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The Regional Municipality of Durham Report

To: Works Committee
From: Acting Commissioner of Works
Report: #2023-W-36
Date: September 6, 2023

Subject:

Approval to Award Sole Source Maintenance Service and/or Parts Supply Agreements Negotiated for Equipment Installed at Various Water Pollution Control Plants and Sanitary Sewage Pumping Stations throughout Durham Region

Recommendations:

That the Works Committee recommends to Regional Council:

- a) That staff be authorized to negotiate and award sole source agreements for maintenance service and/or parts supply for the existing equipment installed as components of various Water Pollution Control Plants and Sanitary Sewage Pumping Stations throughout Durham Region as listed below, with terms not to exceed five years;
- b) That financing for the sole source maintenance service and/or parts supply agreements be provided from the Regional Municipality of Durham's approved annual Sanitary Sewerage Operations Budget at an estimated annual cost of approximately \$6,450,000;
- c) That the negotiated sole source agreements be awarded as follows:

Authorized Supplier	Manufacturer	Estimated Annual Costs (excluding HST)
Alfa Laval	Alfa Laval	\$125,000
Xylem	Xylem	\$800,000
C & M Environmental	Brentwood Industries/Spirac	\$300,000

Authorized Supplier	Manufacturer	Estimated Annual Costs (excluding HST)
ACG Envirocan Ltd	JWC	\$225,000
Directrik	Vogelsang, Hydrostal, Weir, Wemco, Trillium Pumps	\$375,000
Toshont	Toshiba	\$150,000
Thermogenics	Thermogenics	\$150,000
OVIVO	OVIVO	\$500,000
PRO Aqua	Bioseco, Schwing Bioset, Atlas Copco, Sanitaitre,	\$400,000
Evoqua	Evoqua	\$150,000
Envirocare	Envirocare	\$125,000
Arvos Group	Arvos Group	\$150,000
Veolia	Veolia	\$250,000
Syntec	Fontaine, Tidflex, Neitzch, Trueline, Valvematic, Red Valve	\$200,000
Flowpoint	Flowpoint	\$100,000
Benshaw	Benshaw	\$100,000
Schneider	Schneider	\$250,000
APG Neuros	APG Neuros	\$200,000
Howden	Turblex	\$500,000
Westech Industrial	Varec	\$150,000
KSB Pumps	KSB Pumps	\$250,000
Sulzer	Sulzer	\$100,000
Novatech	Ametek	\$200,000
Lakeside Process Controls	AMS and Valve Link Monitoring Software (Emerson), Fisher Control Valves,& Controllers, Rosemount Family of Measuring Devices	\$250,000

Authorized Supplier	Manufacturer	Estimated Annual Costs (excluding HST)
John Brooks	Grundfos, E-one	\$100,000
Waterloo Manufacturing	Cleaver Brooks	\$150,000
Troy-Ontor Incorporated	Auma Actuators	\$200,000
	TOTAL	\$6,450,000

and;

- d) That the Commissioner of Finance be authorized to execute the necessary maintenance service and/or parts supply agreements.

Report:

1. Purpose

- 1.1 The purpose of this report is to seek Regional Municipality of Durham (Region) Council approval to award sole source maintenance service and/or parts supply agreements, subject to the negotiation of contracts satisfactory to the Commissioner of Finance, for existing major equipment installed as components of various Water Pollution Control Plants (WPCP) and Sanitary Sewage Pumping Stations (SSPS) operated by the Region.

2. Background

- 2.1 Regularly scheduled maintenance must be conducted as specified by the manufacturer to maintain equipment warranties. In most cases, this specialized maintenance must be done by qualified and trained personnel. Often, consumable spare parts, replacement components, and other maintenance items can only be obtained through the original vendor or their authorized Ontario representative.
- 2.2 Additionally, specialized testing of some components is required to comply with the Ministry of the Environment, Conservation and Parks (MECP) Environmental Compliance Approvals (ECA), or the Region may be at risk of non-compliance.
- 2.3 This report seeks authorization for the sole source award of maintenance service and/or parts supply agreements for the WPCP (including Duffin Creek WPCP) and SSPS operated by the Region.
- 2.4 Where the Ontario-based representatives for authorized equipment suppliers have changed from previous reports, this report specifies the new representative.

