



PORT COLBORNE

Subject: Status of Marina Dredging

To: Council - Public Meeting

From: Public Works Department

Report Number: 2025-12

Meeting Date: February 25, 2025

Recommendation:

That Public Works Department Report 2025-12 be received; and

That Council approve funding to dredge Sugarloaf Harbour Marina at an estimated cost of \$3,400,000; and

That Council direct staff to implement the proposed public engagement plan outlined in this report.

Purpose:

The purpose of this report is to obtain funding to complete a phased approach to dredging Sugarloaf Harbour Marina and gather public input on future development opportunities to enhance the waterfront and offset the cost of future dredging phases and Sugarloaf Harbour capital upgrades.

Background:

Sugarloaf Harbour Marina is one of the largest municipally owned and operated marinas in Ontario, providing 700 dock slips for both seasonal and transient boaters. Sugarloaf Harbour Marina's operations are inclusive of the public boat ramp, providing access to Lake Erie. Each season, the public boat ramp averages over 1200 day-use passes and 350 seasonal passes.

Like many marinas, the area within the break walls gradually collects sediment, silt, and sand over time. More recently at Sugarloaf Harbour Marina, sediment has accumulated to a point in which it is impacting the ability of boats to navigate throughout the harbour

from the public boat ramp. Additionally, some areas are not usable due to insufficient depths.

The majority of navigable water in the harbour, from the public boat ramp onward, typically maintains an average depth of 2-4 feet throughout the boating season. However, this depth can decrease further due to factors like offshore winds or low lake levels. Typically smaller motor boats have a draft of 1-2 feet, which is the depth it sits in the water. Larger boats and sailboats, with their keels, need greater depths up to 6 feet or deeper in some cases.

Dredging is the process of removing the sediment from the bottom of water bodies using specialized equipment such as dredgers or excavators equipped with a bucket, or a suction mechanism to extract the material from below the waterline.

The Sugarloaf Harbour Marina was constructed in the 1990s and has not been dredged to date.

Due to the growing accumulation of sediment in the Sugarloaf Harbour Marina, access to Lake Erie and safe navigation to the Marina's dock slips is limited for some of the larger boats. Staff have explored various solutions to maintain Sugarloaf Harbour Marina's full operational capacity.

Discussion:

Over the past year, staff have completed preliminary studies to estimate the volumes of dredged material (or dredgeate) from Sugarloaf Harbour Marina. Additional investigation work was completed to determine: a) preliminary costs for dredging, as well as dredgeate testing and handling, b) potential locations that can receive the dredgeate, and c) alternative designs to minimize project costs.

Based on the latest bathymetric survey completed in 2022, the total estimated volumes of dredgeate is 170,000 cubic meters, with the preliminary cost estimate to remove all this material totalling \$22,000,000.

Due to the substantial cost implications to fully restore Sugarloaf Harbour Marina to its original condition, staff have investigated alternative solutions that include a phased approach with an operational plan to mitigate the current restrictions in Sugarloaf Harbour Marina and reduce budget impacts when compared to the total estimated cost of \$22,000,000.

Recent investigations have indicated that the boat launch area has acquired the greatest impact of dredgeate buildup. Staff recommend that the dredging project be completed in a phased approach and focus on the boat launch area which requires about 17,000 cubic meters of dredging, or 1,700 triaxle (dump truck) loads.

Based on estimated costs obtained from subject matter experts, the dredging of only the boat launch area is approximately \$2,500,000. However, this estimate does not include additional design and other anticipated fees as outlined below.

In order to reduce dredgeate hauling and handling costs, which can be quite high due to new provincial regulations, staff recommends using the dredgeate to fill in the south limit of the Nickel Beach parking lot as shown as Location 1 in Appendix A. Since the City owns the property, there would be no fees associated with disposing the dredgeate in this location. Furthermore, utilizing this location could allow for the addition of new parking spaces at Nickel Beach.

At the time of writing this report, this option to expand Nickel Beach parking is still being reviewed. A conceptual plan suggests that the number of available parking spaces would increase from 134 to approximately 370. Costs for fencing, gravel, and landscaping to turn the dredging material to a productive use (parking) are estimated to be \$400,000. Staff highlight the additional parking would help support the long-term financial viability of Nickel Beach and help remove vehicles from the adjacent neighbourhood.

