
Subject: Award of Request for Proposal 2020-RFP-60 Liquid Biosolids and Residuals Management Program

Report to: Regional Council

Report date: Thursday, September 24, 2020

Recommendations

1. That Contract 2020-RFP-60 Liquid Biosolids and Residuals Management Program **BE AWARDED** to 2386246 Ontario Inc. (Thomas Nutrient Solutions), based on year one pricing of \$5,043,651.22 (including 13% HST) for a four (4) year (plus 3 month period remaining 2020) initial term, with two (2) optional, one (1) year extension terms, and;

1.1 The term of the contract is summarized as follows:

Initial Term:

Year 1: Oct 1, 2020 – Dec 31 2021 (15 month period)
Year 2: Jan 1, 2022 – Dec 31, 2022
Year 3: Jan 1, 2023 – Dec 31, 2023
Year 4: Jan 1, 2024 – Dec 31, 2024

Optional Extensions:

Year 1: Jan 1, 2025 – Dec 31, 2025
Year 2: Jan 1, 2026 – Dec 31, 2026

2. That the Regional Chair and Regional Clerk **BE AUTHORIZED** to execute the Contract and any required documents related thereto in a form satisfactory to the Director of Legal and Court Services.

Key Facts

- The purpose of this report is to seek Council's approval for award of Contract 2020-RFP-60, Liquid Biosolids and Residuals Management Program to 2386246 Ontario Inc. (Thomas Nutrient Solutions) for a four (4) year (plus 3 month period remaining 2020) initial term, with two (2) optional, one (1) year extension terms.

- The estimated cumulative value of this contract over the initial four (4) year term (plus 3 month period remaining 2020) is \$18,969,484.70 (excluding 13% HST).
- The Procurement By-law 02-2016 as amended on February 28, 2018 requires Council approval for all tender awards in excess of \$5,000,000.

Financial Considerations

The scope of services included in the liquid biosolids and residuals management program contract include biosolids loading, haulage/transportation, lagoon management and land application of liquid biosolids and residuals generated from Water and Wastewater Treatment Facilities owned and operated by Niagara Region.

The rate structure from the previous contract is maintained within Contract 2020-RFP-60 Liquid Biosolids and Residuals Management Program. Biosolids loading, haulage/transportation and land application service rates are based on a cost per cubic meter of liquid material (\$/m³) managed by the service provider. Service rates are financially all-inclusive (excluding 13% HST) having all aspects of the service such as labour, materials, equipment, travel, carriage, insurance, financial securities, inspection, set-up and any other costs or charges required by law built-in. These service rates are variable and fluctuate annually based on year-over-year changes in the Consumer Price Index (CPI) and diesel fuel pricing. Lagoon management rates are based on a flat fee with the same annual fluctuations based on the year-over-year changes in CPI and diesel fuel pricing.

As noted, service rates for each subsequent contract year will be variable, based on changes to the CPI and diesel fuel pricing. Historically, this structure has resulted in both year-over-year rate increases and decreases. As with any variable rate formula, rates could experience year-over-year changes depending on movements in the above noted factors. To mitigate the impact of potential rate increases, the agreement initial term has been limited to four (4) years after which, Niagara Region may choose to exercise up to two (2) optional, one (1) year extension terms, or initiate a competitive bid process.

In addition to the potential variation in service rates, the total annual cost of the liquid biosolids and residuals management contract agreement is influenced by the annual liquid volume of biosolids material managed by the service provider. Total water and wastewater influent flows and treatment volumes at Niagara Region facilities will impact the total cost of the liquid biosolids and residuals management service contract.

Increased influent flows and treatment volumes result in higher liquid biosolids generation and haulage requirements. Further, persistent wet weather during warmer months leads to unfavorable conditions for biosolids land application services. Decreased land application volumes ultimately lower the annual value of the service contract for the year(s) during which wet weather may be experienced.

Projected Financial Impact

In response to 2020-RFP-60, Thomas Nutrient Solutions has submitted their bid of \$4,541,964.14 (including 1.76% non-recoverable HST) representing an estimated overall year one contract value increase of 7.5% over the 2019 actual cost under the previous contract agreement.

Based on volumes for liquid biosolids and residuals management over the past three (3) year period (Jan 1, 2017 – Dec 31, 2019), it is anticipated that an increase in the operating budget of \$241,791 will be required; from \$4,207,249 in 2020 to \$4,449,040 in 2021. As stated, these projections are subject to the variability of factors such as weather, and the volume of liquid biosolids and residuals generated from operations at Regional water and wastewater treatment facilities.

The following table summarizes the estimated annual costs for the Liquid Biosolids Management Services:

TABLE No. 1: Existing Contract Costs for Biosolids Management Services With Thomas Nutrient Solutions

Year	Biosolids Loading & Haulage /Transportation	Biosolids Land Application	Lagoon Management	Total Cost
2017	\$2,549,462.91	\$1,083,629.28	\$49,862.50	\$3,682,954.69
2018	\$3,100,391.80	\$1,055,510.55	\$52,222.56	\$4,208,124.91
2019	\$3,256,230.43	\$917,348.47	\$52,976.42	\$4,226,555.32
2020	<i>Excluded from analysis due to interim agreements pricing</i>			
2021F*	\$3,301,330.48	\$1,096,667.52	\$51,041.80	\$4,449,039.80

**2021F denotes forecasted volume projections at the new bid prices – excludes provisional / emergency haulage amounts awarded in the contract*

