



MEMORANDUM

City of Kitchener
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Date: July 7, 2011
To: Steering Committee Members
From: Nick Gollan and Nancy Corbett
cc: Project Team Members
Subject: **Credit Policy Development – Memorandum #1
Introduction, Background (including Research) and Purpose**

INTRODUCTION

Until December 31, 2010, the City of Kitchener and City of Waterloo's stormwater management (SWM) programs were funded through property taxes. To address the current challenges of providing adequate service, on June 14th, 2010 the City of Kitchener and on June 21st, 2010 the City of Waterloo Council approved the implementation of "tiered flat fee" stormwater rate structures based largely upon a property's impervious area. Current rate structures and fees are included in Appendix A. The rate methodology provides for a fair and equitable approach allocating costs associated with stormwater management to all property owners, instead of basing it on property value. This also allowed for the opportunity to provide an incentive to property owners who manage stormwater on their site.

In the case of Kitchener, Council passed a resolution (amongst others) on June 14, 2010, "*That staff provide a report related to a non-residential and a residential stormwater rate credit policy prior to January 1, 2012, with applicable credits being retroactively applied to January 1, 2011*".

In the case of Waterloo, Council passed a resolution (amongst others) on June 21, 2010, "*That staff report to Council prior to January 1, 2012 with the following information:*

- a) *evaluation of the tiered flat rate funding model;*
- b) *stormwater rate credit policy; and,*
- c) *recommendations on the voluntary approach to school board payment of stormwater fee (if direction is still outstanding from Province)."*

As such staff from the City of Kitchener and the City of Waterloo are working together to develop a stormwater rate credit policy for all eligible properties including residential, multi-residential and non-residential sectors and report to their respective Councils on or before January 1, 2012 with a recommended policy.

Alternatives for a credit policy will be fully explored and follow a process similar to an environmental assessment to arrive at a preferred policy alternative. This process generally includes the following steps:

- Identification of a problem or opportunity;
- Identification, assessment of impacts, and evaluation of alternative solutions;
- Selection of a preferred solution; and,
- Preparation of the policy.

Public consultation will be integrated into this process and will include at least two (2) public information centers at which the public will have opportunity to provide input and feedback.

Documentation

As in an environmental assessment process, documentation will be prepared to record the decision making process and provide a detailed account of the process that was undertaken. This will be documented through a series of memoranda, each one being prepared after various key milestones. A Work Plan, outlining the major milestones and timeline, was developed and is included in Appendix B. The memoranda are intended to summarize the work completed during each phase. All of the memos and any associated appendices combined will comprise the “Stormwater Rate Credit Research and Policy Document” (The Report). The memoranda topics and anticipated delivery times are outlined in Table 1.

TABLE 1: Credit Policy Development Memoranda

Memorandum Number	Topic	Anticipated Delivery Timeline
1	Introduction, Background and Purpose	July 2011
2	Description of Alternatives	July 2011
3	Impact Analysis and Methodology	August 2011
4	Evaluation Criteria and Methodology	September 2011
5	Consultation and Communication	September 2011
6	Recommended Alternative	October 2011

The overall report will document the various stages of the Work Plan and provide supporting evidence for choosing the recommended alternative. The process outlined in the Work Plan will ensure that each municipality is well informed and well positioned to implement the recommended alternative from a financial, technical and resourcing perspective.

Project Team

The project team is comprised of a steering and working committee created to guide and conduct the policy development process. The Steering Committee was comprised of members from both municipalities from a range of departments and membership is outlined in Table 2. As well, each municipality has created their own working committees that will evaluate the alternatives from the perspective of implementing the preferred alternative.

Table 2: Steering Committee Membership

Staff member	Municipality	Department
Nick Gollan	Kitchener	Stormwater Utility
Nancy Corbett	Waterloo	Public Works
Denise McGoldrick	Waterloo	Public Works
Melissa Ryan	Kitchener	Stormwater Utility
Grant Murphy	Kitchener	Engineering
Todd Chapman	Waterloo	GIS
Paul Grivicic	Waterloo	Revenue
Joyce Evans	Kitchener	Revenue
John Sonser	Kitchener	Revenue
John Morrison	Waterloo	Revenue
Colleen Collins	Kitchener	Marketing & Communications

Janice Works	Waterloo	Marketing & Communications
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BACKGROUND

Stormwater Management Systems and Utility Rate Model

Stormwater management systems represent valuable public assets that provide a number of community benefits. By controlling floodwaters and preventing pollutants from reaching our rivers and lakes, stormwater management systems protect both the public and environment. Until December 31, 2010, the Cities' stormwater management programs were funded through property taxes. Starting in 2004, the Cities of Kitchener and Waterloo jointly undertook the Stormwater Management Program and Funding Review study. Completed in 2009, this study determined that the property tax model was inadequate at funding the necessary maintenance and infrastructure improvements and the study recommended moving to a dedicated stormwater utility rate model.

