
TO: GENERAL COMMITTEE

SUBJECT: APPROVAL OF WHISKEY CREEK AT MINET'S POINT DRAINAGE IMPROVEMENTS REPORT

WARDS: ALL

PREPARED BY AND KEY CONTACTS: N. COUPERUS, P. ENG., MASc, SENIOR INFRASTRUCTURE PLANNING TECHNOLOGIST, WATER / WASTEWATER PLANNING
T. REEVE, P. ENG., SENIOR PROJECT MANAGER – WATER / WASTEWATER PLANNING

SUBMITTED BY: K. OAKLEY, P. ENG., MANAGER OF CORPORATE ASSET MANAGEMENT

GENERAL MANAGER APPROVAL: A. MILLER, RPP, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the preferred alternative identified in the Municipal Class Environmental Assessment Report for Whiskey Creek Drainage Improvements at Minet's Point dated April 2021, be endorsed.

PURPOSE & BACKGROUND

2. The primary purpose of this Staff Report is for Council to endorse the Whiskey Creek Drainage Improvements at Minet's Point Report and allow staff to proceed with next steps in implementing the preferred alternative. The Environmental Assessment Report ([EA Report](#)) is available on the City's website at www.barrie.ca/eastudies.
3. This Staff Report also serves to provide information to Council regarding:
 - a) The history of flooding concerns at Minet's Point;
 - b) The alternatives assessed including expanding or eliminating culverts or creating a new outlet. These alternatives were assessed based on their physical, natural, social, economic, and cultural/archaeological impacts;
 - c) The Municipal Class Environmental Assessment (EA) process, including the public engagement undertaken: and
 - d) The preferred alternative.
4. The Study Area encompasses an area roughly bounded by Minet's Point Road and White Oaks Road to the west, Kempenfelt Bay to the north, Brennan Avenue to the east, and Hurst Drive to the south. A map of the study area is provided in Appendix A. The focus of the study is Whiskey Creek, which drains 640 ha before it passes through The Boulevard and Brennan Avenue culverts and discharges into Kempenfelt Bay next to Minet's Point Park. A map of Whiskey Creek watershed is provided in Appendix A.

5. There are historic records of flooding at Minet's Point dating back to 1942 that include seasonal high water flooding from Lake Simcoe and Whiskey Creek flooding from storm events. The flooding concerns being mitigated in this study are only from Whiskey Creek flooding. The Boulevard culvert conveys less than a 1 in 2 year return period storm event leading to frequent flooding between The Boulevard and Kempenfelt Bay. The Minet's Point area including Lismer Boulevard, Kempview Lane, Whitty Lane and portions of The Boulevard, Brennan Avenue and White Oaks Road are in the floodplain. This preferred alternative will not remove properties from the floodplain but aims to decrease the frequency of flooding. In addition to the flooding issue, the condition of the creek bank and continuous erosion is an ongoing concern. The section of creek is regularly inspected and is a known area of bank erosion. If left unchecked, it is likely that erosion repair would be required in the short term to prevent the creek erosion from impacting private property. The erosion is also impacting the downstream creek and depositing sediment into Lake Simcoe.
6. This project has followed the guidelines for a Municipal Class EA process in accordance with provincial legislation. The process is followed to ensure public and agency consultation as well as physical, natural, social, economic, and cultural/archaeological impacts are considered in determining the preferred alternative for municipal infrastructure projects. The City retained Tatham Engineering in June 2020 to help complete this Municipal Class EA.

