SUBJECT: Stormwater Rate Feasibility Study - (PW09099) - (City Wide)

RECOMMENDATION:

(a) That the General Manager, Public Works be authorized and directed to proceed with implementing a Stormwater Rate;

(b) That staff be authorized and directed to return to Council in June 2010 with a Stormwater Rate By-Law for Council approval;

(c) That the Single Family Unit rate of $6 per month be adopted as the base unit rate for Stormwater billing City wide but not be implemented until 2011;

(d) That the implementation component of the project, at an estimated cost of approximately $600,000, be funded as part of the 2010 Capital Budget (Project ID 5161057051).

Gerry Davis, CMA
General Manager
Public Works Department

EXECUTIVE SUMMARY:

Stormwater management in North America is in transition as demands of aging infrastructure, environmental stewardship, protection from stormwater related disasters,
potential effect of climate change and other costs of service combine to stretch scarce financial resources. In response, many cities are turning to a stormwater rate model in order to secure stable funding, while providing fair and equitable fees for service, for operation of existing assets, infrastructure optimization, future improvements, enhancements, and to support watershed management goals.

The existing rate funding formula for stormwater services is funded from the Water and Sewer Rates and is based on water consumption and as such is not commensurate with the services being provided, resulting in overpayment by some and underpayment by others. Just as there is no relationship between runoff potential and water usage, assessed property value is also generally a poor indicator.

A Stormwater Rate is an alternative financing mechanism to the City’s existing process and offers a fair and equitable method for allocating the costs of a municipal Stormwater Management Services program. This proposed rate system would reallocate storm system related costs to property owners based on the measured area of impervious ground cover (e.g. rooftops, driveways, and parking lots). This approach quantifies the relative contribution of stormwater runoff from each property to the municipal stormwater management (SWM) system. This runoff is a function of the land use practices and surface treatment decisions of property owners. The proposed Stormwater Rate would also add customers to the system, such as parking lots, which do not receive water and wastewater services but do receive stormwater services. A Stormwater Rate would be administered in a similar fashion as the City’s current water and wastewater rate.

**BACKGROUND:**

The recommendations contained within this Report have City wide implications.

Report PW09099 is in follow-up to the December 5, 2008, Committee of the Whole report “2009 Recommended Water, Wastewater and Storm Budget” (FCS08108/PW08135) wherein staff received direction as per the following recommendation:

*(l)* That staff be directed to report to Council in 2009, on the feasibility of introducing a stormwater utility rate, effective January 2010, in an effort to try to capture associated user fees from all beneficiaries;

In September 2005, Hamilton City Council directed staff to establish an Independent Community Panel (ICP) whose mandate was to address the causes and effects of inclement weather on SWM and drainage systems in Hamilton. The Panel members consisted of experts from the fields of Wastewater Engineering, Watershed Planning, Stormwater Management, Climate Change and Water Management, Insurance Issues and Landscape Management. The Panel’s final report was published in September 2006 with a Final Peer Review Report published in April 2009. Recommendation 09-19, from the second report, comprised the following:

The City of Hamilton should continue to investigate the possibility of adopting a ‘stormwater utility’ model as a means of funding its stormwater and combined sewer infrastructure and programs in a sustainable, cost-effective and fair manner.
In June 2009, the Environment and Sustainability Infrastructure Division retained a consulting team, led by AECOM, to investigate the feasibility and alternatives of a Stormwater Rate.

The Stormwater Rate Feasibility Study was prompted by a variety of SWM program needs including:

- Inability to fully fund current Capital and Operations and Maintenance (O&M) SWM infrastructure needs;
- Need to improve the existing level of service (LOS) to better plan, schedule and proactively manage SWM programs;
- Need to have a revenue source that will support the long-term sustainability of stormwater related activities;
- Desire to coordinate SWM activities and services that are currently spread across multiple departments and budgets; and
- Need to have an appropriate and sustainable source of funding to support the improved SWM program to protect the existing stormwater infrastructure with funds that are dedicated solely to SWM and generated on a fair and equitable basis.

