

## Section I – Items for Authority Action

**TO:** Chair and Members of the Authority  
Meeting #6/18, Friday, July 20, 2018

**FROM:** Nick Saccone, Senior Director, Restoration and Infrastructure

**RE:** **AUTOMATED WATER QUALITY SAMPLERS**  
Award of Contract #10008455

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### KEY ISSUE

Award of Contract #10008455 for the purchase of 10 Teledyne ISCO Avalanche automated water quality samplers for the Toronto Wet Weather Flow Tributary Monitoring Project.

### RECOMMENDATION

**THAT Contract #10008455 for the purchase of 10 Teledyne ISCO Avalanche automated water quality samplers for the Toronto Wet Weather Flow Tributary Monitoring Project be awarded to Avensys Solutions Incorporated on a sole source basis at a total cost not to exceed \$127,068.10, plus HST;**

**AND FURTHER THAT authorized Toronto and Region Conservation Authority (TRCA) staff be directed to take such actions as is necessary to implement the contract including the signing and execution of documents.**

### BACKGROUND

In 2003, Toronto City Council approved the Wet Weather Flow Management Master Plan (WWFMP). The Plan was initiated to address poor water quality, loss of fish habitat, erosion and other impacts from urban runoff. The Plan consists of four categories with 13 objectives:

#### Water Quality in Local Waterways

- Meet guidelines for water and sediment quality.
- Eliminate toxins through pollution prevention.
- Improve water quality in rivers and the Lake so that they are healthy for swimming.
- Improve aesthetics.

#### Water Quantity

- Preserve and re-establish a natural hydrologic cycle.
- Reduce erosion impacts on habitats and property.
- Eliminate or minimize threats to life and property from flooding.

#### Natural Areas & Wildlife

- Protect, enhance and restore natural features (eg., wetlands) and functions.
- Achieve healthy aquatic communities.
- Reduce fish contamination.

#### Sewer System

- Eliminate combined sewer overflow sanitary sewage.
- Reduce infiltration and inflow to sanitary sewers.
- Reduce basement flooding.

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Since 2003, significant progress has been made in the implementation of recommendations from the WWFMP including the citywide implementation of mandatory downspout disconnection, infrastructure improvements through the basement flooding protection program and the construction and upgrade of stormwater management facilities.

In order to quantify the reduction of contamination in the watercourses from these projects, the WWFMP required the establishment of a water quality monitoring program. Every 10 years during the implementation of the WWFMP, water quality data would be collected for a period of three years. During rain or snow melt events, water quality would be monitored at locations where major watercourses flow into Toronto and where the watercourses flow into Lake Ontario. By taking water samples at the upstream and downstream limits of Toronto's watercourses, it can then be determined what impact the City has on water quality and whether mitigation has been effective or not.

In 2008, Toronto Water retained TRCA to undertake the first three year period of water quality monitoring. For this project, TRCA installed and maintained 14 water quality stations. Sampling started in 2009 and was completed in 2011. Approximately 12 precipitation runoff events were sampled in each of the three sampling years. The data was entered into a database and a summary report was submitted to Toronto Water.

For the 2009-2011 sampling cycle, Toronto Water purchased 14 Teledyne ISCO Avalanche automated water quality samplers to collect water samples during rain events. These samplers allow water samples to be taken at predetermined intervals during a rain event so that the entire contaminant profile of the watercourse can be examined. These samplers also have integrated refrigerator systems to prevent certain chemical and biological parameters from degrading before they can be analyzed in the laboratory.

The second three year round of water quality monitoring is scheduled to begin in 2019. As a result of the success of the first round of monitoring, Toronto Water has requested that TRCA conduct the second round of sampling with installation of stations to begin in 2018 and an anticipated start date for sampling in January 2019. The project scope has been expanded to include 21 fixed water quality monitoring stations and three mobile stations that can be rotated around different watercourses at the request of Toronto Water.

### **RATIONALE**

TRCA currently has 14 ISCO Avalanche automated samplers left from the 2009 -2011 sampling cycle. As the 2019-2021 sampling cycle requires 24 stations to meet the objectives of the project, an additional 10 units are required. Keeping all the samplers the same type will let TRCA use the same telemetry communications across the sampling network and allow for interchangeability of peripheral equipment such as sample bottles and dataloggers. Avensys Solutions Incorporated is the sole distributor of Teledyne ISCO products in Canada. All samplers will remain the property of Toronto Water. Staff therefore recommends award of the contract on a sole source basis as per Section 9.2 of TRCA's Purchasing Policy which states:

*The goods or services are unique to one supplier and no practical alternatives or substitutes exist.*

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### **FINANCIAL DETAILS**

Funds are available in the Toronto Wet Weather Flow Account 120-35 which is 100% funded by City of Toronto's Toronto Water Division.

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