

CITY OF VAUGHAN

**EXTRACT FROM COUNCIL MEETING MINUTES OF MAY 19, 2015**

Item 2, Report No. 9, of the Finance, Administration and Audit Committee, which was adopted without amendment by the Council of the City of Vaughan on May 19, 2015.

**2            STORMWATER INFRASTRUCTURE FUNDING STUDY UPDATE – CITY-WIDE**

The Finance, Administration and Audit Committee recommends:

- 1)        **That the recommendation contained in the following report of the Commissioner of Public Works and the Director of Environmental Services, dated May 4, 2015, be approved; and**
- 2)        **That the presentation by the Director of Environmental Services and Mr. Andrew Grunda, Principal, Watson & Associates, Mississauga, and C2, presentation material entitled: “*Stormwater Infrastructure Funding Study*” dated May 4, 2015, be received.**

**Recommendation**

The Commissioner of Public Works and the Director of Environmental Services, in consultation with the Director of City Financial Services/Deputy Treasurer recommend:

1.    That this report be received for information.

**Contribution to Sustainability**

This project will directly support Green Directions Vaughan Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate. Furthermore it directly adds resolution to the following objective:

- Objective 1.3: To support enhanced standards of stormwater management at the City and work with others to care for Vaughan’s watersheds
- This project will also support action 5.1.4 which notes that a strategy to assess vulnerability to climate change and plans be developed for mitigating impacts and remedial responses

**Economic Impact**

There are no immediate impacts resulting from the adoption of this report.

**Communications Plan**

It is recognized that development of a community understanding of the funding requirements of a significant city service, such as stormwater, requires a comprehensive program. Therefore, the project team has developed and initiated an Engagement and Communication Plan as an integral part of the Stormwater Infrastructure Funding Study. Citizens and key stakeholders continue to be engaged through all stages of the project including the development and establishment of stormwater program levels of service, and the exploration of funding models.

**To date:**

The Engagement and Communication Plan developed for the study follows the guidelines established by the International Association for Public Participation (IAP2) with respect to public engagement. A communications plan was developed to engage citizens, businesses and other stakeholders to ask for input and guidance in the development of stormwater levels of service and a funding model. The communications plan focuses on informing the public on defining stormwater, stormwater activities performed by the City and how citizens and businesses can help protect stormwater and the environment. Posters (Attachment 1), newsletter articles, electronic communication and the website were used as means of communication. The posters were put up in all of the City’s libraries and community centres.

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The plan also includes involving, consulting and collaborating with key stakeholders through the use of a Stormwater Advisory Committee. The Stormwater Advisory Committee is made up of representatives from the following:

- Springfarm Ratepayer's Association
- Glen Sheilds Ratepayer's Association
- Mackenzie Ridge Ratepayer's Association
- Village of Woodbridge Ratepayer's Association
- Beverly Glen Ratepayer's Association
- Vaughan Mills
- BILD
- Canada's Wonderland
- Region of York
- York Housing Authority
- York Region District School Board
- Sustainable Vaughan
- Earth Rangers
- TRCA

The Stormwater Advisory Committee has met three times over the last couple of months and the work of this committee is reflected in this report.

#### Next steps:

In the recent *City of Vaughan: 2014 Citizen Satisfaction Survey, Key Findings Report*, citizens indicated that the most popular means of communication from the City was through mail, email, local newspapers and the website. Given this information the communications plan will continue with notifications in local newspapers, on the Vaughan website and newsletter information sent through e-mail. Interested citizens will be asked to participate in the discussion through the use of the survey. The final Stormwater Advisory Committee meeting will also be held in May 2015.

#### Purpose

The purpose of this report is to inform Council of staff's work to date to develop a sustainable funding framework for stormwater infrastructure and ask for feedback from FAA Committee to further inform the study.

