



Committee of the Whole Report

Report Number: ENG2022-005
Meeting Date: March 8, 2022
Title: Pleasant Point Canal Update
Description: Pleasant Point Canal ownership and water quality
Author and Title: Juan Rojas, Director of Engineering & Corporate Assets,
Mike Farquhar, Manager of Technical Services

Recommendation(s):

That Report ENG2022-005, Pleasant Point Canal Update, be received; and

That this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At the Committee of the Whole meeting on April 6, 2021 and subsequently a resolution at the April 20th 2021 Council Meeting, the following resolutions were passed in relation to direction by Council to staff to review and report back on Pleasant Point Canal water quality.

CW2021-107

That the Memorandum from Councillor Ashmore, **regarding Improvements to Pleasant Point Canal**, be received;

That the Trent Severn Waterway be requested to review options to improve water quality within the Pleasant Point Canal;

That Staff explore municipal options to improve water quality within the Canal, including the option for a culvert; and

That Staff report back to Council by Q3, 2021 with options, including costing for solutions.

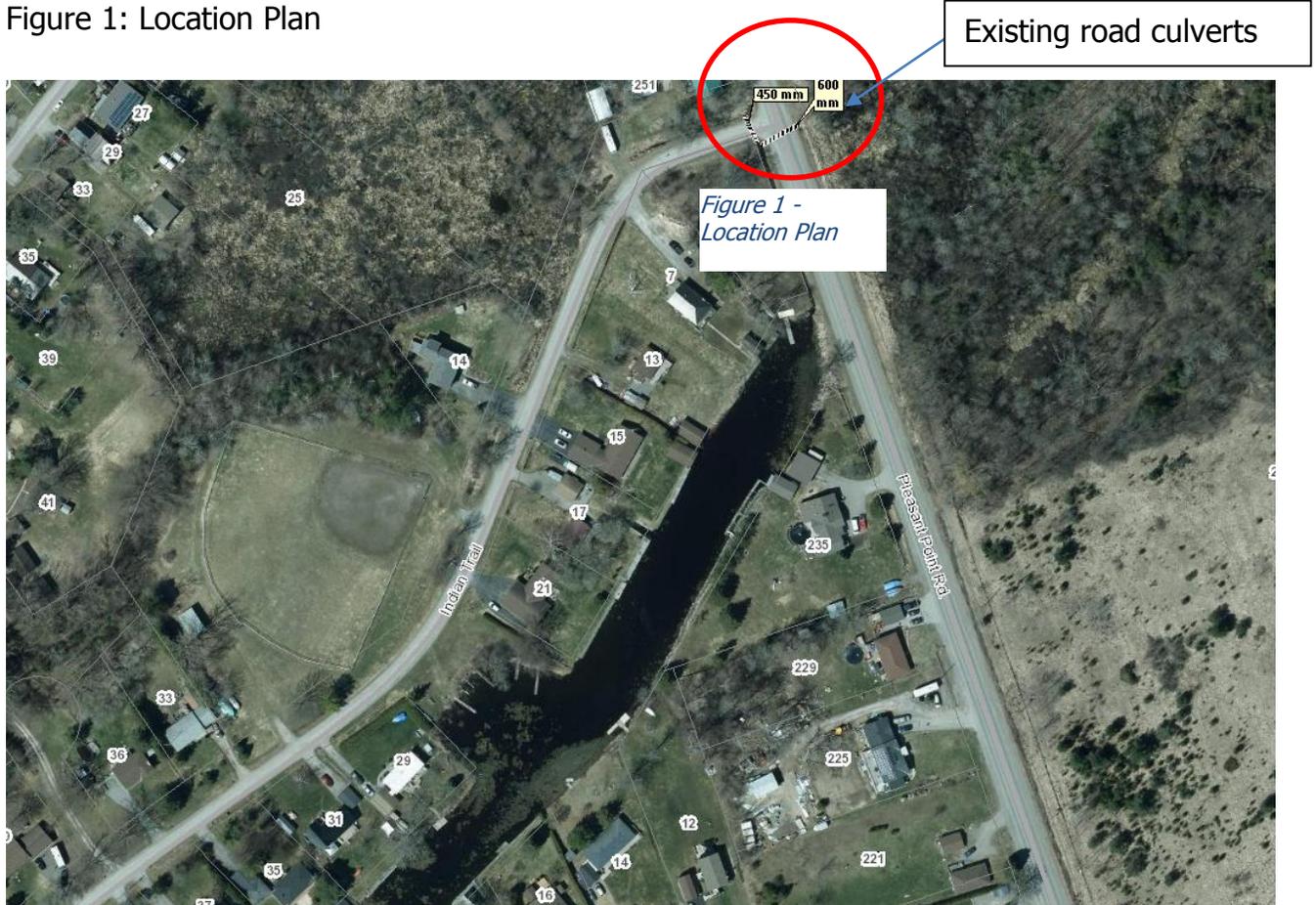
Carried

This report addresses that direction.