Further to removing the 17,000 cubic meters of material in the boat launch area, which would restore the area to its original condition, staff recommend that additional design work be completed to develop a comprehensive plan to dredge other areas of Sugarloaf Harbour Marina. The scope of this work includes retaining additional consulting services to provide solutions that mitigate the amount of settlement accruing in Sugarloaf Harbour Marina and potentially fill in a second proposed location as described below. These design services are estimated at \$500,000.

Staff have investigated the lagoon between H.H. Knoll Lakeview Park and Sugarloaf Harbour Marina as a second location that may be able to receive material subject to resident feedback and Council approval. This area would allow material to be left on site while filling in the lagoon area to the north of Sugarloaf Harbour Marina, as shown as Location 2 in Appendix B. Staff have estimated that this site will be able to receive about 54,000 cubic meters of material. Utilizing the lagoon could have significant cost savings.

Staff recognize the lagoon is used for fishing by some. Should the lagoon option be pursued alternative options could be reviewed for fishing. Staff have heard some Councillors and citizens comment that having a promenade along the rock wall that surrounds Sugarloaf Harbour Marina would be a preferred waterfront amenity. This could be something to investigate as an alternative to fishing in the lagoon.

To fill in the lagoon, additional engineering services will be required due to the storm sewers that outlet into it. The scope of work proposed in this report includes a preliminary design along with a Municipal Class EA (Environmental Assessment).

Filling in the lagoon does provide an additional cost saving benefit by eliminating future maintenance and upkeep of the embankments along its perimeter. In 2021, a portion of

the embankment along Marina Drive had eroded, threatening the potential collapse of the road into the lagoon. Although the immediate repair was completed, the estimated cost in today's dollars to make a similar repair along the remaining sloped areas of the lagoon could be approximately \$250,000. Additionally, the vertical block wall on the north side of the lagoon will also need to be considered in future replacement programs, should the lagoon not be filled in.

Additional benefits of filling in the lagoon include added opportunities for future development in the area that could result in new revenue streams, parking spaces, and an improved landscape to the area. Although this idea may seem new, during their report research, staff found previous newspaper articles dating back to 1988 that discussed the potential for development in Sugarloaf Harbour Marina area to help offset the projected maintenance costs of the future Sugarloaf Harbour Marina. Future development in the area could include a hotel, housing, and/or commercial amenities.

It is important to note that should this project move forward, and Sugarloaf Harbour Marina is dredged, sediment accumulation will continue to build up in Sugarloaf Harbour Marina, and dredging will be required in the future. While Sugarloaf Harbour Marina has lasted over 30 years without dredging, Staff cannot guarantee the same timeline should this project be completed. The amount of accumulation in Sugarloaf Harbour Marina varies year to year depending on the amount of severe weather events, whether the lake freezes, and the change in lake level. However, in speaking to operators of other Marinas, they have developed a strategy of routine maintenance, periodically assessing the accumulation of dredgeate and removing smaller amounts more frequently, as opposed to only, when necessary, which helps spread the financial cost over a continuous period. As part of the design services, a maintenance strategy will be created for recurring dredging maintenance programs. Any future maintenance programs will have a cost subject to future Council direction.

In addition to dredging, Sugarloaf Harbour Marina will need continuous capital improvements that exceed the current Marina's current revenue stream. The most prominent example of a capital improvement project will be a dock repair or replacement project. By way of illustration, the results of a level one dock condition assessment report completed in 2017 highlighted that dock systems 1-6 had an estimated residual lifespan varying from 4-8 years. Recent cost projections received by staff for dock replacement options range between \$2,000,000 to \$6,500,000. Staff highlight to Council that these preliminary cost estimates represent the option of new dock replacements, a more comprehensive report on the dock project will be brought to Council at an appropriate time, provisioning for various options and their respective costs.

Due to current needs and future operating programs, Sugarloaf Harbour Marina needs to seek additional and substantial revenue sources to avoid significant increases to the levy.

