



City of Kingston
Report to Environment, Infrastructure & Transportation Policies Committee
Report Number EITP-24-011

To: Chair and Members of the Environment, Infrastructure & Transportation Policies Committee

From: Paige Agnew, Commissioner, Growth & Development Services

Resource Staff: Brandon Forrest, Director, Business, Real Estate & Environment

Date of Meeting: April 24, 2024

Subject: Update on Kingston Inner Harbour Contaminated Sediment Management Plans

Council Strategic Plan Alignment:

Theme: 2. Lead Environmental Stewardship and Climate Action

Goal: 2.3 Maintain the City's natural heritage and environmental assets.

Goal: 3.1 Expand parks and recreation opportunities and participation.

Executive Summary:

The federal government is proposing to undertake management of contaminated river sediments within Kingston Inner Harbour (KIH) to address risks to human health and the environment. The stated objective of the proposed project is to “reduce risks from sediment contamination to people and wildlife within the KIH through management of sediment quality, while also protecting sensitive species, habitats and valued features”.

The majority of the inner harbour water lots targeted by the proposed project are federally owned, however several water lots within contaminated areas identified as requiring management, are owned by the City of Kingston. The federal custodial departments recognize that a partial clean-up of contaminated sediments is not optimal and have asked the City to consider participating in the project and providing resources to the project that are commensurate with the work required to clean up the City-owned water lots.

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Following a request received from City Council in 2021 pursuant to Report Number [21-007](#), representatives from the federal project presented a draft conceptual sediment management plan (SMP) to the City's EITP Committee within a public meeting format. Considerable concern about the project was articulated from community groups, individuals and committee members. Since then, the federal project has undertaken additional consultations with local community groups, including aboriginal representatives and the Kingston Environmental Advisory Forum (KEAF), and has provided a revised draft of their conceptual sediment management plan concept.

Notable modifications to the project since its presentation in 2021 include a reduction in the total area targeted for sediment dredging, the incorporation of more naturalized shoreline treatments with dredging exclusion zones and an increase in contaminated sediment areas that would be subject to enhanced natural recovery or monitored natural recovery. Risks of environmental impacts due to the physical works being proposed have been considered and potential mitigation measures have been summarized into the updated conceptual SMP.

The purpose of the updated conceptual SMP is to provide a concept that supports additional public consultation and discussions with the City of Kingston and to provide a basis for future detailed impact assessment and design work required for project permitting and tendering. The conceptual SMP estimates that the start of physical work within the harbour could be in 2027 and end in 2029.

This report recommends that Council provide updated direction that allows staff to continue dialogue with the federal project custodians to determine the terms of a potential agreement that would allow for the inclusion of City-owned water lots into the SMP clean-up project. If direction is provided to continue discussions with the SMP project, staff intend to undertake review of the work proposed for City-owned water lots as it is developed to confirm good integration with the City's plans for shoreline work under the Disaster Mitigation and Adaptation Fund (DMAF) and to gain comfort with proposed sediment management measures, environmental controls and associated costs.

Recommendation:

That the Environment, Infrastructure & Transportation Policies Committee recommend to Council:

That Council direct staff to continue work with Public Services and Procurement Canada toward draft terms that may allow for the inclusion of City-owned water lots into the proposed sediment management plan for the Kingston Inner Harbour; and

That Council direct staff to report back to the Environment, Infrastructure and Transportation Policies Committee with draft terms for inclusion of City-owned water lots into the federal project as appropriate.

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Authorizing Signatures:

p.p.

ORIGINAL SIGNED BY COMMISSIONER

**Paige Agnew, Commissioner,
Growth & Development Services**

p.p.

ORIGINAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER

**Lanie Hurdle, Chief
Administrative Officer**

Consultation with the following Members of the Corporate Management Team:

Jennifer Campbell, Commissioner, Community Services	Not required
Neil Carbone, Commissioner, Corporate Services	Not required
David Fell, President & CEO, Utilities Kingston	Not required
Peter Huigenbos, Commissioner, Major Projects & Strategic Initiatives	Not required
Brad Joyce, Commissioner, Infrastructure, Transportation & Emergency Services	<input checked="" type="checkbox"/>
Desirée Kennedy, Chief Financial Officer & City Treasurer	<input checked="" type="checkbox"/>

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Options/Discussion:

Background

The presence of contaminated sediments within the Kingston Inner Harbour has long been known and the City has actively participated with the Kingston Environmental Advisory Forum (KEAF), the Royal Military College of Canada (RMC) and others to advance knowledge of the harbour's environmental condition. This work culminated in 2014 with the completion of a comprehensive report by the Environmental Sciences Group of RMC entitled *Application of the Canada-Ontario Decision-Making Framework for Contaminated Sediments in the Kingston Inner Harbour*. The RMC report undertook an assessment of the potential risks posed to humans and the environment from the presence of unmanaged contaminated river sediments and concluded, among other things, that management measures such as sediment removal or capping be undertaken to reduce identified risks to acceptable levels.