ANALYSIS

Alternative Evaluation

7. A comprehensive set of alternatives were developed and evaluated (see EA Report Section 6, P. 42 of 1288 for more detail). The wide range of alternatives considered in the EA Report included various culvert sizes, removal of one or both culverts (and associated transportation linkages replaced with pedestrian accesses), and diversion of flows down an alternative path. For alternatives 4-6 additional scenarios were considered that proposed new transportation linkages to maintain connectivity. The alternatives considered were as follows:
 - a) Alternative 1 - "Do Nothing"
 - b) Alternative 2 – Improve Culverts/Watercourse to Convey 1:100-Year Design Storm
 - c) Alternative 3 – Improve Culvert/Watercourse to Convey Less Than 1:100 Year Design Storm. 1:50 Year, 1:25 Year, and 1:10 Year flows were considered.
 - d) Alternative 4 – Remove Brennan Avenue at Whiskey Creek
 - e) Alternative 5 – Remove The Boulevard at Whiskey Creek
 - f) Alternative 6 – Remove Brennan Avenue and The Boulevard at Whiskey Creek
 - g) Alternative 7 – Additional Conveyance Route (Flow Diversion) through 36 White Oaks Road
8. The evaluation of alternatives considered impacts including but not limited to:
 - a) Public safety
 - b) Financial (both capital costs and ongoing operation and maintenance costs)
 - c) Private property
 - d) Existing transportation network including active transportation
 - e) Natural heritage features
 - f) Existing utilities and municipal infrastructure (hydro lines, hydro transformer, natural gas, watermain, water hydrant, sanitary forcemain, sanitary pump station generator/washroom building); and,
 - g) Neighbourhood impacts including impact to residents and Minet's Point Park users.

Stakeholder Consultation:

9. As part of the Class EA process, the public and review agencies were invited to attend a virtual Public Information Centre (PIC) due to provincial COVID-19 limitations on in-person gathering. A mailout including a comment form was sent out to the residents that live within the study area ahead of the PIC period. PIC information was available on the [City's website](#) from February 3 – 17, including a public feedback comment form on the alternatives. Two virtual public question and answer sessions were held on February 9 and February 16 with fifteen (15) registrants attending. The sessions were held to give the public and review agencies the opportunity to ask questions and provide feedback with respect to the alternatives presented in the Class EA document. All feedback received was incorporated into the development of the Preferred Alternative Solution.
10. Throughout the PIC process staff supplemented the planned engagement (letters to residents within the study area, virtual question and answer sessions and notices in the Barrie Advance) with one-on-one telephone conversations and meetings, personal emails, and provision of additional hard copy materials to ensure that all residents who wished to engage in the process were able to, regardless of their access and ability to use technology.
11. Twenty-one (21) interested stakeholders provided comment during the PIC. Comments received throughout the Class EA process are summarized in Appendix "J" of the EA Report (P. 1199 of 1288). Areas of major concern about the existing conditions and alternatives included:
 - a) Concerns about frequent flooding onto private property and parkland areas as well as public safety concerns associated with the flooding over the roadways, in the existing condition.
 - b) Concerns with pedestrian safety, emergency access, and traffic issues especially in relation to Minet's Point Park and the corner of White Oaks Road near The Boulevard.
 - c) Concerns with maintaining the natural features and character of neighbourhood especially with respect to bird, fish, and terrestrial habitat.
 - d) Concerns with debris and maintenance practices of drainage channels. Sedimentation of the creek outlet near Minet's Point Beach area.
 - e) Concerns with privacy between Minet's Park beach patrons and private residences. Prevention of trespassing and onlooking were noted as concerns.
12. The City contacted First Nations groups within the area for comment on the proposed project. The Curve Lake First Nation was the only First Nation to return contact at this time. They have requested for their cultural heritage liaisons to be present when a Stage 2 Archaeology Assessment is being performed in the future during the pre-design phase.

Preferred Design

13. The preferred alternative is Alternative 3, which encompasses a significant amount of work. This work is recommended to be implemented in two phases, with the most urgently needed and impactful work proceeding first. The preferred alternative is described in Section 6.2.2, P.44 of 1288 of the EA report, and a conceptual drawing is included in Appendix B of this staff report.
14. Phase 1 of the preferred alternative is to replace and enlarge two culverts, (Whiskey Creek under The Boulevard and Brennan Avenue), with 1 in 50 year storm culverts and upgrade the channel in between the two culverts. The solution would increase the flows conveyed from 3.5 m³/s to 42 m³/s. The project does not take private property out of the floodplain but reduces the frequency and severity of flooding with respect to creek flows.