After years of underfunding, stormwater management infrastructure has a number of challenges to overcome which include the following:

- Inadequate inspection & maintenance;
- Inadequate drainage systems;
- Consistently poor stormwater quality;
- Flooding and erosion hazards;
- Pavement damage;
- Heightened regulatory requirements;
- Change in pattern of storm events;
- Increased liability;
- Frequent backyard and basement flooding/property damage claims; and,
- Growth and development pressures.

To address the current challenges, on June 14th, 2010 the City of Kitchener Council and on June 21st, 2010 the City of Waterloo Council approved the implementation of “tiered flat fee” stormwater rate structures based largely upon a property's impervious area. A rational nexus has been established between the amount of the user fee and the cost of the service being provided – in that the more impervious area an individual property owner has, the greater the amount of runoff and pollutant loading from the property, and consequently, the greater the demand on the City's stormwater management system, either for flood control or water quality treatment purposes.

The rate methodology provides for a fair and equitable approach to allocating costs associated with stormwater management to all property owners, instead of basing it on property value. Also, a rate based approach provides dedicated funding for the stormwater system, similar to the water and sanitary utility enterprise models which the Cities have had in place for many years. The benefit of this approach is that programming can be effectively planned and delivered through the sustaining influence of a rate base. Similar to other City-owned utilities, the rates would be reviewed, scrutinized and approved by Council during the annual budget review process.

Stormwater Credit Policy Benefits

Coupled with a rate structure, a rate credit policy is important to rewarding environmental stewards in the area of stormwater management to reduce their monthly stormwater charges. A stormwater rate credit policy provides incentives for property owners to provide on-site best management practices that reduce their individual contributions of stormwater runoff and pollutant loading to the municipal SWM system. Encouraging such source controls supports the Cities' SWM policies and water quality initiatives.

Generally, knowledge of a stormwater rate credit policy has influenced the way new developments are built and retrofit. Implementing measures on private property will help reduce total runoff volume and pollutant loading discharge to the city's stormwater management system and will help to optimize the City's expenditures. However, with existing developments, the main effect is for property owners to reduce their directly-connected impervious area. One example of how this can be achieved is to redirect drainage from a parking lot onto a vegetated swale that absorbs runoff volume and thus reduces pollutant loading to the outlet.

Property owners would qualify for stormwater rate credits when they can demonstrate that their existing or proposed stormwater facilities or applied best management practices are functioning as approved. Credits are defined as percent (%) reductions applied to the rate category that is applied to the property in question. As long as the facilities or best management practices are operating as demonstrated by self-certification reports or municipal inspections, the credit will be applied to the charged monthly fee.

A preliminary review of existing credit policies was completed as a part of the Stormwater Feasibility Study (2008) and recommended that a stormwater rate credit policy be adopted based on the following principles:

- Credit eligibility to be determined based on the SWM practices and facilities on site;
- All non-residential properties, regardless of tax status, would be eligible for credits;
- The maximum credit is to be determined in the implementation phase; and
- Property owners must apply for a credit and certify that all facilities have been constructed, operated, and maintained as designed. Property owners would also be responsible for recertification, according to a process to be determined in the implementation phase.

Research on Existing Stormwater Credit and/or Rebate Programs

A comprehensive review of various municipalities in Canada and the United States was conducted to determine how other stormwater credit and/or rebate programs have been developed and implemented elsewhere, and to share any lessons learned in the implementation process. A total of thirteen municipalities with existing stormwater rate credit and/or rebate programs in place were examined through an internet scan in the tier 1 study and a summary table was prepared for comparison purposes and is included in Appendix C. The following lists the municipalities that were studied:

- Edmonton, Alberta, Canada
- Ann Arbor, Michigan, USA
- Portland, Oregon, USA
- Seattle, Washington, USA
- Fitchburg, Wisconsin, USA
- Richmond, Virginia, USA

- Town of Smyrna, Tennessee, USA
- Griffin, Georgia, USA
- Louisville-Jefferson County, Kentucky, USA
- Sarasota, Florida, USA
- Henry County, Georgia, USA
- City of Covington, Georgia, USA
- City of Bend, Oregon, USA

Based on the findings, a selection of municipalities were shortlisted for tier 2 research which involved follow-up phone interviews for more detailed information. A detailed list of questions for these municipalities was compiled by the Steering Committee, and the results of the telephone interviews are included in Appendix D. Specifically, the Project Team was able to contact and interview representatives from Edmonton, Alberta, Canada and Portland, Oregon, U.S.A. in order to gain additional insight into the programs for these municipalities.

