



Town of Arnprior Staff Report

Subject: Implementation Plan for Robert Simpson Park Revitalization

Report Number: 25-07-14-04

Report Author and Position Title: Patrick Foley, Engineering Officer; Graeme Ivory, Director of Recreation

Department: Operations & Recreation

Meeting Date: July 14, 2025

Recommendations:

That Council direct staff to proceed with an updated phased approach to the Robert Simpson Park Revitalization design assignment with Phase 1 consisting of the Upper Park and Phase 2 consisting of the Shoreline Modification & Lower Park; and

That Council direct staff to conduct two separate public consultations for Phase 1 Upper Park and Phase 2 Shoreline Modification & Lower Park; and

That Council direct staff to proceed with public consultation for the Phase 1 Upper Park with a projected budget of \$3.2 million, anticipated for 2026 construction; and

That Council direct staff to explore alternative options to the proposed breakwater and return at a later date with options for the Phase 2: Shoreline Modification & Lower Park, including cost impact and an anticipated schedule to be determined as an update to the LRCF.

Background:

Robert Simpson Park has long been seen as a landmark within the Town of Arnprior boasting a beautiful waterfront, sandy beach, large open green space, mature trees and ample amenities for recreation activities, major events and community/family gatherings. This park plays a vital role in a majority of the town-run and major community events during the summer months and is easily the Town's busiest outdoor space from the Victoria Day through to Labour Day. It's popularity well exceeds our borders and also serves as an economic driver for our community.

In late 2019, thinc design was contracted to complete a Waterfront Master Plan to establish general concepts for Town-owned shoreline projects. This plan was delivered to Council in November 2021 as approved through the 2022 budget process.

The Waterfront Master Plan identified thirteen (13) recommendations for Robert Simpson Park:

- RS-1: Park-wide Accessibility Improvements
- RS-2: Beach Expansion and Pier
- RS-3: Beach Level Vehicle Access and Parking
- RS-4: Pedestrian Ramp to Beach
- RS-5: Boardwalk and Landscaping
- RS-6: Gradual Timber Steps (Provisional)
- RS-7: Additional Seating and Picnic Opportunities
- RS-8: Playground and Splash Pad Enhancements
- RS-9: Change Facility
- RS-10: Small Craft Rental
- RS-11: Increase Park Capacity
- RS-12: Accessible Washrooms
- RS-13: Urban Canopy

From these recommendations, the Beach Expansion and Pier is the most significant component of this project as the preliminary consideration from the Waterfront Master Plan suggests re-establishing the historic location of the beach further east than its current location. The current beach was considered to be less ideal in terms of safety due to proximity to the confluence of the Ottawa and Madawaska Rivers which has long been an area of concern. It was believed that re-instating the breakwater would suitably protect the original beach location from erosion.

In July 2024, Council awarded the design for the redevelopment of Robert Simpson Park to Stantec Consulting Ltd. The design assignment includes:

- Shoreline modification
- Establishing a breakwater
- Establishing network of accessible pathways
- Establishing boardwalk for accessible route from the upper-level parking lot to the beach level
- Replacement and improvements to play features including the splashpad, play structure(s) and swing set(s).

The scope of work as defined for this phase was published as a Request for Proposal (RFP) to include the following components:

1. Defined options to achieve objectives (eg. different styles of breakwaters)
2. Concept Design with high level estimates
3. Public Consultation
4. Tender Ready Contract Documents

Discussion:

Shoreline

Shoreline modification is a very complicated process with many studies, consultations and permits required prior to design being finalized. The proposed beach expansion and reestablishment of a breakwater structure involves building onto the riverbed which does not belong to the Town of Arnprior. Further, the remains of the pre-existing breakwater structure were acquired by the Town of Arnprior in 1995, but it sits on the riverbed which is not owned by the Town.