15. Phase 2 of the preferred alternative is less urgent and the implementation timeline is recommended to be aligned with other asset needs in the area. In the future, when the Minet's Point washroom and pump station generator building is in need of replacement, the downstream channel will be further widened to increase flow capacity. The EA Report recommends moving the building away from Whiskey Creek. The ultimate location can be determined with consideration for the overall needs and function of Minet's Point Park. The building recently had a condition assessment performed during the Wastewater Asset Management Plan. The lifespan remaining on the structural building was estimated to be outside of the current ten year capital plan timeline. In the interim period the EA recommends floodproofing the generator building and pump station.
16. The preferred alternative recommends the acquisition of two properties, one full property and one partial. Staff have been in communication with the affected property owners as part of the Municipal Class EA process.
17. The overall project cost estimate for the drainage improvements from The Boulevard to Kempenfelt Bay including culvert replacements, channel works, and associated utility relocation is \$9,920,000. This does not include the cost to relocate the wastewater generator and washroom building as that will be undertaken under a separate project.
18. Following a thorough assessment against the evaluation criteria, technical considerations and the concerns raised by the community the EA Report recommends that the preferred alternative provides a path forward, balancing costs, public safety, and community.

Next Steps

19. Following endorsement of this staff report by Council, the City will publish and mail a Notice of Completion to stakeholders. A Draft Notice of Completion is included in Appendix C. The Notice of Completion is a mandatory step in the Municipal Class (EA) process. It notifies the public that the EA is being completed and advises of next steps. If an agency or member of the public feels they have significant outstanding issues that have not been addressed, they can request further study be undertaken. This is called submitting a Part II Order request and is sent to the Minister of the Environment, Conservation and Parks. After a minimum of 30 days, if no Part II Order request is received the Class EA process can be considered complete and the City can proceed with implementation of the project over the next ten years. This implementation would include the detailed design phase, property acquisition, utility relocations, and construction.
20. The Phase 1 portion of this project is currently forecasted in the City's 2021-2030 Capital Plan as shown in the table below.

Phase	2021 – 2030 Capital Plan Timing
Pre-Design	2022
Design	2023-2024
Property	2025
Utilities	2026
Construction	2027-2029

21. The timing and phasing of individual projects within the City of Barrie capital plan can change from year to year due to available funding, resourcing and priority when compared to other capital needs across the City.

ENVIRONMENTAL AND CLIMATE CHANGE IMPACT MATTERS

22. The following environmental and climate change impact matters have been considered in the development of the recommendation:

This project has followed the guidelines for a Municipal Class EA process and the EA Report discusses how environmental matters have been considered in the development of the recommended preferred design alternative. The evaluation process considered criteria for natural, social, cultural/heritage and economic environmental matters and physical environment criteria such as traffic, pedestrians, cyclists, transit, property, noise, utilities, municipal services and driveway grades/operations. The recommendations have taken the impact of climate change into consideration when sizing of infrastructure.

ALTERNATIVE

23. The following alternative is available for consideration by General Committee:

Alternative #1

General Committee could choose not to endorse the preferred alternative from the EA Report and direct staff to re-evaluate the options.

This alternative is not recommended as the EA process has been followed to develop the solution that best balances all the criteria summarized in this report, including flood mitigation, affordability, impact on adjacent property and park land. Re-evaluation is unlikely to produce a meaningful different result. A non-approval would delay the implementation of flood mitigation efforts.

FINANCIAL

24. There is no direct impact on the City finances from this report. The preferred alternative would be delivered through the capital plan and is currently listed as project 001020. Both phases will be subject to the annual capital planning process that considers risk, prioritization against other needs, and affordability. The project in the 2022 capital plan will be updated with respect to the scope and associated costs provided in the EA Report.
25. The preferred alternative is within the Development Charge Background Study as four projects (60-63) with 55% benefit to existing development and 45% growth funded.