Rationale:

Pleasant Point Canal is located east of Pleasant Point Rd just south of Indian Trail, with the Canal discharging to Sturgeon lake. There are two existing road cross culverts, a 450mm diameter under Indian Trail and a 600mm diameter under Pleasant Point Rd which drain into the top end (upstream) of the canal. An aerial photograph is shown in figure 1 and the plan and profile for Pleasant Point Rd can be found in Appendix A.

Figure 1: Location Plan



Both existing culverts are clear of debris, in good shape and convey storm water runoff from the road and surrounding areas to the canal.

Past Historical Information:

In 1961 the Kawartha Realty corporation registered a Plan of Subdivision 414 (see appendix B) and subsequent subdivision agreement in 1962 for lots, blocks and roads in the Pleasant Point area in the former township of Fenelon Falls. Block G is identified on Plan 414 as a canal dedicated to lots backing onto it and for other back lots within Plan 414 to access the water. Neither the Plan of Subdivision nor subdivision agreement dedicated Block G to the former Fenelon Township as lands for Municipal use. It was left in the ownership of Kawartha Lakes Realty (see Appendix C).

Kawartha Realty began building the roads in the plan of subdivision 414 under its agreement sometime in 1962 (see attached appendix D1 and D2). However as noted in the correspondence the roads were built to a “seasonal cottage standard” as outlined in the subdivision agreement with the former township of Fenelon Falls (the agreement is part of Appendix D2).

From the correspondence attached as Appendix D1 between the Ontario Attorney Generals office and the Clerk of the former township of Fenelon Falls dated September 23, 1985, it states that “Kawartha Realty was dissolved on June 23,1980 and pursuant to Business and Corporation Act section 243 (at the time) any property of the corporation that had been disposed of on the date of its dissolution is forfeited to the Crown”. This letter was original in respect to a tax certificate the Township of Fenelon had registered on Block “A” of Plan 414 for non payment of taxes on Block A.

Further correspondence as shown in Appendix D2 is a letter dated 1994 from the office of Staples, Swain, Gunzulus who was acting solicitor for Fenelon Township at the time to the Clerk of the Township. The letter outlines the history of the subdivision and provides opinions for options to rectify the issue of assuming the roads within the subdivision at the time. It seems through the records that Fenelon Township proceeded with a local improvement charge in order to bring the roads within Plan 414 up to municipal standard for assumption.

It should be noted that the Province, through the Attorney General’s Office, informed Fenelon Township (as seen in Appendix D1) that Block A was now an asset of the Crown. The historical importance of this correspondence is that it helps us understand the possible current situation as it pertains to ownership of Block “G”. As Block “G” (being the canal as shown in Plan 414 in Appendix B) was still under the ownership of Kawartha Realty Corporation and was not disposed of prior to its dissolution in 1980, it could be interpreted that it reverted to the Provincial Crown as an asset.

Also attached to this report as Appendix E is an air photo taken in the 1960’s after the construction of the Canal. This is included for historical purposes only.

Meeting with TSW – August 4th, 2021

On August 4th 2021, Public Works staff and Engineering Staff conducted a conference call with Parks Canada (Trent Severn Waterway) regarding the jurisdiction, permitting and water quality concerns related to the Pleasant Point Canal.

The following is a summary of this meeting:

- The Canal is not owned by the City of Kawartha Lakes or the Trent Severn Waterway;
- TSW has jurisdiction at the junction with Sturgeon Lake, i.e. at the downstream end of the Canal only;
- Water quality issues are most likely related to run off from the back yards and possible septic issues;
- In order to dredge the Canal, a permit from the Conservation Authority would be required, which would be applied for by the owner or owner's delegate;
- Harvesting or Dredging of the canal would only be a temporary solution, as algae growth would return in time;
- Addressing the root cause such as limiting the movement of Algae Nutrients by improving the shoreline would be most beneficial;
- The local Conservation Authority has resources regarding Lake and Environmental Management Plans, link below:
<https://www.kawarthaconservation.com/en/environmental-sciences/lake-and-environmental-management-plans.aspx>