There are a lot of factors that lead to this project, but the most critical factor is public safety. The current in the Madawaska River is a known hazard that has resulted in multiple drownings in the past thus discouraging the public from swimming near this hazard is of high importance. The high-level purposes of the shoreline modification at Robert Simpson Park in order of importance are:

1. Move the public beach further from the hazardous current of the Madawaska River
2. Prevent continuous erosion of the beach
3. Improve accessibility
4. Better utilize the waterfront to improve the level of service at this location

Robert Simpson Park being situated where the Madawaska River meets the Ottawa River, means that the shoreline is being eroded by varying intensities of multiple currents. After completing hydrotechnical and bathymetric studies, it has become clear that a breakwater similar to how it once existed will not entirely mitigate erosion issues. The Ottawa River flows East towards Bell Park whereas the Madawaska River flows North into the Ottawa. A breakwater in its historic location would protect from the Ottawa River currents but not from the Madawaska currents that pull sand from the existing beach to redistribute further upriver on the Madawaska River (along the riverfront walking trail). The below graphic shows current directions at Robert Simpson Park at peak flow rates in a major flow event. The principles illustrated here in terms of erosion are applicable to more typical daily flow.

Figure 1: Existing Conditions - 1:100 year design water level and flow event in the Ottawa River with 1:2 year flow event in the Madawaska River

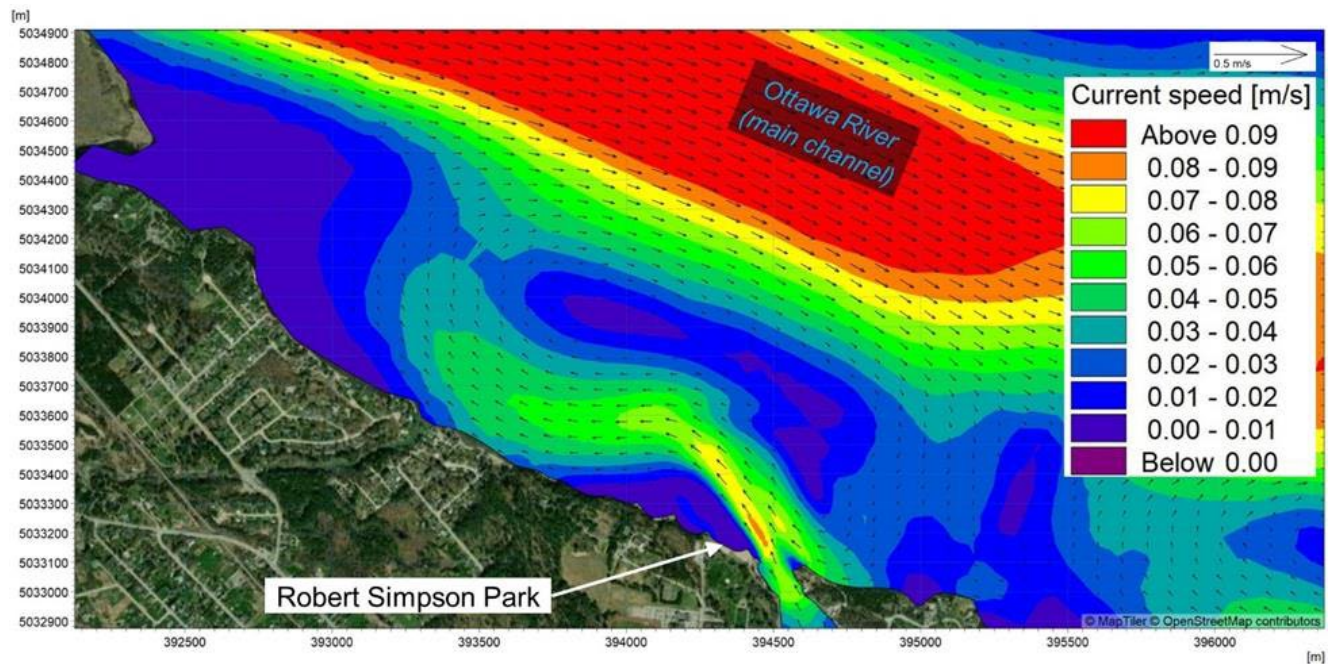


Figure 2: Existing Conditions - 1:100 year flow event in the Madawaska River with average flows and water levels in the Ottawa River