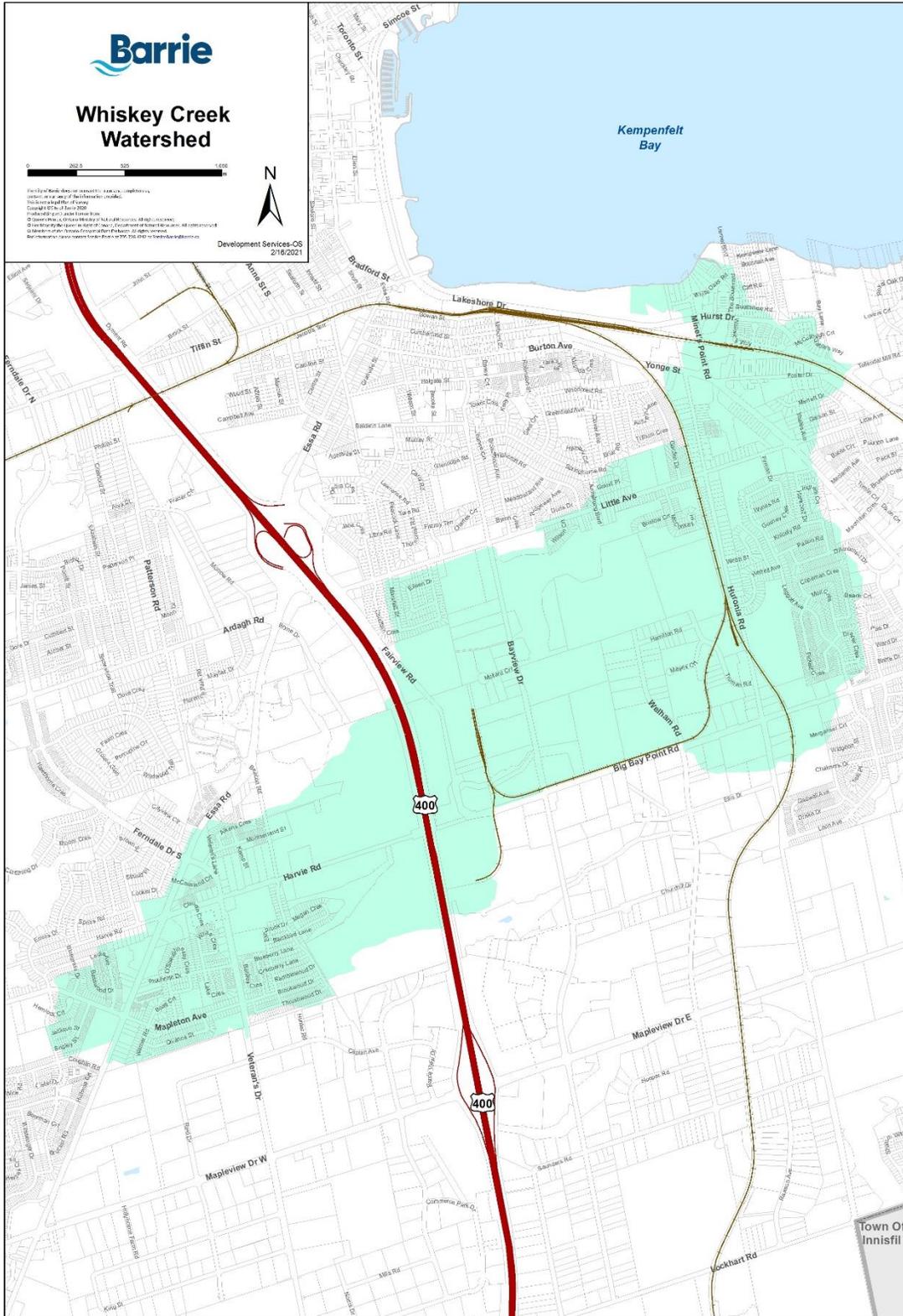
LINKAGE TO 2018–2022 STRATEGIC PLAN

26. The recommendation(s) included in this Staff Report support the following strategic priorities in the 2018-2022 Strategic Plan:
- Fostering a Safe and Healthy City
 - Improving the ability to get around Barrie
27. The preferred alternative works towards the above Council strategic priorities by reducing the frequency of flooding in the vicinity of Minet's Point. This is in alignment with building a greener Barrie while mitigating and adapting to climate change. The transportation network would remain as in existing conditions, but the preferred alternative provides a higher level of service during flooding events, resulting in a more flood resilient neighbourhood while improving safety for residents and visitors.

