

Request for Proposal
For
Consecon Lake Erosion Hazard Mapping Project
in Prince Edward County



Requested by Quinte Conservation Authority
Friday, June 13th, 2025

RFP Contact:
Mike Smith
msmith@quinteconservation.ca

Closing:
Thursday, July 10th, 2025 @ 1430

Quinte Conservation
RR#2
2061 Old Highway 2
Belleville, ON
K8N 4Z2

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Introduction

Quinte Conservation (QC) is undertaking a study to define the erosion hazard limits along Consecon Lake with the support from Prince Edward County, and grant funding from the Flood Hazard Identification and Mapping Program (FHIMP).

We are seeking proposals from suitably qualified consulting engineering firms (“consultants”) to provide professional engineering services to perform this work.

Purpose

This project is to complete an analysis of the erosion hazard as per the MNRF Rivers and Streams Systems Technical Guides: Erosion Hazard Limit. Quantify the toe erosion allowance, top of stable slope, and erosion access allowance for each shoreline reach of Consecon Lake. Prepare recession rate charts. Provide recommendations and guidance for shoreline management options considering current legislation, policies and guidelines. Prepare mapping of toe slope, stable top of slope, access allowance and final erosion limit.

Background

The study area includes the inflow from Consecon Creek as it crosses Melville Road continues through Consecon Lake to Loyalist Parkway.

Efforts to better define hazard lands within County of Prince Edward would complement existing master plans and be a guide for land-use development in the community. As a local partner in this project, Quinte Conservation Authority will also benefit from updated mapping in their initiatives including accurate hazard mapping for their planning and regulations program.

There has been and continues to be re-development pressure adjacent to Consecon Lake. The majority of the redevelopment applications are proposing to replace existing dwellings with much larger structures adjacent to the water.

Scope of Work

This study will undertake the necessary fieldwork to map the erosion hazard limits for Consecon Lake as outlined in the background section. All components of this analysis shall be consistent with the Ministry of Natural Resources procedures and technical standards and the mapping shall meet or exceed relevant Federal Flood Mapping guidelines.

This proposed floodplain mapping project shall specifically include:

Scope	Requirement
Geospatial Reference Systems	Projection: UTM Zone 18N
	Geographic Coordinate System: NAD83 (CSRS)
Topographic Analysis	The most relevant and recent topographic information, including but not limited to Digital Elevation Models (DEM) and Digital Terrain Models (DTM), should be applied in all stages of the mapping process. Accuracies for these datasets should follow the recommendations set out in the Technical Bulletin - Flooding Hazards: Data Survey and Mapping Specifications (MNR, 2023)
LIDAR Specifications	DTM Resolution: 0.5m LiDAR Density: ≥ 8 pls/m ² Non-Vegetated Vertical Accuracy: < 5 cm RMSE and ≤ 9.8 cm @ 95% confidence level Vegetation Vertical Accuracy: ≤ 14.7 cm (95th percentile) The Belleville 2022 LiDAR validation meets the “High” flood risk category as defined in the Federal Airborne LiDAR Data Acquisition Guideline Appendix 2 – Flood Mapping.
Field Investigations	Professional surveyors and technicians will be employed for the collection of field data.
	Undertake an inspection of the shoreline of study area. Confirm existing elevations and soil types. Include for the required testing to accurately capture the information. Field investigation to be used to create or confirm findings of erosion rates and maps.
Hazard Analysis	Complete analysis per the MNRF Technical Guide – River and Stream Erosion Hazard Limit (2002).
	Using available historical aerial imagery define the historical toe of slope, where possible and top of bank around the lake. For each reach the recession distance will be estimated, and recession rate changes will be developed. Per the Technical Guide the erosion hazard limit will be formed by the 1 in 100 year toe erosion, the stable slope and the erosion access allowance.
	Provide georeferenced photographs of the existing conditions for each reach of Consecon Lake. This is to include the existing inventory.
	Provide recommendations and guidance for shoreline management options considering current legislation, policies and guidelines regarding shoreline hazards, cost benefit analysis, and overall protection of the watershed.
Geospatial Flood Features	The following features will be provided as georeferenced vectors and included with final deliverables: <ul style="list-style-type: none"> • Study area • Erosion hazard areas subdivided into: <ul style="list-style-type: none"> • toe of slope; • stable top of slope; • access allowance and • final erosion limit.
Public Information Centre	Arrange, advertise, and participate in one public information centre (PIC) (actual location and date/time to be determined). QC will assist in selecting a venue and advertising using our social media channels. This PIC is to be held once the draft hazard lines have been derived. The consultant will lead the open house. Visual aids such as poster boards, and large maps detailing the

