




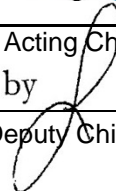
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Item No. 14.1.5
Halifax Regional Council
February 16, 2016

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY: Original Signed by 

John Traves, Q.C. Acting Chief Administrative Officer

Original Signed by 

Mike Labrecque, Deputy Chief Administrative Officer

DATE: August 27, 2015

SUBJECT: Water and Sewage Project Applications - Musquodoboit Harbour

ORIGIN

July 21, 2015 motion “That Halifax Regional Council request a staff report, including input from Halifax Water, outlining the implications of amending the Halifax/Nova Scotia/Building Canada Fund Infrastructure Project list to include a central water distribution and sewage treatment collection project for the village core area of Musquodoboit Harbour based on a medium growth development scenario.”

July 21, 2015 Council report “Building Canada Infrastructure Update & Downtown Capital Improvement Fund”

August 5, 2015 Council report “Building Canada Fund Infrastructure Projects”

LEGISLATIVE AUTHORITY

HRM Charter Section 74 – permits HRM to enter into agreements with the Province or Government of Canada to provide or administer municipal services.

RECOMMENDATION

It is recommended that Halifax Regional Council not pursue a Building Canada Fund application for a Musquodoboit Harbour central water and sewer project.

BACKGROUND

Building Canada Fund

The 2013 federal budget announced a Building Canada Fund that would deliver \$53 billion over 10 years for public infrastructure that supported federal priorities of productivity, economic growth and job creation. In March 2014 the Fund began accepting applications. Nova Scotia was scheduled to receive \$426 million over ten years under the Provincial/Territorial Infrastructure Component (PTIC). In August 2014 Council approved a number of projects for Building Canada applications under three categories: water and wastewater, transit, and urban core investment. Staff prepared applications for each of the projects under each category and shared them with the Provincial Department of Municipal Affairs. In June 2015, \$14 million in federal and provincial funding was confirmed for the Aerotech Wastewater Treatment Facility. In July 2015, preliminary approval in principle was given for two further projects: \$3.67 million over the next 2 years for conventional and Access-A-Bus replacements; and \$10.1 million for upgrading water mains in Bedford, Port Wallace and Lucasville. Final decisions on these two projects are in the process of being made.

In October 2015 a new federal government was elected. The Liberal platform made a number of statements regarding infrastructure. While the previous federal infrastructure funding was all grouped under the Building Canada Plan, the Liberal platform splits infrastructure funding into separate plans. The Building Canada Plan will be more focused and cover investment in roads, bridges, transportation corridors, ports, and border gateways. Other infrastructure funding will be grouped under three pillars:

- Public Transit - the Liberals will quadruple federal investment in public transit, investing almost \$20 billion more in transit infrastructure over 10 years.
- Social infrastructure – this funding stream will prioritize investment in affordable housing, seniors' facilities, early learning and child care, and cultural and recreational infrastructure. There will be \$19.7 billion allocated to this over 10 years.
- Green infrastructure - this includes investments in local water and wastewater facilities; clean energy; climate resilient infrastructure, including flood mitigation systems; and infrastructure to protect against changing weather. It will total \$19.7 billion over 10 years.

The next federal budget, expected in February or March 2016, will likely provide more details on program criteria and how funding will flow.

Musquodoboit Harbour Watershed Studies

In 2006-07 Musquodoboit Harbour underwent a visioning process as one of three communities in HRM's pilot Community Visioning initiatives. Community visioning is a public engagement process meant to build consensus amongst residents and other important stakeholders on what their communities should look like, feel like, and be like into the future. Visioning was a tool used to implement the 2006 Regional Plan. It was not a land use planning process, but responded to a broader range of community concerns and opportunities crossing over many of HRM's areas of program and services.

The Musquodoboit Harbour Community Vision was approved by Council in October 2007. It included a goal under Theme 6: Infrastructure to explore options for water and sewer in Musquodoboit Harbour village to protect the environment and stimulate the local economy. CBCL Ltd was engaged in the latter stages of the Community Visioning process to complete a Musquodoboit Harbour Watershed Study which provided environmental, engineering and cost data on the feasibility of introducing piped services to the area. The 2007 study looked at a large geographic area of 176 hectares, included service to all existing low-density areas as well as higher density infill, and projected a medium-growth scenario. These factors resulted in an exceptionally high service cost, in the range of \$50,000 per property.

