



INFORMATION REPORT

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	February 17, 2021
SUBJECT/REPORT NO:	Chedoke Creek Remediation Workplan (PW19008(j)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Cari Vanderperk (905) 546-2424 Ext. 3250
SUBMITTED BY:	Andrew Grice Director, Hamilton Water Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

Not Applicable

INFORMATION

The City of Hamilton (City) was served Director's Order No. 1-PE3L3 by the Ministry of the Environment, Conservation and Parks (MECP) on December 4, 2020, pursuant to their authority under the *Environmental Protection Act (EPA)* and the *Ontario Water Resources Act (OWRA)*, as a result of the discharge into Chedoke Creek that occurred between January 2014 and July 2018.

Part One of the Director's Order requires the City to, by February 22, 2021, submit a workplan that identifies the remedial strategy for targeted dredging in Chedoke Creek. It also requires that the remedial works identified in the workplan be completed by October 31, 2021, or such other date approved by the Director in writing.

Part Two of the Director's Order requires the City to, by March 22, 2021, submit a Cootes Paradise Report, to propose the remediation/mitigation methods to offset the

added nutrient loading to Cootes Paradise and the Western Hamilton Harbour Area and address any other potential ongoing impacts of the Main/King Combined Sewer Overflow (CSO) discharge.

The City retained the services of Wood Environment and Infrastructure (Wood) to satisfy the requirements of the Director's Order. This report serves to update Council on the status of the ongoing work to comply with the Director's Order and summarizes the workplan (Part One of the Order) that will be submitted by February 22, 2021. The Cootes Paradise Report (Part Two of the Order) is due to be submitted to the MECP on March 22, 2021. Staff will provide Council with a separate update related to the Cootes Paradise portion prior to the March submission deadline.

The Chedoke Creek Workplan, as prepared by Wood, is attached as Appendix "A" to Report PW190008(j). The content of the workplan was, for the most part, stipulated by the MECP in the Director's Order, and is subject to MECP Director approval prior to any remedial work commencing.

The City, along with its consultant, Wood, are committed to fulfilling the requirements of the Director's Order and have been meeting regularly with representatives from the local MECP office and staff from its Species at Risk Branch. The meetings are held to ensure that all parties are in alignment with the workplan being completed by the consultant, and to address any significant challenges as they come up. One such challenge that has been discussed during these meetings is the ability for the City and Wood to meet the tight deadlines imposed by the MECP in the Director's Order.

While the MECP agrees, in principle, that the timelines it has imposed on the City are challenging, during the meetings the MECP has not been amenable to pre-emptively extending the October 31, 2021 deadline to complete construction of the remedial works (targeted dredging). However, the MECP has agreed to review the timeline that is outlined in the workplan and will consider deadline extensions during their review, which is at the discretion of the Director per the provisions in the Order.

The primary timeline challenge, currently identified by Wood, is the permit and approvals process that is necessary for conducting dredging works in a natural regulated waterway. There are several agencies at the Provincial and Federal level that must provide their approval prior to the work commencing. The workplan includes an accurate timeline that depicts the reasonable steps that must be taken to commence work and successfully complete the work, with a completion date of Q3 2022. A summary of the workplan contents is outlined below.

Chedoke Creek Workplan Summary

The objectives of the workplan include detailing the scope associated with the targeted dredging necessary to restore the natural environment and to identify and mitigate any potential short-term impacts that may arise from implementing the workplan. In order to successfully execute the workplan the following activities need to be completed.

Field Work

Additional information is required for design and permitting which principally involves collecting updated information on the total soft sediment volume which was discharged over the 2014-2018 period, estimated to be 5,600 m³. This work will predominantly focus on locating and characterizing the physical and chemical properties of the sediment/contaminants. Furthermore, detailed field data is required for the four (4) identified species at risk, known to be in the area.

Dredge Scope

In response to the timeline challenges, this scope of work will follow an adaptive management approach, where information gathered from the field work will inform the dredging design, which will be adjusted as necessary to maximize the ecological benefits of the system. This is broken down in the following phases with estimated timelines shown for context (as noted, much of the timing will be conditional on field data and external permitting requirements):

30% Design - May to June 2021

This phase consists of developing project limits, using the field data to prepare preliminary concepts/drawings, initial quantities and disposal options and identifying access requirements including the Dredge Material Management Area (DMMA).