	new existing erosion hazard limit. Provisions shall be made to deliver a PowerPoint presentation if an in-person open house cannot be held. Prepare and collect feedback forms made available to the public during the open house and provide an email address or similar means for those who prefer to give feedback electronically. Catalogue verbal and written feedback from the public, address the comments as deemed necessary and include a summary in the final report. The consultation must meet the requirements in Section 4 of O.Reg. 41/24 of the <i>Conservation Authorities Act</i> .
Regulatory Hazard Maps & Engineering Report	<p>All drawings submitted under this contract are to be prepared in AutoCAD (or equivalent) and/or Esri ArcGIS Desktop/Pro. The following standards and conventions for drawing size (24"x36"); surround; layering; line weights; line colour; legend; semi-transparent, cloud-free aerial imagery, etc.</p> <p>Drawings shall include:</p> <ul style="list-style-type: none"> • Title page with drawing number map; • Title block indicating the modelled events; • Study limits; • Key map; • A scale bar; • Scale; • Projection • Elevation data referenced to CGVD 2013 datum; • Date of production; • Benchmarks; • North arrow; • Contours (5 meter major contours, 1 meter minor contours); • Direction of flow arrow; • Lot, concession, and ward; • Drawing match lines (indicating the adjoining drawing page numbers upstream and downstream); • Aerial imagery and elevation data source; <p>All maps, drawings and reports are to be provided in PDF format. All map/drawing project files can be submitted in .MXD, .APRX, or .DWG file format. QGIS is not a preferred project file format.</p>
Final Report & Deliverables	Prepare a final report outlining all project requirements, processes, assumptions, findings, pictures, recommendations and maps.
	Prepare and present the project and results to municipal Council, Quinte Conservation Executive Board, or the project technical team as determined by the project technical team.
	The provision of 2 hardcopy mapping print sets of the new erosion hazard limits. Size to be 24" x 36".
	The provision of digital mapping of the new erosion hazard limits.
	Final engineering reports and maps signed and stamped by Project Engineer.

Study Deliverables

The project schedule and invoices shall be broken down into the milestones below. Specific dates can be found in the Project Schedule section.

Project Start Up & Project Methodology – Memo Detailing scope, objectives of study, risk analysis, engagement plan, timeline and expected outputs.

Data Collection Methodology Memo – Memo Detailing scope and methodology to be implemented for data collection, including technical resources, expected location, equipment, collection and processing methods, QA/QC, assumptions and expected accuracy.

Interim Report – Interim reports outlining progress analysis and deliverables.

Draft Hazard Maps, Reports Public & Stakeholder engagement – Detailed engineering hazard maps. Summary of engagement activities and feedback on flood mapping activity products.

Final Products and Invoices – All products shall be submitted and approved by Quinte Conservation and the FHIMP project team. A final invoice showing 100% completion of the project shall be submitted.

Reports, charts, tables and other documents are to be provided in Microsoft Office format and in Adobe Acrobat portable document file format (PDF). Specifically, a PDF version of the complete report and a PDF version of the Executive Summary are required. Spreadsheets shall be provided in Microsoft Excel format.

All photographs documenting any field investigations shall be geolocated and taken using a high-resolution digital camera. All photographs are to be provided both in an original unedited form and annotated with the photo description. The reports shall contain colour copies of the annotated photographs. Copies shall be printed with no more than four (4) photographs per page.

The data and electronic version of the report are to be organized into appropriate directories and subdirectories, and a "README" file(s) included to assist the reader in locating and using the data.

All maps, drawings and reports are to be provided in PDF format. All map/drawing project files can be submitted in .MXD, .APRX, or .DWG file format. QGIS is not a preferred project file format.

Available Data

Quinte Conservation will provide available documentation pertinent to the study. To this end we have completed a preliminary review of the documents and find the reports listed below may be of some assistance. Some data may require the establishment of a data sharing agreement for the duration of the project.

