



## Staff Report

**Report Title: Bruce Beach Municipal Drain**

**Prepared By: John Yungblut**

**Department: Public Works**

**Date: Nov. 2, 2020**

**Report Number: PW-2020-11-73**

**File Number: 1050 Drainage**

**Attachments: Aug. 16, 2020 Photo**

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### **Recommendation:**

That the Township of Huron-Kinloss Committee of the Whole hereby approves Report Number PW2020-11-73 prepared by John Yungblut, Director of Public Works AND authorizes the removal of the North Portion of the Bruce Beach Road petition from the Municipal Drain process AND FURTHER authorizes the separation Southern Portion into two separate engineer reports that will be referred to as Bruce Beach Phase I and Bruce Beach Phase II.

### **Background:**

During the October 14, 2020 Council Meeting, Stephen Brickman, P.Eng of Dietrich Engineering provided Township Council with an update on the status of the Bruce Beach Municipal Drain project.

### **Discussion:**

Township staff have discuss the removal of the North Portion of the Bruce Beach Municipal Drain from the Municipal Drain process with the drainage engineers. This portion of the project involves directing the storm runoff from Highland Drive into an underground infiltration gallery to be located on Bruce Beach Road. Staff recommend removing this portion of the project from the Municipal Drain process for the following reasons:

1. The majority of the storm water generated in this area originates on the municipal road allowance and the proposed infiltration gallery is to be constructed within the municipal road allowance. Therefore, this project is similar to a municipal storm sewer project that generally involves providing road drainage by constructing a storm sewer or open ditch. In some cases, these projects will also provide surface drainage for private property, however, this is

not the primary intent of these types of projects. Conversely, the Municipal Drain process is generally best utilized if most of the drainage issues originate on private lands and the solution is also constructed on private lands. The application of this criteria allows Township staff to recommend using the Drainage Act in a consistent manner in all areas of the Township.

2. Although there is an estimated \$95,000 savings to the Township if the Drainage Act is used for this area, the overall project is estimated to cost an additional \$68,000. The extra cost will be collected from property owners in the watershed, which are all residential properties and are therefore, not eligible for the one-third (1/3) grant that is available to agricultural properties. Furthermore, if this project is appealed through the Drainage Act, the project could result in a higher cost to the Township than without the Drainage Act.
3. If this portion of the project is removed from the Drainage Act, the Township could include it with an application for the Investing in Canada Infrastructure Program (ICIP): COVID-19 Resilience Stream Funding when the application date is announced. Although this project would be eligible for this grant opportunity if the Drainage Act is used, it is possible that waiting for the appeal period and the final engineer's report could prevent this project from qualifying for funding. As Council is aware, there is significant opposition to this portion of the project, so appeals are a possibility.
4. The major storm events that occurred on July 16, 2018 and August 16, 2020 indicate that the northern portion of this project may not be as critical as we thought at the time of signing the petition. Despite flooding in a few sections of Bruce Beach Road and other Lakeshore roads during these events, the area south of Highland Drive was still safe for vehicular traffic and storm runoff did not appear to cross Bruce Beach Road and flood properties on the west side. The attached photo was taken in the section near Highland Drive that experienced the worst flooding on August 16, 2020. Based on this evidence, it appears that spring thaw is the primary time of year that this area is vulnerable to flooding due to the frozen ground being unable to absorb the stormwater from Highland Drive. Although the Highland Drive storm sewer does not have a proper outlet and it should be corrected, this project could be deferred if the ICIP funding application is not successful without serious risk of property damage over the short term.

The purpose of separating the southern portion of the Bruce Beach Municipal Drain into two phases is to allow for the construction of the stormwater retention pond on the east side of Lake Range Drive and improvements to the ravine between Lake Range Drive and Bruce Beach Road to be constructed in 2021. This portion of the project has the most public support and completing this project will prevent flooding on Bruce Beach Road similar to what occurred on July 16, 2018 and again on August 16, 2020. The construction of the stormwater pond and ravine improvements will be referred to as Phase 1. The engineer's final report could be

ready by December 2020 and the project could be ready for tender by the early spring of 2021. It is unclear if this project would qualify for the ICIP funding since most of the watershed are agricultural properties that already qualify for one-third (1/3) grant funding.

The remaining work that would include rear yard drainage along Bruce Beach Road near Concession 8 and the replacement of the existing storm outlet to the lake, would be referred to as Phase II. It is uncertain if this project can be ready for construction in the spring of 2021 because a public meeting for the petition that was signed for the properties near Concession 8 still needs to be scheduled. The engineers are also looking at possibly relocating the existing storm outlet to the lake because there may be other locations that are better from both a functionality and maintenance perspective. While there is public support for this project, it does have a greater chance of an appeal, which would then could delay this phase of the project until 2022. Fortunately, if Phase II is delayed, it will have no impact on Phase 1 other than there may be some cost savings if both projects can be tendered at the same time.

**Financial Impacts:**

The most recent engineer's estimate for completing the Northern Portion of the project (Highland Drive) is \$640,160 if it is constructed without the Drainage Act or ICIP funding. This would be entirely at the cost to the Township. If the Drainage Act process is maintained for the northern portion, the total project cost will be \$708,190 and the Township share would be \$545,300. This would assume that no appeals are received and the ICIP funding application is not successful.

The most recent estimate for the ravine rehabilitation portion of Phase I is approximately \$300,000 (not including allowances and administration) and the updated estimate for the construction of the stormwater retention pond is \$575,000 (including allowances and administration). The assessed cost to the Township for Phase I is not known at this time.

Construction estimates for Phase II will be forthcoming.

**Strategic Alignment / Link:**

We are an environmentally conscious community that are good stewards of our natural environment.

**Respectfully Submitted By:**

John Yungblut, Director of Public Works

**Approved By:**

Mary Rose Walden, Chief Administrative Officer