The purpose of this study was to evaluate the feasibility of a mechanism to fund the City’s SWM program including capital improvements, O&M (including the extent and frequency of activities), planning and monitoring, and ability to build life-cycle reserves to support the long-term needs of the SWM facilities/assets. In order to identify and evaluate a set of feasible funding options, the following requirements were established as part of this study:

- Determine the scope and services of our current SWM program versus the requirements to implement a sustainable SWM program;
- Undertake Base Residential Unit Calculations based on the average impervious area per single family detached home, and estimate impervious area of all non-residential parcels in order to develop billing and revenue scenarios;
- Provide a sustainable and dedicated funding source to support SWM program needs, moving away from the current model of variable funding to support SWM which is a fixed service;
- Ensure costs and benefits are equitably distributed across all properties within the community;
- Develop alternative and practical policies for credits, adjustments, and appeals;
- Obtain representative stakeholder feedback and educate the public and property owners in order to gauge support for the overall study recommendations;
- Maintain appropriate reserve funding levels; and
- Provide reasonable implementation costs (i.e. billing systems and administration).

Phase 1 of this project featured a Public Consultation Program to assist the project team by providing valuable feedback and insight from a cross-section of community representative stakeholders. As part of the Public Consultation Program, two Public
Information Centres (PICs) were held on September 29, 2009 and November 3, 2009. To solicit input from non-residential property owners, one Industrial/Commercial/Institutional (ICI) Stakeholder Workshop was held on October 21, 2009.

The two Public Information Centres held revealed a diverse range of stakeholder comments paraphrased as follows:

- By completing this feasibility study, the City is being very proactive in dealing with stormwater issues.
- Implementing a Stormwater Rate is a necessary step towards providing a long-term sustainable SWM program in the City.
- Non-residential property owners who contribute a greater amount of stormwater to the City’s infrastructure should pay a proportionate share of stormwater costs.
- The new stormwater rate is just another tax that the City is imposing on residents and businesses.
- All future stormwater initiatives should be funded from existing rates and taxes.

The ICI Stakeholder meeting revealed that the main comments and concerns of these stakeholders are:

- All future stormwater initiatives should be funded from the existing tax structure and the current levels of services should be maintained.
- It would be unfair to expect tax exempt school boards and other tax exempt properties to be charged a stormwater rate and therefore they should be exempt from paying.
- The program needs a credit program for ICI stakeholders that implement stormwater management practices.
- In a multi-tenant commercial property, tenants pay all operating costs and therefore the stormwater levy will be borne by tenants thereby increasing the cost to do business in Hamilton. If Hamilton becomes less competitive due to new costs, future development may be negatively impacted.
- This new rate will significantly discriminate against properties whose design is dictated by the City’s zoning by-laws requiring the use of hard surfaced material.
- Commercial properties requiring off-street parking are disadvantaged when compared to downtown commercial properties that do not provide parking.
- This new rate will re-distribute the SWM costs of City roadways and municipal facilities to property owners.

The recommendations put forth considered the City’s Triple Bottom Line approach. A stormwater rate based on impervious area was identified as the most fair, equitable and sustainable funding mechanism because the costs are allocated based on the relative contribution of stormwater runoff from all properties. The recommended implementation strategy was developed based on the results of the stormwater rate analyses and considered the feedback received during the preliminary public consultation program. Should the City consider implementing a stormwater rate, the recommended next steps include:
• Form a Stormwater Advisory Committee (SWAC) that will include representatives for different property types (residential and ICI) across the City;

• Develop a stormwater rate that will meet the annual SWM program funding requirements;

• Consider phasing in the stormwater rate in future years in order to achieve the sustainable level of service expenditures ($66.4M/year);

• For all properties, develop a stormwater rate based on a Tiered Single Family Unit (SFU) billing method. From a practical standpoint, this option offers the optimal balance between equitability and administration requirements. Please see the attached rate scenario spreadsheet in Appendix A which provides the preliminary estimates of rates to support a sustainable level of service;

• Develop a stormwater rate structure and base charges for all properties;

• Investigate and recommend alternative stormwater rate credit policies for eligible properties;

• Consider the requirements of a stormwater rate that is geographically based and reflects the different levels of service for urban (separate and combined sewered areas) and rural parcels that are not hydrologically tied to the stormwater system; and

• Investigate the impact that the stormwater rate will have upon existing revenue sources (particular attention will be paid to offsets to these revenue sources) and complete an assessment of the impacts for selected property owners (i.e., comparing current water/wastewater rate charges versus proposed stormwater rate charges for a variety of representative residential and non-residential property classifications).

These recommendations are being made in order to provide a sustainable funding source for the City’s current and future stormwater infrastructure needs and servicing.