2.5 Duffin Creek WPCP is a component of the York-Durham Sewage System (YDSS) Primary System, and operating costs related to that facility are shared with the Regional Municipality of York (York). Durham Region's share of the operating costs is determined annually based on the YDSS Primary System Operating Agreement between the Regions of York and Durham.

3. Previous Reports and Decisions

- 3.1 In May 2011, Regional Council approved Works Committee Report #2011-W-43 authorizing the negotiation of several sole source maintenance services and/or parts supply agreements for major items installed as components of the Stage 3 expansion of the Duffin Creek WPCP, with terms not to exceed five years.
- 3.2 Report #2011-W-43 noted that following approval of that report, additional equipment for the Duffin Creek WPCP may be identified as requiring maintenance service or parts supply agreements, which would be reported separately.
- 3.3 In March 2017, Regional Council approved Works Committee Report #2017-COW-51, authorizing the renewal of approvals granted under Report #2011-W-43 and additional vendors for equipment installed at the Duffin Creek WPCP under the Stages 1 & 2 Liquids Rehabilitation Project, with terms not to exceed five years.
- 3.4 In November 2017, Regional Council approved Works Committee Report #2017-COW-244 authorizing an increase in the value of the sole source agreement for C&M Environmental, one of the vendors approved under Report # 2017-COW-51, due to an increased scope of maintenance activities and an increase in the supply of spare parts.
- 3.5 In August 2018, Council Recess Approval was granted to negotiate sole source maintenance service and/or parts supply agreements for equipment installed at the Duffin Creek WPCP by three additional vendors, with terms not to exceed five years.
- 3.6 In September 2021, Regional Council approved Works Committee Report #2021-W-30 authorizing the negotiation of a sole source maintenance and/or parts supply agreement with Flowpoint Systems for septage receiving hardware installed at Duffin Creek WPCP and various other WPCP throughout Durham Region, with terms not to exceed five years.
- 3.7 In September 2021, Regional Council approved Works Committee Report #2021-W-32 authorizing the renewal of the sole source Agreements for Maintenance Service and/or Parts Agreements negotiated for Equipment installed at the Duffin Creek WPCP, with terms not to exceed five years.

3.8 In June 2023, Regional Council approved Works Committee Report #2023-W-28 authorizing the increase of the value of the sole source agreement for Xylem Canada, one of the vendors approved under Report # 2021-W-32, due to an increased scope of maintenance activities and an increase in the supply of spare parts.

4. Rationale for Sole Source Approval of Maintenance Service and/or Parts Supply Agreements

4.1 Major equipment components at the various WPCP and SSPS operated by the Region of Durham have been in service for periods ranging from five to 35 plus years. As such, replacements of wearable parts are required now and in the immediate future.

4.2 Some original spare parts inventories provided as components of capital contracts have been or will soon be consumed. On-site inventories need to be restocked to enable efficient maintenance planning and execution to occur. Spare parts and agreements must also be in place to plan preventative maintenance; and react to unplanned activities.

4.3 Specialized maintenance and inspection services need to be procured and scheduled.

4.4 Scheduled interventions to proactively replace assets prior to failure are increasing in frequency as the asset base continues to mature from its original installation dates.

4.5 The major equipment components listed in Table #1 below will require ongoing maintenance service and/or parts supply agreements and/or standing agreements with the manufacturer or sole authorized supplier for proposed terms not to exceed five years.

4.6 Table #1

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Dewatering Centrifuge	Alfa Laval	Alfa Laval	Installed at Duffin Creek WPCP Spare parts and service as required	Total: \$125,000 Durham Share: \$22,000 York Share: \$103,000

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Submersible Raw Sewage Pumps	Xylem	Xylem	<p>Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region</p> <p>Annual pump removal/inspection, with spare parts and service as required</p>	<p>Total: \$800,000</p> <p>Durham Share: \$431,000</p> <p>York Share: \$369,000</p>
<p>Secondary Cross Collector Chain and Flight Equipment</p> <p>Grit and Screenings Conveyors</p>	C & M Environmental	Brentwood Industries	<p>Installed at Duffin Creek WPCP</p> <p>Chain replacement as required</p>	<p>Total: \$300,000</p> <p>Durham Share: \$54,000</p> <p>York Share: \$246,000</p>
Bar Screens and Washer Compactors	ACG Envirocan Ltd	JWC	<p>Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region</p> <p>Spare parts and service as required</p>	<p>Total: \$225,000</p> <p>Durham Share: \$143,000</p> <p>York Share: \$82,000</p>

