

Priority Category		LID BMP Type
Priority 1A – Retention (Surface)	Vegetated Systems	Bioretention System
		Rain Gardens
		Bioswale
		Green Roofs
		Soakaways/Infiltration Trenches with filter media (at Surface)
		Soil Cells & Tree Trenches
	Other	Permeable Pavement
		Compost/Soil Amendments
Priority 1B - Retention (Subsurface / Collection)		Perforated Pipes
		Rainwater Harvesting
		Blue Roofs
		Soakaways, Infiltration Trenches and Chambers (Piped)
Priority 2 - Filtration		Biofiltration
		Enhanced Grassed Swale
		Manufactured Filters
		Priority 1 (Surface) Feature with an Impermeable Liner / Underdrain
Priority 3 Conventional		Dry Pond
		End-of-Pipe Wet Facility (Wet Pond/Wetland/Hybrid)



### 9.3 Revised Incentive Program Evaluation

The revised financial incentive program was evaluated against the Guiding Principles to ensure that it meets the City’s objectives. A summary of this evaluation is shown in the following table.

**Table 13: Evaluation of Revised Incentive Program against Guiding Principles**

Financial Incentive Program	Fair & Equitable	Climate Resilient	Environmentally Sustainable	Affordable	Financially Sustainable	Justifiable	Simple to Understand & Manage
Approved Stormwater Funding Model with Revised Financial Incentive Program	✓	✓	✓	✓	✓	✓	✓
Justification	Rewards those that reduce their load on the system.	Encourages on-site measures that increase resiliency and provides sustainable funding for climate measures.	Encourages on-site measures and provides sustainable funding to protect natural water bodies.	Reduces costs for those with on-site measures. No application for green space credit.	Balances long-term funding needs with credits.	Based on user pay principles and legal considerations. Balances Hamilton specifics with industry best practices.	Balances simplicity with equity. Considered implementation & on-going administration costs.

## 10. Financial Incentive Implementation

To effectively and efficiently implement and administrate a financial incentive program, it will be important to develop:

- Application forms and an incentive program guide for property owners;
- Appeals process;
- Renewal process;
- Internal policies, procedures, and roles; and
- Education/communication materials for the public, call centre and other staff.

A detailed implementation communication plan is being developed. It will include:

- Property and utility bill inserts about the upcoming stormwater fee and financial incentive program;
- Updates to the project web-page;
- On-going monitoring of the stormwater funding email; and
- Development of an on-line stormwater fee calculator so that property owners can determine their future stormwater fee.

The City is proposing to develop and open the credit application process in advance of the start of the new stormwater fee. That way property owners can submit, and have their credit application reviewed in advance, and any resulting credit can be applied to the first stormwater bill. It will also help property owners plan their budgets in advance.

### 10.1 Application and Renewal Procedures

It is anticipated that application and renewal procedures be provided in a 'Stormwater Charge Credit Application Guidance Manual', including process/procedures for applications, approvals, inspections as well as credit examples. Links to examples of stormwater credit manuals are listed below.

- Guelph Stormwater Credit Application Guidance Manual:  
<https://guelph.ca/wp-content/uploads/StormwaterFeesorChargesCreditApplicationGuidanceManual.pdf>
- Brampton Stormwater Credit Program Guidance Manual:  
<https://www.brampton.ca/EN/residents/Stormwater/Documents/Stormwater-Credit-Program-Guidance.pdf>
- Mississauga Stormwater Credit Application Guide:  
<https://www.mississauga.ca/wp-content/uploads/2023/06/Enhanced-Stormwater-Charge-Credit-Application-Guide.pdf>

Municipalities have also prepared videos and held workshops to show how to fill out the credit application forms, etc.

#### Green Space Credit

It is recommended that the green space credit be automatically applied and therefore no application will be required. If a green space credit was not applied to a property and the owner thinks it should be eligible, then they could submit an appeal. An appeal form and process will need to be developed for these cases.

The credit will be automatically renewed, so properties will not need to submit a renewal application.

It is important to note that the green space credit would only apply to non-residential impervious area. Each residence is charged one billing unit.

### Harbourfront Credit

For properties that collect, treat and directly discharge some or all of their stormwater to Hamilton Harbour, they will be able to submit an application for a harbour front credit. Applications for these credits will need to include:

- An application form with basic information (property address, owner, contact name, etc.), permission for the City to enter the property to inspect, and a declaration that the provided information is true;
- Copy of the CA (MNRF) approval/permit, where applicable;
- Drawings that show the on-site storm sewer system, discharge to the harbour, property catchments, and the amount of property that drains to the harbour; and
- Calculations that show the percentage of impervious area that drains directly to the harbour.

The maximum credit is 90% and should be prorated based on the area discharging to Lake Ontario. For example, if a property discharges 50% of its stormwater runoff directly to the harbour, then it would be eligible for a 45% credit.

There are some harbourfront properties that discharge stormwater to the sanitary/combined sewer system, for which they pay a fee. These properties and the fee that they pay to the wastewater system, should be considered in the development of their stormwater charge.

It is recommended that property owners be required to renew their credit every five years to demonstrate that the on-site system is still in place and being maintained. For harbourfront credits, a signed declaration that the system is still in place and operating may be sufficient.

