

February 9, 2022
WE: P22014

Mr. Dennis Edell
President
Trout Unlimited Canada - Niagara Chapter

Dear Mr. Edell:

**Re: Twelve Mile Creek – Rice Road and Hwy 20 Stormwater Outfall Rehabilitation
Fluvial Geomorphological Assessment and Natural Channel Design**

Further to the proposal information provided via email previously, and to the site visit I had with Mr. Brian Green of the Trout Unlimited Canada Niagara Chapter on January 29, 2022, we note that the scope of work will consist of the rehabilitation of the (Twelve Mile Creek Tributary) outlet channel from the upstream stormwater management facility. The general objective will be to evaluate the outfall and channel conditions, undertake a detailed survey and geomorphic fieldwork, prepare a comprehensive design for the outfall and channel rehabilitation, and prepare the necessary tender documents for a tender-ready package. A report will be prepared and submitted to the agencies and we will assist in approvals with the Niagara Peninsula Conservation Authority (NPCA) regarding the design report and plans.

We understand that Trout Unlimited Canada (TUC) will be going before Pelham Council on March 7, 2022 for approval to contract the design engineering phase within the allocated \$70K budget. Water's Edge is a design engineering firm specializing in stream and streambank restoration and has completed work for the Town in the past. Under the direction of TUC, Water's Edge will undertake the design work as per our preliminary site visit and the requirements stated in the Town's RFP with these exceptions:

1. We will undertake a *combined* Stage 1 and Stage 2 Archaeology Assessment as the area has very high potential for archaeological resources due to its close proximity to multiple indicators (as per our archaeologist's professional opinion);
2. Geotechnical support for the stream restoration design is not required for design purposes. We will examine the exposed soil profile ourselves to understand local soil conditions for design purposes. However, chemical testing by the geotechnical engineer for the offsite removal of spoil, as required by current legislation, will be deferred to the construction phase. Our opinion is that it would require an excessive drilling program to cover the entire site and it would be much more cost-effective to test a spoil pile with 1 or 2 samples during construction. As such, this aspect of the geotechnical investigation will be deferred to the construction phase and we will indicate this in our design report; and,
3. NPCA will conduct the EA/SAR screening in support of the design.

With these caveats in mind, Water's Edge is prepared to provide TUC with a tender-ready design solution for less than \$70,000. If TUC's request to Pelham Council is approved, a fulsome proposal will be forthcoming.

Thank you for the opportunity to work with you on this project. Should you have any comments or questions, please do not hesitate to contact us.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Ed Gazendam', is written over the 'Respectfully submitted,' text.

Ed Gazendam, Ph.D., P.Eng.,
President, Sr. Fluvial Geomorphologist
Water's Edge Environmental Solutions Team Ltd.