

Municipality of Lakeshore - Report to Council

Growth & Sustainability

Community Services



To: Mayor & Members of Council
From: Frank Jeney, Division Leader – Community Services
Date: September 3, 2021
Subject: ATRC Splash Pad – Use, Operations, Lifecycle, Infrastructure

Recommendation

Confirm the continued use of the ATRC Splash Pad;

Approve in principle the replacement of the existing black tinted windows on the east wall of the WFCU Pools with clear glass windows for the cost of approximately \$101,500, plus HST;

Approve in principle the addition of shaded seating units on the periphery of the splash pad for the cost of approximately \$50,000;

The \$100,000 approved in the 2019 budget for remediation of the heat issue at the ATRC splash pad be used for the glass replacement project; and

The glass replacement amount above \$100,000 and the cost of shaded seating units be considered through the 2022 budget process, as presented at the September 14, 2021 Council meeting.

Background

At the June 8th 2021 Regular Council meeting, Council directed Administration to bring a report regarding the splash pad at the Atlas Tube Recreation Centre including the use, cost of operation, lifecycle and other anticipated costs and include information regarding the possibility of moving the infrastructure to another location.

During the Regular Council meeting of March 10th 2020, an information report was brought to council (attachment). In that report, under Other Options and Conclusion, it was mentioned that:

Administration has undertaken preliminary research into the use of external blinds which can be pulled down to shield the glass from the sun. This could possibly be an effective solution to shield the glass on hot days, which can be

retracted on cloudy days and during the off-seasons, to allow an unobstructed view in the indoor pool area. As well, a different type of window film may be a solution to reduce the heat on the glass. Solutions could be paired with the development of one of the shade structure options.

Comments

The Atlas Tube Recreation Centre (ATRC) Splash Pad was opened in July 2016. The splash pad is designed as a Programmable Splash Pad System with 12 water features. The splash pad is a fully automated aquatic play environment designed for use in recreational areas. The automated components of the splash pad are the Activator, the Controller, and the distribution manifold. Located in the splash pad play area, the Activator allows splash pad users to initiate the water features with a touch of a hand or foot.

The system operates on a dedicated electrical system as well as a valve chamber/controller system that operates the features of the splash pad. The required electrical system is a WDS system, 120vac, 15 amp service, which operates the entire splash pad. The control system is located underground adjacent to the Splash Pad. The control system allow staff to program the water features that, at last operation in 2019, ran on 4 minute cycles. The system does not record historical use data.

In 2021, the French drainage ditch for the ATRC Splash Pad was filled in and replaced with a ditch, buried pipe, grassway drainage system; that collects the splash pad water as well as area surface water. The ATRC splash pad is “dump and fill” (no recirculating water) which does not require any chemicals while in operation.

In 2019, which was the last normal operating season, staff noted the ATRC splash pad as being used by an estimated 40 users per week. With an average operating season of 15 weeks, that would be an estimated total of 600 patron uses annually.

Warranty and Cost

The Atlas Tube Recreation Centre splash pad is a Vortex Aquatic System. The warranty on the aquatic play products has three levels.

- 25 years on stainless steel structures, stainless steel anchoring systems and aluminum spheres.
- 5 years on brass components including; spray nozzles, spray caps and spray heads, high density polyethylene components. Polyurethane components and ultra-high molecular weight polyethylene components.
- 2 years on colour coating, all moving parts, stainless steel hardware, fiberglass products, SEEflow™ polymer products, and the Toeguard™, made of soft-touch elastomers.

The only parts that could be salvaged for relocation would be the controller, manifolds, and two actuator towers (Push button controls).

It is noted that the investment to build the splash pad at the time the Atlas Tube Recreation Centre’s WFCU Pools were constructed was approximately \$664,000. The splash pad was included in the ATRC grant application and funding was received for this structure. If the Municipality decided to decommission the splash pad, it would trigger a repayment of some of the grant funding, and therefore it is not recommended.

