



HAMILTON OF HAMILTON
CORPORATE SERVICES DEPARTMENT
Financial Planning, Administration and Policy Division

TO:	Mayor and Members Committee of the Whole
COMMITTEE DATE:	April 22, 2020
SUBJECT/REPORT NO:	Town of Grimsby / City of Hamilton Supply of Water Agreement (FCS20027) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	John Savoia (905) 546-2424 Ext. 7298
SUBMITTED BY:	Brian McMullen Director, Financial Planning, Administration and Policy Corporate Services Department
SIGNATURE:	

RECOMMENDATIONS

- (a) That staff be authorized and directed to negotiate and enter into, on behalf of the City of Hamilton (Hamilton), a water supply agreement with the Town of Grimsby (Grimsby), for the continued supply of potable water by Grimsby with the agreement to incorporate the following terms and conditions:
- (i) term of 10 years, from the date of execution of the agreement;
 - (ii) water consumption billed on a per cubic metre basis at a rate of 1.5 times the water rate otherwise imposed by Grimsby, from time to time, during the term of the agreement;
 - (iii) under normal operating conditions, Hamilton shall not withdraw water at any time that exceeds: (a) a maximum daily volume of 260,274 litres; or (b) a flow rate of 285 litres / minute;
 - (iv) under fire flow operating conditions, Hamilton shall not withdraw water that exceeds: (a) a maximum daily volume of 1,340,274 litres; or (b) a flow rate of 9,181 litres / minute;
 - (v) early termination by either party will require no less than two (2) years' notice;

- (vi) provisions to be included with respect to interruptions of supply and impacts on water pressure;
 - (vii) and such other terms and conditions deemed appropriate by the General Manager of Finance and Corporate Services and General Manager of Public Works;
- (b) That the Mayor and Hamilton Clerk be authorized and directed to execute, on behalf of Hamilton, all necessary documentation to implement Recommendations (a) in Report FCS20027 with content acceptable to the General Manager of Finance and Corporate Services and General Manager of Public Works, as applicable, and in a form satisfactory to the Solicitor for the City of Hamilton.

EXECUTIVE SUMMARY

The purpose of Report FCS20027 is to seek approval from Council for instructions to staff to negotiate a water supply agreement with the Town of Grimsby (Grimsby) for the continued supply of potable water to the eastern boundary of the City of Hamilton (Hamilton). Hamilton's Fifty Road Subsystem which serves approximately 200 people, is comprised of two pressure districts (PD9 and PD10) that are supplied by Grimsby's water system at a single-feed connection located along Highway 8 at the Hamilton-Grimsby border.

The supply of water by Grimsby to the Winona community dates back to the 1950s with an agreement for the Township of North Grimsby to the Township of Saltfleet. There have been many agreements over the years formally renewing this supply of water. However, there is no current water supply agreement in place. Additionally, within the 2019 Drinking Water Annual Report required under the *Safe Drinking Water Act, 2002*, the City reported a non-compliance with respect to Section 22, subsection 22-2. (3) of O. Reg. 170/03, Drinking Water Systems, that was issued by the Ministry of the Environment, Conservation and Parks (MECP) in the MECP Fifty Road Drinking Water System Inspection Report dated May 22, 2019. The non-compliance is the lack of a comparison of the quantities and flow rates in 2018 to the documented flow rates that customarily would be included within a supply agreement.

Hamilton supplies water to both Haldimand County and Halton Region governed by formal water supply agreements. Both water supply agreements include terms and conditions that would be addressed within an agreement with Grimsby such as:

- Billing details including a fair and equitable rate price structure recognizing a reasonable rate of return on assets for the supplier of water;
- Agreement term providing assurances of water supply for the recipient party and revenue for the supplier party for a definite period of time;
- Termination notification terms;
- Water supply and flow restrictions;

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- Provisions with respect to interruptions of supply and impacts on water pressure;
- Incorporate the Memorandum of Understanding (MOU) / Drinking Water Quality Management System (DWQMS) Operational Communication Procedure that exists between the owners of water systems;
- Limitations of Liability; and
- Insurance requirements.