Given that a majority of the contaminated sediments exist within water lots owned by the federal government, Transport Canada and Parks Canada undertook detailed reviews of the RMC work and initiated their own site characterization and risk assessment projects. This work has culminated in the confirmation of unacceptable levels of risk due to the presence of contaminated sediments and the creation of a conceptual sediment management plan (SMP) designed to remove risk to human health and the environment within the Kingston Inner Harbour (KIH).

In 2021 Public Services and Procurement Canada (PSPC), working on behalf of Transport Canada and Parks Canada, presented a draft conceptual SMP to City Council and the Environment, Infrastructure and Transportation Policies (EITP) Committee along with a request to consider contributing to the project so that City-owned water lots within the contaminated sediment zone (Exhibit A) could be included within a clean-up project. At the time, the potential cost for the inclusion of City-owned water lots was estimated to be up to \$10 million.

The conceptual SMP continues to propose reducing the human and ecological risks associated with contaminated river sediments by application of different techniques within eleven distinct management units of the KIH. The selection of proposed remediation techniques was based upon factors such as contaminant concentrations, relative environmental risk, water depths and shoreline characteristics as well as input received from ongoing consultations. Proposed sediment management techniques are different within each management zone and include the following approaches alone or in combination with one another:

- removal of contaminated sediment by dredging and disposal;
- in-water capping using conventional cover/cap;
- in-water capping using an activated carbon or reactive layer;
- nature -based shoreline rehabilitation to improve habitat quality; and
- monitored natural recovery (long term monitoring without dredging or capping).

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In 2021, the proposed project precipitated significant concerns from the public, businesses, community groups and City Council and PSPC committed to undertake additional consultations toward a revised SMP. A particular concern that was later articulated by City Council was for the project to include considerations for naturalized shoreline approaches that avoided “hardened” shorelines that might exacerbate erosion, diminish habitat quality and impede movement of wildlife. The current iteration of the conceptual SMP includes the incorporation of dredging exclusion zones near sensitive shoreline features and the use of nature-based shoreline rehabilitation to improve habitat quality and support the health of dredging exclusion zones.

Figures from the current draft of the Conceptual Sediment Management Plan showing City-owned water lots and the proposed management zones and measures are provided within Exhibits A and B respectively.

The current conceptual SMP and other supporting documentation and information for the proposed project are publicly available through the [KIH project website](#).

Analysis

Staff have received the latest update to the conceptual SMP and, with Council’s concurrence, are ready to undertake additional due diligence to confirm the compatibility of the proposed work with existing City plans, the reasonableness of proposed management measures over City-owned water lots and related costs, and to continue discussions with PSPC toward determining conditions that would allow for the inclusion of City-owned water lots into the proposed project.

An important consideration in the City’s review of the proposed SMP will be to ensure that the proposed works are well integrated with the City’s plans for shoreline improvement work under the federal Disaster Mitigation and Adaptation Fund (DMAF) and the Waterfront Master Plan. Staff will also need to confirm the appropriateness and costs associated with proposed sediment management plans and associated construction control measures for City-owned water lots.

Public Engagement

The federal project has undertaken public engagement and plans to continue. Perhaps most significantly, PSPC presented a summary of the proposed project to the EITP Committee on September 28, 2021. The EITP Meeting included a public meeting that was well attended by those concerned with the proposed project and those who expressed support for it. The conceptual SMP indicates that engagement with the public, community groups and indigenous representatives will continue as the project moves through the Detailed Impact Assessment and Detailed Design stages.

Existing Policy/By-Law

Information on the proposed SMP has previously been provided to Council and the EITP within the following reports:

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- [Report Number 21-107](#)
- [Report Number EITP-21-020](#)
- [Report Number 21-154](#)

Financial Considerations

With the direction recommended within this report staff intend to undertake a review of the draft SMP with focus on developing integration with the City’s planned DMAF shoreline work and to gain confidence in the proposed sediment management measures and associated costs planned for City-owned water lot areas. The retention of subject matter expertise may be required. Existing capital budgets are sufficient to fund the planned review work.

PSPC continues to request that the City consider contributing toward the management of environmental risks within the KIH by including City-owned water lots into the scope of clean-up. In 2021, the cost of including City-owned water lots into the SMP was estimated at approximately \$10 million and it was acknowledged could be potentially made up of in-kind goods, work, lands or services as well as direct contributions. Staff have not yet reviewed any cost updates and subject to further review, any costs of including City-owned water lots will need to be incorporated into future capital budgets.