Staff have also considered other options, such as selling Sugarloaf Harbour Marina in its current state; however, obtaining sufficient interest could be complicated by the significant additional capital investment required to bring Sugarloaf Harbour Marina back to its fully functioning state. Additionally, Sugarloaf Harbour Marina's property provides all the residents of Port Colborne with additional walkable lakefront, and so selling Sugarloaf Harbour Marina to a private entity could eliminate this amenity.

Risks

While staffs' investigations and progress to date have been pointed towards eliminating unknowns and decreasing the financial risk of the dredging project, there are some liabilities that cannot be eliminated until design work begins.

Staff have completed in-place sampling of the dredgeate, and the results have indicated that Location 1 – Nickel Beach Parking Lot is a compatible receiving site. However, in-place sampling is not an acceptable methodology to determine excess soil generating and receiving site compatibility. To determine compatibility, the material must be dredged, stockpiled, dried, and then sampled. There is a potential for the sampling results to change between in-place sampling and stockpile sampling, which may make Location 1 – Nickel Beach Parking Lot an incompatible site. If this were to occur, the material would need to find an alternative site, which would come with additional costs.

For both locations 1 and 2, additional permitting is required from the NPCA (Niagara Peninsula Conservation Authority) and DFO (Fisheries and Oceans Canada) to fill in these areas, as they are connected to the Lake Erie shoreline. As part of the design, the consultant will investigate the permitting process and determine if permits would be approved. Should these permits be denied, this material would need to find an alternative site, which, again, would come with additional costs

Dredging Plan

Upon approval of staff's recommendation, staff will issue an RFP to retain professional engineering services to complete the following:

- Design and permitting requirements to dredge the 17,000 cubic meters of material surrounding the boat ramp;
- Design and permitting requirements to fill in the area south of the Location 1 - Nickel Beach Parking Lot, as shown in Appendix A;
- Develop solutions to mitigate the volume of sediment gathering in Sugarloaf Harbour Marina;
- A preliminary design to extend the storm sewer outlet located in the lagoon;
- A Municipal Class EA as required to move the storm sewer outlet location; and
- Develop a multi-year plan to dredge Sugarloaf Harbour Marina and an operational plan to complete minor dredging work annually.

Staff have been working with the regulatory bodies of which permits are required in order to complete dredging works. Ultimately, the Ministry of Natural Resources and Forestry (MNR) is the governing body that will issue the permit to complete this project. However, to issue the permit, they require letters of recommendation from the DFO and the Ministry of Environment, Conservation and Parks (MECP). To date, staff have obtained letters of recommendation from both the DFO and MECP, and a permit from the MNR is expected once the bathymetric survey, dredgeate characterization, and dredgeate management plans are complete. It is important to note that these permits are separate from the permits required to fill in either Location 1 or 2 with dredgeate.

Once a work permit has been obtained, in-water work is annually restricted by the DFO from March 15th to July 15th to protect the fish habitat. As such, staff will continue to work over the course of the spring and summer to finalize the design and permit requirements to begin dredging, and then follow up with in-water work in the off season, with the goal of addressing dredging priority areas before March 2026.

Internal Consultations:

Discussions regarding the dredging of Sugarloaf Harbour Marina have involved Public Works, Recreation, Financial Services and Economic Development. Additionally, staff have also been working with consultants on the dredgeate sampling completed to date, as well as research regarding the feasibility of filling in the proposed Locations 1 and 2.

Financial Implications:

A financial summary of the recommendation in this report is as follows:

Marina Dredging - Financial Implications	
Dredging of 17000 m ³ and disposing at Location 1	\$ 2,500,000.00
Design Services to complete Marina dredging	\$ 500,000.00
Nickel Beach Parking Lot Expansion to extract value / purpose from the dredged material	\$ 400,000.00
Total	\$ 3,400,000.00

Future financial considerations include:

- Additional dredging that will be required after this first phase
- Ongoing maintenance program
- Capital improvements, including docks

The Sugarloaf Harbour Marina is a self-sustaining operation that covers its operating and day-to-day capital requirements. This program would require funding in excess of what the current mix of boaters could pay through fees.