### Stormwater Management Infrastructure Credit

For properties that have on-site controls that improve the quality or reduce the quantity of stormwater that runs off they will be able to apply for a stormwater management infrastructure credit. Applications for these credits will need to include:

- An application form with basic information (property address, owner, contact name etc.), permission for the City to enter the property to inspect, and a declaration that the provided information is true;
- A description of on-site controls;
- Drawings, where applicable, that show the on-site stormwater controls and property catchments,
- Calculations, where applicable, that show the percentage/amount of impervious area that drains to the controls and the amount that the run-off is managed by the on-site controls; and
- On-going maintenance plans.

It is recommended that property owners be required to renew their credit every five years to demonstrate that the on-site system is still in place and being maintained. A signed declaration and evidence of maintenance (e.g. vacuum truck receipt for cleaning an oil-grit separator).

Some municipalities, such as the Cities of Guelph and Mississauga require a report that is submitted by a professional engineer, who declare that the on-site infrastructure operates as designed and meets the credit requirements. Requiring a professional engineer to sign off on the stormwater management credit will give the City better assurance that the on-site measures are working but will extra work and costs for the applicants.

## 10.2 Costs

A financial incentive program comes at a cost to the stormwater utility in the following ways:

- The cost to administer the program; and
- The cost of lost revenue through the offering credits.

The estimated cost of the recommended financial incentive program is approximately \$13 million as outlined in the following table. These costs will need to be considered in the development of rates, along with the required budgetary needs. In the original estimate for 2025 of \$170 per billing unit, it was assumed the budgetary needs were \$54 million and there would be \$6.9 million in revenue loss. Therefore the rate per billing unit will need to be reviewed.

**Table 14: Estimated Cost of Recommended Financial Incentive Program**

Component	Cost	Notes
Hamilton staffing	\$120,000	Estimated at 1 FTE
Contract with Green Ventures	\$500,000	To operate the residential grant & subsidy program
Green Space Credit	\$9,000,000	Estimated lost revenue. To be refined with improved aerial photo analysis. Currently it is estimated that one-third of impervious area is in rural areas.
Harbourfront Credit	\$2,300,000	High level estimate assuming all harbourfront properties are 100% eligible.
Stormwater Management Infrastructure Credit	\$1,000,000	High level estimate of 2% lost revenue based on other municipalities.
<b>Total</b>	<b>\$12,920,000</b>	

Note there the components outlined above that will be complemented by other existing Hamilton and Conservation Authority programs.

## 10.3 Timeline and Staffing

The City is proposing to develop and open up the credit application process in advance of the start of the new stormwater fee. That way property owners can submit, and have their credit application reviewed in advance, and any resulting credit can be applied to the first stormwater bill. It will also help property owners plan their budgets in advance.

Once a financial incentive program is finalized, it will take an estimated six months to develop the financial incentive program, before it can be opened up for applications. The following steps are anticipated to implement the stormwater incentive program.

- Complete the analysis of rural properties and green space credit
- Identify workflows for the incentive program
- Develop forms and a manual for the incentive program and appeals
- Finalize the stormwater budget for Year 1
- Identify stormwater rates and green space credits
- Develop the rate calculator
- Prepare other communication materials
- Open up incentive program
- Review applications and determine credits
- Finalize stormwater rates, credits and billing file

The steps, timeline and estimated staffing needs are summarized in the following table.

**Table 15: Financial Incentive Program Implementation Requirements**

#	Task	Timeline	Days of work by subject matter					Total (City)	Consultant
			Finance	Water	GIS	Development	Comms		
1	Managing GV contract	Nov 2024-Dec 2026	1	15				16	
2	Identify workflows for incentive program	July-Sept 2024	1.5	1.5	0.5	0.5	0.5	4.5	AECOM facilitated
3	Identify workflows for new development	July-Sept 2024	1	1	0.5	2		4.5	AECOM facilitated
4	Develop rate calculator	June-Nov 2025	1		3		1	5	Mostly AECOM
5	Develop forms & manual for incentive & rate program	Aug-Nov 2024	7	7	0.5	1.5		16	AECOM supported
6	Finalize billing units per property	June-Aug 2024	1	1		1		3	Mostly AECOM
7	Calculate green space credit	Sept 2024	1	1		1		3	Mostly AECOM
8	Prepare web-site (forms, info)	Dec-24	1	1	1		4	7	AECOM supported
9	Review credit applications	Jan - Dec 2025	2	50	1	1		54	AECOM supported
10	Finalize SW budget, rates & rate calculator for 2026	Oct-Dec 2025	3	3	2	0.25	1	9.25	Mostly AECOM
11	Incentives finalized and entered into billing file	Jan 2026	4	2				6	AECOM supported
12	Prepare Stormwater Only Accounts & Test billing	Dec 2025-Feb 2026	20	1				21	
13	Rate goes live	April 2026						0	
14	Responding to queries	Apr-Aug 2026	15	92	2	2	2	113	AECOM supported
15	Responding to appeals	Apr-Aug 2026	8	12	2	2	1	25	AECOM supported
Total days of work			66.5	187.5	12.5	11.25	9.5	287.25	
% FTE			17%	47%	3%	3%	2%	72%	

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