Recommendation (a) of Report FCS20027 reflects the recommended terms and conditions that a new agreement between Grimsby and Hamilton would include at a minimum:

- term of 10 years, from the date of execution of the agreement;
- water consumption billed on a per cubic metre basis at a rate of 1.5 times the water rate otherwise imposed by Grimsby, from time to time, during the term of the agreement;
- under normal operating conditions, Hamilton shall not withdraw water at any time that exceeds: (a) a maximum daily volume of 260,274 litres; or (b) a flow rate of 285 litres / minute;
- under fire flow operating conditions, Hamilton shall not withdraw water that exceeds: (a) a maximum daily volume of 1,340,274 litres; or (b) a flow rate of 9,181 litres / minute;
- early termination by either party will require no less than two (2) years' notice;
- provisions to be included with respect to interruptions of supply and impacts on water pressure.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Based on 2019 billed consumption of 45,000 cubic metres and a volumetric charge rate of \$2.60 per cubic metre, Hamilton was charged approximately \$117 K by Grimsby. Had the volumetric rate been set at a rate of 1.5 times the water rate imposed by Grimsby of \$1.38 per cubic metre or \$2.07 per cubic metre, Hamilton's costs would have amounted to \$93 K or 20% lower.

Staffing: No impact.

Legal: By entering into a new water supply agreement with Grimsby, Hamilton will commit to utilize water from Grimsby, subject to the various terms and conditions contained within the new agreement.

HISTORICAL BACKGROUND

The Hamilton's Fifty Road Subsystem which serves approximately 200 people, is comprised of two pressure districts (PD9 and PD10) that are supplied by Grimsby's water system. Water is provided from Grimsby west along Highway 8, then south on Fifty Road to Concession Road and to an underground, 1,100 cubic metre storage reservoir operated by Hamilton. The reservoir supplies water to residences on Reservoir Park Road. Both pressure districts are small service areas with PD10 the larger of the two and generally bounded by Highway 8 to the north, Fifty Road to the west, the Grimsby border to the east and Reservoir Park Road to the south (refer to Appendix "A" to Report FCS20027).

A pump, running continuously, maintains distribution water pressure. Water pumped in excess of water system demand is circulated back to the reservoir. It should be noted that fluoridation is not carried out on the water supplied by Grimsby. The connection between the Grimsby water system and Hamilton's Fifty Road Subsystem includes a single flow meter, which is used for measuring water consumption and for billing purposes and a single check valve, which prevents water from flowing backwards from the Fifty Road Subsystem into the Grimsby system. This valve between the two systems is maintained in the closed position, to ensure physical separation between the two systems. This separation was required by the Ministry of the Environment, Conservation and Parks (MECP) when Hamilton changed its water treatment disinfectant from free chlorine to chloramine. Grimsby treats water by free chlorine. Both the flow meter and the single check valve are owned by Grimsby.

The supply of water by Grimsby to the Winona community dates back to the 1950s with an agreement for the Township of North Grimsby to the Township of Saltfleet. Previously, the area was supplied by a direct water feed from Lake Ontario to an E.D. Smith facility. It is assumed that the PD10 area was supplied from the E.D. Smith watermain with the cost of water paid for entirely by E.D. Smith. As residences and businesses in the area were required to be billed for their water usage, the supply likely was then transferred to the Grimsby feed along Highway 8.

There have been many agreements over the years formally renewing the supply of water from Grimsby. However, there is no current water supply agreement in place. Additionally, within the 2019 Drinking Water Annual Report required under the *Safe Drinking Water Act, 2002*, the City reported a non-compliance with respect to Section 22, subsection 22-2. (3) of O. Reg. 170/03, Drinking Water Systems, that was issued by the Ministry of the Environment, Conservation and Parks (MECP) in the MECP Fifty Road Drinking Water System Inspection Report dated May 22, 2019. The non-compliance is the lack of a comparison of the quantities and flow rates in 2018 to the documented flow rates that customarily would be included within a supply agreement.

Hamilton supplies water to both Haldimand County and Halton Region governed by formal water supply agreements. Both water supply agreements include terms and conditions that would be addressed within an agreement with Grimsby such as:

- Billing details including a fair and equitable rate price structure recognizing a reasonable rate of return on assets for the supplier of water;
- Agreement term providing assurances of water supply for the recipient party and revenue for the supplier party for a definite period of time;
- Termination notification terms;
- Water supply and flow restrictions;
- Provisions with respect to interruptions of supply and impacts on water pressure;
- Incorporate the Memorandum of Understanding (MOU) / Drinking Water Quality Management System (DWQMS) Operational Communication Procedure that exists between the owners of water systems;
- Limitations of Liability; and
- Insurance requirements.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENT(S)

Not applicable.