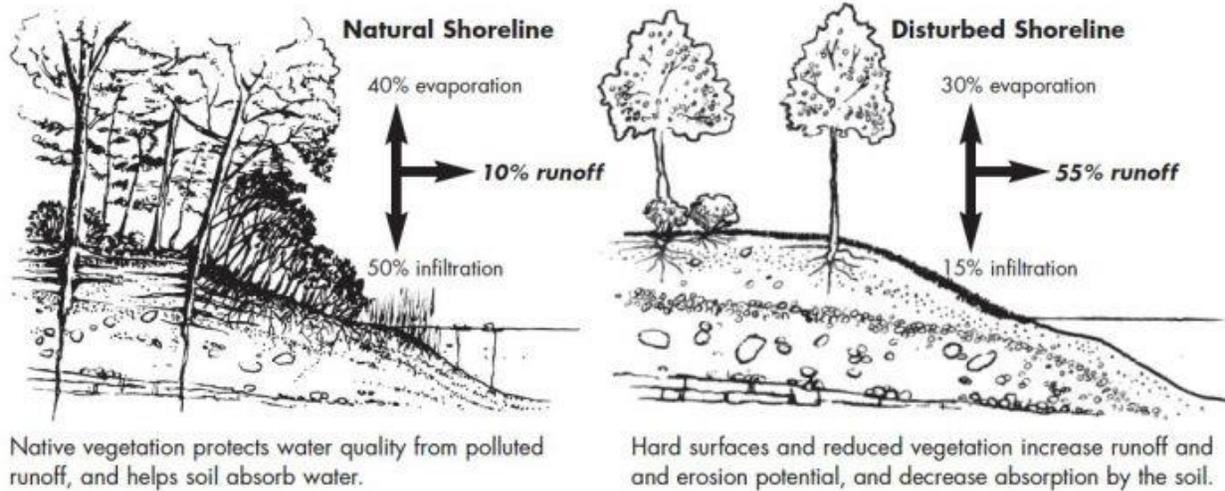
Some Options to Improve Water Quality:

Improvements to Run Off / Naturalization of Canal Shoreline:

Surface water runoff contains pollutants such as fertilizers (nutrients), soil particles (sediments), vehicle fluids (gasoline, etc.) and other (such as pet waste, septic leachate etc.).

These pollutants result in algal blooms & excessive weed growth, loss of recreation opportunities (swimming, boating etc.), loss of fish and wildlife habitat, overall contaminated water-sources, and potential contamination of drinking water.

Naturalized, vegetated shorelines with native shrubs and planting reduce these effects by acting as a buffer to absorb nutrients and contaminants, trap sediments, and encourage infiltration.



Naturalization of the Shoreline would have the least cost and most benefit in controlling / limiting algae blooms and would improve the water quality of the canal.

In addition, benefits such as improved wildlife habitat, erosion protection and wind breaks would be active.

Rehabilitation / Maintenance of the Resident's Septic Systems:

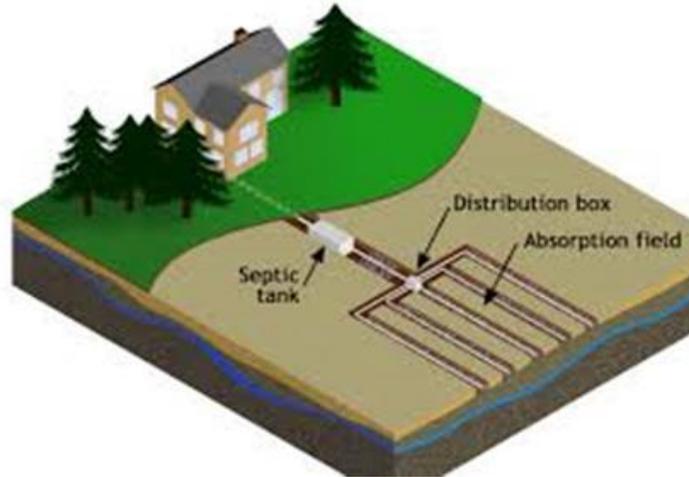
Many residents in Kawartha Lakes rely on septic systems to manage their household wastewater. If built to current-day standards and maintained properly, a septic system can enhance the value of their property.

Good septic system management reduces the risk of leaching groundwater, rivers and lakes, and helps to minimize the risk of drinking water contamination, degradation of aquatic habitats and reduces algae blooms.

Signs that your septic system may be failing are (but not limited to):

- Spongy spots on or near the leaching bed;
- Sewage on the ground or near the bed;
- Odor in your basement or outside;
- Poor water quality;
- Slow moving or backed-up drains in your home.

A building permit from the Kawartha Lakes Building Department would be needed to replace or install a new septic system.



Additional information / process for septic permitting can be found on the City's web site, link below:

<https://www.kawarthalakes.ca/en/living-here/my-property.aspx>

Homeowners are responsible for regular septic maintenance and inspection.

Harvesting or Dredging of the Canal:

Dredging is the act of removing silt and other materials from the bottom of bodies of water. As sand and silt washes downstream, sedimentation gradually fill channels.

