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## **Stormwater Management Ponds Staff Report to Council**

Report Number: 2021-48

Department(s): Legislative Services

Author(s): Jaclyn Grossi, Legislative Coordinator

Meeting Date: June 14, 2021

### **Recommendations**

1. That the report entitled Stormwater Management Ponds dated June 14, 2021 be received; and,
2. That Council directs Staff to continue to not permit individuals to use Stormwater Management Ponds for recreational purposes in the Town of Newmarket; and,
3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

### **Purpose**

The purpose of this report is to provide Council with information regarding stormwater management ponds (SWMPs) and the risks associated with using them for recreational purposes. Using natural bodies of water and community rinks for recreational purposes is outside the scope of this report.

### **Background**

Due to the COVID-19 pandemic there was an influx of residents finding ways to enjoy the outdoors and stay active during the Provincial State of Emergency and Stay at Home Orders, particularly in the winter months. This has resulted in an increased number of individuals using SWMPs for recreational purposes.

## Discussion

### **The Town of Newmarket operates and owns over 65 stormwater management ponds (SWMPs)**

There are also 11 SWMPs on active development lands that have not yet been assumed by the Town of Newmarket. These wet ponds hold water at all times, and are designed to collect and store runoff from rain and melted snow. This allows dirt, sand, silt and other solids in the runoff to settle to the bottom of the pond, which improves the quality of water released back into creeks and rivers downstream. The water level in SWMPs fluctuates up and down constantly depending on the amount of water that is draining into the pond.

Unlike natural ponds, SWMPs are designed to collect and release runoff from rainfall and snowmelt to help prevent flooding in the community. As a result, water levels change rapidly due to the constant water flow. In the winter months, the pond water may also contain road salt and other contaminants, which contribute to poor ice quality. These factors combine to create dangerous and unpredictable conditions.

### **Lake Simcoe Region Conservation Authority's Position on SWMPs**

On January 15, 2021 the Lake Simcoe Region Conservation Authority (LSRCA) published a [safety message](#) which reminded residents about the dangers associated with SWMPs. The ice conditions are not monitored and air pockets can easily form under the surface. The LSCRA advises that open water can be found surrounding the edges of SWMPs and around the water outlets, creating a dangerous scenario if walking, playing or skating on any ice surface. Caution must be exercised at all times around frozen ponds or bodies of water as the fluctuating temperatures and use of road salts can create thin or unstable ice and a potentially hazardous condition.

### **York Region and other Greater Toronto and Hamilton Area (GTHA) municipalities advise residents to stay off of SWMPs**

Municipalities do not monitor the water level or ice thickness on SWMPs, and municipalities assume no responsibility for unintended use. All York Region municipalities as well as Pickering, Oakville, Brampton, Toronto, Milton, Whitby, Burlington, and Halton Hills have communicated to their residents that SWMPs are not safe for recreational activities and advise their residents to use only municipally constructed ice rinks that are maintained and monitored.

The Town of Newmarket offers a variety of safe outdoor activity options for residents including maintained ice rinks, splash pads, tennis courts, and parks. The Town currently works with community groups to provide three ice surfaces for residents' use during the winter months, with Riverwalk Commons being maintained by staff, and both Ken Sturgeon Park and the Newmarket Lions Park being maintained by residents. Future outdoor rink amenities will also be available through the Outdoor Ice Rink at the

Ray Twinney Recreational Complex, as well as the skating trail at the Mulock Park. These options are available to ensure that residents have an opportunity to spend time outside, and be physically active.

### **Municipal Enforcement Officers took an education first approach**

During the winter months, Municipal Enforcement Officers across the GTHA took an education first approach when responding to complaints received regarding the use of SWMPs. Officers educate residents on the associated safety risks while asking for voluntary compliance.

Some municipalities proactively patrol these areas but many are finding it difficult as Municipal Enforcement Officers have been redeployed to meet the needs of unpredictable and ever-changing regulations during the pandemic.

Between January 1, 2021 and June 7, 2021, Customer Service received 12 calls/emails from residents regarding SWMPs and only 4 of these were to advise that residents were using them for winter recreational activities. No calls or emails have been received regarding spring recreational activities. The Town will continue to educate the public on the safety issues surrounding SWMPs being used for recreational activities.

### **Signage is imperative to ensure residents understand the associated risks**

Municipalities have noted that signage is important for both public education and enforcement opportunities. Many municipalities are actively ensuring that all SWMPs are accompanied by appropriate signage to ensure that residents are aware of the unpredictable conditions and risks associated with using these facilities for recreational activities.

