

For Information

DATE: April 17, 2013

REPORT TITLE: **2012 ANNUAL PERFORMANCE REVIEW OF THE SOUTH PEEL WATER AND WASTEWATER MANAGEMENT, OPERATIONS AND MAINTENANCE AGREEMENT WITH THE ONTARIO CLEAN WATER AGENCY (OCWA)**

FROM: Dan Labrecque, Commissioner of Public Works

OBJECTIVE

To report on the positive performance of the Management, Operations, and Maintenance Agreement between the Ontario Clean Water Agency (OCWA) and the Region of Peel as per Council Resolution 2009-706.

REPORT HIGHLIGHTS

- Peel is now in the fourth year of the ten-year agreement with OCWA.
- Shared risk is a key factor to the agreement strategy and is being managed well in the South Peel facilities.
- An extensive and collaborative review of the facilities maintenance programs was undertaken.
- Electricity cost avoidance since 2010 is estimated at \$690,000.
- OCWA's Annual Business Plan includes continuous improvement initiatives.
- Peel continues to receive best value.
- Staff will continue to report to Regional Council on the performance of the agreement on an annual basis.

DISCUSSION**1. Background**

The Region of Peel is now in the fourth year of the ten-year agreement with the Ontario Clean Water Agency (OCWA). Resolution 2009-706 requires that staff report back to Council on the performance of the agreement on an annual basis (Appendix I). Specific information on the agreement was included in the report of the Commissioner of Public Works, dated May 11, 2011, titled "Annual Performance Review of the South Peel Water and Wastewater Agreement with the Ontario Clean Water Agency (OCWA)" presented to Regional Council at its meeting held on June 9, 2011. This is the third annual performance report for the agreement.

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The agreement with OCWA includes the strategic sharing of risk. Peel and OCWA agreed that specific risks should be borne by the party best able to manage and mitigate risks.

Summary of Risk Allocation in Agreement

OCWA	Peel
<ul style="list-style-type: none"> • Base Operation and Maintenance Fixed Fee • Water and Wastewater Compliance • Maintenance and Asset Protection • Security • Environmental Management • Operator Responsibilities - Regulations • Purchasing 	<ul style="list-style-type: none"> • Energy - Costs and Consumption • Chemicals - Costs and Consumption • Insurance • Major Maintenance Costs • Owner Responsibilities - Regulations

Joint performance management and contract administration teams were established early in 2010 to provide governance and service delivery management. These teams review and measure performance and discuss contract deliverables and service delivery. Peel and OCWA staff work very closely on a daily basis and meet monthly to discuss operations, maintenance, compliance, energy management, and continuous improvement. Monthly, quarterly, and annual performance reports are provided to Peel. These activities help to provide proper control over the South Peel facilities and foster a good working relationship with OCWA.

1. Findings

During the first three months of 2013 Water and Wastewater staff in consultation with Energy Management, Internal Audit, Public Works Finance Support Unit, and Purchasing undertook a thorough review of the performance of the agreement with OCWA for year three. The review focused on the objectives and criteria most important to Peel, was risk based, and included the important considerations of control and value for money.

a) Quality and Continuity of Service

Wastewater effluent quality and drinking water quality met Peel's expectations which exceeded minimum regulatory standards. Further detailed information on Peel's drinking water systems' performance and compliance was identified in the Council Report "Water Treatment and Quality 2012 Annual Summary Report: Municipal Water Supplies" dated January 31, 2013 and presented to Regional Council (for information) at its meeting held on March 21, 2013. The development and implementation of the Drinking Water Quality Management System has enhanced procedures and communications protocols while fostering continuous improvement in the management of the water system operations. Continuity of services was achieved which included the provision of essential services for operations. Peel continues to perform well during extensive capital improvements; in 2012, 11 of the 20 OCWA operated facilities were under construction. The South Peel facilities continue to be some of the most modern and technologically advanced in the world.

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b) Cost of Service

The cost for the third year of the agreement was \$36,840,000, which consists of \$27,850,000 for the operations and maintenance fixed base fee and \$8,990,000 for chemicals, commodities and insurance. This represents an overall 10 per cent increase compared to 2011, primarily driven by an increase to the base fee due to capital improvements and expansions plus inflation. The increase to the base fee is built into the terms of the 10 year contract. Chemical costs increased by \$300,000 due to process changes from capital projects completed at the wastewater plants. The total cost of electricity was \$31,540,000 and natural gas \$715,000 for a total energy cost of \$32,255,000.

c) Asset Protection and Capital Improvements Support

The South Peel water and wastewater system consists of more than 32,000 assets with an insured replacement value (2013) of \$2.8 billion compared to \$2.0 billion in 2010. Another \$1.1 billion in capital works is expected over the next 10 years. In 2012 an extensive collaborative review of the maintenance program was undertaken by Peel and OCWA. This review and improvement initiative is ongoing and has identified areas where efficiencies and continuous improvements can be made with the Computerized Maintenance Management System (CMMS) as noted in section 3 of this report. The annual review showed good performance results along with excellent operational support of capital improvements ensuring the Region's infrastructure investment is being protected.

d) Energy Management and Environmental Impact

Annual electricity consumption was 286,000,000 [kWh], which was 68 per cent of the total annual electricity consumed by Peel owned and operated facilities.

Achieving and maintaining wastewater treatment processes at optimized levels resulted in reduced electricity consumption in 2012 by approximately 15,700,000 [kWh] compared with 2010 wastewater operation. Cumulative electricity cost avoidance for wastewater treatment since 2010 is estimated at \$3,250,000.