There are several types of dredges used in the sediment removal process, some of the most common types are:

- **Plain-Suction:** A plain-suction dredge is the most common type of sediment removal equipment. Unlike other dredge versions, it doesn't contain a tool for penetrating or cutting into the bottom of the water body — it relies on suction to remove loose debris.
- **Cutter-Suction:** This type of dredge contains a cutting tool that loosens material from the bottom and transports it to the mouth of the suction apparatus. The use of a cutter-suction dredge may be necessary for removing debris from hard surfaces that would prevent efficient suction via standard methods.

- **Auger-Suction:** An auger-suction dredge essentially bores holes into the bed to loosen and suck up the debris. The rotating auger can burrow deeply into the surface. This type of dredge works well for sludge removal applications at wastewater treatment plants and other areas requiring heavy-duty sediment removal.
- **Jet-Lift:** This technologically advanced sediment removal equipment works by injecting a high-volume stream of water to pull in nearby water, silt, and debris.

Aquatic Weed Harvesters are large floating machines that have underwater cutting blades that sever the stems of underwater plants, gather weeds and raise them on conveyor belts, storing the vegetation on board in a hold.



Both Dredging and Harvesting are temporary solutions to algae blooms / weeds and would require a permit from KRCA (Kawartha Region Conservation Authority) and related agencies.

Aeration of the Water:

The increased oxygen from aeration breaks down organic materials. In addition to starving algae of nutrients, the increased flow from aeration discourages algal blooms.

Aeration of water typically requires a series of permanent aeration infrastructure.

The number of devices would depend on the size of the waterway. These permanent infrastructure devices would need to be managed and maintained on a daily basis.

Design, placement and construction of aeration infrastructure would require a permit from various agencies.



Other Alternatives Considered:

At the Committee of the Whole meeting on April 6, 2021 and subsequently a resolution at the April 20th 2021 Council Meeting, a deputation and a petition was received and the following resolution was passed:

CCW2021-085

That the deputation of Colleen Cook, and the supplementary petition, **regarding a Request for the Construction of a Culvert Under Pleasant Point Road**, be received.

Carried

A copy of the petition is attached in appendix F of this report.

In regards to the request to install a culvert under Pleasant Point Road:

The Council resolution had asked staff to consider the installation of a culvert across Pleasant Point road and subsequent trenching eastward to bring water from a wetland area north east of Pleasant Point road to improve flow into the canal, however this was

not considered practical or feasible due to issues including, but not limited to, private land ownership and negative impacts to the wetland and environmentally sensitive areas adjacent to the road.

Moreover, as identified in Figure 1 and Appendix A of this report, a 600mm diameter cross-culvert exists under Pleasant Point Road approximately 60m north of the start of the Canal, which drains water from the east side of Pleasant Point Road to the Canal.

In regards to the Petition:

The petition identified the following 6 items:

To undertake improvements to the canal on Pleasant Point to alleviate some if not all of the following issues:

1. Restriction of recreational activities, boating, fishing and swimming
2. Foul Smell caused by decaying aquatic weeds
3. The stunting of fish populations and fish kills due to decomposition
4. Increase in disease vectors such as mosquitoes and snails
5. The lowering of the aesthetic appeal of waterfront property reducing its value
6. The exclusion of native plant species by invasive aquatic weeds.

This report identifies methods that the residents can use to improve the water quality by improvements to their property such as naturalization of the shoreline and septic improvements / maintenance.

Ownership of the Canal would need to be established prior to any in-water Canal works being undertaken, with the owner obtaining the applicable permits.

Alignment to Strategic Priorities

This report aligns with the following aspects of the City's strategic plan

1. Healthy Environment

[Kawartha Lakes Strategic Plan 2020-2023](#)

Financial/Operation Impacts:

Not applicable at this time, as this property is not owned by the City of Kawartha Lakes.

Any recommendation for water quality would be the responsibility of the homeowners or homeowner’s association group.

The issue of legal ownership of the canal (Block G) needs to be resolved prior to any work on the canal being completed.

Servicing Implications:

Not Applicable

Consultations:

Parks Canada - Trent Severn Waterway

Public Works – Director of Public Works

CAO – Legal Services – City Solicitor

Manager of Realty Services

Attachments:

Appendix A – Plan and Profile Drawing for Pleasant Point Road.



Appendix A.pdf

Appendix B – Plan 414



Appendix B Plan
414.pdf

Appendix C- Parcel Register for BLK G PL 414



Appendix C.pdf

Appendix D- Historical correspondence with Former Fenelon Twp.



Appendix D1.pdf



Appendix D2.pdf

Appendix E- Air photo of Canal when built



Appendix E.pdf

Appendix F – Request to Speak before Council from Colleen Cook and Petition regarding Pleasant Point Canal.



Petition.pdf

Department Head email: jrojas@kawarthalakes.ca

Department Head: **Juan Rojas**