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WATER AND WASTEWATER SUSTAINABILITY STRATEGY

The Planning and Economic Development Committee recommends the adoption of the recommendations contained in the following report dated March 18, 2008, from the Commissioner of Planning and Development Services and the Commissioner of Environmental Services:

1. RECOMMENDATIONS

It is recommended that:

1. The sustainability strategy report (*Council Attachment 1*) titled “Water and Wastewater Sustainability Strategy – Overview Report March 2008” be adopted by Regional Council.
2. The Regional Clerk forward copies of this report to the Clerks of the local municipalities in York Region.

2. PURPOSE

This report has been prepared to inform the Committee and Council on the Water and Wastewater Sustainability Strategy – Overview Report (*Council Attachment 1*). The report has developed the framework for the water and wastewater sustainability strategy, which in turn will feed into the Master Plan Update. The strategy will be applied to the planning forecasts to establish the planning requirements on the water supply and wastewater collection systems. The report recommends Council’s endorsement of the proposed paper developing the Regional water and wastewater sustainability strategy.

3. BACKGROUND

Sustainability Strategy Done as Part of the Water & Wastewater Master Plan Update

In 2006 York Region commenced both the Transportation and Water & Wastewater Master Plan Update studies in the context of changes in growth and planning as a result of provincial initiatives. These provincial initiatives include the Province’s Growth Plan for the Greater Golden Horseshoe, Greenbelt Plan, and new population and employment targets. The Sustainability Strategy report, as part of the Water & Wastewater Master Plan Update, responds to public interest and requests to define sustainable infrastructure. It documents the framework for the water and wastewater sustainability strategy. There has been a long history of sustainability in water and wastewater programs at York

Region, such as the Water Efficiency Program, and the sustainability strategy builds upon that foundation.

Attachment 1 is an overview report being presented to Council. The full document, titled “Water and Wastewater Sustainability Strategy – Overview Report March 2008” is also available to the public.

There are four background reports that were prepared within the Water & Wastewater Master Plan Update. They are:

Unit Rates – Presents the projected water consumption rates and the wastewater generation rates

Policy and Criteria – Documents the water and wastewater policies, responsibilities, jurisdictions and criteria for York Region Water & Wastewater systems

Sustainability Strategy - Develops the framework for the water and wastewater sustainability strategy

Baseline Report – Outlines the existing Regional water and wastewater systems; establishes the starting point in the assessment of water and wastewater systems to service the existing and projected development; it also establishes the base condition for infrastructure for hydraulic models for both systems

All four reports will be presented to Council for endorsement.

Following the Corporate Sustainability Strategy

At its meeting on November 15, 2007, Council adopted item 6 of Report No. 9 of the Planning and Economic Development Committee, *York Region Sustainability Strategy – Final Version*, which directed staff to proceed with implementation of the strategy action items and report back with specific action plans and progress reports. The Water and Wastewater Sustainability Strategy builds on the corporate Sustainability Strategy, listing specific water and wastewater principles and their suggested performance indicators. As part of the review, Planning staff have worked closely with Environmental Services staff to ensure the process and the final report are acceptable.

4. ANALYSIS AND OPTIONS

The development of the water and wastewater sustainability strategy is predicated on a world-wide Best Practices review coupled with a detailed look at the present regulatory requirements and current York Region policies, programs and practices. The Sustainability Strategy Overview Report provides an overview of the current water and wastewater systems, the regulatory framework, an international perspective and case

studies on sustainable water and wastewater systems, a focus on sustainability and climate change, applying sustainability in York Region, and concluding with the sustainability strategy.

The strategy is developed within the context of the existing regulatory framework. There are currently nine regulations that apply: Safe Water Drinking Act, Clean Water Act, Ontario Water Resources Act, Sustainable Water and Sewage System Act, Oak Ridges Moraine Conservation Act, Greenbelt Act, Ministry of the Environment Guideline F-5, Places to Grow Act, and The Safeguarding and Sustaining Ontario's Water Act.

Several large municipalities and utilities already have sustainable development initiatives. The report discusses the best practices case studies, supportive policies and programs for Hamilton, Edmonton, Vancouver, Chicago, Phoenix, Water UK, and Sydney Water.

In addition to the Regional Sustainability Strategy approved in November 2007, there are current Regional policies, programs and practices that support water and wastewater sustainability. Of important note are Vision 2026, the Regional Official Plan, Focus on Our Environment report, and Planning for Tomorrow.

Water and Wastewater Sustainability Strategy Principles

Taking into consideration the above mentioned documents, a set of principles has been derived. Each of the principles and its supporting goals will in time be expanded to address action plans and programs, as well as performance measures and targets. The entire strategy is based on the concept of adaptive management. The planning of facilities will be based on a "triple bottom line" long-term vision, i.e. economic vitality, healthy communities and sustainable natural environment. The principles were presented for input and comments to the public and Technical Advisory Committee in 2007.

