

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P.Eng., MBA, FEC  
Deputy City Manager, Environment and Infrastructure

**Subject:** Funding to Support UTRCA Capital/Maintenance Projects and  
City Watercourse Monitoring Program

**Date:** June 13, 2023

## Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of Upper Thames River Conservation Authority (UTRCA):

- (a) Upper Thames River Conservation Authority **BE AUTHORIZED** to carry out the following projects with the City share in the total amount of \$85,000, including contingency, excluding HST; noting the requirements of this provincial funding program are unique, in that only Conservation Authorities can apply, requiring the use of clause 14.3. (a) of the Procurement of Goods and Service Policy:
  - a. Fanshawe Dam – Safety Boom Design;
  - b. Fanshawe Dam – Monitoring Upgrades;
  - c. Fanshawe Dam – Drainage Gallery & Pressure Relief Well Repairs; and
  - d. West London Dyke – Supplemental Hand Railing Design and Installation.
- (b) Upper Thames River Conservation Authority **BE APPOINTED** to complete the 2023 Dingman Creek Surface Monitoring Program in accordance with the estimate, on file, at an upset amount of \$243,701 (including 10% contingency), excluding HST. This is a unique program for which the UTRCA offers licences as well as full services to complete this work in accordance with Section 14.4 (d), (e) & (h) of the City of London's Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (e) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

## Executive Summary

This report seeks approval to fund two Upper Thames River Conservation Authority (UTRCA)-related projects including (1) the City's share of projects eligible for provincial capital funding through the Ministry of Natural Resource and Forestry (MNRF) Water and Erosion Control Infrastructure (WECI) program and (2) for UTRCA staff to continue the Dingman Creek subwatershed 2023 annual surface monitoring program on behalf of the City.

### Water and Erosion Control Infrastructure (WECI) Program

The WECI program is a Ministry of Natural Environment and Forestry (MNRF) capital-cost share program that provides funding for flood or erosion control structures such as dams and dykes. This funding can only be accessed by Conservation Authorities (CAs), but can be used for infrastructure owned by municipalities in cases where the infrastructure is maintained by the CA. Over the past 18 years, in partnership with the

UTRCA, approximately \$14,250,000 in WECl funding has been used to repair and reconstruct City-owned infrastructure. The most recent reconstruction of West London Dyke Phase 7, from St. Patrick's Street to Oxford Street, was completed in late 2020 with some landscaping and amenity features in 2021.

### **Dingman Creek Surface Monitoring Program**

The Dingman Creek subwatershed is the largest subwatershed within the City of London with a total area of 17,200 hectares, 74% of which is located within city limits. The subwatershed is the focus of significant urban development and is the subject of an on-going Environmental Assessment and floodplain mapping update. The proposed one-year monitoring program would continue the City's historical water quantity, quality, and biological monitoring programs in Dingman Creek. Data obtained by this program is used to calibrate floodplain modeling, assess overall stream health, and identify opportunities for stormwater management improvements.

After successful implementation of a three-year pilot project, this report recommends the UTRCA continue with a one-year monitoring program of the Dingman Creek, recognizing that the Ministry of Environment, Conservation and Parks (MECP) are expected to provide new stormwater management monitoring guidance to municipalities by the end of 2023.

## **Linkage to the Corporate Strategic Plan**

This recommendation supports the following 2023-2027 Strategic Plan areas of focus:

- Climate Action and Sustainable Growth:
  - London is one of the greenest and most resilient cities in Canada in alignment with the Council-declared climate emergency and the Climate Emergency Action Plan.
  - London's infrastructure and systems are built, maintained, and operated to meet the long-term needs of the community.

## **Analysis**

### **1.0 Background Information**

#### **1.1 Previous Reports Related to this Matter**

- Civic Works Committee – April 20, 2022 – Appointment of Services for Dingman Creek Surface Water Monitoring Program
- Civic Works Committee – June 22, 2021 – Appointment of Consulting Engineer for the Dingman Creek Subwatershed Stage 2 Lands; Schedule C Municipal Class Environmental Assessment
- Civic Works Committee – August 12, 2019 – Upper Thames River Conservation Authority and City of London Flood Protection Projects.
- Civic Works Committee – March 18, 2019 – Appointment of Services for Dingman Creek Surface Water Monitoring Program (ES2452)
- PEC — November 12, 2018 — Upper Thames River Conservation Authority Dingman Creek Subwatershed Screening Area Mapping
- Civic Works Committee – June 18, 2018 – Upper Thames River Conservation Authority and City of London Flood Protection Projects
- Civic Works Committee – July 17, 2017 – Water and Erosion Control Infrastructure (WECl) Program: 2017 Provincially Approved Project Funding

(Sole Sourced)

- Civic Works Committee – August 22, 2016 – Water and Erosion Control Infrastructure (WECI) Program: 2016 Provincially Approved Project Funding (Sole Sourced)
- Civic Works Committee – February 2, 2016 – West London Dyke Master Repair Plan Municipal Class Environmental Assessment Study
- Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination
- CWC — October 6, 2015— Dingman Creek Subwatershed Stormwater Servicing Strategy Schedule C Municipal Class Environmental Assessment

## **2.0 Discussion and Considerations**

### **2.1 WECI Program**

WECI funding is provided through a prioritization process that includes existing flood and erosion control infrastructure. Projects are selected for funding by a committee made up of five CA representatives, one MNRF representative, and one Conservation Ontario (CO) staff representative. There is one UTRCA staff member on this committee. The committee reviews and scores project submissions and determines the priority list of eligible projects on an annual basis.

