




PO Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

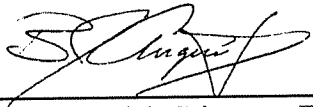
Halifax Regional Council
February 13, 2007
Committee of the Whole

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:



Dan English, Chief Administrative Officer - Operations



Brad Anguish, Director, Environmental Management Services

DATE: January 31, 2007

SUBJECT: **Eastern Passage Wastewater Treatment Facility - Expansion and Upgrade**

ORIGIN

July 6, 2004 Report to Regional Council - Capacity at Eastern Passage Treatment Plant.

May 30, 2006 Report to Regional Council - Wastewater Funding Strategy: Resolution #6.

RECOMMENDATION

It is recommended that Regional Council approve:

1. The funding plan as outlined in the Discussion Section of this report;
2. Advance funding approval in the amount of \$2.2 million for the Eastern Passage Wastewater Treatment Facility Expansion and Upgrade Project (CGI00614);
3. An increase to the Environmental Protection Charge of \$0.045 per cubic metre, effective October 1, 2008; and
4. Staff to go outside the debt policy and borrow the funding required to execute the Eastern Passage Wastewater Facility Expansion and Upgrade Project with all principle and interest payments supported from the incremental revenue generated from the EPC Rate increase.

BACKGROUND

The Eastern Passage Wastewater Treatment Facility was designed and built in 1974 providing a secondary level of treatment. In 1986 the plant was expanded in terms of capacity but the level of treatment was downgraded from secondary to primary, as it was anticipated at that time that the Eastern Passage plant would be decommissioned and flow directed to the then proposed Halifax Harbour Cleanup Incorporated (HHCI) McNabs Island regional plant.

Continued growth within the service boundary has resulted in daily flows that matched and now exceeding the plant's capacity during normal daily conditions. During wet weather conditions, excessive infiltration and inflow causes flows to increase, with much of the flow bypassing the plant. This plant is out of compliance on a consistent basis. Additionally, ongoing development in the service boundary is pushing the facility further out of compliance. With the planned development inside the service boundary, Regional Council committed in principle on July 6, 2004 to provide funding to complete construction of the upgrade and expansion project by 2008, thereby enabling development to continue within the service boundary.

Given that this plant is consistently out of compliance, there is an expectation on the part of the regulators that HRM will be addressing all issues in a timely manner. Based on this, expansion of the plant is required on a Priority 1 basis, as per the Stormwater and Wastewater Priority Rating Process approved by Regional Council on February 1, 2005. This project now has an estimated completion date of late 2010 or early 2011.

On May 30, 2006, Regional Council approved a series of recommendations related to the Wastewater Funding Strategy for HRM. Included in these recommendations was direction to staff:

“To prepare a report to Council to initiate the Eastern Passage Sewage Treatment Plant and increase the proposed 2006/07 Capital Budget, recognizing that in order to meet the debt payments from 2009/10 onward, there are funding alternatives to be considered as outlined in the Discussion section of the May 30, 2006 staff report”.

DISCUSSION

The Project

The Eastern Passage Wastewater Treatment Facility Expansion and Upgrade Project is the largest stormwater and wastewater project on the immediate horizon in HRM. In addition to the expansion required to bring the plant into compliance, the intent is to upgrade the plant to the original secondary level of treatment. This is due to the sensitivity of the receiving environment and surrounding community. The increased cost to upgrade to secondary treatment level will be less if done in conjunction with the proposed expansion, as opposed to upgrading at a later date.

The following is an overview of the existing, proposed and future capacity of the facility:

Existing Capacity	Proposed Capacity	Ultimate Capacity
Average Daily Flow of 18,000 cubic metres per day - 38,000 equivalent population	Average Daily Flow of 25,000 cubic metres per day - 50,000 equivalent population	Average Daily Flow of 30,000 cubic metres per day - 60,000 equivalent population

The pre-design of the expansion and upgrade to the Eastern Passage Wastewater Treatment Facility has been completed. A number of implementation methodologies have been investigated by staff. Given the size and complexity of the project and the need for an immediate resolution in order to meet regulatory requirements, staff have concluded that design-build is the best approach.

Design-build is more cost effective and time efficient, with less risk exposure to the rate payers, compared to the traditional design-bid-build process, for this type of project; as the scope of work and the deliverables can be defined with a high degree of certainty. Using a design-build approach does require that all funding be available before the project proceeds.

The design-build process will involve a number of key steps:

- Proposal call, selection and award of an Owner's Engineer
- Proposal call for qualifications and short listing of design-build bidders
- Proposal call, selection and award of the design-build project

Given approval of the recommendation in this report, it is anticipated that the above process will be completed and a report recommending the award for a design-build contract would occur late in 2007 or early 2008. Construction would follow in 2008, with completion in late 2010 or in 2011.