**ANALYSIS/RATIONALE:**

As part of the Stormwater Rate Feasibility Study, the Environment and Sustainable Infrastructure Division completed a full cost accounting of the Stormwater Management (SWM) program. This exercise evaluated the full cost of SWM based on the current level of service (LOS) together with the full cost of running the program sustainably. The sustainable scenario included current and future capital works including stormwater pond maintenance, collection system upgrades and optimization for harbour cleanup and flood alleviation. This analysis revealed a large discrepancy between the current LOS expenditure of $28.8 M/yr (average of capital and operating costs, 2001 – 2008), and a sustainable LOS of $66.4 M/yr.

Revenue scenarios were then developed using the Tiered Single Family Unit (SFU) method with escalating base rates up to a level where the sustainable Level of Service would be fully supported.
City of Hamilton Tiered SFU Revenue Potential

<table>
<thead>
<tr>
<th>SFU Billing Units</th>
<th>Monthly Rate 1</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>5-Year Avg.</th>
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<tr>
<td>$1.00</td>
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<td>$72,910,000</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Assumes a 0.5% annual growth rate. Billing units have been rounded to the nearest hundred.
2. Assumes a 92% collection rate. Revenue has been rounded to the nearest ten thousand dollars.

Although attaining financial sustainability of the SWM program is a key driver, the full sustainability scenario would place considerable financial pressure on users. Weighing LOS with affordability indicates that a fully sustainable LOS is unachievable at this time. Implementing the Stormwater Rate with an affordable base SFU billing unit of $6 would begin to address funding of the current LOS while staff continue to address our ability to provide a safe, reliable service at a reasonable cost.

**ALTERNATIVES FOR CONSIDERATION:**

There is one alternative for Council to consider with respect to the recommendations of this Report:

- To not move forward with the implementation of a Stormwater Rate.

Should Council elect to not move forward with the implementation of a Stormwater Rate, the risks related to the age, condition and extent of the City’s SWM infrastructure will continue to increase resulting in additional risk to public health, property and the environment. The failure of SWM infrastructure will result in costly emergency repairs and decreased levels of service and not accepting the recommendation of this Report risks long-term sustainability of stormwater services. This may also require Council to consider an additional large increase in the Sewer and Water Rates.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

**Financial Implications:**

The recommendation will have a positive impact as it establishes a funding mechanism to provide stormwater service that is equitable and sustainable. Funding to implement a Stormwater Rate Program in the amount of $600,000 will be brought forward to Council as part of the 2010 Capital Budget (Project ID 5161057051).

**Staffing Implications:**

Staffing implications will be addressed as part of Phase 2 of the study, though it is likely that a program of this scope and magnitude will require the addition or reassignment of staff.

**Legal Implications:**
Sanitary sewer system and storm drainage charges are fees, and charges for the provision of sanitary sewerage and storm sewerage services are covered under Part XII of the Municipal Act.

Future legal implications may involve the implementation of a Stormwater Rate By-law or the amendment of existing By-Law(s).

**POLICIES AFFECTING PROPOSAL:**

The recommended options support the principle of a user-pay stormwater program.

**The Public Works Strategy Plan, Innovate Now** –

The recommendations from this Report will assist in meeting Public Works’ key goal, *to be recognized as the centre of environmental and innovative excellence in Canada*. In addition, implementing the recommendations will also assist Public Works in building on our Strategic Vision Drivers as follows:

- **Communities (Services our communities connect with and trust)** –
  
  Implementing the stormwater rate will improve our local environment. Sustainable funding will provide efficient and reliable operation of stormwater infrastructure and will ensure excellent service to all respective communities well into the future. The transparent and consultative nature of the Public Consultation process builds trust within the community demonstrating Hamilton’s and Public Works’ commitment to Service Excellence.

- **People (Skilled teams ready for any situation)** –
  
  This program demonstrates the ability of City staff to respond to an important and complex opportunity that affects the community. Implementing a stormwater rate requires the knowledge and skill of many staff who work with the system on a daily basis. Through a public consultation process, stakeholders were invited to provide their input and contribute throughout the process of decision making. Also, many employees representing a number of business units were also engaged throughout the process. The proposed solution represents forward thinking and contemporary practice. Projects such as this contribute to the positive image that Hamilton seeks to maintain and will promote a sense of pride in staff.