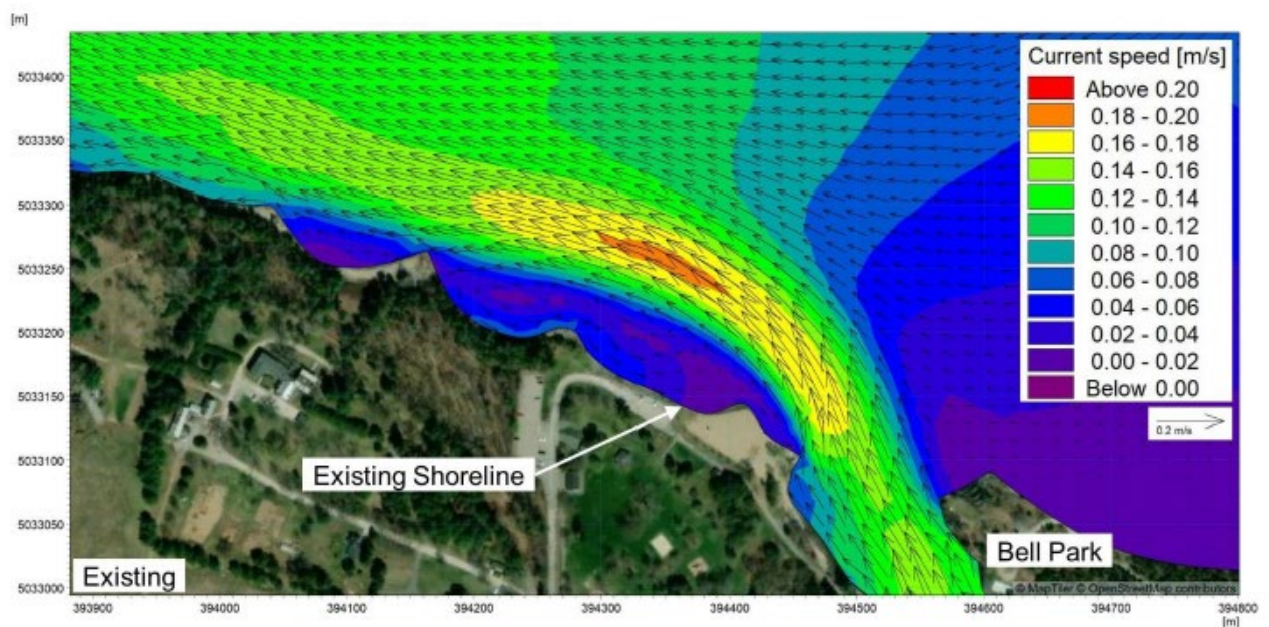
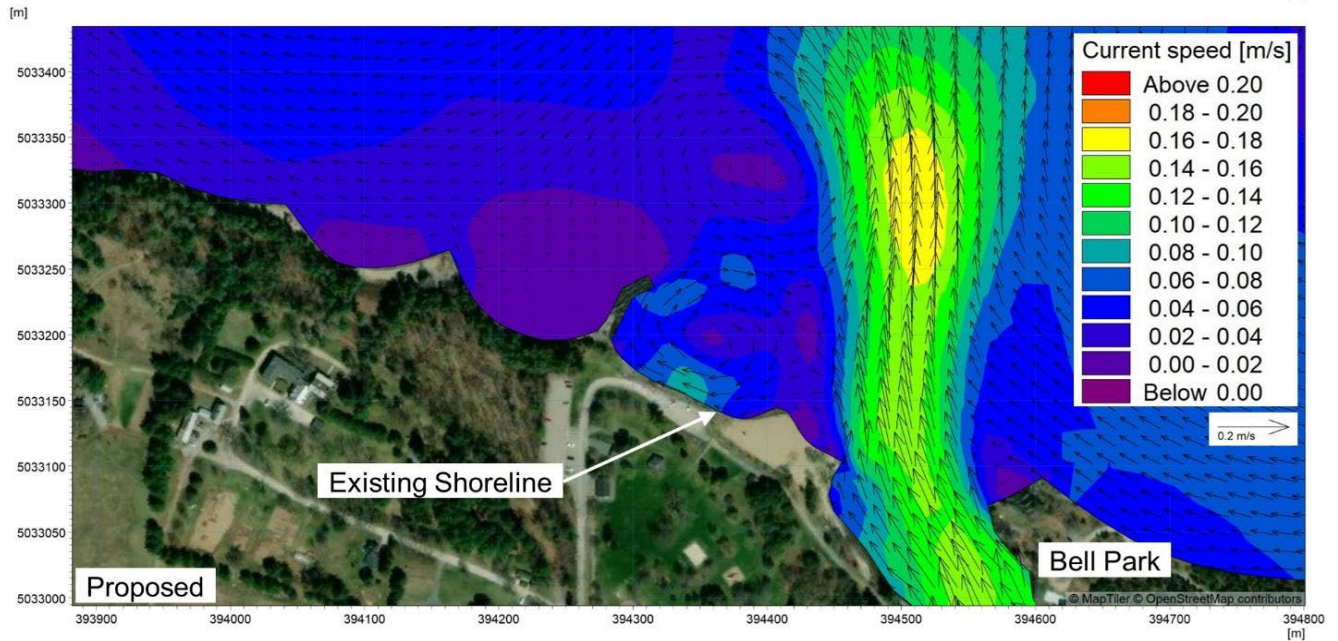