Analysis

Niagara Region's liquid biosolids and residuals management program and diversified management strategy focus on two (2) keynote processes for beneficial reuse of biosolids material generated from Water and Wastewater Treatment Facilities owned and operated by the Region. Both processes are elaborated upon below:

- Process No. 1 - Land application of liquid biosolids on lands approved for receipt in accordance with the Nutrient Management Act, and
- Process No. 2 - Region de-watering of liquid biosolids and residuals, with haulage/transportation and further processing into a soil amendment product under separate contract (Process No. 2)

Land application of liquid biosolids in accordance with the Nutrient Management Act (Process No. 1) for agricultural purposes continues to be the most cost effective option per unit volume for management of the Niagara Region's liquid biosolids. However, current regulations limit land application to the period April 1 to November 30 annually. Land application of liquid biosolids outside of this prescribed spreading season is prohibited. Land application is also subject to the availability of agricultural lands within the Region of Niagara and the willing participation of the agricultural community and landowners. Precipitation and soil moisture content are additional limiting factors to land application of liquid biosolids.

Region de-watering of liquid biosolids, with haulage/transportation and further processing under separate contract carries a higher cost per unit volume of liquid biosolids managed. It should be noted that Niagara Region bears the cost of de-watering the liquid biosolids in addition to the cost of the contracted service. The benefit of this management process is year round availability and not weather dependent. This provides a level of insurance and contingency that capacity will always be available to manage liquid biosolids generated by Niagara Region's water and wastewater treatment facilities when land application of liquid biosolids is not possible.

The most desirable path for the Liquid Biosolids and Residuals Management Program transitioning into 2021 and extending through 2024 is to focus on further intensification of land application of liquid biosolids and residual solids. Therefore, on May 22, 2020, Procurement Staff, in consultation with Water Wastewater Staff and with the support of the Fairness Commissioner and Subject Matter Expert retained by Niagara Region for this project, posted the Request for Proposal 2020-RFP-60: Liquid Biosolids and

Residuals Management Program to bids&tenders. During the open period, three (3) addenda provided Proponents with responses to questions received via bids&tenders. Niagara Region received four (4) submissions at the scheduled closing of 2:00 PM on June 23, 2020, and all were compliant with mandatory submission requirements. Following the evaluation process, three (3) submissions met the established minimum technical threshold based on the stated evaluation criteria.

Niagara Region retained the Services of Optimus SBR Inc. to act as an independent third party Fairness Commissioner to oversee, guide and govern the entire procurement process from bid development culminating in providing support to Staff as they present a recommendation to award to the highest scoring proposal to both Committee and Council. Their final report which attests to their observations of the entire procurement process is appended to this report in Appendix 1 - "Final Fairness Report – Request for Proposal Stage for the Liquid Biosolids and Residuals Management Program 2020-RFP-60". Procurement affirms that fair, transparent and competitive processes were undertaken for all three procurements for Liquid Biosolids and Residuals Management Program and are supportive of the recommendation contained herein. A summary of the procurement process is appended to this report as Appendix 2.

The response to 2020-RFP-60 provided by Thomas Nutrient Solutions provides a detailed plan and comprehensive strategy for the transition of the liquid biosolids and residuals management program and continued relationship building with Niagara's agricultural community and landowners. This is essential to ensuring ongoing participation in the Region's liquid biosolids and residuals management program and efficient management Niagara's biosolids.

Alternatives Reviewed

This procurement (and the innovations identified herein) was facilitated in accordance with direction provided by Public Works Committee and as such alternatives were not further considered.

Relationship to Council Strategic Priorities

Supporting Businesses and Economic Growth:

Much of the labour, equipment, and materials required for the purposes of servicing the Niagara Region liquid biosolids and residuals management program are connected to Niagara and Niagara businesses.

Healthy and Vibrant Community:

The liquid biosolids and residuals management program is essential in appropriately managing liquid biosolids and residual solids generated from Niagara Region water and wastewater treatment facilities. The program is critical to ensuring the Health and wellbeing of Niagara Region residents, agricultural community and the natural environment.

Responsible Growth and Infrastructure Planning:

Niagara Region staff and the contract service provider work continually to develop strategic alliances with local Municipal partners and representatives from various regulatory agencies to ensure the liquid Biosolids and residuals management program operates in manner which supports the natural environment and has zero impact on area residents and locally owned infrastructure.

Sustainable and Engaging Government:

Niagara Region's liquid biosolids and residuals management program continues to effectively engage with Niagara's agricultural community, local area Municipalities and the residents of Niagara to increase public knowledge through education and promotion of liquid biosolids and residual solids management within Niagara Region.

Other Pertinent Reports

- PWA 05-2012 Niagara Region Biosolids Master Plan, Water & Wastewater Services (January 10, 2012)
- PW 12-2017, Niagara Region Liquid Biosolids Management Program Contract Renewals (February 21, 2017)
- PW 3-2020 Niagara Region Liquid Biosolids Management Program Renewal of Contract Agreement with Thomas Nutrient Solutions (January 14, 2020)

- PWC-C 10-2020 Procurement Progress Report Liquid Biosolids and Residual Management (March 10, 2020)
- PWC-C 12-2020 Procurement Progress Report Liquid Biosolids & Residual Management (May 12, 2020)

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Appendices

Appendix 1	Final Fairness Report – Request for Proposal Stage for the Liquid Biosolids and Residuals Management Program 2020-RFP-60
Appendix 2	Procurement Process