The program is a 50/50 cost share with the local municipality or other contributors with flood or erosion control infrastructure needs and must have a Council resolution or legally binding agreement to demonstrate financial commitment.

### **2.2 WECI Project Descriptions**

In 2023, UTRCA was successful in receiving funding to complete the work on the following structures:

- a) *Fanshawe Dam – Safety Room Design*: A Dam Safety Report was completed in 2022 by the KGS Group and it recommended a safety boom be implemented in the reservoir on the upstream side of the dam as a high priority. UTRCA will engage a consultant through a competitive process to perform design services.
- b) *Fanshawe Dam – Monitoring Upgrades*: Repairs to this structure include updating the telemetry system which remotely monitors dam performance (e.g., reservoir water level, flow, and gate/valve position). The upgrades will consider alternative/redundant communication methods and sensors, as well as connection of monitoring added through ongoing Dam Safety Review, including embankment borehole water levels, and other parameters not previously monitored.
- c) *Fanshawe Dam – Drainage Gallery & Pressure Relief Well Repairs*: Repairs to this structure were identified in the 2022 Fanshawe Dam Safety Review as a priority item to be addressed. The scope of work includes cleaning the trough, cleaning, and flushing of the pressure relief wells and replacement of the current pressure gauges and valves. Additionally, the corroded pipe fittings will be replaced.
- d) *West London Dyke – Supplementary Hand Railing Design and Installation*: With physical effort, the public is currently able to gain access from both sides of the dyke maintenance ramp. The scope of this project is to design and install a minimum of four supplementary sections of hand railing to mitigate any potential safety hazards to the public. The existing hand railings were installed as part of the West London Dyke Rehabilitation Project Phase 4 near Cummings Avenue.

Table 1 summarizes the 2023 provincially approved project funding for dyke and dams:

**Table 1: Summary of Provincially Approved WECl projects**

<b>Project Title and Structure Name</b>	<b>Estimate of Total Project Cost</b>	<b>City of London Share of Non-Funded Costs (\$)</b>
<b>Fanshawe Dam – Safety Boom Design</b>	\$35,000	\$17,500
<b>Fanshawe Dam – Monitoring Upgrades</b>	\$20,000	\$10,000
<b>Fanshawe Dam – Drainage Gallery &amp; Pressure Relief Well Repairs</b>	\$55,000	\$27,500
<b>West London Dyke – Supplementary Hand Railing Design and Installation</b>	\$60,000	\$30,000
<b>TOTAL PROJECT COSTS</b>	<b>\$170,000</b>	<b>\$85,000</b>

### **2.3 Dingman Surface Monitoring Work Description**

Before 2018, surface water monitoring programs within the Dingman Creek subwatershed were conducted by various consultants and City staff, in addition to UTRCA completing their own monitoring separate from City programs. In 2018 the City awarded UTRCA a three-year subwatershed pilot monitoring program. The program was intended to streamline surface water monitoring data collection, data sharing, and reporting between the City and UTRCA. Benefits of this collaborative approach include long-term consistency in data collection, reduction in data collection duplication, and digital data archiving through UTRCA’s existing Western Ontario Environmental Database (WOED) accessible to both parties.

The 2018 pilot project successfully achieved its goals and staff recommend continuing to work with the UTRCA staff to conduct monitoring of Dingman Creek. The one-year Dingman Creek surface water monitoring program includes:

- a) Continuous flow and water level monitoring data at four existing permanent stations in the Dingman Creek subwatershed to calibrate future floodplain and stormwater modeling conditions,
- b) Collection of Dingman Creek monitoring data to build upon the existing historical datasets of water chemistry data and biologic data (including aquatic invertebrate and fisheries data),
- c) Compiling data into a single database that can be shared, accessed, and utilized by both UTRCA and the City, and
- d) An annual Dingman Creek Subwatershed Surface Monitoring Report, to be updated at regular intervals to consider overall trends of the Dingman Creek system.

A one-year program is recommended at this time, as it is anticipated later this year the Ministry of Environment, Conservation and Parks will be providing new stormwater management monitoring guidance by the end of 2023. This new guidance may impact future watercourse monitoring in Dingman Creek and other locations across the city.

### **3.0 Financial Impact/Considerations**

#### **3.1 Procurement Process**

##### **Water and Erosion Control Infrastructure (WECl) Program**

The WECl program provides matched funding to CAs for the major reconstruction and maintenance of flood or erosion control structures that are either owned or maintained by CAs. Because of this requirement, the City must use Clause 14.3.a) “statutory or market-based monopoly” of its Procurement Policy to engage in this project. The UTRCA will administer the WECl projects and submit invoices to the City as work is completed, after subtracting the provincial and federal funding share.