RELEVANT CONSULTATION

Corporate Services – Legal Services and Risk Management Division has been consulted in the preparation of Report FCS20027.

Public Works – Hamilton Water Division has been consulted and supports the recommendations in Report FCS20027.

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Hamilton's Fifty Road Subsystem annual water consumption has been consistent over the past few years ranging from 42,000 to 50,000 cubic metres and is billed by Grimsby three times per year. Relative to the billed consumption of the metered customers, there is a water loss of around 30%. In order to effectively conduct a water loss audit in the future, more frequent reading and billing will be requested.

For 2019, Hamilton purchased approximately 45,000 cubic metres of water from Grimsby at the rate of \$2.60 per cubic metre for a total cost of \$117 K. Grimsby charges residents and businesses \$1.38 per cubic metre for water resulting in a mark-up for Hamilton which is nearly 200%. The rate for Hamilton is imposed by Grimsby Council as part of their annual water rate budget.

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Hamilton’s negotiated water supply arrangements with Haldimand County and Halton Region incorporate a fair and equitable rate price structure recognizing cost of service and a reasonable rate of return on assets for the supplier of water:

- Hamilton to Haldimand water rate: Hamilton water rate + 10% operating surcharge + 15% rate of return = 125% premium. Average annual consumption of approximately 1.2 million cubic metres of water.
- Hamilton to Halton water rate: Hamilton water + 50% premium = 150% premium. Average annual consumption approximately of 150,000 cubic metres of water.

Hamilton Water has recently engaged the services of a consultant to evaluate the long-term water supply and servicing of Hamilton’s Fifty Road Subsystem (a report to the Public Works Committee will be provided once the study is complete). One aspect of the engagement included reviewing options for a Grimsby to Hamilton water rate:

1. A rate reflecting what Hamilton and Haldimand have determined to be reasonable costs for water supplied to Haldimand.
2. A rate reflecting what Hamilton and Halton have determined to be reasonable costs for water supplied to Halton.
3. A rate developed by determining a reasonable cost recovery by Grimsby of Hamilton’s share of Niagara Region / Grimsby infrastructure required to provide water to Hamilton.

This is a similar approach incorporated into York Region’s water supply agreements with Toronto and Peel Region. The York Region agreements are complex and involve very significant volumes of water. Given the relatively much lower amount of water supplied to Hamilton from Grimsby, the extensive analysis required to develop an Option 3 rate is not warranted.

Table 1 provides a comparison of the two alternative rate options versus the status quo.

Table 1

Scenario	Grimsby Base Rate (2019 \$/m3)	Return on Investment Component	Operating and Maintenance Component	Total (2019 \$/m3)
Status Quo	\$1.38/m3			\$2.60/m3
Option 1 (similar to Haldimand)	\$1.38/m3	\$1.38 x 15% = \$0.207/m3	\$1.38 x 10% = \$0.138/m3	\$1.73/m3
Option 2 (similar to Halton)	\$1.38/m3			\$1.38 x 1.5 = \$2.07/m3

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Recognizing that the Grimsby annual supply volume to Hamilton is more like that supplied to Halton, the recommended option for the new agreement is for the Grimsby supply rate to be calculated as 1.5 times Grimsby's base rate. The 1.5x Grimsby's residents rate ensures a reasonable share of cost recovery for use of the Grimsby / Niagara infrastructure, does not require significant efforts to estimate and calculate more detailed usage and cost recovery and has been determined to be acceptable for use in another of Hamilton's agreements (with Halton) that is for more water.

It is proposed that the new agreement will contain, at a minimum, the following terms and conditions:

- term of 10 years, from the date of execution of the agreement;
- water consumption billed on a per cubic metre basis at a rate of 1.5 times the water rate otherwise imposed by Grimsby, from time to time, during the term of the agreement;
- under normal operating conditions, Hamilton shall not withdraw water at any time that exceeds: (a) a maximum daily volume of 260,274 litres; or (b) a flow rate of 285 litres / minute;
- under fire flow operating conditions, Hamilton shall not withdraw water that exceeds: (a) a maximum daily volume of 1,340,274 litres; or (b) a flow rate of 9,181 litres / minute;
- early termination by either party will require no less than two (2) years' notice;
- provisions to be included with respect to interruptions of supply and impacts on water pressure.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive Hamilton where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report FCS20027 – Hamilton Fifty Road Subsystem Map

JS/dt