#### Background - Analysis and Options

##### **Staff received direction from Council on April 8, 2014 to explore funding models for a stormwater program through a Stormwater Infrastructure Funding Study**

In a staff report for Finance, Administration and Audit Committee on March 31, 2014, staff informed Committee of the need for a dedicated funding source for a proactive and planned stormwater management program. The current stormwater program is reactive in nature and although there have been many studies following storm events and projects identified in a stormwater retrofit study and stormwater master plan, these projects and programs have not been acted upon due to lack of a planned stormwater program.

Vaughan is not unique in its challenge to fund a stormwater program. Municipalities across Ontario, Canada and the USA have experienced increasingly severe storm events which have put pressure on the stormwater system. Also, government ministries have stricter requirements with respect to water quality and have asked municipalities to look at more options to manage stormwater on properties rather than sending it all to a water course or other water body.

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Council recognized this need to explore a funding model which would be a dedicated funding source and directed staff to initiate the Stormwater Infrastructure Funding Study.

#### **The goals and objectives, identified in the study for the stormwater program, focus on balancing stormwater program needs against sustainable funding**

The goal of the Stormwater Management Program is to protect public health and safety and the City's valuable natural and man-made resources by minimizing the impacts of stormwater runoff through on-going system assessments, proactive maintenance and operation of the City's assets, and well-considered investment in system upgrades and expansion.

The key objectives of the program are:

- Services provided by the City should be *clearly defined*, be *based on an assessment of actual need*, and be provided *as efficiently as possible*
- The City should seek to move from reactive management of stormwater system components to a *proactive, priority-based asset management program*
- The program should be *realistic and achievable* and establish *clear lines of accountability* and decision making.
- The stormwater program plan should be *coordinated with on-going planning and growth initiatives* to identify efficiencies and should include *public participation* as a fundamental component.
- Program funding *should be a balanced approach* and tied to level of service and sustainable financial program goals.

#### **The study has documented the City's current reactive stormwater program and has identified future planning, capital projects needs and identified studies**

Through an intensive gap analysis it was determined that four key areas need to be addressed to ensure that the goal for the stormwater program be realized. The four areas are listed below:

Asset Management: Services provided by the City should be based on an assessment of actual need and be provided as efficiently as possible.

Stormwater Planning and Engineering: The stormwater program plan should be coordinated with on-going planning and growth initiatives and should include public participation as a fundamental component.

Stormwater Operation and Maintenance: The City should seek to move from reactive management of stormwater system components to a proactive, priority-based asset management program.

Capital Improvements: Program funding should be tied to level of service and sustainable financial program goals. The stormwater program plan should be coordinated with on-going planning and growth initiatives to identify efficiencies and should include public participation as a fundamental component.

#### **The stormwater program gaps were further broken down into 'basic', 'medium', 'high' and 'maintain' levels of service within the previous four areas**

The 'maintain' level of service refers to continuing with the current program. The 'basic', 'medium' and 'high' levels of service are defined as follows:

- **Basic**: refocus of existing resources or add funds as a first step in enhancement to respond to service needs

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- **Medium:** addition of staff/contractor/materials to increase capability to address service needs in a moderate approach.
- **High:** addition of staff/contractor/materials to address service needs as the highest priority in an aggressive approach.

See Attachment 2 for a detailed listing of Levels of Service and program needs.

**Staff, with input from the Stormwater Advisory Committee, recognized the need to improve levels of service to the 'medium' category for the majority of identified program needs**

The second Stormwater Advisory Committee meeting addressed the stormwater program needs and through discussion and the use of a prioritization tool recommended the 'medium' service level for the stormwater program. This level of service was further refined by staff based on internal resources and some modifications were made. The results of the prioritization tool are in Attachment 3.

**Currently, funding for the program is derived from three different sources: wastewater rate, tax levy and gas tax.**

Wastewater Rate: A small percentage (6.85%) of the wastewater rate has been dedicated since 2009 to fund stormwater operating activities. These activities are currently carried out by the Environmental Services Department

Tax Levy: Stormwater activities, such as street sweeping, ditch maintenance, etc., which are being performed by the Roads Division of the Transportation Services and Parks & Forestry Operation Department are funded by the general tax levy. Through this study, these activities have been identified as primarily stormwater activities and it is proposed that these be funded from the proposed stormwater funding source.

