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# The Regional Municipality of Durham Report

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To: Works Committee  
From: Commissioner of Works  
Report: #2025-W-22  
Date: June 4, 2025

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**Subject:**

Sole Source Procurement of Engineering and Field Services, and Filter Media and Stainless Steel Underdrain Equipment System, for the Oshawa Water Supply Plant, located in the City of Oshawa

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**Recommendations:**

That Works Committee recommends to Regional Council:

- A) That staff be authorized to award a sole source contract to Anthratch Western Inc. (AWI) for the provision of engineering and field services for the supply of a Design Package and equipment for the new granular filter media and a custom engineered stainless steel underdrain system for Filters 1-4 in plant 2 at the Oshawa Water Supply Plant (WSP), located in the City of Oshawa, in the amount of \$2,900,000\*, to be financed from within the approved project budget; and
  - B) That the Commissioner of Finance be authorized to execute the applicable agreements.
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**Report:**

**1. Purpose**

- 1.1 The purpose of this report is to seek Regional Municipality of Durham (Region) Council approval to award a sole source contract with Anthratch Western Inc.

(AWI) for engineering and field services for the design and supply of new granular filter media and a custom engineered stainless steel underdrain system for Filters 1-4 in plant 2 at the Oshawa WSP, in the City of Oshawa.

- 1.2 Dollar amounts followed by an asterisk (\*) are before applicable taxes.

## **2. Background**

- 2.1 In April 2023, the Commissioner of Works declared an emergency at the Oshawa Water Supply Plant (WSP) for the replacement and refurbishment of Filters 5 and 6 in Plant 2.
- 2.2 Works Committee Report #2023-W-22, approved by Regional Council on June 28, 2023, authorized financing of \$5,000,000 for unbudgeted capital work related to the Emergency project at the Oshawa WSP.
- 2.3 In July 2023, AWI was awarded a sole source contract to design, supply and install the stainless steel underdrains and specialized granular filter media for Filters 5 and 6 in plant 2. The works are estimated to cost approximately \$3,000,000\* (Report #2024-W-16). This equipment is currently being installed under the Phase 1 works contract D2024-43 and will be commissioned by July 2026.
- 2.4 Filters 1 through 4 also require the underdrains to be replaced due to aging and operational challenges, to improve both the reliability of plant production and the water quality performance. The Provincial Government established the Housing Enabling Water System Fund (HEWSF) in the 2023 Fall Economic Statement and has committed funding over three years to support the repair, rehabilitation, and expansion of core water infrastructure to protect communities and enable new housing development.
- 2.5 On March 21, 2024, the Region was awarded funding for the completion of additional projects at the Oshawa WSP including Upgrades to Filters 1-4 in plant 2 and associated works which includes the supply of new media and underdrains proposed for sole sourcing in this report.

## **3. Justification for the Sole Source**

- 3.1 Anthratech Western Inc. (AWI), headquartered in Calgary, has specialized in drinking water filtration technology and filter media design since 1977. They have a proven track record of installations of filter upgrades, retrofits and new

systems across Canada, the US and select international markets including Durham Region and other municipalities across the GTA and Southern Ontario. The Region has previously contracted AWI for the supply of new media and stainless steel underdrains for the rehabilitation of Filters 5 and 6 in plant 2 at the Oshawa WSP.

- 3.2 Since AWI products are already installed in connected Filters 5 and 6 at the Oshawa WSP, the Region proposes to award a sole source contract to AWI for the design, supply and installation of the new custom engineered stainless steel underdrains and specialized granular filter media for the remaining four filters. This will ensure consistent equipment installed across the entire facility.
- 3.3 AWI's Phoenix Underdrain System is a low-profile, gravel-less system which maximizes the volume of granular media for solids capture during filtration and the volume available for bed expansion to improve backwashing effectiveness. The media sizing and design needs to consider the quality of the water to be filtered (solids to be captured in the filter) as well as the system hydraulics (amount of pressure available to push water through the filter). The underdrain system is then custom designed so that only water and air is passing through the slots in the underdrain laterals with minimal resistance which reduces the pressure available to push water through the filter overall. These slots are precision machined so that the granular media is retained inside the filter box and does not travel downstream where it could damage other equipment such as pumps or valves transferring water to the distribution system. AWI has a long history of successful installations based on high quality design development and manufacturing processes based on a holistic understanding of granular media filtration design and operation.

#### **4. Financial Implications**

- 4.1 Section 7.2 of the Region's Purchasing By-law 16-2020 permits the sole sourcing of goods or services under specific circumstances, including where a change of supplier is not recommended due to compatibility/continuity concerns and cost impacts. The by-law requires Regional Council approval for any negotiated purchases of \$100,000 and greater in value.
- 4.2 The Region will be reviewing the HEWSF program to ensure that the reimbursement of funding applicable to this project is maximized.

- 4.3 Financing for the purchase of consulting services and equipment estimated at \$2,900,000\* will be provided from within the following approved project budget:

Water Supply System Capital Budget

Oshawa Water Supply Plant Rehabilitation and Replacement - Phase 2:  
Rehabilitation of the filters 1 to 4 and associated works for rehabilitation and  
installation of second blower (Project ID: D2424)

Asset Management Reserve Fund        \$1,000,000

Rate Stabilization Reserve Fund   \$3,550,000

User Revenue        \$200,000

Housing Enabling Water System Fund Grant    \$7,560,812

Total Financing        \$12,310,812

**5. Relationship to Strategic Plan**

- 5.1 This report aligns with/addresses the following Strategic Direction(s) and Pathway(s) in Durham Region's 2025-2035 Strategic Plan:

a. Connected and Vibrant Communities

- C1. Align Regional infrastructure and asset management with projected growth, climate impacts, and community needs.

b. Strong Relationships

- S3. Collaborate across local area municipalities, with agencies, non-profits, and community partners to deliver coordinated and efficient services.
- S4. Advocate to the federal and provincial government and agencies to advance regional priorities.
- S5. Ensure accountable and transparent decision-making to serve community needs, while responsibly managing available resources.

- 5.2 This report aligns with/addresses the following Foundation(s) in Durham Region's 2025-2035 Strategic Plan:

- a. People: Making the Region of Durham a great place to work, attracting, and retaining talent.
- b. Processes: Continuously improving processes to ensure we are responsive to community needs.
- c. Technology: Keeping pace with technological change to ensure efficient and effective service delivery.

## **6. Conclusion**

- 6.1 It is recommended that Regional Municipality of Durham Council authorize a sole source contract with Anthratch Western Inc. for engineering and field services for the design and supply of new granular filter media and a custom engineered stainless steel underdrain system for Filters 1 to 4 in plant 2 at the Oshawa Water Supply Plant.
- 6.2 This report has been reviewed by the Legal Services Division – CAO Office and the Finance Department, and the Commissioner of Finance concurs with the financial recommendations.
- 6.3 For additional information, contact Mike Hubble, Director Environmental Services, at 905-668-4113 extension 3460 or Sorin Manta, Manager, Engineering Support, at 905-668-4113 extension 3840.

Respectfully submitted,

### **Original signed by:**

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

Recommended for Presentation to Committee

### **Original signed by:**

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Elaine C. Baxter-Trahair  
Chief Administrative Officer