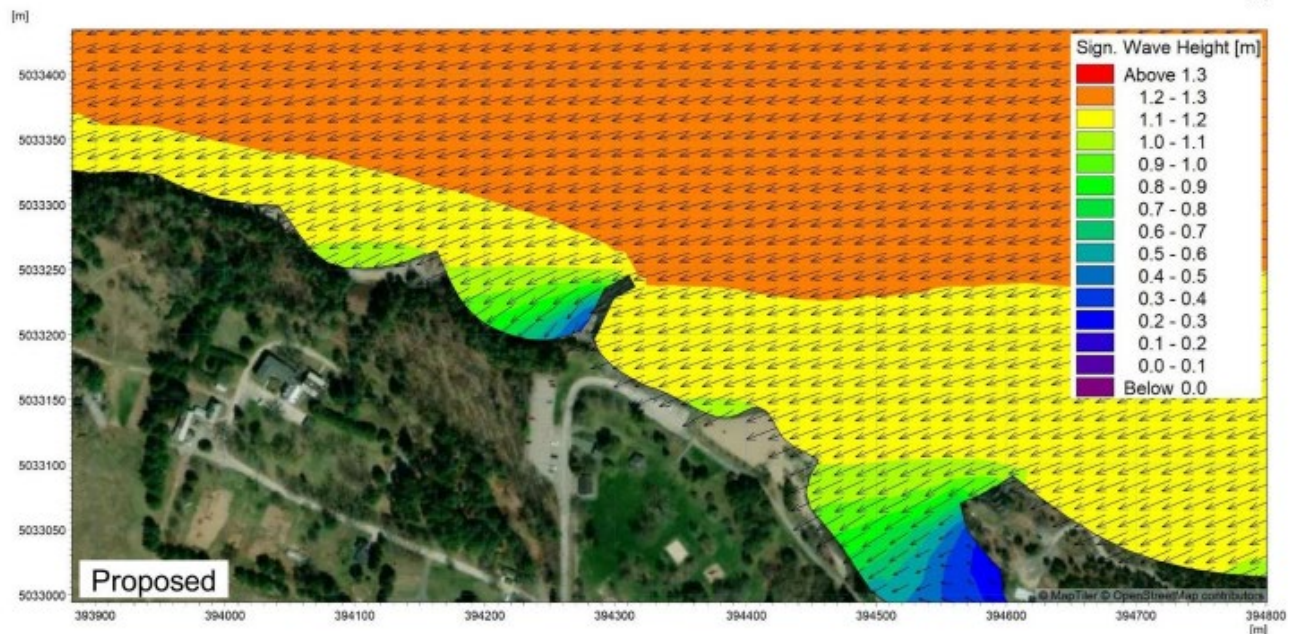


