REPORT

Council

Meeting Date: January 27, 2025

FROM:	Parks and Open Space Department
DATE:	January 14, 2025
SUBJECT:	**Funding Request – Dredging Oakville Harbour Related to July 2024 Rainfall Event**
LOCATION:	Oakville Harbour
WARD:	Ward 2

RECOMMENDATION:

That Council the 2025 capital budget be amended to add a capital project entitled Oakville Harbour Dredging – July 2024 Storm Impacts with a budget of $1,500,000 funded from the Storm Event Reserve.

KEY FACTS:

The following are key points for consideration with respect to this report:

- On July 16, 2024, Oakville experienced a very heavy rainfall event that caused the level of the Sixteen Mile Creek to significantly rise in water level and speed of the current. This rainfall event was the 5th in a six (6) day period within the jurisdictional boundaries of Conservation Halton. A synopsis of the July 16 and preceding days rain events has been provided by CH and included as Appendix A.
- The significant rise in the water level and speed of the current resulted in substantial damage to infrastructure and vessels within Oakville Harbour. Approximately 600 feet of dockage was displaced at Hillmer Park and that dockage, with multiple vessels attached, broke loose and travelled down the Harbour and out into Lake Ontario.
- One of the outcomes of the July 16 rainfall event was the large amount of silt deposition within areas of Oakville Harbour. The accumulation of silt created significant navigational problems for multiple sailboats during the latter part of the 2024 recreational boating season and, unless removed, will create navigational problems within Oaville Harbour during the 2025 recreational boating season.

- Staff are recommending a capital project be created to remove approximately 8,900 m^3 of silt from Oakville Harbour. Staff estimate the cost to be approximately $1,500,000. Staff are recommending the project be funded from the Storm Event Reserve. This project could not be included in the 2025 Budget process because proper depth soundings and bathymetry data produced to determine volume of silt and estimated cost for removal could not take place until all boats and docks had been removed from the harbour for the season (1st week of November).

BACKGROUND:

On July 16, 2024, a very heavy rainfall event occurred in Oakville, mostly centred over the watershed of the Sixteen Mile Creek. That day concluded with 5 rain events within a six (6) day period within Conservation Halton (CH) jurisdictional area. Overall, between July 10 and July 16, CH's jurisdictional area received between 100 mm and 220 mm of total rainfall from five (5) weather events. This rainfall can be attributed to remnants of Hurricane Beryl. As a result, on July 16, the ground was saturated and the Sixten Mile Creek and other creeks throughout the town were running at well above normal levels.

On July 16, the Sixteen Mile Creek was extremely high and operating at a very high velocity. This caused damages to the harbour by breaking docks and boats away from their moorings; large trees were uprooted and debris flowed downstream and carried a significant amount of sediment. As the flow of water made its way through Oakville Harbour, the sediment gradually settled in the harbour. Once the cleanup from the storm was completed, the Town's Harbours section was inundated with calls of significant sediment in the harbour where a number of boats were running aground within the Harbour where they normally did not just a week before.

The Harbours section continued to monitor the sediment complaints from the boating community to isolate problematic areas. In October 2024, and once all the docks and boats had been removed for the season, Harbour's staff completed a comprehensive bathymetry survey of Oakville Harbour to review the entire harbour for areas and depth of sediment deposition.

Based on the bathymetry data, an estimated 8,900 m^3 of sediment has been identified to have settled in the harbour and causing significant navigation challenges for the boating community. If not removed by spring 2025, this sediment will cause significant navigational challenges for many keel sailboats during the 2025 recreational boating season. To undertake a complete and comprehensive audit of the silt buildup in the harbour from the July 16 storm event, staff had to wait until all docks and vessels were removed from the Harbour before soundings could be undertaken to produce the bathymetry data.

COMMENT/OPTIONS:

Over the last 30 years, typical dredging for Oakville Harbour is every 10 years and Bronte Harbour every 7 years. The next scheduled major dredge for Oakville Harbour was estimated to be in the next 2-3 years depending on bathymetry data assembled each year. Unfortunately, the storm events on July 16, 2024 have resulted in significant silt deposition within the Harbour and, if not removed, will have serious navigational consequences on the 2025 recreational boating season.

Staff are recommending approval of a capital project to remove an estimated 8,900 m^3 of silt from various sections of the harbour. Unless the silt is removed, many sailboats will not be able to navigate the harbour during the 2025 recreational boating season, especially from late July onwards when lake levels historically drop. This not only impacts Town mooring customers, but also members of the Oakville Yacht Squadron as well as the Oakville Club.

Financing

Staff have estimated the cost associated with removal of 8,900 m3 of silt to be approximately $1,500,000 based on previous dredges. That number can fluctuate depending on the vendor's mobilization costs. In addition, there may not be enough capacity at the closed 4^{th} Line landfill site so a portion of the material may have to be dumped at an alternative location. This would be an additional cost.

Presently, there is also approximately $325,000 in funds from previously approved dredge projects. Staff will also utilize these funds as required. Any surplus funds from existing dredge projects or the proposed 2025 capital project would be returned to their respective funding sources, at the conclusion of the project.

In discussion with Finance staff, it is recommended to fund the capital project from the Storm Event Reserve. This reserve was established to fund unforeseen weather events such as significant winter control, wind, ice, or rainstorm events. At present the Storm Event Reserve has a balance of $5.48 million so there are adequate funds available for this work.

CONSIDERATIONS:

(A) PUBLIC

Unless the silt is removed from Oakville harbour before the 2025 recreational boating season, a large number of Town and Club boaters will be negatively impacted by the sediment deposition within the harbour.

(B) FINANCIAL

The estimated cost for the dredging project is $1,500,000. Staff are recommending the dredge project be funded from the Storm Event Reserve which has a current balance of $5.48 million. There is also $325,000 in funds previously approved and remaining from previous dredging projects that is also available. Any surplus funds will be returned to the appropriate source of funding.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

This report has been prepared with the assistance of the Finance dept.

(D) CORPORATE STRATEGIC GOALS

This report addresses the corporate strategic goal(s) in the areas of Livability and Accountable Government.

(E) CLIMATE CHANGE/ACTION

Southern Ontario including Oakville is experiencing more intense and frequent rainfall events. This aligns with the Government of Canada's April 2019 Changing Climate Report which notes that Canada is experiencing warming at twice the rate of the rest of the world. The rainfall experienced from July 10-15, 2024 is such an example, with the volume and intensity of the rainfall on July 16, 2024 a prime example of how our climate is changing. The changeover from wood docks to tubular steel docks is one adaptation the Harbour section is undertaking to become more resilient to these intense and frequent storms.

APPENDICES:

Appendix A – Conservation Halton Weather Event Fact Sheet – July 10-16, 2024

Prepared by:

Chris Mark, Director Parks and Open Space

Recommended by:

Paul Damaso, Commissioner, Community Services