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: **Appointment of Consulting Engineer for the Dingman Creek Subwatershed Stage 2 Lands: Schedule C Municipal Class Environmental Assessment**
Date: **June 22, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting services for the Dingman Creek Subwatershed Stage 2 Lands Municipal Class Environmental Assessment project:

(a) Kontzamanis Graumann Smith MacMillan Inc. **BE APPOINTED** consulting engineers to complete the detailed design for the Dingman Creek Stage 2 EA project in accordance with the estimate, on file, at an upset amount of $698,529.20 (including contingency), excluding HST, in accordance with Section 15.2 (e) of the City of London's Procurement of Goods and Services Policy;

(b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';

(c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;

(d) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends the appointment of Kontzamanis Graumann Smith MacMillan Inc. (KGS Group) to undertake the Dingman Creek Subwatershed Stage 2 Lands Schedule C Municipal Class Environmental Assessment (EA) process (Dingman Creek Stage 2 EA). A project location map is provided in Appendix 'B'. The Stage 2 EA will support the update of the floodplain limits along the Dingman Creek and its tributaries as well as evaluate options to adapt to climate change and mitigate floodplain increases to the extent practical.

Context

In October 2020, the City of London finalized the first stage of the Dingman Creek Subwatershed Stormwater Servicing Study Municipal Class Environmental Assessment (Dingman Creek Stage 1 EA) to determine a preferred stormwater servicing approach for new development within the Dingman Creek subwatershed for approximately the next 10-years.

In parallel with the EA study, the Upper Thames River Conservation Authority (UTRCA) updated the modelling associated with the Dingman Creek floodplain. This modelling considered climate change and an ultimate buildout scenario for the entire subwatershed. The draft floodplain resulted in much higher floodplain limits.

The focus of the Dingman Creek Stage 2 EA will be to firstly, confirm the UTRCA's modelling and the floodplain limits. Secondly, the EA will consider flood mitigation options that can be implemented as municipal infrastructure or through updates to

planning policies. A flood risk to cost-benefit will be conducted as part of the EA to confirm a Level of Service within the watershed, all to protect exiting and future development properties within the subwatershed to the extent practical.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
    - Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements; and
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

CWC – February 4, 2020 – Dingman Creek Subwatershed: Stormwater Servicing Strategy for Stage 2 Lands Municipal Class Environmental Assessment: Notice of Completion

CWC – March 18, 2019 – Appointment of Services for Dingman Creek Surface Water Monitoring Program (ES2452)

PEC – March 18, 2019 – Upper Thames Conservation Authority Dingman Creek Subwatershed Screening Area Mapping – Update

PEC – November 12, 2018 – Upper Thames River Conservation Authority Dingman Creek Subwatershed Screening Area Mapping

CWC – October 6, 2015 – Dingman Creek Subwatershed Stormwater Servicing Strategy Schedule C Municipal Class Environmental Assessment

CWC – February 3, 2014 – Contract Award T13-89 Dingman Creek Stormwater Management Erosion Control Wetland (ES2682)

CWC – November 20, 2012 – A by-law to amend the Official Plan for the City of London, 1989 relating to lands located in the southwest quadrant of the City, generally bounded by Southdale Road West, White Oak Road, Exeter Road, Wellington Road South, Green Valley Road, and the Urban Growth Boundary.

2.0 Discussion and Considerations

2.1 Work Description

<u>Dingman Creek Stage 1 EA</u>

The recommendations of the Dingman Creek Stage 1 EA relate to stormwater servicing for key tributaries within Dingman Creek, including White Oak Drain, Pincombe Drain, Thornicroft Drain, and Tributary 12 (southeast of Colonel Talbot and Pack Road). Specifically, the recommendations of this EA were focused to stormwater servicing solutions for lands scheduled for development within the 10-year timeline in accordance with the City's Growth Management Implementation Strategy (GMIS).

Recommendations from the Stage 1 study includes Low Impact Development (LID) infiltration targets to meet water quality, water balance, and erosion requirements, as well as several traditional “dry pond” SWM facilities and three Complete Corridors. Complete Corridors support the movement of water, people, and wildlife. The corridors are comprised of a wide engineered natural channel with a pathway and may contain natural heritage features such as meadows, wetlands, or treed areas to provide additional habitat. The following website includes the full EA report and additional information: https://getinvolved.london.ca/dingmancreek

During the Stage 1 EA, the UTRCA’s draft floodline modelling outputs significantly increased stormwater flow estimates and in conjunction with relatively flat topography outside of the channel, resulted in a significantly expanded regulatory area throughout the watershed.

