TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON TUESDAY, SEPTEMBER 22, 2020**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**
SUBJECT:	**BIOSOLIDS MANAGEMENT MASTER PLAN CONSULTANT AWARD**

RECOMMENDATION

That, on the recommendation of the Managing Director of Environmental and Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to the assignment of consulting services for the completion of a Biosolids Management Master Plan:

a) CH2M Hill Canada Limited. **BE APPOINTED** Consulting Engineers in the amount of $410,274.00, including 15% 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 the project **BE APPROVED** in accordance with 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 approvals 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.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee, September 24, 2019 – Wastewater Treatment Operations Environmental Assessment Master Plan Study Initiation

2019-2023 STRATEGIC PLAN

Strategic Plan

This project supports the 2019-2023 Strategic Plan through Building a Sustainable City:

- Build infrastructure to support future development and protect the environment; and
- Conserve energy and increase actions to respond to climate change and severe weather.

BACKGROUND

Purpose

The purpose of this report is to seek approval to award Jacobs Engineering Group Inc. (operating in Canada as CH2M Hill Canada Limited) a contract for consulting services related to the completion of a Biosolids Management Master Plan.

Context

The treatment of wastewater produces waste solids is an unavoidable by-product of the process. Complex infrastructure to manage these solids is required at all the City's wastewater treatment plants, and the capital and operating costs form a significant part of the Wastewater Treatment Operations budget. A Biosolids Management Master Plan evaluates short (10 year planning window) and long term (40 year planning window) strategies for managing waste solids across the City, and provides an opportunity to pursue energy and greenhouse gas reduction strategies while engaging the public.

DISCUSSION

The City of London Wastewater Treatment Operations Division treated almost 200 million litres per day of wastewater in 2019. Treating wastewater involves multiple processes that remove solids, nutrients and biological contaminants that can harm our rivers and lakes. An essential part of those processes involves the removal of solids from the waste stream. Finding safe, effective and efficient strategies for disposing of these waste solids is a challenge for municipalities and utilities around the world.

The City owns and operates five wastewater treatment plants across the City. Each plant produces waste solids (as sludge) that are partially thickened (water removed) and then trucked to the Greenway Wastewater Treatment Plant for further processing. Currently the City employs incineration as the final treatment of waste solids, and the byproduct is an inert ash that is disposed of in the landfill.

However, the current incinerator is over thirty years old, and the projected remaining life is twenty years or less. Planning for the replacement of the incinerator is a complex technical undertaking. There are multiple technologies that have emerged since the incinerator was installed, and even more currently in development. Some of these alternative technologies, if determined to be a preferrable method of managing waste solids compared to the City's current approach, would represent a significant change, requiring advanced planning for successful implementation.

Further, the management of solids across the City is a multi-faceted strategy with various and varying inputs, costs, risks, opportunities and impacts. For example, the ways in which the solids are handled at the four satellite plants can be modified to reduce trucking requirements, which could have a greater impact on reducing greenhouse gas emissions than the selection of technology to manage and dispose of the City's waste solids. Another example is the City's recent decision to install a waste heat recovery system that generates electricity from the exhaust of the incinerator, creating a renewable energy facility that will generate up to 3.75 million kWh per year.

Public Engagement

While there are significant opportunities for cost savings and greenhouse gas reductions through a well-designed solids management strategy, there are also many challenges. Establishing the location of new solids management facilities, or deciding to

expand or modify existing ones, in order to benefit the City as a whole, also has the potential to impact residents in negative ways. Similar Biosolids Management Master Plans in neighbouring municipalities have been contentious. Public education and outreach, resulting from a well planned and executed consultation plan, are key to overcoming these concerns and earning public acceptance.

For this reason, Biosolids Management Master Plans are undertaken as a master planning process under the Municipal Class Environmental Assessment framework in order to ensure that all viewpoints, concerns and suggestions are considered in the City's planning and decision making. This will include reaching out to the residents of London, community groups, regulatory bodies, stakeholders and neighbouring First Nations to ensure that we develop an open dialogue and provide authentic opportunities for participation.

Procurement Process

In order to complete this combination of technical analysis and public engagement, City staff solicited the services of qualified Engineering firms. Due to the expected budget, a two-stage procurement process was undertaken in accordance with the City of London Procurement of Goods and Services Policy, Section 15.2(e).

Through the City's Purchasing Division and in compliance with CETA, and CFTA requirements, a Request for Qualifications (RFQUAL 20-14) was issued to evaluate the capability of interested firms to complete the required scope of work. Four firms were selected through that process to proceed to the RFP stage and were invited to submit bids in response to the subsequent Request for Proposals (RFP 20-53). All four firms submitted proposals. The firms that submitted proposals were:

- AECOM Canada Ltd.;
- Dillon Consulting;
- Jacobs (CH2M Hill Canada Ltd.); and
- RV Anderson Associates Limited.

The submissions were reviewed by staff from Wastewater Treatment Operations and Purchasing and Supply to ensure compliance with the City's Procurement of Goods and Services Policy. The City's evaluation team determined that the proposal provided by Jacobs provided the best overall value to the City. The project team proposed by Jacobs has extensive experience with solids management facility planning and design for similarly sized municipalities in Ontario, and has previously successfully completed multiple public engagement projects for the City and elsewhere. Overall, their proposal met all of the key project requirements and their staff are qualified to undertake the required engineering services.

Project Schedule and Budget Implications

This assignment is scheduled to be complete by the middle of 2022, although the final timing may be dependent on the level of interest from First Nations, review agencies and the public at large developed through the engagement process. Because of the importance of this study and the projects that will be planned as a result, full engagement of all parties is the primary goal and the schedule will be modified as required to ensure that that goal is reached.

The upset limit proposed by Jacobs aligns with budget expectations prior to issuing the Request for Proposals, and the funds required for this study are available in the City's approved capital budget.

CONCLUSIONS

Jacobs (CH2M Hill) was found to provide the best value to the City through the RFQUAL and RFP selection process for consulting services for the completion of a Biosolids Management Master Plan. Jacobs has a demonstrated ability in solids management planning and design as well as successful public engagement for contentious projects and also demonstrated a good understanding of this project in their proposal. It is recommended that Jacobs be awarded this assignment.

PREPARED BY:	**REVIEWED BY:**
GEORDIE GAULD **DIVISION MANAGER** **WASTEWATER TREATMENT OPERATIONS**	**SCOTT MATHERS, MPA, P.ENG.** **DIRECTOR** **WATER, WASTEWATER & TREATMENT**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR** **ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**

Attachment: Appendix “A” Sources of Financing

cc: John Freeman, Purchasing and Supply
Alan Dunbar, FP&P
Jason Davies, FP&P
Chris Ginty, Procurement Officer
Mike Newbigging, P.Eng., Jacobs Engineering Group Ltd.