

**Meeting Date:** July 15, 2024  
**Department:** Community Services  
**Report No.:** CS-2024-27  
**Submitted by:** Robert Lilbourne, Director of Community Services  
**Approved by:** Trisha McKibbin, Chief Administrative Officer

**SUBJECT:** Emergency Secondary Refrigerant Pump Repair and Replacement

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**RECOMMENDATION: THAT: Council receive report CS-2024-27 titled Emergency Secondary Refrigerant Pump Repair and Replacement for information and further; THAT: Council approve option 3 or 4 within the report.**

**BACKGROUND:**

Last week, when the Blue Rink at the Gemini Sportsplex was being started up, staff noticed that the secondary refrigerant pump (pump) was not operating properly. They immediately shut it down and switched to the backup pump, which is periodically operated. The Blue Rink pump was taken out of service, and the Municipality's refrigeration contractor was notified to assess it. During this time, the noise level of the backup pump increased, prompting an assessment of it as well. The evaluation from the contractor is to replace both pumps immediately.

It is important to note that all three pumps—the Green Rink, Blue Rink, and backup pump—are at the end of their lifespan. They are included in the long-term capital plan, with replacement recommended in 2025.

**COMMENTS:**

Staff have been working with the contractor to obtain prices and determine the lead time for replacement pumps. The lead time for a new pump is 7-to-9 weeks, causing significant concern because the backup pump also needs replacement, as evaluated by the contractor. Rebuilding the pump is not recommended by the contractor, as the pumps are no longer in production, and the replacement parts will not be OEM, thus lacking warranty or guarantee. Rebuilding mainly involves the bearings, but other components like the housing, motor, base, pump assembly and impeller are beyond their life expectancy and prone to failure.

Given the 7-to-9-week lead time for replacement pumps, staff have decided to repair the failed pump despite the contractor's recommendation against it due to the lack of warranty or guarantee. The decision was made because losing the ice would incur a higher cost than a temporary rebuild. The estimated lost ice revenue per week is approximately \$14,000.00, plus the cost of reinstalling the ice,

which ranges from \$5,000.00 to \$7,000.00 in material and labor. The cost to rebuild the pump is \$5,780.00, which will be covered by the current operating budget.

Recognizing that all three pumps have reached their life expectancy and two have already failed, there is a high possibility that the third pump could fail before its scheduled replacement in 2025. Given this risk, the lack of warranty/guarantee on the Blue Rink rebuild, and the potential complete failure of the backup pump, staff suggest the following options:

1. **Do nothing outside of the repair:** Staff do not recommend this option due to the high liability. With two of the three pumps already failed, there is a concern that the third pump will fail before the next year's capital budget process. Additionally, with no guarantee that the rebuild will last and the backup pump needing immediate replacement, there is a significant risk of losing one of the two sheets of ice if any more failures occur.
2. **Order one new pump to replace the failed backup pump:** While this is an option, it is not preferred due to the same concerns identified in option one, along with the lack of guarantee on the rebuilt pump.
3. **Order two new pumps to replace the failed backup pump and Blue Rink rebuilt pump:** This option, costing \$36,786.00 plus HST, provides the greatest assurance that there will be no interruption in ice service, even if the third pump fails before its scheduled replacement in 2025.
4. **Order two new pumps to replace the failed backup pump and Green Rink pump:** This option, also costing \$36,786.00 plus HST, offers a high level of certainty that there will be no interruption in ice service, even if the rebuilt Blue Rink pump fails before its recommended replacement in 2025.
5. **Order three new pumps to replace the failed backup pump along with the Green and Blue Rink rebuilt pumps:** Staff do not recommend this option, as it would unnecessarily deplete reserve funds. Replacing two of the three pumps as suggested in options 3 and 4 already ensures no interruption in service.

Rebuilding the Blue Rink pump has given staff some time to present different options to the Council for consideration. It is important to note that, while the Blue Rink pump is soon to be operational, it does not come with any guarantee on parts or longevity. Additionally, the backup pump is considered failed, and there are concerns about the longevity of the Green Rink pump, given that two of the three pumps have failed. Staff are seeking direction on how to proceed.

**CONSULTATION:**

Supervisor of Parks and Recreational Facilities  
Black and McDonald – Refrigeration Contractor  
Director of Finance

**FINANCIAL IMPLICATIONS:**

The \$36,780.00 plus HST will come from **Asset Management Reserve** leaving a balance of **\$1,665,287.00**

Considering that the \$36,780.00 plus HST would have been included in the 2025 capital budget program, Council could include the value in the 2025 Capital Budget to replenish the reserve fund which were utilized in this emergency replacement should they wish.

**ALTERNATIVE(S) TO THE RECOMMENDATION:**

1. Council to provide alternate direction.

**STRATEGIC PLAN ALIGNMENT:**

This matter is in accord with the following strategic priorities:

**Local Infrastructure and Capital Investment:** Households and businesses in Strathroy-Caradoc will be supported by reliable, financially responsible, and well-maintained infrastructure networks.

**Community Well-being and Quality of Life:** Residents of all ages in Strathroy-Caradoc will have access to community amenities and activities that are accessible and support active lifestyles and wellbeing.

**Municipal Customer Service:** The Municipality offers seamless, responsive service and an exceptional experience for every customer.

**ATTACHMENTS:**

**NONE**