The draft regulatory limit expansion was presented to Council as a “Screening Area” at the Planning and Environmental Committee in November 2018. The Screening Area includes an additional 1,787 ha of land area in the floodplain and impacts nearly 3,000 properties over the current floodplain that is shown in the City’s Official Plan Hazard Mapping.

Since November 2018, the City has been utilizing the UTRCA Screening Area to apply to Development Applications within the Dingman Creek watershed. This Screening Area represents UTRCA’s Regulation Limit for hazard lands in Dingman Creek.

Applicants within this screening area are advised that the UTRCA uses this line to describe the hazard limit, and, as a result, properties adjacent to open watercourses within the Dingman Creek subwatershed may be delayed from proceeding based on UTRCA requirements. This UTRCA review will continue while the Stage 2 EA floodplain update is underway.

Dingman Creek Stage 2 EA

The Dingman Creek Stage 2 EA will review the regulatory flooding conditions and propose a municipal Level of Service that balances flood protection with infrastructure investment. This study will recognize the role and function of municipally engineered infrastructure such as culvert upsizing, flood control facilities, constructing an expanded floodplain or other controls that contribute to reduce flood impacts, as well as consider the City's short and long-term future development scenarios and climate change impact on the uncontrolled regulatory flood event. The outcome of this study will allow the City to proceed with mitigation assessments, critical infrastructure management plans, and emergency preparedness planning to protect properties from flooding and erosion.

The specific objectives of the Dingman Creek Stage 2 Lands EA are to:

- Evaluate the hydrologic/hydraulic modelling and floodplain mapping completed by the UTRCA to confirm the existing Regulatory Floodplain for the main branch of the Dingman Creek and its tributaries.
- Evaluate the changes to the Regulatory Floodplain utilizing land use growth projections for the 20-year, 50-year and 100-year timelines as provided by the City Planning Department and recommend a suitable growth scenario to manage flood risk, all in consultation with the City and UTRCA and in the context of floodplain policy guidelines.
- Consider Climate Change adaptation by reviewing and recommending best practices, including a risk-cost-benefit assessment related to flooding of public infrastructure and private property. A sensitivity analysis is to be completed to illustrate the impact of increased flows within the watershed above the selected growth scenario.
- Identify options for municipal infrastructure or implementation of planning policy to mitigate the impacts of floodplain increases, all to minimize the flood risk to existing developed lands and lands currently designated for growth to the extent practical.
- Evaluate proposed infrastructure or policies based on the social-cost-risk-benefit for a given level of service and recommend the preferred alternative at key flood locations.

Once an updated floodplain is developed by the consultant, the City may proceed with

preparing an Official Plan Amendment (OPA) to amend “Map 6-Hazards and Natural Resources” to reflect the new floodplain limits to recommend to Municipal Council. The City intends to consult with the UTRCA as part of the OPA process.

The Stage 2 Lands EA is anticipated to be a two-year study with tentative completion by August 2023. The first year of the study will evaluate and confirm the new limits of the floodplain and the second year of the study will evaluate flood mitigation options to reduce the impacts to properties in the subwatershed.

2.3 Public Communications

The Dingman Creek project will be of high interest to property owners with lands that lie within the increased floodplain limits. The process associated with the Schedule C EA will include at least three public meetings as well as virtual presentations that will be available following each meeting. The process will also include engagement with the First Nations and all pertinent government agencies. The Dingman Creek Get Involved website will continue to be updated throughout the EA process.

Shortly after this consultant award, the City will advertise the Notice of Commencement of the EA study. City staff will also issue Consent to Enter letters to property owners adjacent to Dingman Creek to gain a high-level screening of the channel and the natural heritage system to understand the general characteristics of these lands.

3.0 Financial Impact/Considerations

3.1 Procurement Process

The engineering consultant selection procedure for the assignment utilized a two-stage procurement process. This two-stage grouped procurement is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

The first stage of the process is an open, publicly advertised Request for Qualifications. Statement of Qualifications submissions were received from a province wide group of prospective consultants. The Statement of Qualifications were evaluated by the Engineering and Infrastructure Service Area resulting in a short-list four engineering consulting firms.

The second stage of the process is a competitive Request for Proposal. Consultants from the short-listed group are invited to submit a formal proposal to undertake the assignment. An evaluation of the proposals was undertaken by the Engineering and Infrastructure Service Area, including both a technical and cost component. Engineering consultants are recommended based on their knowledge and understanding of project goals, their experience on directly related projects, their project team members, capacity and qualifications, and overall project fee.

