



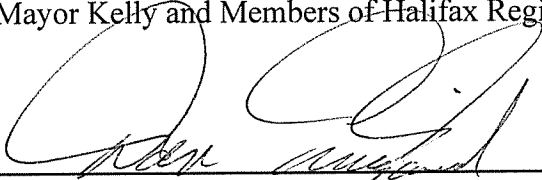
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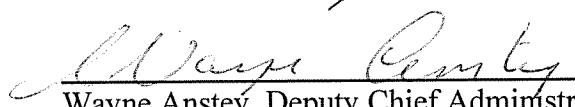
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Halifax Regional Council
May 16, 2006

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:


Dan English, Chief Administrative Officer


Wayne Anstey, Deputy Chief Administrative Officer

DATE: May 1, 2006

SUBJECT: **Tender Award, No. 06-350**
North Preston Sewage Treatment Plant Upgrade - Eastern Region

ORIGIN

Report to Council November 22, 2005, MRIF - Request for Council Direction, containing a discussion of the proposed North Preston Water and Sewer Project.

RECOMMENDATION

It is recommended that Council:

1. Replace pages K3, K4, K77, and K78 of the *2006-07 Proposed Capital Project Supplementary Reports and 2007-08 & 2008-09 Proposed Plan* with the Revised Capital Project Supplementary Report - North Preston STP Upgrade CSU00146 as per Attachment A;
2. Provide advanced funding approval as per the Revised Capital Project Supplementary Report Attachment A;
3. Award Tender No. 06-350, North Preston Sewage Treatment Plant Upgrade - West Region to Windbridge Construction Limited for materials and services listed at the unit prices quoted

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for a Tender Price of \$2,085,825 including net HST from Capital Account No.CSU00146, North Preston Sewage Treatment Plant Upgrade, with funding authorized as per the Budget Implications Section of this report.

4. Approve the appointment of CBCL Limited for construction inspection and administration services for a total of \$194,446 including net HST with funding as outlined in the Budget Implications Section of this report.

BACKGROUND

North Preston Sewage Treatment Plant

Conditions at the North Preston Sewage Treatment Plant and in the receiving water body of Whynder Lake require that the plant be expanded and upgraded. In addition, the plant's expansion and upgrade are required in order to accommodate the higher hydraulic loads resulting from the wastewater collection system. The wastewater collection system suffers from excessive infiltration/inflow.

The proposed North Preston Sewage Treatment Plant work is part of an overall strategy intended to address the wet weather flow problems in the North Preston wastewater system and the resulting public health risk associated with wet weather overflows. The strategy also includes upgrades to the Johnson Road Pumping Station which pumps wastewater to the treatment plant.

Johnson Road Pumping Station

A Wastewater Pumping Stations and Forcemains Study was completed in 2004 for all of HRM's pumping station infrastructure. A number of stations were identified as priority stations for rehabilitation and upgrade, including Johnson Road Pumping Station.

Wet weather overflows at the Johnson Road Pumping Station are caused by excessive infiltration/inflow into the tributary sewer system. Based on staff's experience, the station overflows approximately twelve times a year. The station's overflow discharges into a nearby wet area which flows overland towards Long Lake. The withdrawal for the public water supply system for North Preston is from the same lake, which represents a possible public health issue. In addition, Long Lake flows into Lake Major, which is the source of water for the public water supply system in Dartmouth, which is another potential public health concern.

A limited flow gauging program was completed in the spring of 2005 to gain further insight into the wet weather overflow problem. The program showed that the magnitude of the wet weather overflows is much greater than originally understood.

Various strategies to address the wet weather overflow problem were recently presented to the Federal Department of Fisheries and Oceans, Provincial Department of Environment and Labour, and the Nova Scotia Medical Officer of Health by staff of HRM and HRWC. The outcome of the

meeting was the selection of a strategy by those present to address the problem.

The accepted strategy involves implementing a number of initial measures to address the wet weather overflow problem in an immediate fashion, with the intent to follow up this work with an overall wastewater management plan. The initial measures include upgrades to the Johnson Road Pumping Station, and adjustments to the already planned expansion and upgrade to the North Preston Wastewater Treatment Plant to accept peak wet weather flows.

The next step to more fully address the wet weather overflow problem within the North Preston wastewater collection system is to complete a wastewater management plan. The study area will include the areas within the existing North Preston Wastewater Treatment Plant service boundary.

The North Preston Water and Sewer Project, which includes the wastewater treatment plant upgrade, is the No. 1 overall priority wastewater project in HRM because of potential risks related to the water supply in North Preston if the project is not completed. This project and the proposed scope of work have been reviewed by the Federal Department of Fisheries and Oceans, Nova Scotia Department of Environment and Labour and the Nova Scotia Medical Officer of Health. They are in support of the project and they have indicated to HRM staff that this is a high-priority project.