##### **Dingman Creek Surface Monitoring Program**

The UTRCA has experienced and knowledgeable staff trained in performing surface water monitoring tasks as part of their day-to-day activities. These staff are well-versed in the Dingman Creek monitoring program, surface water monitoring protocols, and have a vested interest in ensuring consistency and reliability in data collection. Additionally, UTRCA owns and operates specialized equipment and software licenses such as the existing continuous water flow monitoring network and Water Information Systems by KISTERS (WISKI), which support the overall long-term monitoring program.

As a result of the above, the selection procedure for the assignment utilized a non-competitive procurement process in accordance is in accordance with Section Section 14.4 (d), (e) & (h) of the Procurement of Goods and Services Policy. This one-year program is an extension of services previously provided by the UTRCA.

### **Conclusion**

Firstly, City staff and UTRCA staff are committed to work together to complete the current program of approved WECl-funded projects and endeavour to maximize the City of London’s potential to receive future provincial funding for City-owned flood and erosion control infrastructure.

Secondly, the proposed team at UTRCA has experience in consistently delivering the Dingman Creek subwatershed monitoring program and is well-qualified to deliver an annual monitoring report. Based on the review of the submitted work plan, it is recommended that retaining UTRCA is in the best financial and technical interests of the City.

**Prepared by:** **Shawna Chambers, P.Eng., DPA**  
**Division Manager, Stormwater Engineering**

**Submitted by:** **Ashley Rammeloo P.Eng., MMSc.**  
**Director, Water, Wastewater, and Stormwater**

**Recommended by:** **Kelly Scherr, P.Eng., MBA, FEC**  
**Deputy City Manager, Environment and Infrastructure**

**CC:** John Freeman  
Gary MacDonald  
Alan Dunbar  
Jason Davies

Adrienne Sones  
Monica McVicar  
Laura Flynn, UTRCA  
David Charles, UTRCA

Appendix 'A' – Sources of Financing

## Appendix "A"

#23124

June 13, 2023

Chair and Members  
Civic Works Committee

RE: Funding to Support UTRCA Capital/Maintenance Projects and City Watercourse Monitoring Program  
(Subledger NT23ES09) Fanshawe Dam Safety Boom  
(Subledger NT23ES10) Fanshawe Dam Monitoring Upgrades  
(Subledger NT23ES11) Fanshawe Dam Drainage Gallery and Pressure Relief Well Repairs  
(Subledger SWM23003) West London Dyke – Supplemental Hand Railing Design and Installation  
Capital Project ES543519 - Subwatershed Impact Monitoring  
Capital Project ES2474 - UTRCA Remediating Flood Control Works Within City Limits  
Upper Thames River Conservation Authority - \$328,701.00 (excluding HST)

### Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
<b>ES543519 - Subwatershed Impact Monitoring</b>				
Engineering	1,280,473	258,392	86,496	935,585
Construction	6,106	6,106	0	0
<b>ES543519 Total</b>	<b>1,286,579</b>	<b>264,498</b>	<b>86,496</b>	<b>935,585</b>
<b>ES2474 - UTRCA Remediating Flood Control Works Within City Limits</b>				
Engineering	7,707,414	7,459,424	247,990	0
Construction	17,582,878	6,102,664	0	11,480,214
City Related Expenses	82,401	82,401	0	0
<b>ES2474 Total</b>	<b>25,372,693</b>	<b>13,644,489</b>	<b>247,990</b>	<b>11,480,214</b>
<b>Total Expenditures</b>	<b>\$26,659,272</b>	<b>\$13,908,987</b>	<b>\$334,486</b>	<b>\$12,415,799</b>
<b>Sources of Financing</b>				
<b>ES543519 - Subwatershed Impact Monitoring</b>				
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	1,286,579	264,498	86,496	935,585
<b>ES2474 - UTRCA Remediating Flood Control Works Within City Limits</b>				
Capital Sewer Rates	1,000,000	1,000,000	0	0
Debenture By-law No.-W.5610-251	2,750,000	2,750,000	0	0
Drawdown from Sewage Works Renewal Reserve Fund	21,570,948	9,842,744	247,990	11,480,214
Other Contributions	51,745	51,745	0	0
<b>ES2474 Total</b>	<b>25,372,693</b>	<b>13,644,489</b>	<b>247,990</b>	<b>11,480,214</b>
<b>Total Financing</b>	<b>\$26,659,272</b>	<b>\$13,908,987</b>	<b>\$334,486</b>	<b>\$12,415,799</b>

## Appendix "A"

#23124

June 13, 2023

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Civic Works Committee

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<b>Financial Note:</b>	<b>ES5435</b>	<b>ES2474</b>	<b>Total</b>
Contract Price	\$85,000	\$243,701	\$328,701
Add: HST @13%	11,050	31,681	42,731
Total Contract Price Including Taxes	96,050	275,382	371,432
Less: HST Rebate	-9,554	-27,392	-36,946
Net Contract Price	\$86,496	\$247,990	\$334,486

**Note 1:** Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

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Alan Dunbar  
Manager of Financial Planning & Policy

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