60% Design – June to July 2021

The development of the preferred dredging methodology, defining trucking routes, project sequencing and schedule along with the initial Engineers Cost Estimate.

90% Design – July 2021

Required for the permitting applications and incorporates environmental, cultural and erosion control measures. In addition, the finalized disposal options and updated material quantities from the field work will be included along with an updated Engineers Cost Estimate.

Final Design – Timeline contingent on permitting

Integrates any changes following regulatory review, the final Engineers Cost Estimate and the bid specifications for the tendering process.

Agency Approvals

A tracking tool has been developed to monitor engagement with all agencies for Land, Waterway and Species at Risk approvals. The following is a list of the identified agencies who are anticipated to have an interest in the project, per their legislated mandate:

- 1) Hamilton Conservation Authority (HCA)
- 2) Ministry of Transportation (MTO)
- 3) Ministry of Natural Resources and Forestry (MNRF)
- 4) Transport Canada (TC)
- 5) Fisheries and Oceans Canada (DFO)
- 6) Ministry of Environment, Conservation and Parks (MECP)
- 7) Archaeology (Ministry of Heritage, Sport, Tourism and Culture Industries)
- 8) Indigenous Consultation (MECP / DFO / Local)
- 9) Environmental Assessment (MECP / Impact Assessment Agency of Canada)

A detailed timeline, including critical milestones and associated potential challenges with permitting and approvals from outside agencies, has also been included and currently assumes a completion date for dredging works of Q3 2022, provided no unforeseen challenges arise. A worst-case-scenario timeline has also been included, should the project team not succeed in expediting the permits and approvals.

Tendering

Various procurement processes were considered at the outset, however based on the need for concurrent data collection for permitting, and community and stakeholder sensitivities associated with the project, a conventional approach has been advocated by the City and Wood team. The following standard procurement approach represents the best-case scenario.

In order to ensure that the City secure the best qualified contractors it is suggested that the Pre-Qualification method be adopted early in the process. The Request for Pre-Qualification is expected to take two months to complete and is tentatively scheduled to occur between March and May 2021. This includes the time to issue, close, evaluate, and short-list the approved contractors for the scope provided in the workplan.

The Request for Tender is expected to take two months to complete and is tentatively scheduled to occur between July and August 2021. Tendering on these timelines would occur well before the best estimate for permit issuance, hence there will be a risk in potentially needing to update contract drawings and specifications to meet the requirements of the regulators. Alternatively, the tender can be aligned with the permitting period and issued closer to the date of final approvals; this would reduce the risk of amending the contract and incurring potential claims and costs. Further, this latter approach is unlikely to affect overall project timing.

Construction

Information in this section describes the general scope work required for the targeted dredging. Construction is expected to take four (4) to Six (6) months to complete. The workplan is anticipated to include the following construction details:

- 1) Mobilization,
- 2) Offshore/Onshore Pipeline Routes,
- 3) Dredging,
- 4) Sediment Handling/Dewatering,
- 5) Material Disposal,
- 6) Site Restoration,
- 7) Demobilization

Monitoring Program

The workplan describes the proposed monitoring plan including guidance on the collection, analysis, and reporting of data related to the recovery of the natural environment. These monitoring activities are broken down as follows:

Construction Monitoring

Water monitoring will be used to provide data regarding resuspension and release of contaminants during removal operations. Parameters to be monitored can include field measurements, physical and chemical parameters.

Post-Remediation Monitoring

Post-remediation monitoring will evaluate the effectiveness of contaminated sediment removal from the remedial actions undertaken in the workplan. As noted, the scope of this monitoring will need to align with the specifics of the dredge program so that meaningful data can be collected to assess the efficacy of the overall operation, and also provide data for use in the broader remediation of Cootes Paradise.

Consultation Plan

The consultation process is an integral component of the workplan and is designed to meet the requirements for considering affected stakeholders as described in the Director's Order. The consultation plan consists of planned discussions, meetings and correspondence with key stakeholders, agencies and the impacted landowners. In addition, the City will engage Indigenous Nations and Peoples to determine key points of interface and opportunities for meaningful involvement. Public notification will be accomplished by media releases, technical briefs and through the updates on the project website.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW19008(j) – Chedoke Creek Workplan, Wood Environment & Infrastructure Solutions