DISCUSSION

The Proposed 2006-07 Capital Budget and 2007-08 & 2008-09 Capital Plan tabled on May 2, 2006 includes two separate projects directly related to the North Preston Water and Sewer Project. Through the tender evaluation process it became apparent that the timing and presentation of the proposed budget would need to be re-evaluated to ensure appropriate allocation of budgeted funds and project implementation. The consolidation of the Johnson Road Pumping Station project (CGI00605) and the North Preston Sewage Treatment Plant Upgrade project (CSU00146) accommodates this need and allows the project to be implemented as required, as per Recommendation #1.

Tenders were called on January 28, 2006 and closed on February 24, 2006. The following bids were received:

	<u>Bid Price</u>
1. Windbridge Construction Limited	\$2,016,673.68
2. Amber Contracting Limited	\$2,082,136.40
3. A.C.L. Construction Limited	\$2,129,436.40

This project involves the expansion and upgrade of the existing wastewater treatment plant. More specifically, the scope of work for this tender consists of the demolition of the existing rotating biological contactor process building; installation of new treatment plant process equipment and tankage; installation of a back up power system; construction of an engineered wetland; installation of new pumping equipment and associated piping; and mechanical and electrical changes and upgrades.

To encourage local participation in the construction of the new treatment plant, a similar approach was used as compared to the tendering of the North Preston Community Center. An introduction was included in the tender document that described the project and the primary goal of providing a quality facility that will serve the needs of the community and at the same time ensure a healthy, sustainable, vibrant community through the preservation of the environment. In addition, it was recognized that North Preston is part of the larger Preston area that includes a number of communities (North Preston, East Preston, Cherry Brook, and Lake Loon). Together, they make up the largest black community in Nova Scotia. Due to the unique character of the location, the general contractor, and his sub-contractors, are to consider, where practical, qualified local trade persons and companies for work on the project.

Contact information was provided in the tender to aid the general contractor, and sub-contractors, in obtaining qualified local trades persons, companies and services, through the Watershed Association Development Enterprises, who had collected resumes and information on local businesses interested in participating in the construction of the project. In addition, contact information was provided for the Black Business Initiative Society.

Since this project was designed by CBCL Limited, it is recommended that they be retained to provide construction inspection and administration services. The estimated fee for this service is \$194,446 including applicable taxes. If approved, the payment to the consultant will be based on the amount of actual time spent on the project in accordance with the hourly fees quoted in the design proposal.

It is anticipated that work will commence after the tender is awarded.

This is a **UNIT PRICE** contract and the cost will be dependent upon the actual quantities measured and approved by the HRM Project Manager.

There are no Local Improvement Charges associated with this work.

BUDGET IMPLICATIONS

The Revised Capital Project Supplementary Report - North Preston STP Upgrade CSU00146 has a net impact on the 2006-07 Proposed Capital Budget of zero. The recommendation changes the timing of the use of approved Municipal Rural Infrastructure Fund (MRIF) for this project. HRM may be required to use bridge financing to manage the cash flow of the project. This approach is consistent with the January 20, 2006 MRIF Project Prioritization report presented In Camera on January 31, 2006.

In accordance with the direction given to staff by Council on November 22, 2005, an application was submitted to the Municipal Rural Infrastructure Fund (MRIF) Program for the North Preston Water and Sewer Project. A total project cost of \$4.55 million has been developed which includes upgrades to the Johnson Road Pumping Station, the North Preston Wastewater Treatment Plant and North Preston Water Treatment Plan. This project also includes the completion of the North Preston

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Wastewater Management Plan which will identify additional wastewater system upgrades required to address the overall wet weather overflow problem.

Based on the lowest tendered price of \$2,085,825, plus \$194,446 for contract administration and inspection and net HST for a total project cost of \$2,280,271, funding is available under Account No. CSU00146, North Preston Sewage Treatment Plant Upgrade. Two-thirds of the funding for this project is being provided through the successful Municipal Rural Infrastructure Fund (MRIF) application for the North Preston Water and Sewer Project. The budget availability has been confirmed by Financial Services.

Budget Summary **Capital Account No. CSU00146, North Preston Sewage Treatment Plant Upgrade**

Cumulative unspent Budget	\$ 531,914.00
Add: Budget Increase - Cost share funding - MRIF	\$2,120,000.00
Add: Budget Increase - Reserve - EPC	\$ 56,000.00
Less: Tender 06-350	\$2,085,825.00
Less: Construction Inspection Services	<u>\$ 194,446.00</u>
Balance of account	\$ 427,643.00

The balance in this account will be carried forward into 2007-08 to fund the remainder of the work to be completed in this project.

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.

ALTERNATIVES

The approach described in this report has been accepted by the Federal Department of Fisheries and Oceans, Nova Scotia Department of Environment and Labour and the Nova Scotia Medical Officer of Health. Therefore, there are no recommended alternatives.