Known Reports or Data

- Consecon Creek & Lake – Flood Hazard & Erosion Mapping, KGS Group, 2024
- GIS Data:
 - o Watercourse
 - o Waterbodies/Wetlands
 - o Soils
 - o Flood Polygon (1:100 year)
 - o Ontario Land Cover Compilation / SOLRIS

- o Imagery
 - SCOOP 2013 – 20 cm resolution; Ministry of Natural Resources and Forestry
 - SCOOP 2018 – 16 cm resolution; Ministry of Natural Resources and Forestry
 - SCOOP 2013 – 16 cm resolution; Ministry of Natural Resources and Forestry
- Consecon Lake – Bathymetry Model – MNR, 1976
- Elevation Data (all sources listed derived from LiDAR point cloud)
 - o LEAP 2009 – 1m resolution DEM; 1 metre contour intervals; derived from LiDAR point cloud; Ministry of Natural Resources and Forestry
 - o East Ontario - Belleville/Prince Edward 2022; Ministry of Natural Resources and Forestry and or NRCan

All non-public data can be found at this link: [ON24-025 - Consecon Erosion Mapping](#)

Project Schedule

As stipulated in agreements with the Government of Canada (Flood Hazard Identification Mapping Program – FHIMP), the project must be fully completed no later than December 31, 2025. An estimated schedule and work plan must be provided in the proposal with estimated completion dates for the various project milestones and deliverables.

The dates in this RFP are set as a minimum threshold. Any proposal that shows a realistic increased scheduled will be scored accordingly.

The Schedule Milestones are set as a minimum requirement:

Project Start-up, Project Methodology & Data Collection Memo	Aug 8, 2025
Data Collection Methodology	Aug 8, 2025
Interim Report	October 31, 2025
Draft Floodplain Maps & Reports, Public & Stakeholder Engagement	December 1, 2025
Final Products	December 31, 2025

* Allocate 3 weeks of time for external review of draft submissions.

Proposal Submission Requirements

The proposal shall be submitted **no later than the date and time noted below**. Copies of the proposal must be submitted electronically to:

Attention: Mike Smith

Email: msmith@quinteconservation.ca

The proposal shall be limited to 15 pages, not including staff and corporate experience records which may be appended. The proposal shall include:

- Reference QC Project “**Consecon Lake Erosion Hazard Mapping**”
- study approach, methodology and modelling software,
- contact person and phone number and people involved in the preparation of the proposal.
- Gantt chart schedule showing activities, meetings, report submissions, etc.
- a list of key staff, their related experience in Ontario and role in this project
- corporate experience on similar projects in Ontario and elsewhere

- sub-consultants to be used, their role, corporate experience in Ontario, key personnel, hourly rates and the mark-up rate to be used.
- estimated project cost for each study component described in the scope of work in the RFP

Any questions regarding the RFP should be emailed to msmith@quinteconservation.ca with the subject “**Consecon Lake Erosion Hazard Mapping**”

by the below noted date. An addendum synthesizing all questions and posting the responses will be available on the Quinte Conservation website no later than the date noted below.

The proposal schedule is:

Request for Proposal Posted	Friday, June 13, 2025
Questions Due	Thursday, June 26, 2025 @ 10am
Addenda Posted if Required	Thursday , July 3, 2025
Project Request for Proposal Closes	Thursday, July 10 th , 2025 @ 1430

Evaluation Criteria

QC will review the proposals as expressions of interest based on a consistent evaluation criterion.

Criterion	Weighting
Understanding and meeting project requirements	40%
Project team experience related to project	30%
Project cost	30%

General Terms and Conditions

Acceptance of Proposals

This RFP is not an offer to enter into any contract or Project Agreement of any kind whatsoever. This RFP is not intended to create a binding contract. This RFP process shall be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein.

This RFP document or addenda to the RFP document contains the entire requirements related to the RFP. Other information and/or documentation provided to the Proponent or obtained by the Proponent prior to the release of the RFP shall not have any force or effect.

Rejection of Proposals

The selection committee reserves the right to reject any or all proposals for failure to fully satisfy the specifications and requirements of the RFP.

Any award resulting from this RFP is subject to the successful completion of a contract between the consultant and QC.

Right to Amend

QC reserves the right to amend or supplement the RFP, giving equal opportunities to all consultants who have bid, by way of an issued addendum.

Acceptance or Non-Acceptance of Proposal

Neither the lowest priced nor any proposal shall necessarily be accepted, and the decision of the selection committee is final. If the selection committee decides to accept a proposal, then this acceptance and the making of an award will be in writing. Unless and until such written notification has been given, there is no successful consultant and no award has been made.

Associated Costs

There will be no payment to consultants for the work related to and material supplied in the preparation of responses to this RFP.