Contacts:

Paul MacLatchy, Environment Director, 613-546-4291 extension 1226

Other City of Kingston Staff Consulted:

Neal Unsworth, Manager, Parks and Shoreline

Luke Follwell, Director, Engineering Services

Exhibits Attached:

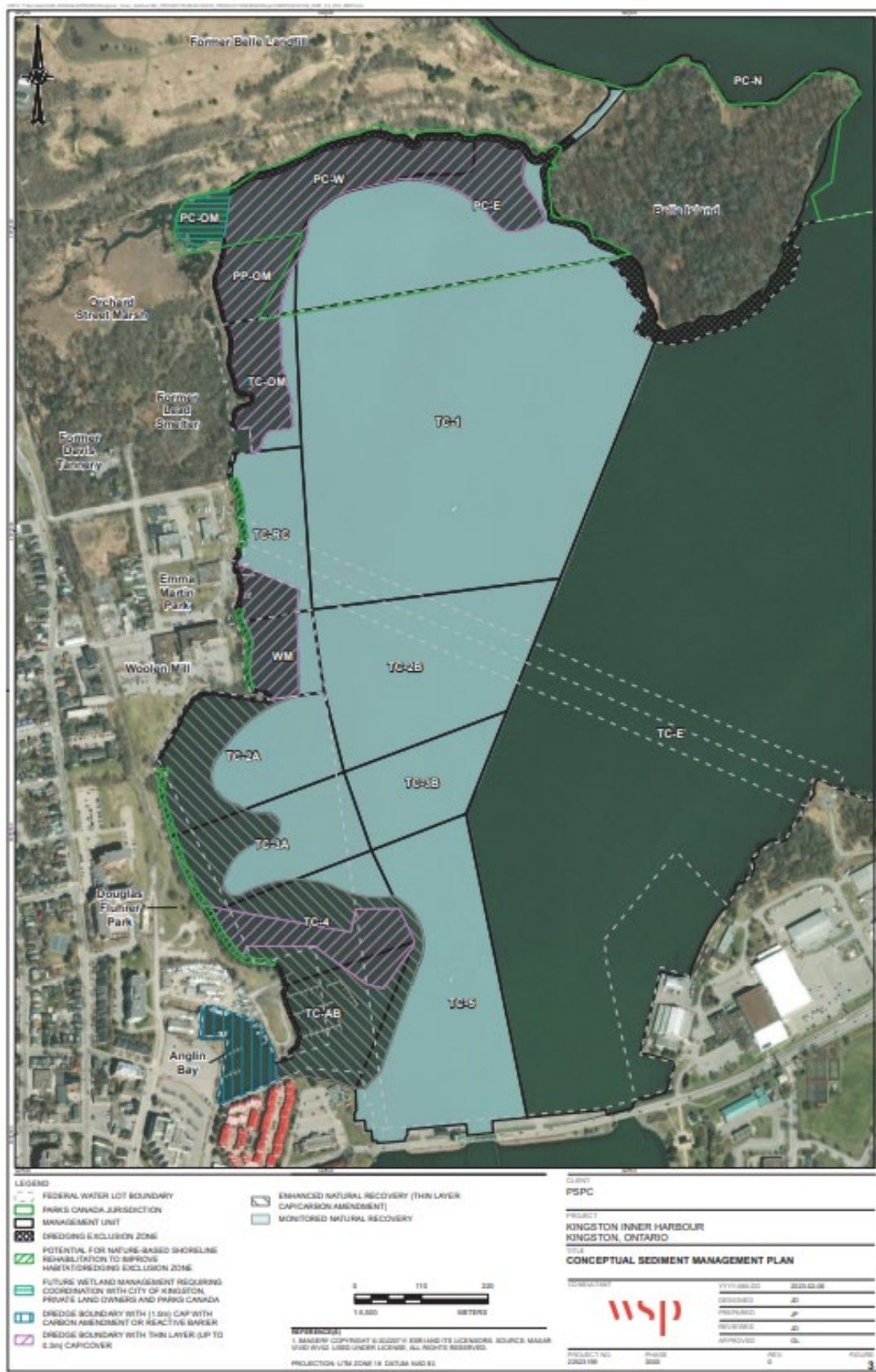
- Exhibit A Figure 1 from the 2023 Conceptual SMP showing water lot ownerships within the proposed sediment management project area
- Exhibit B Figure 3 from the 2023 Conceptual SMP showing proposed sediment management zones and methods

Figure Showing City-Owned Water Lots



Source: Conceptual Sediment Management Plan for Kingston Inner Harbour, Public Services and Procurement Canada, September 2023

Figure Showing Sediment Management Zones and Proposed Management Methods



Source: Conceptual Sediment Management Plan for Kingston Inner Harbour, Public Services and Procurement Canada, September 2023