Prior to awarding the contract and beginning construction, additional land is required to house the larger footprint of the expanded and upgraded plant. During the pre-design process, an adjacent piece of property to the existing plant was identified as being suitable for this purpose. The owner of that land, Department of National Defence (DND), was contacted and they indicated a willingness to help HRM with its land needs. Staff have entered into negotiations with DND to acquire the necessary land through a land swap for an equivalent piece of HRM property. This real estate transaction is on the critical path for the project, and it is anticipated that the negotiations will be completed soon. Upon completion of negotiations, staff will bring a report to Council for approval of the land swap.

Current Funding

The current annual funding for capital stormwater and wastewater work is:

Sewer Redevelopment Charge	\$1.7 million
Environmental Protection Charge	\$1.0 million
HWRC Water Dividend	\$3.6 million
Gas Tax (expires 2009/10)	\$5.1 million
Total	\$11.4 million

On May 30, 2006, staff presented the Wastewater Funding Strategy to Council. Within that report, staff indicated that approximately \$24 million per year was required to meet the capital demands known at that time. The current annual funding is being fully utilized to meet those demands, focussing primarily on Priority 1 and 2 projects.

In addition to the above, the Stormwater and Wastewater reserves balances have been declining. The combined capital and operating reserve balances projected to be approximately \$5.3 million to the end of fiscal year 2006/07. This balance is low considering the level of risk in our current stormwater and wastewater system. Staff will address the issues related to the reserve balances in a separate report.

The Funding Plan

The funding plan developed by staff proposes the following sources of revenue to fund the Eastern Passage Project:

2007/08 Capital Capacity for Stormwater/Wastewater	\$2.2 million
Capital Cost Contributions - Wastewater Treatment	\$7.4 million
Debt Financing (repaid by an increase to the EPC)	\$20.4 million
Total Project, exclusive of interest	\$30.0 million

2007/08 Capital Capacity: in the development of the 2007/08 Proposed Capital Budget, staff will allocate \$2.2M of existing capacity. This will be funded from either the HRWC Water Dividend or Gas Tax.

CCC Wastewater: On October 10, 2006, Committee of the Whole approved in principle staff's recommendation to levy a capital cost contribution charge for wastewater treatment facilities, to be collected at the Building Permit stage and applied to all developments requiring a new sewer connection. The estimate of current population connected to the Eastern Passage Wastewater Treatment Facility is approximately 38,000 people. The proposed expansion to Eastern Passage Wastewater Treatment Facility is intended to provide a total capacity to serve approximately 50,000

people. Therefore, the proportionate cost allocated to the population growth is based on 12,000 people or approximately \$7.4 million.

Staff will be bringing a report to Council in March recommending a Capital Cost Contribution for wastewater treatment. If the recommended approach is not approved by Council, then the \$7.4 million indicated above will need to be funded from some other source, likely the EPC rate supported by an additional increase.

Debt Financing: Upon approval, debt financing will be secured through the Municipal Finance Corporation. This debt funding will be outside the Debt Policy contained within Multi-Year Financial Policy. Debt repayments would be maintained through the revenue generated from the proposed EPC rate increase.

Staff has considered three repayment options for the debt financing. The rate increase, revenue generated and associated interest are shown in the table below.

Repayment Period (years)	Min. Increase in EPC Rate (\$ per cubic metre)	Revenue generated (\$ million/year)	Interest Payments	Total Estimated Project Cost
10	0.0649	\$2.50	\$4.77 million	\$34.77 million
15	0.0475	\$1.87	\$7.19 million	\$37.19 million
20	0.0384	\$1.50	\$9.31 million	\$39.31 million

Staff are recommending that the project be funded over 20 years, to minimize the incremental increase in the EPC rate. Additionally, staff would request that the rate increase be set at \$0.045 per cubic metre to allow for changes in the interest rate and inflationary factors that can impact the tender price. Based on the average household consumption of 240 cubic metres per year, the increase is estimated at \$11.00 per year per household.

At such time as the debt is repaid, the rate will be reduced by \$0.045 (corresponding to the increase). Operating costs associated with the increased capacity and treatment ability will be addressed by the HRWC as part of future rate decisions.

The following table shows the current and future EPC rates:

Date	Total EPC	HHSP Portion	Current SW/WW Portion
Current	\$0.7504	\$0.57	\$0.1804
October 2007 (approved)	\$0.8404	\$0.66	\$0.1804
October 2008 (proposed)	\$0.844	\$0.66	\$0.2254

Please note that staff has respected Regional Council wishes to minimize rate shock on rate payers by increasing the rate after all HHSP rate increases are complete. However, it should be noted that as a result of the merger, the HRWC will be applying for an interim rate approval in 2007 which may potentially introduce another slight rate increase. This cannot be confirmed at this time.

