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PO Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

**Halifax Regional Council**  
**May 11, 2004**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:**

  
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Brad Anguish, P.Eng., PMP, MBA, Director  
Environmental Management Services

**DATE:** April 30, 2004

**SUBJECT:** **Extension of Sewer and Water Services to Service a Proposed New High School in Middle Musquodoboit**

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## INFORMATION REPORT

### ORIGIN

As noted in Item 10.4.1 of the Halifax Regional Council Meeting, March 23, 2004, Deputy Mayor Streach requested a staff report on the ramifications and costs of extending sewer and water services in Middle Musquodoboit to service a proposed new high school.

## **BACKGROUND**

Construction of a new high school in Middle Musquodoboit is scheduled for 2006. The new high school is to be situated at the same location as the existing high school.

The proposed site of the new high school is not serviced by central sewer and/or water services and is situated approximately one kilometre from existing services. Furthermore, the proposed site falls outside the service boundary for sewer and water services as outlined in the Municipal Planning Strategy (MPS) for the Musquodoboit - Dutch Settlement area. Refer to the Middle Musquodoboit Service Boundary Map which is attached.

Middle Musquodoboit is the only community within the Plan Area - Musquodoboit-Dutch Settlement that has central sewer and/or water services. Municipal services were installed in 1989 and were designed to service the area within the existing service boundary. The remainder of the plan area is generally served by on-site septic disposal systems and private on-site wells except it should be noted that the existing high school in Middle Musquodoboit is serviced by an extended aeration treatment plant, not owned by HRM, that provides secondary treatment. Plant effluent is discharged to the Musquodoboit River.

It should be noted that policy EC-7 of the MPS for Musquodoboit-Dutch Settlement states, "It shall be the intention of Council to consider extending central services to the Musquodoboit Rural High School upon upgrading the system in the future."

The Middle Musquodoboit Water Pollution Control Plant (WPCP) does not have capacity to service the proposed new high school facility. The Middle Musquodoboit WPCP is a rotating biological contactor process which provides a secondary level of treatment. It is currently operating close to the design capacity of 114 m<sup>3</sup>/day servicing a population equivalent of 210 people. Treated effluent is discharged to the Musquodoboit River and is in compliance with NSDEL effluent discharge parameters. There are no capital cost expenditures planned for upgrades or expansion of the Middle Musquodoboit WPCP.

The Middle Musquodoboit Water Treatment Plant currently has capacity to service the proposed new high school facility.

## **DISCUSSION**

Sewer service connections to the Middle Musquodoboit WPCP cannot be permitted from outside the service boundary without a formal plan amendment to change the limits of the service boundary and an upgrade to increase plant capacity. An expansion of the Middle Musquodoboit WPCP may be possible but is dependent on a number of factors. One factor is confirmation that the assimilative capacity of the Middle Musquodoboit River can accommodate increased treated effluent loadings. A preliminary investigation to determine the assimilative capacity of the river is currently underway as part of the Regional Planning process.

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Another factor is the future development and growth plans for Middle Musquodoboit. Recommendations resulting from the Regional Planning process may impact amendments to the service boundary which may or may not include the site of the proposed new high school. Possible expansion and tertiary treatment upgrading of the Middle Musquodoboit WPCP is estimated to cost in the order of \$1 million to service an additional population equivalent of 300.

A preliminary cost estimate to extend sewer and water services from the central service network to the proposed location of the new high school is \$500,000 for sewer and \$400,000 for water for a total of \$900,000 for both services. The cost estimate is a class B estimate and is based on approximately 1000 m of pipe extension, one sewage pump station and no laterals. The cost estimate includes taxes and a 35% contingency.

**BUDGET IMPLICATIONS**

No funding has been identified for an extension of sewer and/or water services to the proposed location of the new high school or for upgrades and/or expansion to the Middle Musquodoboit WPCP.

**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**

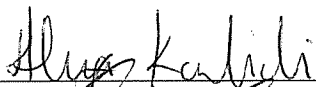
HRM staff has not investigated any alternatives to extending water and sewer services, but possible alternatives may be utilizing a traditional on-site sewage system or the sewage treatment plant at the existing high school and the current source of water supply.

**ATTACHMENTS**

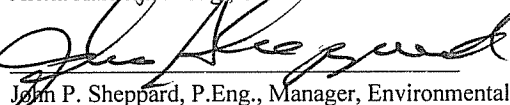
Middle Musquodoboit Service Boundary Map

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:

  
Alexa Karljicki, P.Eng., Stormwater & Wastewater Engineer, 490-6941

Report Approved by:

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