Discussions were held with the community which led to a Watershed Follow-Up Study in 2010, to explore the feasibility and cost of piped services in a smaller geographical area focused on the Musquodoboit Harbour village core. The study also considered the feasibility of providing central water supply only, without sewer services. The analysis looked at the costs associated with low, low-medium, medium and high density growth scenarios over a 5 to 10 year horizon. These results led to more manageable costs for homeowners, however the start-up capital costs were deemed to be too high for HRM to undertake without assurance that sufficient development would allow costs to be recouped through Capital Cost Contributions and Local Improvement Charges. A report from the Regional Watersheds Advisory Board on the Follow-Up Study did note that the up-front capital would be reduced if a funding partnership was achieved with the federal and/or provincial governments.

DISCUSSION

Musquodoboit Harbour is designated as one of four Rural District Growth Centres in the Regional Plan. Characteristics of these Growth Centres include low to medium density residential, commercial, institutional and recreation uses that support delivery of convenience services to the surrounding area. The Regional Plan includes central water distribution for the core of Musquodoboit Harbour as a future service consideration. There is continued community support for water service, expressed in a review of the 2007 community visioning goals undertaken in 2014 by the Musquodoboit Harbour and Area Community Association (MHACA).

The 2010 Watershed Follow-Up Study indicated that expected development in the area would add approximately 720 units over the next 20 years, falling between the Low and Medium growth scenarios. On that basis, a water-only option for a Low-Medium growth scenario was prepared. Total capital cost as of 2013 was estimated to be approximately \$12.6 million, or \$16,000 per water hookup after buildout, assuming no Provincial or Federal funding.

Regional Council has directed staff to explore the idea of applying for funding to implement the Medium growth scenario for both piped water and sewer servicing. For this option, the 2010 CBCL study had the following servicing costs (updated in 2013):

Central pipe hookups	1316 sewer connections 1444 water connections
Central water only cost	\$11.2 million
Cost/service (property)	\$7727
Central water and sewer cost	\$39.2 million
Cost/service (property)	\$28,718

Engineering fees, net HST, interest and overhead would be in addition to the costs referenced above. A more detailed breakdown of costs under a medium-growth scenario is available as Attachment 1. These numbers do not include any land acquisition, nor do they include costs for local pipes in new subdivisions which would be privately financed by each developer. Existing property owners would pay for individual hook-ups to the water main. An area rate would also be required to pay for fixed capital costs. Any subsequent developments would cover the cost of their own pipes.

A federal funding application would request two-thirds (\$26.13 million) of the total \$39.2 million capital cost to install central water and sewer, with HRM responsible for the remaining \$13.06 million. As noted above, HRM would depend on Capital Cost Contributions from development to offset this cost. The 720 units projected in the 2010 study reflects a low-to-medium growth scenario, which would not be sufficient to recoup these costs. In addition, development patterns have shifted since 2010 with 40% of new units now being constructed in the Regional Centre. This development rate is well above the 25% cited as a goal within the Regional Plan. If this trend continues, it could mean that growth in rural areas such as Musquodoboit Harbour will take place at a rate slower than originally anticipated. This is a key

consideration, as a water and wastewater project would rely heavily on future growth to offset costs to existing residents, thereby introducing financial risk. Halifax Water would need UARB approval to assume this risk; otherwise HRM would have to assume the financial cost of the system which would otherwise be covered by development charges.

Earlier consideration of this project also depended on future growth to offset the cost to residents, as federal and provincial funding would not address the ongoing operational costs of such a system. The delivery model would see HRM design and construct the water and wastewater infrastructure, then transfer the assets to Halifax Water to own and operate. The system would be operated on a full cost recovery basis, independent from the urban core system. In order to accurately estimate ongoing operational costs to property owners, and to develop a business case for federal government consideration, an updated projection for development plans and population growth would be needed. However the 2013 medium growth scenario numbers give an estimated annual rate that is at least double the average urban rate. The sustainability of a stand-alone utility would be in doubt given the shift in development trends over the past 2 years towards the Regional Centre.