The team proposed by the KGS Group was found to provide the best value to the City through the two phase RFQUAL and RFP selection process for consulting services to undertake the Dingman Creek Stage 2 EA. The consulting team proposed by KGS Group has a demonstrated ability to complete the technical tasks required for this project, as well as successful consultation and engagement, and demonstrated a solid understanding of the intricacies involved in this complex project. The KGS team specializes in floodplain modelling, assessments, and flood control infrastructure. They partnered with the proposed subconsultant, Scattcliff + Miller + Murray, to create the Assiniboine Riverfront Walkway in Winnipeg, an award-winning project that balance flood mitigation controls, riverbank stability and community development. They have also partnered. As a result, it is recommended that KGS Group be awarded this assignment to achieve the City’s vision of the Dingman Complete Corridor.

3.2 Funding Sources

National Disaster Mitigation Program

The Dingman Creek corridor project was recently awarded federal funding through the National Disaster Mitigation Program (NDMP). This funding will represent up to 50% of the cost of this EA to an upset limit of $300,000 with the City’s contribution being

$325,000, including financial and in-kind contributions. The federal government has presented that this funding will need to be spent between April 1, 2021 and April 1, 2022. Recognizing that this is only 9 months away, the consulting team will do as much work as possible to evaluate the flood risk, mitigation, and emergency response that is linked to this funding.

The federal government has stated that an agreement will be presented to the City for signature by the end of summer and that we will not receive the funding until after this agreement is signed.

Development Charges

The Sources of Financing for this EA study is through the City's Development Charges, which includes a non-growth share to capture the evaluation of the built-out area.

Conclusion

The Dingman Creek Subwatershed Stage 2 Lands EA will firstly evaluate modelling to update the floodplain limit within the subwatershed and then look at options for flood mitigation measures to protect existing properties and lands designated for growth. The KGS Group is recommended to undertake the EA study following a two-stage procurement process. This firm has been evaluated to represent the best value to the City and is best suited to undertake this complex scope of work associated with this project.

Prepared by:	**Shawna Chambers, DPA, P.Eng., Division Manager, Stormwater Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: A. Sones, G. Barrett, P. Yeoman, S. Mollon, KGS Group

Appendix 'A' – Sources of Financing

Appendix 'B' – Location Map

Appendix "A"

#21105
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Dingman Creek Subwatershed Stage 2 Lands: Schedule C Municipal Class Environmental Assessment
(Subledger NT21ES11)
Capital Project ES3201 - Dingman #1 Remediation SWM Flood Control Facility
Capital Project ESSWM-MM4 - SWM Facility - Murray Marr 4
Kontzamanis Graumann Smith MacMillan Inc. - $698,529.20 *(*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 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**
ES3201 - Dingman #1 Remediation SWM Flood Control Facility				
Engineering	631,851	205,358	426,493	0
Land Purchase	479,535	479,535	0	0
Construction	6,342,505	99,875	0	6,242,630
City Related Expenses	1,109	1,109	0	0
ES3201 Total	7,455,000	785,877	426,493	6,242,630
ESSWM-MM4 - SWM Facility - Murray Marr 4				
Engineering	450,000	73,948	284,330	91,722
Land Purchase	525,000	0	0	525,000
Construction	1,125,000	0	0	1,125,000
ESSWM-MM4 Total	2,100,000	73,948	284,330	1,741,722
Total Expenditures	$9,555,000	$859,825	$710,823	$7,984,352