Figure 3: Conceptual Breakwater - 1:100 year flow event in the Madawaska River with average flows and water levels in the Ottawa River



In terms of current, the Madawaska River factors in most significantly but the waves on the Ottawa River are quite large in comparison to other smaller bodies of water. Waves batter the shore from various directions, but most aggressively from the East. The historic breakwater location protects from the current of the Ottawa River but not the waves from the Ottawa or the current of the Madawaska.

Figure 4: East Wave Pattern (100 year storm)



Significant quantities of sand are required annually to reinstate the beach at Robert Simpson Park; a practice that is not sustainable.

Understanding that the breakwater as conceptualized in the Waterfront Master Plan is not a solution that solves the erosion problems, it is essential to take a step back and evaluate additional options to present the full picture to Council and the public. Different shoreline protection solutions are being explored, and examples of similar projects are being investigated to find the most appropriate solution for this location. Based on comparison projects, proposed shoreline protection options will likely include armour stone and pea gravel sections though details are still being investigated.

Brown's Bay Campground in Mallorytown, Ontario on the St. Lawrence River had similar patterns of erosion and their implemented solution was an armour stone wall to maintain a large flat sand area. The sandy area remains open for leisure and beach sports, and the armour stone presents ample seating directly at the waterfront. The revitalized Robert Simpson Park would differ in that swimming would be discouraged at this location in future to encourage swimming in the safer area to the west.

Figure 5: Brown's Bay Shoreline Comparison to Robert Simpson Park

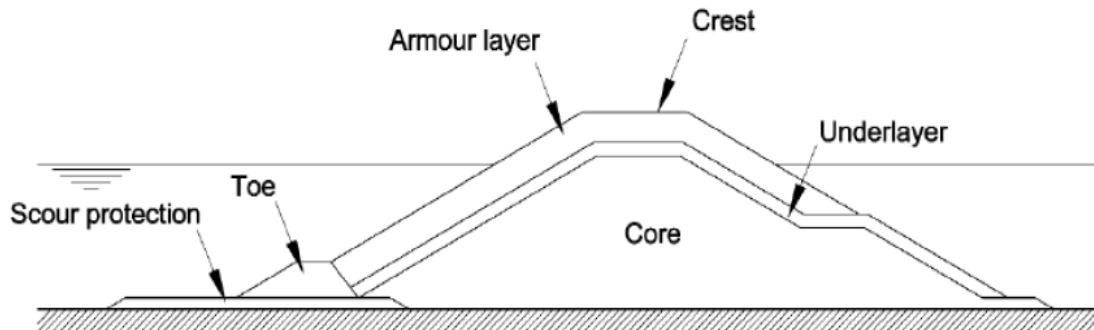


Figure 6: Brown's Bay Armour Stone Shoreline Protections



Gord Downie Pier (Breakwater Park) in Kingston, Ontario also experiences currents that make sandy beaches difficult to maintain. Their solution was to implement a pea gravel beach that has direct entry into the water as part of the restoration of an existing pier on the St. Lawrence River with an elevated beach (sand) also available. In the Spring of 2025, staff offloaded 2 truckloads of pea gravel at Robert Simpson Park to test its erosion efficacy over the next year.

A basic mound style breakwater carries a cost of approximately \$2.5 million. Shoreline modifications and protections will carry additional costs that are currently being worked through.



A breakwater with vertical sides more appropriate for swimmers jumping or boats docking would carry a starting cost of approximately \$5-6 million depending on design elements.

As costs continue to be refined for implementation of a breakwater, and shoreline protection may not be entirely achieved through its implementation, staff feel that there is merit in investigating alternative options. Inspired by the NCC Riverhouse docking system in Ottawa, staff are currently exploring dock and swimming platform options that may achieve many of the goals set out in the Waterfront Master Plan. Though this solution would come with annual maintenance costs, the initial cost would be significantly lower, and it would still offer an increased level of service for swimming amenities. There may also be an opportunity to implement tie off points for boats or a launch for canoes and kayaks (that may also be rentable on site). This deviates from the original mandate given by Council to reimplement the breakwater in its historic location.

As indicated in the LRCF the revitalization of Robert Simpson Park was anticipated to be a multi-phase implementation. The original plan was to complete the design for the entire park simultaneously which would allow staff to complete the public consultation in one round. Based on the factors outlined above, the “Upper Park” design will be ready for public consultation and implementation significantly earlier than the shoreline work.

Due to the factors outlined above, more time is required to flush out the details of this scope of work to provide a fulsome presentation of options for Council consideration. Implementation schedule and more precise financials will be presented to Council prior to public consultation on the shoreline modification scope.