- **Process (Smart processes to match our needs)** –
  
  Throughout the study process, plans were formulated that will ensure that all aspects of the Triple Bottom Line approach to problem solving are considered. Social, Environmental, and Economic impacts were assessed to provide a balanced approach to the preferred alternative. A public consultation process was employed to assist staff to effectively arrive at the optimal solution to meet Hamilton-specific goals and objectives. The result is a sustainable long-term approach that addresses the pressures from aging infrastructure, City growth, legislated requirements, and environmental protection.
Finances (Sound finance management for the long haul) –

Government policy and legislation have been considered in the development of the preferred solution. The economic impact to the City was a significant factor in the decision-making process.

Municipalities have statutory authority to charge a user fee to support the municipal SWM services program under several provisional acts including:

- Municipal Act (2001);
- Building Code Act (1992);
- Planning Act (1990); and
- Development Charges Act (1997)

RELEVANT CONSULTATION:

Public consultation is an integral component of any municipal study. Stakeholders were initially notified of the study through a formal Notice of Public Information Centre advertised in the local newspapers.

Project Stakeholder lists were developed at the onset of the study and maintained throughout, ensuring that all interested parties were kept informed. All Stakeholders were invited and encouraged to comment on the project at any time during the study.

Categorically, the Stakeholder Contact Lists included the following groups:

- Residential property owners within the study area
- Commercial organizations including:
  - Steelcare/Carego Holdings
  - Smart Centres
  - Redcliff Realty Management
  - Cadillac Fairview – Lime Ridge Mall
  - Ivanhoe Cambridge – University Plaza
  - Johnston Motor Sales
  - Multi-Area Developments
  - Hamilton International Airport
  - Peter O’Hagan & Associates
  - Impark
  - Tim Horton’s
  - RioCan Property Services
- Institutional organizations including:
  - McMaster University
  - Mohawk College
  - Hamilton District School Board
  - Hamilton Catholic District School Board
  - Hamilton-Halton Home Builders’ Association
As part of the Public Consultation Program, two PICs were held on September 29, 2009 and November 3, 2009. Each meeting provided attendees the opportunity to view poster boards presenting study information. Members of the project team, including staff, were available for individual/group geographical or issue-based discussions to further explore potential program barriers and document areas of concern. PIC attendees were invited to provide written comments and they were given the opportunity to discuss their comments with project team members.

In addition to the Residential PICs, one Stakeholder Information Centre for Industrial/Commercial/Institutional (ICI) stakeholders was held on October 21, 2009. This meeting involved a formal presentation of the study background and recommendations as well as a facilitated discussion with key stakeholders to solicit feedback for the project team regarding level of service and funding decisions. Attendees were encouraged to submit their written comments back to the City.

As would be expected, several stakeholder concerns were documented throughout the study process. These concerns and the project team’s responses are summarized below.

Residential Stakeholder Comments and Concerns:

- By completing this feasibility study, the City is being very proactive in dealing with stormwater issues. (No Response Required)

- Implementing a Stormwater Rate is a necessary step towards providing a long-term sustainable SWM program in the City. (Response: A stormwater rate will provide a dedicated funding source for all stormwater related expenses.)

- Non-residential property owners who contribute a greater amount of stormwater to the City’s infrastructure should pay a proportionate share of stormwater costs. (Response: The stormwater rate that is being proposed is based on impervious area which has been identified as a very fair, equitable and sustainable funding mechanism because the costs would be allocated based on the relative contribution of stormwater runoff and pollutant loading from all properties.)

- The new stormwater rate is just another tax that the City is imposing on residents and businesses. (Response: The stormwater rate program that is being proposed involves the reallocation of stormwater costs from the water and wastewater rates into a new stormwater rate program. The new rate will achieve sustainable revenue that will handle all SWM program expenditures.)

- All future stormwater initiatives should be funded from existing rates and taxes. (Response: Our current stormwater initiatives are being funded though existing
water and wastewater rates and taxes which are not intended for or dedicated revenue sources for stormwater. Establishing a new stormwater rate for only the SWM program and eliminating the other sources will be more fair and equitable.)

Non-residential ICI Stakeholder Comments and Concerns:

- All future stormwater initiatives should be funded from the existing tax structure and the current levels of services should be maintained. (Response: Our current stormwater initiatives are being funded through existing water and wastewater rates and property taxes neither of which is dedicated revenue sources for stormwater. Establishing a new stormwater rate to fund the SWM program and eliminating the other sources would be fair and equitable.)