Gas Tax: Currently the storm pond maintenance/cleaning is funded by the gas tax. This funding source also funds many other City projects.

The activities listed above which are funded from the tax levy and gas tax have been incorporated into the analysis for the stormwater infrastructure funding study and the costs associated with these activities have been included when determining the overall stormwater program cost.

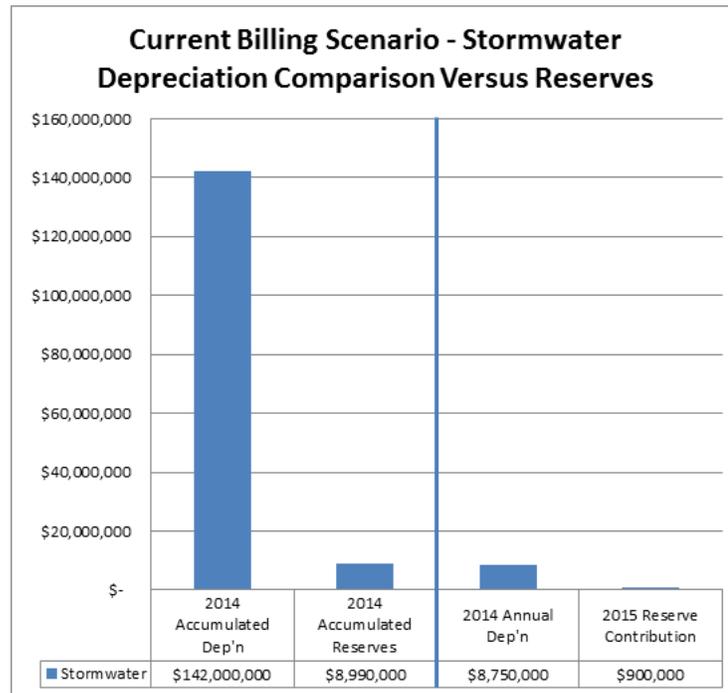
**The current stormwater program funding model does not meet future infrastructure repair and replacement needs**

Using annual depreciation as a basis for reserve funding is a best practice according to the National Guide to Sustainable Municipal Infrastructure. As discussed above, 6.85% of the wastewater rate which funds stormwater is used for operating activities with only a small portion of that contributing to future repair and replacement needs. This amount is insufficient to meet the amortization requirements for ageing stormwater infrastructure. As illustrated in the graph below the annual reserve contribution falls far short of the annual depreciation expense and therefore does not allow for any catch up funding against the accumulated depreciation. In the final study to be presented to Council later this year, the reserve calculation will be further described.

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**The traditional funding model for stormwater has been examined by many municipalities across North America**

Climate change, more sophisticated environmental regulations, development and new stormwater retention technologies have put a more direct focus on stormwater activates. Many municipalities are now pursuing the benefits of implementing a direct and dedicated funding source to meet these new challenges. Continued reliance on traditional non-dedicated funding models can impact a municipality’s ability to plan for and implement proactive operations and maintenance, thus ensuring a sustainable stormwater and infrastructure program.

**The 2014 to 2017 Budget Instructions encouraged departments to explore new user fee opportunities for existing non-revenue generating services**

Environmental Services has explored a new user fee for the stormwater service through the Stormwater Infrastructure Funding Study. As explained below, staff are now refining potential dedicated funding framework reliant upon new stormwater rates for residential, industrial, commercial, institutional and vacant/agricultural lands.

**Having evaluated stormwater rates of varying degrees and complexity, staff are realizing the benefits of a modified flat/utility rate based on run-off coefficient funding model**

There are several different funding models which were considered to fund a municipal stormwater program. These range from the simplistic with one flat rate for all residential and one flat rate for all industrial/commercial/institutional (I/C/I) to a very complex rate which measures impermeable area for each property and determines individual rates for each property.

