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Item No.

**Halifax Regional Council
June 16, 2008**

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

A handwritten signature in black ink, appearing to read "Brad Anguish".

Brad Anguish, Director of Business Planning & Information Services

DATE: June 11, 2009

SUBJECT: **Halifax Wastewater Treatment Facility – Forensic Investigation Update**

INFORMATION REPORT

ORIGIN

Halifax Wastewater Treatment Facility (WWTF) suffered wastewater flooding damage on January 14, 2009. As a result, the Halifax WWTF has been temporarily shut down and all wastewater previously routed through the Halifax WWTF is being diverted through various Combined Sewer Overflow (CSO) chambers and discharged into Halifax Harbour.

This report originates from staff as a follow up to previous reports to Council and in response to the ongoing public interest in the repair and recovery of the Halifax WWTF. This report provides a specific update regarding the process and progress of a forensic investigation aimed at determining the specific technical cause of the flooding at the WWTF.

BACKGROUND

The Halifax WWTF is the first of three WWTFs to be constructed in accordance with a \$133M contract with D&D Water Solutions Inc. (D&D) as part of the overall \$333M Harbour Solutions Project. Construction of the Halifax WWTF commenced in August 2004 and the WWTF started accepting wastewater flows in November 2007 as part of the commissioning process. The WWTF has an approximate value of \$54.7M (net of inflation and HST). The WWTF was appropriately insured and was in the first month of a three-year contractual warranty period when the flooding occurred.

As a result of the transfer of wastewater services from HRM to Halifax Regional Water Commission ("HW") on August 1, 2007, the WWTF is operated by Halifax Water staff on behalf of HRM who assumed ownership from the D&D on December 17, 2008. HRM continues to administer the Harbour Solutions Project and is transferring each asset (treatment facilities and collection systems at Halifax, Dartmouth, and Herring Cove, and Biosolids Processing Facility) to HW within 60 to 180 days of substantial completion of each asset.

As previously communicated to Council in April, 2009, HW staff is leading the Halifax WWTF recovery process with administrative support from HRM's Halifax Harbour Solutions Project office. Where HW will own and operate the WWTF in the near future, HW is in the best position to lead the recovery effort.

HW staff has provided a preliminary estimate that the WWTF will be fully operational by late Spring 2010. Both HRM and HW staff continue to work diligently to meet the following three objectives:

1. The Halifax WWTF is restored to full operation as quickly as possible
2. The Halifax WWTF is restored in a safe manner that ensures the risk of flood reoccurrence is reduced to the maximum extent possible.
3. HRM tax payers/HW rate payers are shielded from additional costs arising from the incident to the maximum extent possible.

To facilitate achievement of all three objectives, a forensic investigation aimed at determining the specific technical cause of the flooding is under way.

DISCUSSION

The first priority after the flooding incident on January 14, 2009 was to take immediate steps to protect the WWTF from further damage as a result of the flooding and the extreme cold temperatures, while always ensuring the safety of personnel working at the WWTF. Staff briefed Council on April 14, 2009 via a graphic presentation that the clean up effort was mostly complete and that forensic investigation steps had begun.

The forensic investigation into the specific cause of the failure is critical to understanding exactly what went wrong such that the WWTF is restored in a manner that mitigates the risk of flood reoccurrence to the maximum extent possible.

After conducting on-site inspections of all equipment believed to be contributory to the flooding, it became clear that the Supervisory Control and Data Acquisition (SCADA) system would have to be queried in order to understand the specific sequence of events that lead up to the flooding. The process for retrieving the SCADA system data proved to be a very complex process requiring extensive consultation with experts and agreement amongst stakeholders as to the best method of retrieval in order not to compromise the integrity of the data. There was a high risk of losing critical information. The SCADA data retrieval was completed successfully on April 23, 2009 which enabled the full forensic investigation to advance.

CH2M Hill was engaged by McInnes Cooper (Project counsel) through a Request For Proposal process conducted by HW to complete the forensic investigation. The first draft of CH2M Hill's preliminary report has been provided to HW and HRM staff by McInnes Cooper for review. The draft preliminary report has several caveats based on information limitations and factual assumptions that need to be investigated further to test the validity of the preliminary findings. CH2M Hill requires certain information that can only be provided by D&D or its subcontractors in order to further advance its analysis and findings. Staff are working with D&D to obtain the remaining information required to permit CH2M Hill to further develop its report and draw more complete and definitive conclusions as to the technical cause of the flooding. At present, any findings are subject to the caveat at that they are subject to change based on the review of additional information.