- It would be unfair to expect tax exempt school boards and other tax exempt properties to be charged a stormwater rate and therefore they should be exempt from paying. (Response: Within the definition of a “user-fee”, all ratepayer categories should utilize the same basis for a charge throughout the system’s service area. Exempting certain ratepayer categories does not qualify as a true user-fee system.)

- The program needs a credit program for ICI stakeholders that implement stormwater management practices. (Response: The stormwater rate concept utilizes a common basis for developing the base charges to all ICI properties. Once those charges are determined, then ICI properties that handle stormwater in a more rigorous fashion could potentially receive a “credit” that is applied to their charge per billing period.)

- In a multi-tenant commercial property, tenants pay all operating costs and therefore the stormwater levy will be borne by tenants thereby increasing the cost to do business in Hamilton. If Hamilton becomes less competitive due to new costs, future development may be negatively impacted. (Response: Other municipalities have implemented stormwater rates and today municipalities are continuing to investigate similar stormwater rate structures.)

- This new rate will significantly discriminate against properties whose design is dictated by the City’s zoning by-laws requiring the use of hard surfaced material. (Response: The stormwater rate structure is fair and equitable and based on the measured area of impervious surfaces, regardless of the type of facility. Because commercial and industrial properties generally generate much more runoff and stormwater pollution per square meter than single-family residential properties they are charged a proportional fee.)

- Commercial properties requiring off-street parking are disadvantaged when compared to downtown commercial properties that do not provide parking. (Response: With a stormwater rate, all parking lots whether standalone or part of a commercial retail property will be assessed a charge in the same manner as all other properties.)

- This new rate will re-distribute the SWM costs of the City roadways and municipal facilities to property owners. (Response: The intent is to have all funding come from a stormwater rate and to eliminate the funding from property tax and the water and wastewater rates. With this system, government properties will be assessed a
charge for stormwater services and the source of that payment will depend upon the specific governmental entity and its funding mechanism. The current funding system does not fairly and equitably apportion the share of SWM costs. Tax-based funding is based on the assessed property value and water/wastewater rates are based on potable water use; neither of which are related to stormwater runoff contribution.

**CITY STRATEGIC COMMITMENT:**

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

- **Community Well-Being is enhanced.** ☑ Yes □ No
  The public are involved in the definition and development of local solutions.
  These recommendations will ensure reliable stormwater infrastructure funding for the community.

- **Environmental Well-Being is enhanced.** ☑ Yes □ No
  Human health and safety are protected.
  Residential flooding is reduced.
  Negative impacts have been reasonably mitigated.

- **Economic Well-Being is enhanced.** ☑ Yes □ No
  Costly emergency repairs are avoided.
  Design and construction contracts will support local commerce.

**Does the option you are recommending create value across all three bottom lines?**

- ☑ Yes □ No

**Do the options you are recommending make Hamilton a City of choice for high performance public servants?**

- ☑ Yes □ No

The creation of a respectful, desirable and supportive workplace.
Promotes responsible and professional infrastructure management.
## Appendix A - PW09099

<table>
<thead>
<tr>
<th>Parcel Type</th>
<th>Base Charge ($/month)</th>
<th>Revenue Distribution ($/year)</th>
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<tbody>
<tr>
<td></td>
<td>ERU</td>
<td>SFU</td>
</tr>
<tr>
<td>Single Family (small)</td>
<td>$13.13</td>
<td>$18.47</td>
</tr>
<tr>
<td>Single Family (medium)</td>
<td>$13.13</td>
<td>$18.47</td>
</tr>
<tr>
<td>Single Family (large)</td>
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<td>Duplex</td>
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<td>Triplex</td>
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<td>Condo</td>
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<td>Multi-family/High Rise</td>
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<td>Mobile Home Park</td>
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<td><strong>Residential Subtotal</strong></td>
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<tr>
<td><strong>Industrial/Comm/Institutional</strong></td>
<td>$13.13 per 214.7 sq.m. of impervious area</td>
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<td><strong>Miscellaneous</strong></td>
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<tr>
<td><strong>Unknown</strong></td>
<td>$38,236,000</td>
<td>57.6%</td>
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<tr>
<td><strong>Non-Residential Subtotal</strong></td>
<td>$38,236,000</td>
<td>57.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$66,415,000</td>
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**Notes:**
1. Base charges rounded to the nearest cent. Revenue dollars rounded to the nearest thousand.
2. Charges for residential properties are based on number of dwelling units. Non-residential properties are based on measured impervious area.