Staff propose this initial phase be funded through debenture financing to be funded through the 2026 Capital and related project budget. Approving this report will committee funding.

A 10-year loan at 5% will require an annual funding contribution of approximately \$435,000.

Alternative options for funding the proposed projects and future phases include a review of the property assets of Sugarloaf Harbour Marina and their potential development, which could include a hotel, housing and/or commercial amenities. The Public Engagement section below recommends a public engagement process to obtain comments from the community with respect to potentially developing Sugarloaf Harbour Marina.

Public Engagement:

Staff are proposing a public engagement plan that would gather feedback from the community regarding the tentative plan to fill in the lagoon located at Sugarloaf Harbour Marina and its potential for future development.

The engagement plan has several high-level objectives, including:

- **Inform the community:** Ensure the community has clear, transparent and accessible information about the proposed project.
- **Gather feedback:** Provide residents with a variety of in-person and virtual channels so they can freely share their thoughts and ideas.
- **Promote accessibility:** Offer multiple ways to participate to ensure individuals can choose the method that best suits their needs and preferences.
- **Identify concerns and opportunities:** Review feedback to highlight areas of alignment and identify potential improvements or alternatives to the proposal.
- **Ensure transparency:** Provide the community with access to the feedback collected to demonstrate how this information informs Council's decision-making.

The proposed engagement plan includes a three-pronged approach to ensure key audiences are aware of the opportunity to provide feedback and can do so in a way that works best for them. If approved, this plan would include:

1. Online survey/feedback form
2. Paper-based survey/feedback form
3. In-person open houses/drop-in sessions

Each item is discussed further below:

1. Online survey / feedback form

An online survey would launch on February 26, 2025, and would ask multiple-choice and open-ended questions for community members to offer their thoughts on the proposed Marina dredging project. Multiple-choice questions are an efficient option to collect and analyze feedback, while open-ended questions allow community members to provide qualitative insights in their own words. The survey would close on March 14, 2025.

2. Paper-based survey / feedback form

To accommodate community members without access to the online survey, an identical paper-version would be available at various city facilities (City Hall, Vale Health & Wellness Centre, Port Colborne Public Library). The surveys would be collected for analysis beginning March 14, 2025.

3. In-person open houses / drop in sessions

City staff would host two consecutive days of in-person drop-in style open houses on Wednesday, March 5 and Thursday, March 6. These open houses would collect feedback on both Sugarloaf Harbour Marina project and the future of the grain elevator location, if approved by Council. Daytime and evening sessions would allow residents to attend when it suits their schedule and talk with City staff to learn more about both projects.

Successfully communicating about the engagement opportunities will be a vital part of gathering enough meaningful feedback to support Council's decision-making process. The Corporate Communications team would launch a comprehensive communications campaign to promote the engagement opportunities, which would include (but not be limited to):

- Sharing information on the City's website
- Posting social media content and events on City channels
- Media outreach/promotion
- Outreach through Sugarloaf Harbour Marina's e-newsletter list

The engagement project would begin Wednesday, February 26 and end on Friday, March 14. Once completed, results would be collected, analyzed, and provided to Council in a comprehensive summary report in early April 2025.

This engagement plan ensures residents have a meaningful role in determining the direction of Sugarloaf Harbour Marina dredging project, fostering a collaborative approach to these important community decisions.

Strategic Plan Alignment:

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Environment and Climate Change
 - Welcoming, Livable, Healthy Community
 - Economic Prosperity
 - Increased Housing Options
 - Sustainable and Resilient Infrastructure
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Conclusion:

To maintain the operational use of Sugarloaf Harbour Marina, dredging is required to remove sediment for boats to navigate the waterway. Staff are currently working with consultants to complete the pre-construction requirements, including permits and approvals, sourcing receiving sites, and scheduling of proposed works.

Upon approval of this report, staff will release an RFP to complete design services to dredge Sugarloaf Harbour Marina. In addition, a comprehensive public engagement program will commence to receive feedback on the proposed plan.

Appendices:

- a. Marina Dredging – Location 1
- b. Marina Dredging – Location 2

Respectfully submitted,

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Report Approval:

All reports reviewed and approved by the Department Director and the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.