It is critical to note that in order to achieve full restoration of the plant as soon as possible, the forensic investigation to date has focused solely on finding the technical cause of the failure so that the WWTF can be restored in a manner that mitigates the risk of flood reoccurrence to the maximum extent possible. The forensic investigation has not focused on finding fault for the incident. With the technical cause fully understood, recommendations for WWTF restoration can follow. All efforts are being driven toward recovering full operation of the WWTF as soon as possible.

It is currently intended that on Tuesday June 30, 2009 the Halifax Water Board and Halifax Regional Council will be briefed at a joint in-camera (confidential) session on the preliminary forensic findings to date. It is important to note that the preliminary forensic investigation report may still be a work in progress at that time. An in-camera session at this stage of the forensic investigation is paramount to protecting the interests of HRM residents and all contract stakeholders such that Halifax WWTF operations can be restored as soon as possible in the most efficient and cost-effective manner which minimizes financial risk to HRM, HW and tax/rate payers.

In the interest of open and accountable government, the default position of the HRM and our Charter is that all Council meetings are open to the public. However, the legislation acknowledges that in select circumstances, it is important to permit Council to have frank discussions without prejudicing its position on sensitive issues: these issues may be discussed at an in-camera meeting, which the public is not permitted to attend. A common thread through many of these in-camera issues is the potential for financial harm to the Municipality, and its taxpayers, if its position on an issue is made public. As with any matter discussed in-camera, the decision to release any information publicly rests with Regional Council, subject to any FOIPOP restrictions.

HRM and Halifax Water understand the public interest in this important project and in the water quality of the Harbour, which is why due diligence is being exercised to protect the multi-million dollar investment that taxpayers have made in the Harbour Solutions Project. This means that HRM and HW must be vigilant in safeguarding the confidentiality of material that could negatively impact the position of HRM and Halifax Water as we work toward resolution.

HRM and HW are ramping up communication efforts in response to the rapidly increasing public interest in the Halifax Harbour Solutions Project and the malfunction at the Halifax WWTF. The following website is being updated on a regular basis to ensure all interested parties have access to information with respect to the overall Project and ongoing work at the Halifax Wastewater Treatment Facility: <http://www.halifax.ca/HWWTF/index.html>. In addition, a public education campaign around so called “floatables” and the proper disposal of a number of materials is anticipated for launch later this week.

In conclusion, staff at HW and HRM continue to focus their efforts on the restoration of the Halifax WWTF in cooperation and consultation with the Project’s Contractor and Insurer and remain committed to getting the plant back on line as soon as possible. Staff at HRM and HW are also committed to protecting the substantial public investment in the project and to the non-disclosure of information that could in any way jeopardize the investment.

BUDGET IMPLICATIONS

N/A

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality’s Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.



Report Approved by:

Brad Anguish, Director, Business Planning and Information Management 490-4769

Council Report Sign-Off Sheet

Subject: Harbour Solutions Project - Halifax Wastewater Treatment Facility Update	
Meeting Date: Feb 17/09	<input type="checkbox"/> Regular Council <input type="checkbox"/> COW <input type="checkbox"/> In Camera <input checked="" type="checkbox"/> <u>Information Report</u> <input type="checkbox"/> Community Council
Prepared by: Ted Tam, P. Eng., Project Manager, Harbour Solutions	
Date: Feb 13, 2008	

<input type="checkbox"/> First Draft for Information Only <input type="checkbox"/> Consultation <input type="checkbox"/> Approval						
√	Stakeholder -Internal	Approved By	Date & Time	Time spent on report (min)	Revised Date	Initial
√	Harbour Solutions	Ted Tam	Feb 13/09			
	SEMO			-		
√	Finance - FinTrack - Accounts	Fintrack				
√	- Financial Consultants - Procurement - Manager	M. van der Horst	Feb 13/09			
	Corporate Communications (PIIP)			-		
√	Environmental Engineering Services					
	Legal					
√	Stakeholder - External					