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Waste Heat Boiler Feedwater Pumps Rotary Lobe Pumps Grit Slurry Pumps & Grit Classifiers RAS & WAS Pumps	Directrik	Vogelsang, Hydrostal, Weir, Wemco, Trillium Pumps	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$375,000 Durham Share: \$231,000 York Share: \$144,000
Variable Frequency Drive	Toshont	Toshiba	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$150,000 Durham Share: \$109,000 York Share: \$41,000
Auxiliary Boilers	Thermogenics	Thermogenics	Installed at Duffin Creek WPCP To be phased out in 2024, but may need interim intervention to keep operable	Total: \$150,000 Durham Share: \$27,000 York Share: \$123,000

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Primary Settling Tank Travelling Bridges and Scum Collectors Ash Thickening Tank Collector Mechanisms Ash Vacuum Filters and Pumps Linear Motion Mixers	OVIVO	OVIVO	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$500,000 Durham Share: \$213,000 York Share: \$287,000
Sludge Cake Pumps Dewatering conveyors Aeration Diffused Air Parts and/or cleaning	PRO AQUA	Biosec, Schwing Bioset, Atlas Copco, Sanataire	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$400,000 Durham Share: \$154,000 York Share: \$246,000
Primary Settling Tank Equipment Bioxide	Evoqua	Evoqua	Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP) Spare parts and service as required	Total: \$150,000 Durham Share: \$150,000 York Share: \$0

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Scrubber and Sorbent Polymer Composite Mercury Removal Equipment	Envirocare	Envirocare	Installed at Duffin Creek WPCP Spare parts and service as required	Total: \$125,000 Durham Share: \$22,000 York Share: \$103,000
Incineration Waste Heat Boiler and Heat Exchanger	Arvos Group	ArvosGroup	Installed at Duffin Creek WPCP Spare parts and service as required	Total: \$150,000 Durham Share: \$27,000 York Share: \$123,000
Refractory	Veolia	Veolia	Installed at Duffin Creek WPCP Spare parts and service as required	Total: \$250,000 Durham Share: \$45,000 York Share: \$205,000
Gate Valves Ball Valves Butterfly Valves Duck Bill Valves	Syntec	Fontaine, Tideflex, Netzch, Truline, Vavlematic, Red Valve	Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP) Spare parts and service as required	Total: \$200,000 Durham Share: \$200,000 York Share: \$0

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Septic Receiving	Flowpoint	Flowpoint	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$100,000 Durham Share: \$84,000 York Share: \$16,000
Variable Frequency Drives	Benshaw	Benshaw	Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP) Spare parts and service as required	Total: \$100,000 Durham Share: \$100,000 York Share: \$0
Motor Control Centres Variable Frequency Drives	Schneider	Schneider	Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP) Spare parts and service as required	Total: \$250,000 Durham Share: \$250,000 York Share: \$0

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Aeration Blowers	APG Nuros	APG Nuros	<p>Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP)</p> <p>Spare parts and service as required</p>	<p>Total: \$200,000</p> <p>Durham Share: \$200,000</p> <p>York Share: \$0</p>
Aeration Blowers	Howden	Turblex	<p>Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region</p> <p>Spare parts and service as required</p>	<p>Total: \$500,000</p> <p>Durham Share: \$295,000</p> <p>York Share: \$205,000</p>
Digester Gas Flares	Westech Industrial	Varec	<p>Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region</p> <p>Spare parts and service as required</p>	<p>Total: \$150,000</p> <p>Durham Share: \$88,000</p> <p>York Share: \$62,000</p>

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Raw Lift Pumps	KSB Pumps	KSB Pumps	<p>Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP)</p> <p>Spare parts and service as required</p>	<p>Total: \$250,000</p> <p>Durham Share: \$250,000</p> <p>York Share: \$0</p>
Raw Lift Pumps	John Brooks	E-one Pumps, Grundfos	<p>Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP)</p> <p>Spare parts and service as required</p>	<p>Total: \$100,000</p> <p>Durham Share: \$100,000</p> <p>York Share: \$0</p>
Raw Lift Pumps	Sulzer	Sulzer	<p>Installed at various WPCP and SSPS throughout Durham Region (excluding Duffin Creek WPCP)</p> <p>Spare parts and service as required</p>	<p>Total: \$100,000</p> <p>Durham Share: \$100,000</p> <p>York Share: \$0</p>