Significant population growth is needed for such a system to be financially sustainable. The 2010 CBCL study notes that if historic development trends continue, by 2020 the community will have grown by approximately 240 people. The amount of growth needed to support the water and sewer system would be in the range of 1100 to 1755 additional people. This level of growth would significantly change the character of the community from a rural centre to a suburban-style clustered development. It does not appear to be a type of change residents want based on a visioning update done in 2014, which found residents desire growth in a way “that stays true to the vision of our community as a village.”

In conclusion, staff is recommending Council not pursue a funding application for the following reasons:

- Population – a medium growth scenario is unlikely given the trend towards development occurring in the Regional Centre and similarly densified areas. Without significant population growth it is unlikely that a water and sewer system would be sustainable.
- Cost – HRM would rely on development charges to offset the capital cost to construct a water and sewer system. The low-to-medium growth scenario projected in 2010 was not sufficient to recoup these costs, and settlement patterns indicate that the growth scenario would be lower now. Also, a stand-alone utility would be operated on a full cost-recovery basis, which presents prohibitive costs for property owners.
- Financial Risk - any water and wastewater project would rely heavily on future growth to offset costs; growth which is not assured in this case. This scenario introduces financial risk, meaning either Halifax Water would need UARB approval to assume the risk, or HRM would have to assume the financial cost of the system.

Changes are being introduced to federal infrastructure funding programs which will change eligible project criteria. A report will be coming to Council in winter 2016 with recommended project submissions.

FINANCIAL IMPLICATIONS

None.

COMMUNITY ENGAGEMENT

Planning and Development staff has held numerous community consultations on this issue over the past eight years.

ENVIRONMENTAL IMPLICATIONS

N/a

ALTERNATIVES

1. Council could decide to pursue a federal infrastructure application for Musquodoboit Harbour water and sewer service. This is not recommended because, if the application is approved, residents will face significant cost burdens to fund the ongoing operation of the system.
2. Council could direct staff to pursue a federal infrastructure application for Musquodoboit Harbour water service only pursuant to the low-medium growth option referenced in this report. While this option would have a lower hookup cost per property, it does not address the ongoing service costs to property owners, which are high enough to be considered unsustainable and may actually act as a disincentive to development.

ATTACHMENTS

Attachment 1: Musquodoboit Harbour – Water & Tertiary Sewer – Medium Growth Scenario - Estimated Probable Costs (2013 Numbers)

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.php> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

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Attachment 1

Musquodoboit Harbour – Water & Tertiary Sewer – Medium Growth Scenario - Estimated Probable Costs (2013 Numbers)

Component		Ultimate Services	Capital Cost	Cost/Existing Service	Ultimate Cost/ Service (property)
Sanitary	Collection and Laterals				
	Phase 1	1426	8,694,240	181,130	6,108
	Phase 2a	527	3,318,545	89,690	6,300
	Phase 2b	159	2,576,685	135,615	16,202
	Total Collection	1423	14,589,470	140,283	10,249
	Treatment – Tertiary	1316	7,969,627	76,631	6,055
	Outfall	1316	413,109	3,972	314,
	Sub-total Sanitary-Tertiary	1316	22,972,206	220,887	17,454
Storm	Clearwater Sewers & Laterals				
	Phase 1	1423	2,441,785	50,871	1,715
	Phase 2a	68	1,552,681	41,964	22,722
	Phase 2b	26	1,040,197	54,747	39,868
	Sub-total Storm	1423	5,034,663	48,410	3,537
Water					
	Wells	1444	217,919	1,664	151
	Well Pumps	1444	373,576	2,852	259
	Water Treatment	1444	4,482,915	34,221	3,104
	Transmission	1444	1,821,148	13,902	1,261
	Reservoir	1444	921,291	7,033	638
	Water Supply & Treatment	1444	7,816,850	59,671	5,412
	Distribution & Laterals				
	Phase 1	1444	1,011,701	25,293	700
	Phase 2a	68	1,143,090	21,168	16,728
	Phase 2b	26	362,054	22,628	13,877
	Phase 3	21	827,219	39,391	39,391
	Total Distribution	1444	3,344,064	25,527	2,315
	Sub-total Water	1444	11,160,914	85,198	7,727
Total Servicing Costs with Tertiary STP			39,167,783	354,495	28,718

*Add also approx. 10% for engineering fees, 4.3% net HST, and 2.35% for interest and overhead. Does not include any land acquisition costs.