The following are the Water and Wastewater Sustainability Strategy Principles:

Safe and Clean Drinking Water

1. York Region is committed to providing safe and clean drinking water to all of its residents

Healthy Watersheds

1. York Region recognizes the "connectedness" of the natural world and therefore actively promotes healthy land, air and water in all its watersheds.
2. York Region further recognizes the important role that all its residents play as stewards of its watersheds.

Respect for Natural and Cultural Heritage

1. York Region through integrated growth and servicing planning and through advanced construction and operations practices will restore and enhance the natural environment.
2. York Region respects and protects its First Nation heritage.
3. York Region respects and protects its cultural heritage.

Wise Use of Water

1. York Region is committed to the wise use of water ensuring adequate water resources for today's residents and for future generations.

Community Well Being

1. York Region will provide reliable water and wastewater services to its residents to ensure the continuing community well-being and economic vitality of the Region.

Full and Equitable Funding and Value-For-Money

1. York Region is committed to full and equitable funding of water and wastewater services.
2. York Region is committed to value-for-money in delivering water and wastewater services.

Timely and Integrated Service Delivery

1. York Region supports economically efficient growth through the timely delivery of water and wastewater services.
2. York Region will deliver water and wastewater infrastructure in a manner that is coordinated with other services such as roads and transit.

Climate Change and Energy Efficiency

1. York Region will mitigate the impacts of climate change through demand and capacity planning and the design and efficient operation of water and wastewater services.

Communications, Consultation and Engagement

1. York Region is committed to planning and implementing water and wastewater services in an open, transparent and accountable manner based on broad consultation, citizen engagement, strong communications and to building public consensus toward the need to practice sustainability.

Monitoring, Performance Measurement and Adaptive Management

1. York Region will monitor and report on the implementation and operation of water and wastewater sustainability strategies through a range of objective performance measures.
2. York Region will learn from sustainability successes and failures. It will adapt management methods and practice continual improvement toward sustainability leadership.

A number of implementation actions and performance indicators have been determined for each of the sustainability strategy principles. The implementation actions are listed in Table 1.

Table 1
Water and Wastewater Sustainability Strategy Suggested Performance Indicators

Safe and Clean Drinking Water	• Number of customer complaints concerning “dirty water” or taste/odour that are not associated with construction or maintenance in the drinking water system • Number of drinking water advisories, boil water advisories and boil water orders
Healthy Watersheds	• Total annual wastewater volume treated as well as per capita and unit area wastewater volumes • Number of odour complaints
Wise Use of Water	• Per capita residential water use • Per capita wastewater generation • Mass or volume of wastewater by-products recycled
Community Well-Being	• Hours per year of continuous water and wastewater service operation • Number of basement or surface flooding complaints resulting from events less than service target
Full and Equitable Funding and Value-for-Money	• Financial indicators of funding capacity in relation to funding need • Value for money indicators
Climate Change and Enhance Energy Efficiency	• Water and wastewater energy reduction targets • Greenhouse gas emission reduction targets
Communications, Consultation and Engagement	• Measures of change in water efficiency habits due to social marketing campaigns • Number of York Region Water and Wastewater public sustainability outreach initiatives • Changes in public attitudes toward water and wastewater sustainability, measured through the survey mentioned above

Source: Water and Wastewater Sustainability Strategy Overview Report – March 2008

The next steps will involve putting the strategy to work. The actions and performance indicators, along with adaptive management strategies, form the basis for an implementation plan. This will include performance targets, timetables, communication

plans, executing and monitoring and controlling. As an important part of the implementation, these principles will be incorporated throughout the Master Plan and will be used to monitor performance following completion of the Master Plan Update.

Relationship to Vision 2026

One of the goals set by Vision 2026 includes having Enhanced Environment, Heritage and Culture, and having Infrastructure for a Growing Region. In the action areas of this goal are: Ensuring Clean Water and Air; Promoting Conservation; and Ensuring Water for Our Future. In addressing water and wastewater best practices and sustainability strategy, this paper is one step in promoting these goals. This report is therefore consistent with the priorities previously set by Vision 2026.

5. FINANCIAL IMPLICATIONS

This report does not have any direct financial impacts to either the Region or the local municipalities. The cost of this study is covered under the budget for the Water and Wastewater Master Plan Update.

6. LOCAL MUNICIPAL IMPACT

The Sustainability Strategy report provides information on the Regional water and wastewater systems sustainability. The local municipalities benefit from this report by having information on the Regional sustainable infrastructure.

7. CONCLUSION

The Region has adopted a planned and managed approach to the water and wastewater sustainability strategy through the release of this report. This report assists staff in assessing the current Regional water and wastewater systems and in planning for future systems.

For more information on this report, please contact Milan Jekic, Water & Wastewater Modelling Coordinator, Infrastructure Planning Branch at 905-830-4444 ext. 1579 or Paul May, Director, Infrastructure Planning at Ext. 5029.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)