Confidentiality & Ownership of Documents

The consultant is advised that confidentiality issues may arise with respect to this project and will need to be cognizant of these issues.

The IP "Intellectual Property" contained in this RFP is confidential and proprietary. This RFP and any supplemental IP made available by QC to facilitate the proposal scoping is provided for the exclusive use of the Respondent (potential "Contractor") and copies shall not be made available to any other party, without written consent from QC. No other distribution of submissions or proposals is to be made by the Respondent. All proposals and supporting documentation shall become the property of QC and will not be returned.

It is acknowledged and agreed by the Respondent that QC owns and retains all right, title, and interest in and to all IP rights therein, including, without limitation, all copyright, patent, trade-mark and trade secret rights. This RFP does not constitute a sale of the IP provided during the course of the RFP process. The Respondent acquires no right in or to the IP except the right to use the IP in accordance with the RFP guidelines.

IP arising as a result of a successful RFP and a subsequent contract, including reports and drawings, will be the property of QC.

The Respondent shall indemnify and save QC and Licensor partners harmless from and against any and all liabilities, damages, costs, or expenses awarded against, or incurred, or suffered by the Consultant, arising out of any action or proceeding commenced or maintained by any customer, or any other person, firm, corporation, or other entity, in respect of the use of the IP by the Respondent, or a third party, to whom the Respondent has been permitted by QC to disclose the IP, pursuant to the provisions hereof.

Information Ownership

"All information collected and produced in report or digital form by the respondent shall become the property of Quinte Conservation and subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act. All public reports approved by the Full Authority Board will become public information."

Insurance

The successful bidder shall carry and maintain insurance written by an insurance company licensed to do business in Ontario for the term of the contract and must provide for the following:

1. Workplace Safety & Insurance Board (WSIB) clearance certificate
2. General Liability Insurance – minimum \$2 million coverage with Quinte Conservation Authority as an additional insured
3. Automobile Liability – minimum \$2 million coverage
4. Professional Liability - minimum \$2 million coverage

All policies and certificates shall provide for 30 days notification to Quinte Conservation Authority in the event of cancellation, reduction in limits or changes in coverage.

Previous Communications

This RFP document and attachments and any addenda contain the entire requirements relating to this RFP. Other information and/or documentation provided to a prospective consultant or obtained by a prospective consultant prior to the release of this RFP or any other time shall not have any force or effect.

Conflict of Interest

Each Proponent representative, on behalf of the team members must declare and continue to be under an obligation to declare all Conflicts of Interests or any situation that may be reasonably perceived as a Conflict of Interest that exists now or may exist in the future.

In connection with its RFP Submission, each Proponent shall:

- i avoid any Conflict of Interest in relation to the Project;
- ii disclose to QC without delay any actual or potential Conflict of Interest that arises during the RFP process; and
- iii comply with any requirements prescribed by QC to resolve a Conflict of Interest.

In addition to all contractual or other rights or rights available at law or in equity or legislation, QC may immediately exclude a Proponent from further consideration or remove the Proponent from the RFP process if:

- i the Proponent fails to disclose an actual or potential Conflict of Interest;
- ii the Proponent, or any Team member fails to comply with any requirements prescribed by QC to resolve a Conflict of Interest; or
- iii the Proponent's Conflict of Interest issue cannot be resolved.

Upon receipt of the Proponent's submission, QC shall, in its discretion, decide as to whether they consider there to be a real, perceived or potential Conflict of Interest and whether such a Conflict of Interest can be mitigated. The proponent shall be notified of QC's decision.

Cancellation of RFP

Due to unanticipated expenditure constraints, this RFP may be cancelled at any time without liability by QC to prospective consultants or to any other entity.

Authorization

To be considered a valid response, a consultant's submission must be completed and signed by an authorized company official.

Irrevocable

Bid submissions will be irrevocable for a period of sixty days from the closing date.

Accessibility

The supplier covenants and agrees to ensure that the Deliverables provided hereunder are consistent with the Ontario Human Rights Code ("OHRC"), the Ontarians Disabilities Act, 2001 ("ODA") and the Accessibility for Ontarians with Disabilities Act, 2005 ("AODA") and their respective regulations in order to achieve accessibility for Ontarians with disabilities. Without limiting the generality of the foregoing, the Supplier covenants and agrees to comply with QC's and the Township's accessibility standards, policies, practices and procedures, as same may be in effect during the term of the Agreement and apply to the Deliverables to be provided hereunder by the Supplier.