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Oxygen Analyzers	Novatech	Ametek	<p>Installed in all incinerators at Duffin Creek WPCP</p> <p>Replacement parts, control elements, and services as required for 8 analyzers (same manufacturer in future incineration replacement capital project)</p> <p>Critical instruments to comply with MECP regulations.</p>	<p>Total: \$200,000</p> <p>Durham Share: \$36,000</p> <p>York Share: \$164,000</p>
<p>Instrument Asset Management Software</p> <p>Various Instrumentation</p> <p>Steam & Hot Water Control Valves</p>	Lakeside Process Controls	Emerson, Rosemount, Fisher Control	<p>Annual software license renewals for monitoring systems installed at Duffin Creek WPCP</p> <p>Spare parts and service as required for hot water and steam control valves installed at Duffin Creek WPCP Incineration Complex</p>	<p>Total: \$250,000</p> <p>Durham Share: \$45,000</p> <p>York Share: \$205,000</p>

Item	Authorized Supplier	Manufacturer	Comments	Estimated Annual Costs (excluding HST)
Hot Water Boilers	Waterloo Manufacturing	Cleaver Brooks	Installed at Duffin Creek WPCP Ontario OEM change since the last authorization	Total: \$150,000 Durham Share: \$27,000 York Share: \$123,000
Actuators	Troy-Ontor Incorporated	Auma	Installed at Duffin Creek WPCP and various other WPCP and SSPS throughout Durham Region Spare parts and service as required	Total: \$200,000 Durham Share: \$118,000 York Share: \$82,000
Total Estimated Annual Cost	-	-	-	Total: \$6,450,000 Durham Share: \$3,521,000 York Share: \$2,929,000

- 4.7 The above Table #1 provides the manufacturers' Ontario-based authorized representative for service and/or parts.
- 4.8 Finalization of the Agreements' cost, scope and duration will be negotiated with the suppliers of the service and/or parts once Regional Council approval of this report has been received.
- 4.9 The pricing in the above Table #1 has been estimated from a review of the procurement of representative services and/or parts to date.

- 4.10 The maintenance services and/or parts supply agreements will ensure that the Region obtains preferential pricing and will streamline the volume of procurement activities.

5. Financial Implications

- 5.1 Section 7.2 of the Region's Purchasing By-law #16-2020 permits the acquisition of goods and services through sole source negotiations under specific circumstances outlined in Appendix "C" of the by-law. Section 1.1 of Appendix "C" permits negotiations for goods or services that can be supplied only by a particular supplier where no reasonable alternative or substitute goods or services exist to ensure compatibility with existing goods or to maintain specialized goods that must be maintained by the manufacturer of those goods or its representative. The by-law also requires approval by the appropriate standing committee and Council for the award of sole source contracts that exceed \$100,000 in value.
- 5.2 Financing for the sole source maintenance service and/or parts supply agreements, estimated at an annual cost not to exceed \$6,450,000, will be funded from the Region's approved annual Sanitary Sewerage Operating Budget.
- 5.3 Maintenance service and/or parts supply agreements related to Primary System components of the YDSS, which includes the Duffin Creek WPCP, will be cost-shared with the Regional Municipality of York, with Durham Region's share to be determined annually based on the Operating Agreement between the Regions of York and Durham.

6. Relationship to Strategic Plan

- 6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Optimize resources and partnerships to deliver exceptional quality services and value.
 - b. Collaborate for a seamless service experience.
- 6.2 Standardization of supplies and services of specialized equipment will aid in the promotion of asset longevity and reduce unplanned facility maintenance events.

7. Conclusion

- 7.1 It is recommended that Regional Council approve the award of sole source maintenance service and/or parts supply agreements, subject to negotiations of contracts satisfactory to the Commissioner of Finance, for equipment installed as

components of various Water Pollution Control Plants and Sanitary Sewage Pumping Stations operated by the Regional Municipality of Durham.

- 7.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the recommendations.
- 7.3 For additional information, contact: Rich Tindall, Manager of Plant Operations, at 905-668-7711 extension 3547.

Respectfully submitted,

Original signed by:

Ramesh Jagannathan, MBA, M.Eng., P.Eng., PTOE
Acting Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine Baxter-Trahair
Chief Administrative Officer