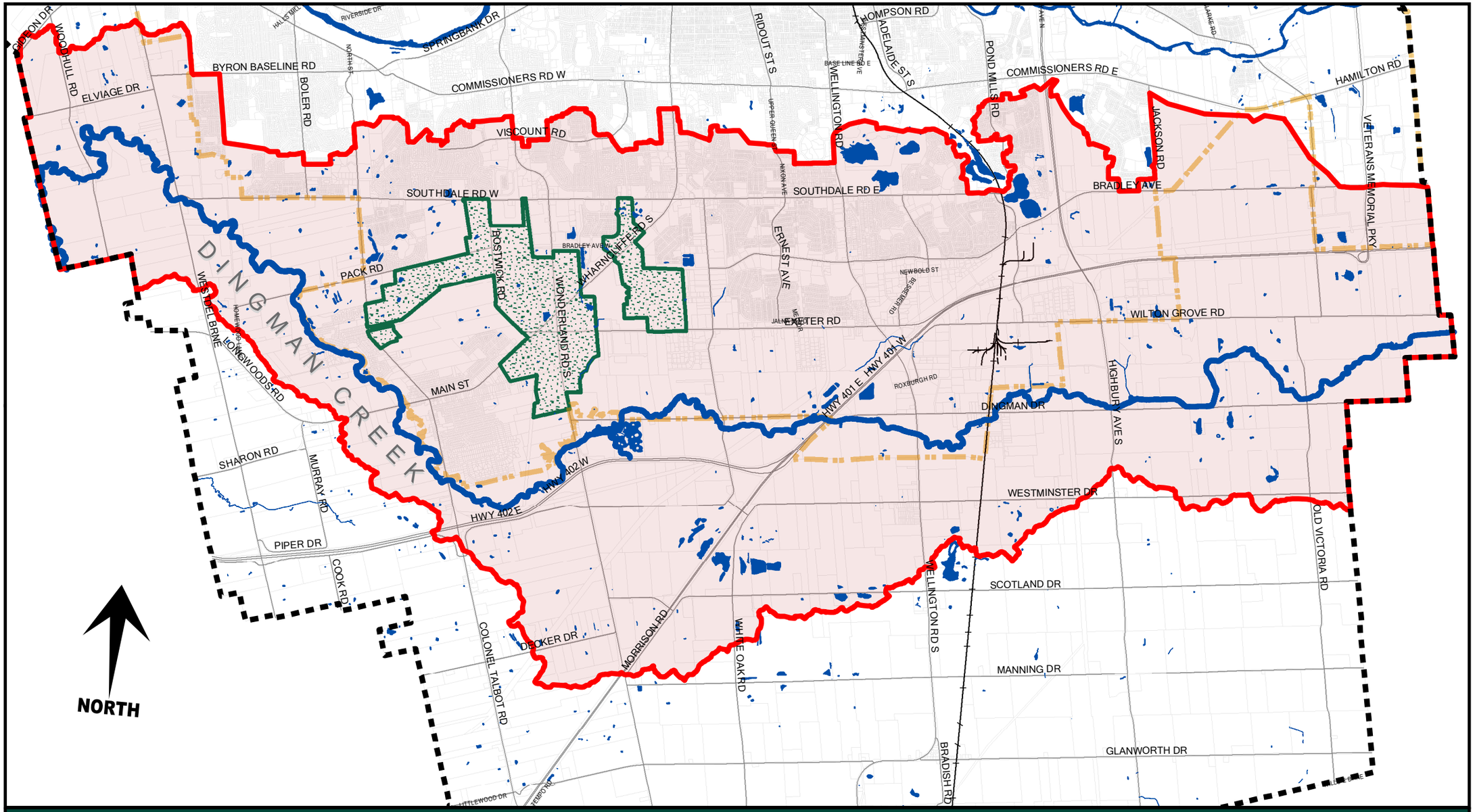
Sources of Financing				
ES3201 - Dingman #1 Remediation SWM Flood Control Facility				
Drawdown from Sewage Works Renewal Reserve Fund	6,713,400	707,700	384,067	5,621,633
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	741,600	78,177	42,426	620,997
ES3201 Total	7,455,000	785,877	426,493	6,242,630
ESSWM-MM4 - SWM Facility - Murray Marr 4				
Drawdown from Sewage Works Renewal Reserve Fund	94,600	3,330	12,808	78,462
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	2,005,400	70,618	271,522	1,663,260
ESSWM-MM4 Total	2,100,000	73,948	284,330	1,741,722
Total Financing	$9,555,000	$859,825	$710,823	$7,984,352

Financial Note:	**ES3201**	**ESSWM-MM4**	**Total**
Contract Price	$419,117	$279,412	$698,529
Add: HST @13%	54,485	36,324	90,809
Total Contract Price Including Taxes	473,602	315,736	789,338
Less: HST Rebate	-47,109	-31,406	-78,515
Net Contract Price	$426,493	$284,330	**$710,823**

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.

Jason Davies
Manager of Financial Planning & Policy

jg



APPENDIX 'B' - LOCATION MAP - DINGMAN CREEK, MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT - STAGE 2 - STUDY AREA

0 0.5 1 2 3 4 5
Kilometers

Legend

- Dingman Creek EA Stage 2 - Study Area
- Completed Dingman Creek EA - Stage 1
- Urban Growth Boundary
- City Boundary
- Major Roads
- Water Body
- Railways
- Parcels

Map Produced by
Stormwater Engineering
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London CANADA