BUDGET IMPLICATIONS

The budget implications of this funding strategy is as follows:

2007/08 Capital Capacity: approval of this report will be a pre-approval of the 2007/08 Capital Budget. This amount will be included in the existing capital capacity for Stormwater and Wastewater projects.

CCC Wastewater: will be determined based on Council approval of the Capital Cost Contribution for wastewater treatment.

Debt Financing: interest related to the debt financing will be included as part of the capital project.

EPC Rate Increase: the rate increase will generate additional revenues to be directed to the Environmental Protection Reserve Q105. This additional revenue stream will be appropriated for the principle and interest payments associated with this project.

FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN

This report complies with 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. This report does not comply with the Municipality's Multi-Year Financial Strategy as the recommended borrowing for this project is outside the Debt Policy contained within the Multi-Year Financial Strategy.

ALTERNATIVES

There are a number of possible alternatives presented below, none of which is recommended by staff. A staff commentary is provided for each alternative:

1. Do Nothing/Defer to HRWC:

With no corrective action, the Eastern Passage Wastewater Treatment Facility will continue to be out of compliance on a daily basis, with the concurrent discharge of under-treated wastewater into Halifax Harbour. This condition will continue to worsen as development continues within the sewershed, with the accompanying increases in wastewater flows to the treatment plant. There is an expectation on the part of Nova Scotia Environment and Labour staff and the Nova Scotia Medical Officer of Health that HRM would be proceeding with this project on a priority basis.

Given the direction to merge Stormwater and Wastewater operations with the HRWC, Council could choose to defer a decision to the HRWC, allowing the HRWC to deal with the issue as part of the rate application process in 2007. The HRWC would likely approach the Utility and Review Board with a request to increase the EPC Rate, perhaps consistent with the recommendation in this report. This alternative will result in an approximate one-year delay to the project. Staff can provide no guarantees that the interim rate increase would be approved by the UARB.

2. Direct additional Stormwater and Wastewater Capital Capacity to the project:

HRM has many other Priority 1 and 2 Stormwater and Wastewater Projects. Ceasing or delaying work on these projects for an approximate three-year period can result in serious compliance issues. As staff continues to investigate the state of the current SW/WW infrastructure, we will encounter issues that required immediate resolution. Staff does not recommend this alternative as it will significantly reduce funding available to remedy other Priority 1 and 2 infrastructure issues. Additionally, many SW/WW projects are integrated projects, with the work done in concert with water works and/or street works. This integrated approach lowers the overall costs, and results in less disruption to members of the public.

3. Increase the Sewer Redevelopment Charge and Collapse the Reserves:

Environmental Engineering Services staff is working closely with Community Development staff to review the implications of the Sewer Redevelopment Charge and Capital Cost Contribution. Given the inter-relationship, staff would prefer to complete this work and return to Council to report their findings before proceeding with any Sewer Redevelopment Charge increase.

Collapsing the existing reserves at this time will not provide funding sufficient to support this project. In addition, it leaves HRM exposed to the risk of not being able to deal with unexpected Priority 1 SW/WW infrastructure issues. This issue will be reviewed in the context of the merger with the HRWC.

4. Do not use Capital Cost Charges to fund part of the Eastern Passage WWTF Project

A portion of the capital cost of the project, estimated at \$7.4 million, has been estimated to be for the benefit of future users of the wastewater treatment facility. If this portion of the project is not funded through CCC, then the funding challenge will be even greater. More money will have to be

borrowed, with a greater payback from EPC, and a resultant higher charge to the existing wastewater customers in HRM. It is the view of staff that it is inappropriate for existing customers to pay for this portion of the cost, where it will benefit future customers.

5. MRIF II/Future Infrastructure Funding Programs

Council could decide to wait and apply for funding from some other yet-unannounced infrastructure funding program. This alternative is not recommended by staff. While additional funding for MRIF has been announced, the timing of the funding availability is uncertain. The Eastern Passage WWTF Project is very large, and would likely consume most, if not all of the available funding under a new program. All infrastructure programs come with specific eligibility criteria. This project may or may not meet those specific criteria. Finally, waiting for infrastructure funding will mean additional delays in the project. This project cannot afford to be delayed any longer.

ATTACHMENTS

None.

Copies of this report, and information on its status, can be obtained by contacting the Procurement Dept. at 490-4170, or Fax 490-6425.

Report Prepared by:



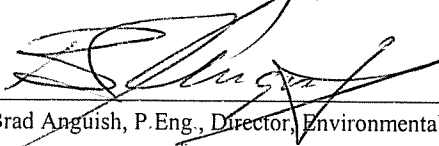
John Sheppard, P.Eng. Manager, Environmental Engineering Services at 490-6958

Report Approved by:



Cathie O'Toole, CGA, A/Director, Finance at 490-6308

Report Approved by:



Brad Anguish, P.Eng., Director, Environmental Management Services at 490-4825