Collaborative Research on Existing Behaviours and Relative Preferences for Various Credit Policy Alternatives

In addition to researching other municipal stormwater credit and/or rebate programs, the City of Kitchener and City of Waterloo partnered with the University of Waterloo to take part in the 2011 Waterloo Regional Area Survey (WRAS). The survey was a partnership between academic and community researchers, including the Cities of Waterloo and Kitchener, Women's Crisis Services of Waterloo Region, the Crime Prevention Council of Waterloo Region, and researchers from the University of Waterloo and Wilfred Laurier University. One component of the survey was to ask residents in each respective municipality questions about their existing behaviours regarding stormwater management practices as well as to gauge their preference for an incentive program to encourage stormwater management practices. The survey was conducted from May 26 to July 14, 2011, and the results showed that there was general support for implementing an incentive program to encourage stormwater best management practices. The results of the survey are provided in Appendix E.

Additional Research

As the project proceeded, the Steering Committee and Project Teams were provided with additional background information on various existing municipal stormwater credit programs. These additional information sources included:

- Northeast Ohio Regional Sewer District Stormwater Fee Credit Manual, October 6, 2011
- Re-inventing Rainwater Management – A Strategy to Protect Health and Restore Nature in the Capital Region – A Submission to the Capital Region District on behalf of the Veins of Life Watershed Society, February, 2010
- City of Oshkosh, Wisconsin, Non-residential and residential credit policies and application forms, 2010
- POLIS Institute, Peeling Back the Pavement: A Blueprint for Reinventing Rainwater Management in Canada's Communities, November, 2011
- Centre for Neighborhood Technology, The Value of Green Infrastructure, 2010
- Rooftops to Rivers II, Natural Resources Defense Council, 2011

PURPOSE

Primary objectives of the stormwater rate credit and/or rebate program are to establish a sustainable level of service for stormwater programs that:

- Is fair and equitable to users/rate payers;
- Is reasonably easy to administer;
- Provides a steady stream of funding for planning and scheduling;
- Is flexible enough to reward users who conserve runoff and reduce pollution;
- Encourages non-residential property owners to manage stormwater on their site;
- Ensures stormwater best management practices installed on private property are properly maintained by certification reports and municipal inspections; and,
- Defers infrastructure capital costs.

The focus of this program is to restore, to the extent possible, the natural hydrologic cycle and its many sustainable benefits in the urban environment. This is a holistic approach that addresses water quality and quantity on a watershed scale. It calls on all sectors (government, industrial, commercial, institutional, general public) across two municipal jurisdictions to work together, each to mitigate what is in their immediate control/responsibility.

The marketing, education and incentives will ensure uptake of stormwater management best practices which in turn will conserve treated water and recharge the groundwater aquifers. Designing with nature to filter pollutants and mitigate flows will allow valuable rain to be absorbed by the soil and recharge the aquifers. Capturing rain water to divert it from the stormwater system also allows it to be used for vegetation as a means of reducing the demand for treated water for irrigation, especially during peak summer demand periods. This in turn protects the groundwater aquifers and reduces infrastructure costs to meet those peak demands.

Through implementation of a stormwater rate and credit program, the community can expect the following outcomes:

- General knowledge of stormwater issues will be increased;
- The credit and incentive policy and how to use it will be clearly communicated and understood by the general public, landowners and property managers;
- The community will be engaged and will have the opportunity to demonstrate ownership over greening of their neighborhoods;
- The Cities of Waterloo and Kitchener will demonstrate continued cooperation on the shared initiative to address water quality;
- A financial incentive will be available to reward property owners that implement best management practices and assist them in defraying the costs of making wise choices that benefit the environment;
- The necessary infrastructure and strategy will be put in place for the ongoing delivery of the credit and incentive program that will ensure uptake/environmental benefits; and,
- Stormwater will be diverted, resulting in long-term improvements in surface water quality;
- Existing privately owned stormwater best management infrastructure (such as oil and grit separators) will be maintained as a result of ongoing follow-up on the credit program.

Key target audiences for the stormwater credit and/or rebate program will include all rate payers such as:

- Residential homeowners;
- Multi-residential property owners;
- Places of worship;
- Business owners;
- Institutional organizations;
- Educational facilities; and,
- Industrial landowners.

Knowledge transfer outcomes will include greater understanding among the target groups of the following key subjects:

- Groundwater protection and recharge as it relates to stormwater;
- Where stormwater runoff goes when it leaves your property;
- Surface water quality;
- Practical how-to information and basic skills to implement simple lot-level best management practices;
- Water conservation best practices;
- Stormwater management best practices; and,
- Behavioral and physical changes required to achieve improved water quality and reduce potential flooding.

The credit policy development for the Cities of Kitchener and Waterloo will be compiled into the Report, which will document the various stages of the Work Plan and provide supporting evidence for choosing the recommended alternative. The process outlined in the Work Plan will ensure that each municipality is well informed and well positioned to implement the recommended alternative from a financial, technical and resourcing perspective.