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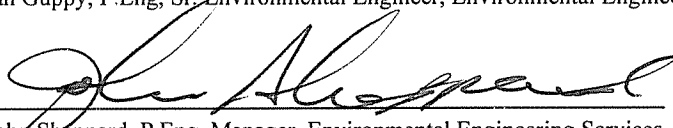
ATTACHMENTS

Attachment A: Revised Capital Supplementary Report - North Preston STP Upgrade CSU00146


Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Ian Guppy, P.Eng, Sr. Environmental Engineer, Environmental Engineering Services, 490-5212


Report Approved by:


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

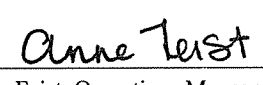
Report Approved by:


Ferdinand Makani, Financial Consultant, 490-6902

Report Approved by:


Jim Bauld, Acting Director, Environmental Management Services, 490-4825

Procurement Review by:


Anne Feist, Operations Manager, Procurement, 490-4200



Capital Project Supplementary Report

Project Name: North Preston STP Upgrade	
Category Stormwater & Wastewater	Project Number CSU00146
Business Unit Environmental Management Services	
Priority Number 1	Project Manager: Ian Guppy, P.Eng.
District # 3	Asset Life Expectancy 55 Years
Start Date: April 2006	Completion Date: March 2007

Annual Gross Expenditures (current dollars)	Previous Years (Office Use Only)	Capital Budget 2006-07 (000's \$)	Capital Plan 2007-08 (000's \$)	Capital Plan 2008-09 (000's \$)	Future Years (000's \$)	Total Years (000's \$)
Gross Base Budget	\$1,164	\$2,176	\$1,000	\$0	\$0	\$4,340
Gross Capability Budget	0	0	0	0	0	0
Total Gross Expenditures	\$1,164	\$2,176	\$1,000	\$0	\$0	\$4,340
Estimated Capital Funding						
External Cost Sharing	\$0	\$0	\$0	\$0	\$0	0
Reserves (EPC)	0	56	550	0	0	606
LIC	0	0	0	0	0	0
Other Funding (MRIF)	0	2,120	450	0	0	2,570
Total Estimated Funding	\$0	\$2,176	\$1,000	\$0	\$0	\$3,176
Net Budget:	\$1,164	\$0	\$0	\$0	\$0	\$1,164

Project Objective, Description & Justification including deliverables:

The purpose of the North Preston Water and Sewer Project is to address the wet weather flow problems in the North Preston wastewater system and the resulting public health risk associated with wet weather overflows. The project involves upgrades to the North Preston Sewage Treatment Plant and Johnson Road Pumping Station and the completion of an overall wastewater management plan.

Conditions at the North Preston Sewage Treatment Plant and in the receiving water body of Whynder Lake require that the plant be expanded and upgraded. In addition, the intention is for the plant to receive the wet weather flows from Johnson Road Pumping Station. A Wastewater Pumping Stations and Forcemains Study was completed in 2004 for all of HRM's pumping station infrastructure. A number of stations were identified including Johnson Road Pumping Station as priority stations. The Johnson Road Pumping Station has a wet weather overflow problem and the proposed upgrades will reduce the risk of overflow.

Status of Project & Anticipated Barriers:

Wastewater management plan in 2006/07. Johnson Road Pumping Station and North Preston Sewage Treatment Plant Upgrade commencing construction in 2006/07. Anticipated barriers: None

Capital Project Supplementary Report

Project Name: North Preston STP Upgrade	Project # CSU00146
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Operating Costs (Implementation & On-going)

Expenditures & Savings (000's \$)	2006-07	2007-08	2008-09	Future Years (Yrs 4-10)	Total (Yrs 1 - 10)
Implementation Operating	0	0	0	0	0
On-Going Operating Costs	30	0	0	0	30
Replacement Reserve	0	0	0	0	0
Less:					
New Revenues	0	0	0	0	0
Savings to Future budgets	0	0	0	0	0
Total Operating Costs (Net of Savings)	\$30	\$0	\$0	\$0	\$30

Total FTE's	2006-07	2007-08	2008-09	Future Years (Yrs 4-10)	Total (Yrs 1 - 10)
New positions (Implementation)	0	0	0	0	0
New positions (On-going)	0	0	0	0	0
Total	0	0	0	0	0

Impact on Operating Budget:

Additional Costs of \$30,000 per year.

Organizational Impact & Impact on Other Business Units:

None.

Technology Requirements:

None

Which Theme Outcome does this project link to and how do the project deliverables move the theme forward?

Safe Communities

- Ensure infrastructure in HRM is safe and well maintained.

Healthy, Sustainable, Vibrant Communities

- Preservation of the environment.