ATRC Splash Pad Shade Structure Project Update

In 2019, Council approved a budget of \$100,000 for shade structures in an attempt to remedy the safety of visitors due to the high temperatures noted on the glass at the Splash Pad/East windows of the WFCU Pools.

Note. The glass installed at the WFCU Pools is Greylite 11.

Gryphon Glass was brought in and asked to create a glass temperature testing apparatus to test the daily temperatures of different shades of glass facing the East. Other locations of current eastern facing windows were also tested.

On June 9th 2021, the following temperatures were recorded.

June 9th 2021 Testing – Outside temperature reached 85 degrees Fahrenheit		
171.9	Fahrenheit	1 – 6mm Greylite 11 (Current East Pool Windows)
140.2	Fahrenheit	2 – 6mm Super Grey (Test)
136	Fahrenheit	3 – 6mm Solar Grey (Test)
132	Fahrenheit	4 – 6mm Opti Grey (Test)
115.3	Fahrenheit	5 – 6mm Clear Energy Select (Test-Recommended)
111	Fahrenheit	6 – 6mm Clear Energy Select (Program Hallway)
109	Fahrenheit	7 – 6mm Clear Energy Select (Gymnasium)
103	Fahrenheit	8 – 6mm Clear Energy Select (Pool Hallway)

Heat Chart		
118	Fahrenheit	At 118 degrees, human skin can sustain first degree burns
131	Fahrenheit	At 131 degrees, human skin can sustain second degree burns
162	Fahrenheit	At 162 degrees, human skin can be destroyed



The results indicate that the Clear Energy Select windows can significantly reduce the amount of surface heat that is created on the eastern facing windows. The ATRC WFCU Pool lifeguards on deck, window replacement removes loss of view due to window glare. In addition to the window tint remedy, additional barricades can be installed to separate users from the glass. The barricades should be made of non-heat generating products such as plastic or wood. Although the appearance of the building will be changed, this will increase the safety and the usability of the ATRC splash pad.

It is recommended that Council direct Administration to add shaded seating to the area which would increase sun protection and heighten the enjoyment of the ATRC Splash Pad for visitors. These items could be added through the 2022 budget process.

Others Consulted

Hollandia Pools and Spas Owner's Manual

Gryphon Glass - Windsor

Financial Impacts

Water charges are \$1.54/m³ for water and \$1.60/m³ for sewer. (1 cubic meter = 264 gallons)

The Atlas Tube Recreation Centre WFCU Aquatics Centre has one single water meter, which covers the splash pad, 3 bodies of water (Lap, Leisure, Hot Tub), showers, toilets, sinks, and boilers. The splash pad uses an estimated 10 gallons per minute while in a cycle.

It is reasonable to estimate the operation of the Atlas Tube Recreation Centre splash pad costs are between \$1,500 and \$3,000 annually for utilities. The ATRC Facility Attendants oversee the safe operation and yearly opening and closing maintenance.

The estimated cost to replace the twenty two (22) Greylite 11 black tinted windows with clear energy select windows is \$101,500, plus HST, which could be taken from the \$100,000 set aside to remedy the heat on the surface of the splash pad and glass at the ATRC which was approved during the 2019 budget. The amount above \$100,000 could be considered through the 2022 budget process.

As mentioned above, adding shaded seating to the area would increase sun protection and heighten the enjoyment of the ATRC Splash Pad for visitors. The stand- alone seating with shade in the image below is estimated to be between \$6,500 to \$8,000 per unit plus installation. It is recommended that the amount of \$50,000 be brought forward for consideration in the 2022 budget process for these units.



Attachments

Attachment 1 - Council Report, March 10th 2020, Sun Protection at the Atlas Tube Centre Splash Pad

Report Approval Details

Document Title:	Atlas Tube Recreation Centre Splash Pad - Use, Operations, Lifecycle, Infrastructure.docx
Attachments:	- Sun Protection at the Atlas Tube Centre Splash Pad.pdf
Final Approval Date:	Sep 9, 2021

This report and all of its attachments were approved and signed as outlined below:

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