Enhanced water treatment technologies recently introduced at the water plants use more electricity than conventional treatment. The cumulative increase in electricity costs for water since 2010 is estimated at \$2,560,000. Therefore combined water and wastewater electricity cost avoidance since 2010 is estimated at \$690,000.

Together Peel and OCWA are introducing energy conservation and renewable power generation technologies under the capital program what will continue to ensure energy is used wisely in South Peel water and wastewater operations. Technologies including efficient lighting, heating and air-conditioning and building automation systems are being introduced at South Peel facilities which will achieve a reduction in electricity consumption and GHG greenhouse gas emissions compared with conventional systems.

Protection of the health of the environment is an integral aspect to wastewater treatment. In 2012 a further reduction of 10 per cent in the amount of phosphorus discharged to Lake Ontario was achieved compared to 2011. An estimated reduction in GHG CO₂e emissions of 3,168 tonnes was achieved through the use of bio-methane gas for heating the wastewater facilities.

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e) Risk Management

The third annual performance review confirmed areas where continuous improvement could be made to enhance risk mitigation and ensure Peel's objectives continue to be met over the long-term including enhanced chemical and energy optimization, information management, maintenance optimization, and workforce optimization. Initiatives for these areas form part OCWA's Three Year Business Plan. The challenges and opportunities identified in the early years of the agreement will continue to exist for the foreseeable future and are being managed successfully by Peel and OCWA. Continuous improvement initiatives will continue to be included in future business plans which are updated annually by OCWA and approved by Peel.

2. Opportunities and Challenges 2012/2013: Initiatives and Benefits to Peel

- i) OCWA identified a new process data management system that was piloted in 2012. A web-based cloud content management solution implemented in 2011 continues to be a valuable tool for Peel and OCWA staff.
- ii) An extensive and collaborative review of the maintenance programs identified areas where efficiencies and continuous improvement can be made including documentation, performance reporting, and updating and streamlining maintenance tasks and scheduling in the CMMS. OCWA and Peel are working together to address all opportunities and challenges with a revised program to be completed by fall 2013. An opportunity may exist to update or replace the CMMS with a more advanced application giving OCWA the best possible tool to manage maintenance and protect Peel's infrastructure and investment.
- iii) A new interactive operator training process started in 2011 and this was expanded to all treatment plants in 2012.
- iv) The move of OCWA corporate offices and staff to Peel was a success. Fifty-five OCWA corporate staff are now working out of the Region of Peel including the GE Booth (Lakeview) Wastewater Treatment Plant and the Lakeview Water Treatment Plant. The corporate staff embedded at these shared offices can provide direct support and expertise to both Peel and OCWA staff in areas such as training and development, compliance, operations, IT and asset management.
- v) Peel continues to benefit from the long-term agreement which provides good procurement results, responsive operations and maintenance, the provision of essential services, and excellent partnership.

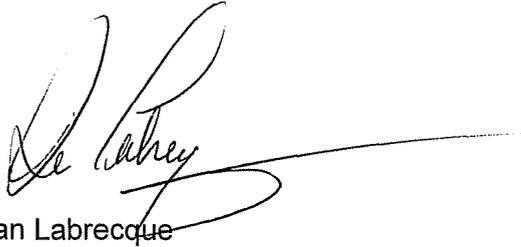
CONCLUSION

Staff found that the Region's objectives for the third year of the agreement were met and that risk is being managed appropriately. Staff confirmed that there will continue to be areas where continuous improvement initiatives can further reduce risk and to ensure required control over the South Peel facilities. Throughout the review process continuous feedback was provided to OCWA to ensure accuracy and transparency. Initiatives identified throughout these annual reviews form part of OCWA's Three-Year Rolling Business Plan which will ensure that best value operations meeting Peel's high standards will continue throughout the duration of the agreement. Staff will continue to report to Regional Council on the performance of the agreement on an annual basis each May. Peel staff along with OCWA's initiatives will continue to seek out opportunities and challenges for continuous improvement.

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Dan Labrecque
Commissioner of Public Works

Approved for Submission:



D. Swarc, Chief Administrative Officer

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APPENDIX I

**APPROVED AT REGIONAL COUNCIL
June 25, 2009**

ITEMS RELATED TO ENVIRONMENT, TRANSPORTATION AND PLANNING

ETP-B. ENVIRONMENT

ETP-B3. New Ten-Year Agreement with the Ontario Clean Water Agency (OCWA) for the Management, Operations, and Maintenance of the South Peel Water and Wastewater System

RECOMMENDATION GC-109-2009:

That the contract (Document 2009-410N) for the Management, Operations and Maintenance of the South Peel Water and Wastewater Facilities be awarded to the Ontario Clean Water Agency (OCWA) for a period of ten years, subject to the Region's right to extend for a further five-year period, in the estimated annual amount of \$35,510,616 for the first year (excluding applicable taxes), in accordance with Purchasing By-law 63-2008;

And further, that the Director of Purchasing be delegated authority to authorize adjustments for increases in costs and amendments to account for inflation, capital expansions, and additional services on an as required basis in accordance with the agreement;

And further, that the Commissioner of Environment, Transportation, and Planning Services report back to Regional Council in 2018 with a recommendation on exercising the option to extend the agreement for an additional five-year period in accordance with the terms of the agreement, if deemed appropriate by the Commissioner;

And further, that the new ten year contract with OCWA commence on January 1, 2010;

And further, that staff report back to Regional Council on the performance of the agreement on an annual basis.

Approved

2009-706