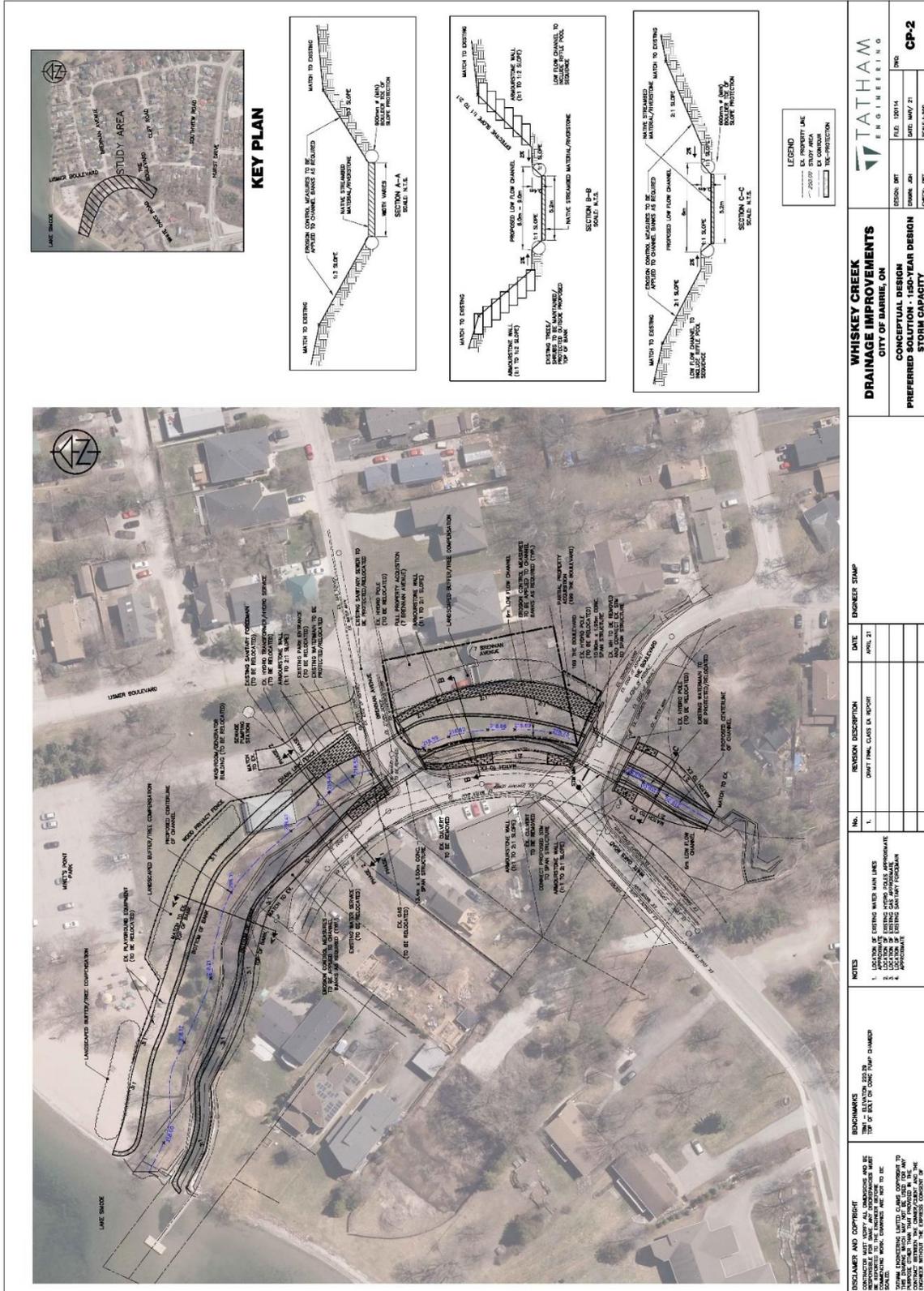
APPENDIX "A"

