

For Information

DATE: April 16, 2012

REPORT TITLE: **2011 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 third 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.
- 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 third 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 second annual performance report for the agreement.

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.

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**Summary of Risk Allocation in New Agreement**

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

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.

**2. Findings**

During the first three months of 2012 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 two. 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 2011 Annual Summary Report: Municipal Water Supplies" dated February 13, 2012 presented to Regional Council at its meeting held on March 29, 2012 (Resolution 2012-418) and in Peel's annual Water Quality Report for the South Peel Water Supply System. Continuity of services was achieved which included the provision of essential services for operations. Peel continues to perform well during extensive capital improvements; in 2011, 10 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.

**b) Cost of Service**

The cost for the second year of the agreement was \$33,300,000, which consists of the operations and maintenance fixed base fee, chemicals, commodities and insurance with the base fee representing 75 per cent of the total. This represents a 4.7 per cent increase compared to 2010 primarily driven by an increase to the base fee due to capital

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improvements and inflation. Optimization initiatives led to a \$720,000 reduction in chemical costs compared to 2010. The total cost of electricity was \$31,500,000 and natural gas \$1,200,000 for a total energy cost of \$32,700,000.

**c) Asset Protection and Capital Improvements Support**

The South Peel water and wastewater system consists of more than 25,000 assets with an insured replacement value of \$2.59 billion. Another \$1.2 billion in capital works is expected over the next 10 years. Maintenance performance improved compared to the first year of the agreement. Advanced maintenance methodologies, such as reliability-centered maintenance, continued to be implemented resulting in more planned maintenance versus unplanned maintenance. Good maintenance performance results along with excellent operational support of capital improvements are ensuring the Region's infrastructure investment is being protected.

**d) Energy Management and Environmental Impact**

Annual electricity consumption was 275,000,000 [kWh], which was 67 per cent of the total annual electricity consumed by Peel owned and operated facilities.

The joint South Peel OCWA water and wastewater energy management team created in 2010 continued to work to achieve energy related initiatives and objectives as outlined in the agreement. A variety of ongoing initiatives included energy efficient LED lighting, building automation control systems and energy metering upgrades. Through process optimization initiatives, overall annual electricity consumption was reduced by 15,374,000 [kWh], which resulted in an estimated avoided annual electricity cost of \$1,645,000 compared with 2010.

Protection of the health of the environment is an integral aspect to wastewater treatment. In 2011, a decrease in the amount of phosphorus and ammonia discharged to Lake Ontario was achieved; mass loadings were reduced by 8 per cent for phosphorus and 22 per cent for ammonia, compared to 2010. In addition to enhanced effluent water quality, air emissions have also been improved with the installation of mercury scrubbers in 2010 and 2011 at the G.E. Booth Wastewater Treatment Plant which reduce mercury emissions from incinerator stacks.

**e) Risk Management**

The first annual performance review identified some areas such as energy and chemical use optimization, information management, maintenance performance reporting, and workforce optimization where continuous improvements could be made at the South Peel facilities in 2011 to enhance the mitigation of risk to Peel and OCWA and to ensure the Region's objectives will continue to be met. Initiatives for these areas formed part OCWA's Three Year Business Plan. The challenges and opportunities identified in year one and year two will continue to exist for the foreseeable future and are being managed successfully as seen below in 2011 results. Continuous improvement initiatives will continue to be included in future business plans which are updated annually by OCWA and approved by Peel.

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**3. Opportunities and Challenges: 2011 Results and Benefits to Peel**

- i) Chemical usage optimization efforts resulted in a reduction in chemical costs of \$720,000 compared to 2010. Process energy optimization initiatives resulted in the avoided use of 15,374,000 [kWh] of electricity.
- ii) OCWA identified a new process data information system that will be piloted in 2012. A web-based cloud content management solution was implemented to allow for the storage, retrieval, and sharing of data and reports. Improved communications protocols were implemented including a high water demand notification protocol.
- iii) Several monthly executive dashboard reports were created to effectively measure key maintenance performance indicators.
- iv) The South Peel workforce was refined and realigned to better meet the challenges presented by new processes and technologies. Development of a new interactive operator training process was started and is ongoing to be piloted at two of the treatment plants in 2012. Knowledge and experience gained through the adaptation to recent technologies is being transferred to new capital improvements. The South Peel hiring process has been refined to make it more efficient to attract and retain identify qualified candidates
- v) In 2012 OCWA will be relocating a further 37 staff from their Toronto headquarters to locations closer to the South Peel facilities and Peel staff. The total number of OCWA corporate staff in close proximity to Peel will be 55. Many of these technical and training employees will be located directly at the offices of the G.E. Booth (Lakeview) WWTP and the Lakeview WTP. The corporate staff embedded at these shared offices will be beneficial by providing direct support and expertise to both Peel and OCWA staff.

**CONCLUSION**

Staff found that the Region's objectives for the second 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 this review will 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 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:**



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D. Szwarc, 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