A modified flat/utility rate considers a tiered approach where there are different rates for different types of property for residential, and for I/C/I. The run-off coefficient, is an element of the City’s design standards, and is used during the development approval process to determine the stormwater infrastructure for each development application. The use of the run-off coefficient in the development of a stormwater rate will provide consistency with existing City processes.

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Based on the experiences observed from other jurisdictions, staff is realizing that a modified flat/utility rate based on run-off coefficient funding model, which was also favoured by the Stormwater Advisory Committee (Attachment 4), may be the optimal choice for consideration by the City. This funding model is one which is also used by other Region of York municipalities (Attachment 5). This funding model uses the run-off coefficient as defined in the City’s design standards to determine the run off for types of residential and I/C/I, which in turn is used to determine the stormwater contribution to the stormwater system. The resulting funding model has multiple rates for residential and rate for I/C/I. This funding model also has the advantage of being easiest to understand and quickest and least costly to implement.

**The residential and industrial/commercial/institutional yearly costs in 2016 have been estimated**

Applying the ‘medium’ levels of service for the stormwater program has resulted in an operating and capital budget increase from \$5,695,822 for 2015 to \$18,522,855 for 2025. Using the funding model described above, this results in a yearly rate for residential, ICI and vacant lands as shown in the table below:

Property Type	Yearly Potential 2016 Rate	Yearly Potential 2025 Rate
Residential (Low Density) – per unit	\$ 34.07	\$64.06
Residential (Medium Density) – per unit	\$21.11	\$38.28
Residential (High Density)	\$86.22	\$164.99
Commercial	\$690.29	\$1,321.59
Industrial	\$572.76	\$1,096.97
Institutional	\$2,160.56	\$4,122.16
Agricultural/Vacant	\$396.27	\$758.99

The draft numbers represented above will be further refined as the study explores possible exempt properties and low income relief.

**The stormwater infrastructure funding study will be completed next month with the final recommendations and a potential implementation strategy is proposed to be presented to Finance, Administration and Audit Committee later this year**

The next steps for the stormwater infrastructure funding study are to engage the general public through a variety of communication tools regarding the proposed levels of service and the proposed funding model. The Stormwater Advisory Committee will meet one more time to provide comments on the financial plan and proposed funding model.

Comments from the public and the Stormwater Advisory Committee will be incorporated into a report for consideration by FAA Committee late this year.

**Relationship to Vaughan Vision 2020/Strategic Plan**

As we examine the current and future stormwater management services provided by the City, the program objectives and priorities will align with the Strategic Plan by supporting the following key themes:

- Pursuing *Service Excellence* by establishing and achieving service levels based on best practices and standards; by promoting actions that protect community safety and well-being; and by committing to protect and enhance the natural and built environments through the efficient use of resources.

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- Pursuing *Organizational Excellence* by assessing and managing infrastructure to maximize useful life and ensure a sustainable future and by using financial resources wisely by making informed decisions that take into effect the impact on City residents and operations.
- Pursuing *Staff Excellence* by demonstrating effective leadership through engagement and collaboration of staff resources across business areas and by investing in development and retainage of skilled staff dedicated to service excellence.

#### **Regional Implications**

York Region has been identified as a stakeholder and is a member of the Stormwater Advisory Committee.

#### **Conclusion**

The Stormwater Infrastructure Funding Study will provide the City of Vaughan with a comprehensive stormwater program and a sustainable funding source to support it. The Stormwater Advisory Committee has been instrumental in defining the levels of service and providing input into the choice of funding model. The next steps will be to provide FAA with a finalized draft rate later this year.

#### **Attachments**

Attachment 1 – Stormwater posters  
Attachment 2 – Levels of Service and Program Needs  
Attachment 3 – Level of Service – Prioritization Table  
Attachment 4 – Funding Model – Prioritization Table  
Attachment 5 – Stormwater Rates in Other Municipalities

#### **Report prepared by:**

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(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)