Upper Park

The “Upper Park” which consists of everything on top of the hill at Robert Simpson Park includes:

1. Paved pathways
2. Improved lighting
3. Washroom retrofit
4. Splashpad
5. Play Structures / Play Features for various ages
6. Accessible Pedestrian Ramp to Beach

Figure 7: Proposed Concept Plan



PROPOSED FEATURES		
UPPER PARK		LOWER PARK
① ACCESSIBLE PEDESTRIAN PATHWAY WITH LIGHTING	⑦ SENIOR PLAY AREA	⑫ BREAKWATER STRUCTURE
② ACCESSIBLE PEDESTRIAN RAMP WITH LIGHTING	⑧ SPLASH PAD	⑬ ELEVATED BEACH AREA
③ PICNIC PLAZA	⑨ PLAYGROUND PLAZA	⑭ BOARDWALK
④ UPPER VIEWING PLAZA	⑩ PARKING UPGRADES	⑮ BEACH PLAZA
⑤ WING PLAZA (PROVISIONAL)	⑪ WASHROOM UPGRADES	⑯ SEASONAL CHANGE HUTS
⑥ JUNIOR PLAY AREA		⑰ SMALL BOAT RENTAL KIOSK

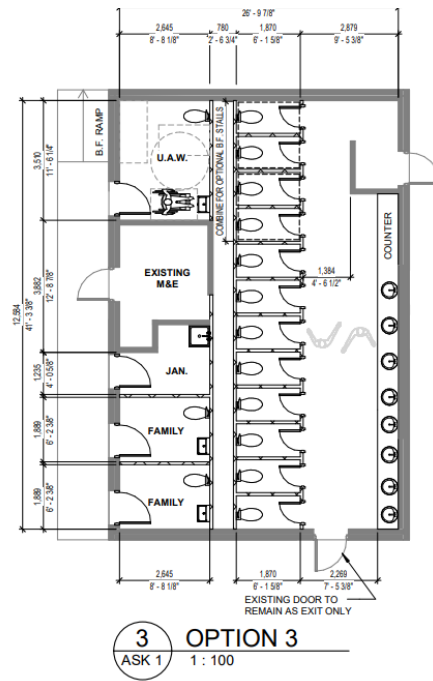
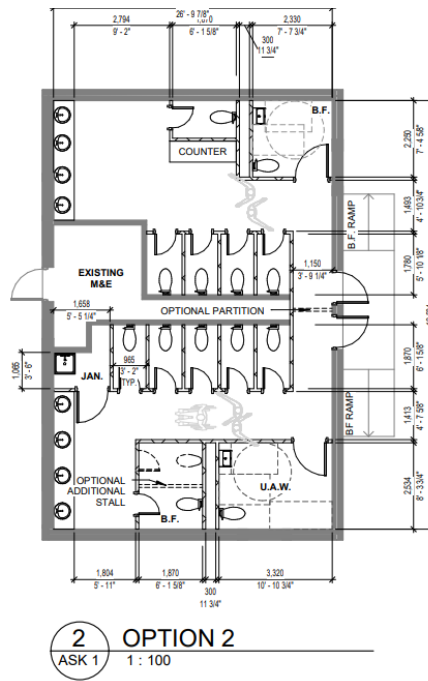
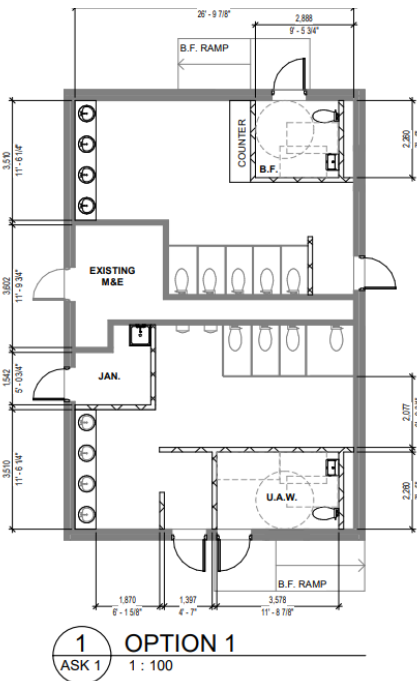
Connectivity and Accessibility of Features

The proposed network of accessible pathways between existing and proposed park amenities as well as connectivity to the Waterfront Trail is included in the above concept plan. The goal is to create a barrier free environment in the Town's flagship park. Lighting will also be improved in the park.

