

## **COMMUNICATION 133068**

Received from: Ross Rankin, Property and Project Manager  
Addressed to: Committee of the Whole  
Date: August 9, 2022  
Topic: Replacement of Pool Filtration Systems

### **SUMMARY**

The 2022 Recreation Capital Budget includes \$60,000 for the replacement of the Pool's sand filters. Staff is recommending approval from Council to increase the Capital spending for this project over and above the budgeted amount to include the purchase and installation of two chlorine feed systems.

### **BACKGROUND**

The Capital budget identified \$60,000 for the replacement of the 25m pool filtration system. Three (3) vendors were invited to bid on a couple of options which included various types of filtration systems, and a chlorine feed system called AccuTab which was specified for the 25m pool only.

The pool currently uses sodium hypochlorite, liquid chlorine, as the disinfectant. This product requires maintenance on the injection system frequently. Personal Protective Equipment (PPE) is required to handle the product because it is a liquid and can splash.

Last Fall, while teaching the Aquatic Facility Operator course for the Ontario Recreation Facilities Association (ORFA) to the City of Burlington, staff learned they had moved all their pools to AccuTab as it is safe to use, has minimal maintenance and is cost effective. In investigating this product further, staff found that it is becoming the standard in the pool industry. The first time staff saw it was while teaching a Certified Pool Operator course in Fort Frances in 2019.

The cost to supply and install the new filtration system with the AccuTab chlorine feeder on the 25m pool is \$57,750. The cost to add a second AccuTab chlorine feeder for the small pool would be an additional \$5,150 for a total of \$62,900.

AccuTab is a chlorine erosion feeder that uses Calcium Hypochlorite pucks to supply chlorine to the pools.

### **COMMENT**

A chemical cost comparison was completed to ensure there were no additional costs associated with the AccuTab feeders. The information provided is based on 2021 rates for Sodium Hypochlorite and 2022 rates for AccuTab Pucks. PH Neutral is between 7 and 8.

Currently 5,400 litres of sodium hypochlorite is purchased annually. The equivalent of AccuTab is 26 pails. Sodium hypochlorite is pH dependent because it is between 11.2 and 13.2 which requires an acid to lower it. The acid used is CO<sub>2</sub>.

AccuTab is more pH neutral at 8.5 and requires less acid to lower it. There is a reduction of chemicals of between 40-50% to lower the pH using AccuTab. In the cost analysis we will use the lower number of 40%.

As the AccuTab system is safer to use from a Health and Safety perspective and essentially cost neutral with respect to chemicals and cheaper if the PPE cost is taken into account, staff recommends changing to the AccuTab puck system.

**FINANCIAL IMPLICATIONS**

Below is a chemical cost comparison between Sodium Hypochlorite and the AccuTab pucks which essentially shows the costs as being equal.

ITEM	QUANTITY	RATE	ANNUAL COST
<b>Sodium Hypochlorite</b>	5400 litres	\$0.885	\$4,779.00
CO2			\$2,300.00
<b>Total</b>			<b>\$7,079.00*</b>
<b>AccuTab Pucks</b>	26 pails	\$180.00	\$4,680.00
CO2	40% reduction		\$1,380.00
<b>Total</b>			<b>\$6,060.00</b>

\* Does not account for additional PPE required to handle and repair sodium hypochlorite.

As noted above, there will be an additional cost of \$2,900 to change the system in the small pool at the same time as the large pool. It makes sense that if we are changing one system, we would change them both, so the staff are not dealing with two different systems and carrying products for both. As the pool charges HST on its programs, the Town receives a 100% rebate of the HST component making the additional cost simply the \$2,900. The funding to complete this project could be taken from the Town’s overall surplus at year end and if not, from Administration Reserves.

**STAFF RECOMMENDATION**

THAT Council approves proceeding to replace the filter system on the small pool to an AccuTab chlorine feeder with the additional cost of \$2,900 to be taken from the Town’s overall surplus at year end and if not, from Administration Reserves.

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