MEMORANDUM/STAFF REPORT

REPORT TO: Municipal Council

SUBMITTED BY: Engineering and Public Works Dept.

DATE: August 9, 2016

SUBJECT: Future Central Water System – Village of Chester

ORIGIN: Comm. of the Whole - May 19, 2016

Prepared By:	Matthew S. Davidson, P.Eng	Date:	August 9, 2016
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CURRENT SITUATION

On May 19th, 2016, The Director of Engineering and Public Works was instructed to provide Councillor Armstrong with a ball-park figure for providing water to the village, based on full cost recovery.

RECOMMENDATION

N/A

BACKGROUND

At the February 4th, 2016 Committee of Whole meeting, Council requested staff to list and summarize the various reports regarding the future water system for the Village of Chester. The summarized list was provided as part of a Request for Direction, dated April 20th, 2016 and reviewed by Council at the May 19th, 2016 Committee of the Whole.

DISCUSSION

When reviewing costs associated with a Central Water System for the Village of Chester, it is important to clarify that there may be three (3) different cost categories; capital construction, connection and operational costs.

Capital Costs

In terms of the capital cost of construction and the recovery of those funds, it will be assumed that the service area for Central Water will be equivalent to the Village's Central Sewer system, which would mean that the system would service approximately 800 connections of various type, but mostly residential. For the purposes of this report, it will also be assumed that the capital cost of construction for the future water system is approximately $13 million (2011 Dollars). This estimated cost would account for such features as raw water transmission lines from Spectacle Lake, a treatment plant, water storage (i.e. reservoir), transmission and distribution lines, as well as Engineering and a Contingency (i.e. 25 % of construction costs). Given that the estimate is in 2011 Dollars, an inflation factor should be applied (i.e. 8 % per year); additionally the design of the system should be accounted for in the estimate (i.e. approximately 5-10 % of construction costs) as well as HST. Once factoring in these additional costs, the updated capital cost of construction is estimated to be $22,000,000 (2016 Dollars, Net HST). It is important to note, that the Municipality has not completed a design to date, therefore, these estimates are preliminary, indicating an approximate order of magnitude (i.e. Class D, +/- 50 %) and may greatly vary with detailed design estimate, depending on a variety of factors. If one was to simply assume full capital cost recovery amongst the estimated 800 connections, a single capital recovery cost is estimated to be $27,500, subject to any Council policy for recovering borrowing interest and project funding (i.e. Federal/Provincial Funding)

Method to Recover Costs of installing Water System- Capital Cost Recovery

Section 81 of the Municipal Government Act enable a Municipality to recover the capital portion of installing a water system. To do so, Council would be required to establish a By-law that sets out:

a) The method of charge Charges (in proportion to frontage, area, assessment or other method established by By-law.)
b) Lump Sum Payment or payment in annual installments (for a set period of time, i.e. 10 years)
c) Interest payable annually on the amount outstanding and unpaid (even for charges paid by annual installment);
d) When the charge is to be applied (all properties, regardless of connection, or only at connection time). This influences the charge to be applied.

Connection Costs

The other costs, it can be assumed that the cost to connect would be similar to the cost of connecting to the Central Sewer System, approximately $2,500.

Operating Costs

Such a water system would be considered a Municipal Water System and require approval under the Activities Designation Regulations (to construct and operate) from NSE. In addition, classification and associated monitoring requirements would fall under the Water and Wastewater Facilities and Public Drinking Water Supply Regulations.

The Water System would be considered a Public Utility under the Public Utilities Act and thus the Nova Scotia Utility and Review Board (NSUARB) would be set all rates, tolls and charges, fire protection charges, and rates and approve all future capital expenditures in excess of $250,000. As such rates for operating costs would be set by the NSUARB.

That being said, when estimating operation costs, we can look to our municipal neighbors, Town of Bridgewater, Lunenburg and Mahone Bay to gain a sense of operating costs. It should be noted that this is for illustration purposes and does not necessarily reflect what the operating costs would be for a water system that services the Village of Chester.

Community	Base Rate – 5/8" Meter	Meter Rate - $/m3)	Consumption(m3)	Estimate Bill
Bridgewater	$ 254.28	$ 1.021	365	$ 626.95
Lunenburg	$ 285.88	$ 0.994	365	$ 648.79
Mahone Bay	$ 302.52	$ 1.762	365	$ 945.63

ATTACHMENTS