The Town of Oakville developed a [policy](#) in 2019 which ensures that all Town-managed SWMPs, as well as SWMPs not assumed by the municipality, have standard Town-approved signage erected to inform the public of safe practices within the areas and the potential risks associated with their use for recreational purposes.

### **Exercising the option to replace some SWMPs with Low Impact Development initiatives**

As the Town and the LSRCA have been working together on Low Impact Development (LID) initiatives, eliminating those SWMPs that are attracting risk is an option. As part of its push for LID, the LSRCA is encouraging the decommissioning of SWMPs through naturalization with vegetation, or by converting them into dry ponds (i.e. off-line depressions in the landscape that temporarily fill with water only when there is a heavy rain or snowmelt event; the water then drains naturally into the ground so that no water ever stays permanently in the dry pond).

Naturalization and creating dry ponds greatly lowers the risk associated with the recreational use of SWMPs. In addition to providing risk management, converting certain SWMP to naturalized or dry ponds have three additional benefits:

- They greatly reduce the amount of phosphorus and other pollutants that reach our natural watercourses (much more so than SWM ponds);
- They provide effective quantity control for stormwater, thereby lowering the risk of downstream flooding;
- They address one of Council's Strategic Pillars (Environmental Stewardship) and two of that Pillar's strategic priorities (i.e. continuing to implement programs that make Newmarket a leader in the implementation of LID; and partnering with the LSRCA on LID initiatives).

Converting SWMPs to dry ponds or naturalizing them can cost in excess of \$100,000 per pond. This activity is not in the current Capital Plan due to competing priorities and resources. However, if this is a direction that Council would like to take, there may be external funding available through various sources to help offset the costs.

Technical options that prevent freezing can render a SWMP unusable for risky winter activities. One such technique involves heating of the water. Heating is not recommended because of the danger it poses to the cold water fisheries into which the ponds drain. Another solution involves chemicals that lower the freezing temperature of water. This also should not be used because of the damage it can cause to flora and fauna in and near the ponds, and for environmental sustainability. However, Town staff are aware of one initiative in another York Region municipality where a very large but shallow pond was equipped with an aeration system. The aeration was installed to reduce odour and prevent the growth of excessive algae in the stagnant waters. An added benefit of the aeration system is that the water in the pond no longer freezes in winter, thereby eliminating the issue with risk associated with recreational winter use by residents. It should be noted, though, that this solution is very costly, and required well in excess of \$100,000 to install for one single pond.

## **Conclusion**

As municipalities across the Province continue to educate their residents on the dangers of using SWMPs for recreational purposes and ensure that safe alternatives are available for year round use, Staff recommend that the Town of Newmarket continue to do the same. Staff will also proactively continue to research best practices in neighbouring municipalities and beyond, and erect appropriate signage where applicable.

Should Council proceed with the recommendation to continue not allowing recreational activities on SWMPs, Staff will develop a strategy to ensure that the SWMPs are properly maintained and inspected, prohibited materials are removed, and that appropriate signage is erected at all locations.

Should Council wish to direct Staff to provide further information regarding the possibility of providing additional outdoor recreation amenities on natural bodies of water, such as ponds, rivers and lakes, and community rink surfaces, Staff will conduct additional research and consult with external stakeholders and agencies that have ownership over the natural bodies of water, such as the LSRCA, to prepare a report for a future meeting of Council.

## **Business Plan and Strategic Plan Linkages**

The strategic vision of the Town of Newmarket is rooted in the concept of being Well Beyond the Ordinary – this vision is achieved through focus on the well being of our community. The wellness of our community has at all times been first and foremost in the actions taken to date.

This report also focuses on Council's Strategic Priorities of Extraordinary Places and Spaces creating the environment for an engaged, accessible, and inclusive community, and Environmental Stewardship by leading proactive planning and action related to climate change and other environmental initiatives.

## **Consultation**

York Region and Greater Toronto and Hamilton Area (GTHA) municipalities were consulted to determine best practices and current enforcement strategies.

Town Staff from various departments including Engineering Services, Recreational and Culture, Public Works Services, and Legislative Services were consulted as well.

The Town sought legal advice from external counsel and the Town's insurer, which informed the recommendations within this report.

## **Human Resource Considerations**

None.

## **Budget Impact**

All costs associated with new or improved signage would be funded from the existing Operating Budget.

## **Attachments**

None.

## **Approval**

Kiran Saini, Deputy Clerk

Lisa Lyons, Director of Legislative Services/Town Clerk

Esther Armchuk, Commissioner of Corporate Services

Ian McDougall, Commissioner of Community Services

Peter Noehammer, Commissioner of Development & Infrastructure Services

Jag Sharma, Chief Administrative Officer

## **Contact**

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