Washroom

The existing washroom is in a poor state, does not meet accessibility or inclusivity standards and is poorly used in terms of space allocations however the structural elements and roof are in good condition. There are various approaches to retrofitting this building and accessibility remains as the driving factor to concept designs.

With public consultation on this item, staff are looking to establish how the public weights various factors but most notably, traditional gendered washrooms in contrast to more modern genderless designs. Option 3 presented below proposes a washroom that is more inclusive but also more practical for the young family demographic that makes up a significant portion of park users. Costs are still being worked through though Option 3 would be a significantly higher cost than Options 1 or 2. Costs of new construction will be compared to any retrofit project for this building to ensure best value is presented to Council.



Play Features

The existing splashpad is approaching the end of its estimated useful life and it is not as feature rich as splashpads in other municipalities that more closely resemble the recently opened splashpad at Fairview Park. The current splashpad drains through storm infrastructure which is not in line with modern requirements. This means that a seasonal wastewater pump station will have to be implemented to establish a new splashpad in this location. There is currently a much smaller seasonal pump station in place that handles sanitary flow from the existing washroom fixtures.

The existing play structure is quite basic, in poor condition and has exceeded its useful life. As part of this project play features will be implemented for various age groups.

Next Steps

Pending approval of recommendations brought forward in this report, staff will proceed with public consultation on the Upper Park as Phase 1. Once consultation is complete, staff will return with a finalized design for Council approval and potentially a request to tender the scope late in 2025. The construction is tentatively planned for 2026 at this time.

Also pending approval of recommendations brought forward in this report, staff will continue to work through the shoreline design, investigate alternatives that include different or no breakwater and return to Council at a later date to present options and recommendations for the next phase of the project. Order of magnitude costing has been provided above, however staff will return to Council with a more detailed concept and costing options. Council will select the option(s), including implementation timeframe and associated costing, that they would like to see public consultation for and staff will return with a finalized design once complete.

Options:

Council may choose to direct staff to pursue a different sequence of tasks or to proceed with a lesser or greater scope than that which is recommended. It should be noted that full shoreline modifications cannot realistically be completed prior to 2027 based on available information.

Council may choose to defer all public consultation until the shoreline modification options are ready to be presented. This would result in the first phase of this project being completed in 2027.

Policy Considerations:

The design to be implemented is in line with recommendations from the Waterfront Masterplan and Parks & Recreation Master Plan recommendations. These projects will be tendered in accordance with section 6.3 request for tender of the Town of Arnprior's Procurement Policy.

Financial Considerations:

The budget amounts for implementation of the Robert Simpson Park improvements in the Long Range Capital Forecast (LRCF) are as follows:

2024-2025 (Design)	\$ 683,457.57
2026	\$ 1,195,000.00
2027	\$ 1,195,000.00
2028	<u>\$ 1,195,000.00</u>
Total Budget	\$ 4,268,457.57

The LRCF budgeted values are based on the values presented in the Waterfront Master Plan which was completed from 2020-2021. The historical data available at that time did not reflect the price increases brought about by the global pandemic, trade disruptions, and subsequent trade war.

The current estimate for the proposed Upper Park scope of work as established in the Waterfront Master Plan is \$3.2 million, leaving only \$385,000 of budgeted funds for the Shoreline Modification and Lower Park.

As discussed above, there are many factors still being explored so costing on the Shoreline Modification and Lower Park scope is not yet refined. That being said, current projections are in the order of magnitude of \$5-8 million.

This project is planned to be funded 85% by the Capital Expenditure Reserve Fund (CERF) and 15% by Development Charges (DCs).

Meeting Dates:

- July 8, 2024 - Award of Robert Simpson Park Revitalization Design to Stantec

Consulting

Consultation:

- Stantec Consulting

Documents:

N/A

Signatures

Reviewed by Department Head: John Steckly, General Manager, Operations

Reviewed by General Manager, Client Services/Treasurer: Jennifer Morawiec

CAO Concurrence: Robin Paquette

Workflow Certified by Town Clerk: Kaila Zamojski