Map of Study Area





APPENDIX "B"
Conceptual Design



<p>WHISKEY CREEK DRAINAGE IMPROVEMENTS CITY OF BARRIE, ON</p> <p>CONCEPTUAL DESIGN - 100-YEAR DESIGN STORM CAPACITY</p>		<p>TATHAM ENGINEERING</p> <p>DESIGN: BPT DRAWN: JAM CHECK: BPT</p> <p>DATE: FEB 15/21 DATE: MAY 21 SCALE: 1:500</p> <p>CP-2</p>
<p>REVISION DESCRIPTION</p> <p>1. DRAFT FINAL CLAS 1A REPORT</p>	<p>DATE</p> <p>APRIL 21</p>	<p>ENGINEER STAMP</p>

APPENDIX "C"

Notice of Completion



WHISKEY CREEK DRAINAGE IMPROVEMENTS AT MINET'S
POINT SCHEDULE "B"
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

NOTICE OF COMPLETION

The Corporation of the City of Barrie has completed a Municipal Class Environmental Assessment (EA) to assess alternative solutions to reduce the frequency of flooding in Whiskey Creek at Minets Point. This reach of Whiskey Creek, including both public and private property within the Whiskey Creek floodplain, experiences regular flooding and as such, this EA assessed solutions to mitigate flooding between The Boulevard and Kempenfelt Bay. Alternative solutions included changes to the existing road, creek culverts, and other infrastructure in the area to mitigate flooding downstream of The Boulevard to Kempenfelt Bay. The Study Area encompassed the Whiskey Creek floodplain from the outlet at Kempenfelt Bay to just upstream of The Boulevard.

An online Public Information Center (PIC) was held with two Question and Answer sessions on February 9 and 16 where the public and interested stakeholders could provide comment on the project details and the various physical, natural, social, cultural and economic impacts. Public and agency comments received have been considered as part of the selection of the Preferred Solution. The preferred solution is Alternative 3: Improve Culvert/Watercourse to Convey Less Than 1:100-Year Design Storm with a conveyance of 1:50-year flow design. An EA Report has been prepared that documents the study process and presents the Preferred Alternative. By this notice, the Whiskey Creek Drainage Improvements at Minet's Point EA Report is available for public review starting May XX, 2021 on the City website (barrie.ca/eastudies).

If you have questions or concerns related to the Preferred Alternative or identified projects recommended in the ESR, please contact Nathanael Couperus, MASc, P.Eng. at the address below within 30 calendar days from the date of this Notice.

Nathanael Couperus, P.Eng., MASc
Senior Infrastructure Planning Technologist
Corporate Asset Management Branch
City of Barrie
70 Collier Street, P.O. Box 400
Barrie, ON L4M 4T5
Phone: (705) 739-4220 ext. 4303
Fax: (705) 739-4247
Email: Nathanael.Couperus@barrie.ca

If concerns arise which cannot be resolved with the City of Barrie, a person or party may request that the Minister of Environment, Conservation and Parks make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments. Requests must be received by the Minister within 30 calendar days of this Notice being issued. Requests are to be submitted to:

Hon. Jeff Yurek
Minister of the Environment, Conservation and Parks
College Park 5th Floor
777 Bay St.
Toronto, ON M7A 2J3
minister.mecp@ontario.ca

A duplicate copy of the request must also be forwarded to Nathanael Couperus, MASc., P.Eng. of the City of Barrie at the address provided above. If no requests are received, the City of Barrie, upon receipt of the necessary approvals, plans to proceed to implementation of the preferred alternative through a phased approach, dependent on future budget approvals.

This Notice issued May XX, 2021 and May XX, 2021

Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.