



To: Richmond City Council

Date: May 16, 2016

From: John Irving, P. Eng., MPA  
Director, Engineering

File: 99-PDFM/2016-Vol 01

Re: Steveston Pool Repair Proposal

Staff Recommendation

That Option 1 in the staff report from the Director, Engineering dated May 16, 2016, be approved and the 5 Year Financial Plan (2016-2020) be amended to include \$450,000 to accommodate the Steveston Pool Repairs to be funded from the Corporate Provision account.

John Irving, P. Eng., MPA  
Director, Engineering  
(604-276-4140)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: DW	APPROVED BY CAO 

## Staff Report

### Origin

On March 15, 2016, while performing the annual maintenance for the Steveston pools (25m tank and adjacent wading pool), it was found that the pool liner had failed and no longer meets regulatory requirements.

The purpose of this report is to detail the current condition of the pools and explain the repair options that would meet the regulatory requirements set by Vancouver Coastal Health and BC Guidelines for Pool Design. A significant amount of work is required to meet the aforementioned regulatory requirements.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

### Analysis

#### Steveston Outdoor Pools

The Steveston Pool facility has been in service since 1972 (approximately 44 years). It was built to serve the growing demand of the community for recreation and leisure facilities and in particular, outdoor pools.

#### Public Impact

The Steveston outdoor pool had an overall attendance of almost 36,000 visits in 2015. The pool has three primary users:

- 1) Public swimmers
- 2) Children's swimming lessons (6,800 lessons in 2015)
- 3) Kigoos Swim Club (230 members)

Other users include a high school swim team, a synchronized swimming club, other school groups, and the Rapids swim club.

The typical annual schedule is as follows:

- May 1 - Open to the Kigoos
- Victoria Day weekend - Open to Public
- Open 6 am to 10 pm - Peak summer days
- September 30 - Closure for the season

### Current Condition

In 1995, the pool liner was re-lined with a fiberglass waterproofing system as the original marcite liner was no longer performing as intended. In March, as part of the regular maintenance program and preparation for the pool opening in May, Facility Services and Aquatic staff started draining the pool. During this process, it was discovered that both the small (tot) and large pool (25m lap pool) fiberglass linings had significant failures in multiple areas. Given these failures, the pool would not meet Vancouver Coastal Health Pool Design Guidelines, as the delaminating fiberglass would pose a safety issue.

To address this critical issue, staff engaged a specialized engineering consultant. A site inspection, material sampling and a detailed report was developed explaining the current condition and three options to address this system failure. These options are:

**Option 1: Remove existing fiberglass and marcite liners and replace with new polyester liner (recommended)**

This option would provide optimal bonding for the new waterproof membrane and a service life of approximately 10 years. The total estimated cost for this option is \$450,000 and will require 8-10 weeks to implement following Council approval. This cost includes approximately \$100,000 for base concrete repairs that may or may not be required but will only be known once the existing fiberglass is removed. Any excess project funds will be returned to the same funding source.

**Option 2: Remove existing fiberglass liner, leaving marcite in place and install new polyester liner overtop (not recommended)**

This option will provide minimum repairs required to meet regulatory requirements. Bond testing of the liner and marcite will be required to ensure this option is viable. The consultant indicates that the service life for this option is less than three years.

The total estimated cost for this option is \$375,000 and will require 6-8 weeks to implement following Council approval

**Option 3: Abandon pool and relocate programming to alternative facilities (not recommended)**

It is recommended that staff proceed with Option 1.

### Mitigation Plan

South Arm outdoor pool traditionally opens to the public in the middle of June. It was opened early to the Kigoos Swim Club on Saturday, May 7, but due to its shape, it is more conducive to leisurely swimming as opposed to competitive swimming. Therefore, the Kigoos are only able to train their junior development members at this location. The swim club has also been provided time in our two indoor aquatic facilities, however, we are only able to accommodate approximately 40% of the Kigoos weekly training hours. This accommodation has seen a

reduction of 50% of the public swimming available at Minoru Aquatic Centre during the weekday afternoon/evening time frame. The Kigoos annual swim meet will be relocated to Watermania for June 4 and June 5.

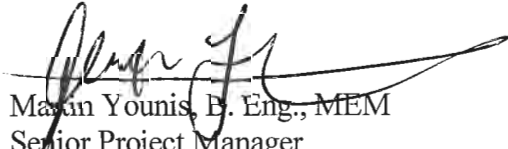
Minoru Aquatic Centre had its annual maintenance shutdown scheduled from June 13 to July 4. This has now been rescheduled for December to free up space for the public, the Kigoos Swim Club, as well as other displaced groups.

### **Financial Impact**

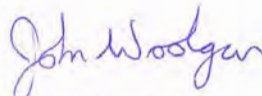
This work is necessary as it is considered to be a very serious service disruption to the public. Funding up to a maximum of \$450,000 is available from the City's Corporate Provision account. An amendment to the 5 Year Financial Plan will be required. In order to proceed as quickly as possible, staff recommend that the repair costs be temporarily funded from an open capital project as the necessary amendment to the 5 Year Financial Plan will not occur until the fall. This project would be reimbursed fully from the Corporate Provision account once the City's 5 Year Financial Plan (2016-2020) is amended in the fall of 2016.

### **Conclusion**

Due to the state of the Steveston pool liner and current service and programming requirements, staff recommend proceeding with Option 1. This would address the current issue and provide a service life of approximately 10 years.



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