Long Point Region Conservation Authority

Request for Proposals
for
Upper Big Creek Flood Hazard Mapping

Date Issued: February 25, 2026

Closing: Tuesday, March 17, 2026

Proposals can only be submitted
via email to: lmauthe@lprca.on.ca

Long Point Region Conservation Authority
4 Elm Street, Tillsonburg, ON N4G 0C4

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1 INTRODUCTION

The Long Point Region Conservation Authority (LPRCA) is seeking consulting services to undertake new flood and erosion hazard mapping in Upper Big Creek from directly below the Kelvin gauge at Windham Road 2 in Norfolk County, upstream through Brant County into Oxford County, a distance of about 32 kilometres. The project is being partially funded through the Canada/Ontario Flood Hazard Information and Mapping Program (FHIMP) with an upset limit of **$100,000** excluding taxes. The LPRCA Upper Big Creek Flood and Erosion Hazard Mapping project (the Project) will be initiated in 2026 and must be completed by March 15, 2027. Proposals for the work are to be submitted no later than **3:00 pm (ET) on Tuesday, March 17, 2026.**

LPRCA's jurisdiction extends west of Port Burwell and east to Sweets Corner's along the shore of Lake Erie and extending north into Brant and Oxford Counties as shown in Figure 1. The watershed covers 2,782 square kilometers and is home to approximately 102,000 people. Big Creek, with a watershed area of 750 square kilometers, has its headwaters in the Township of Norwich and Brant County and winds its way southeast through Norfolk County to Lake Erie in Port Rowan, Norfolk County.

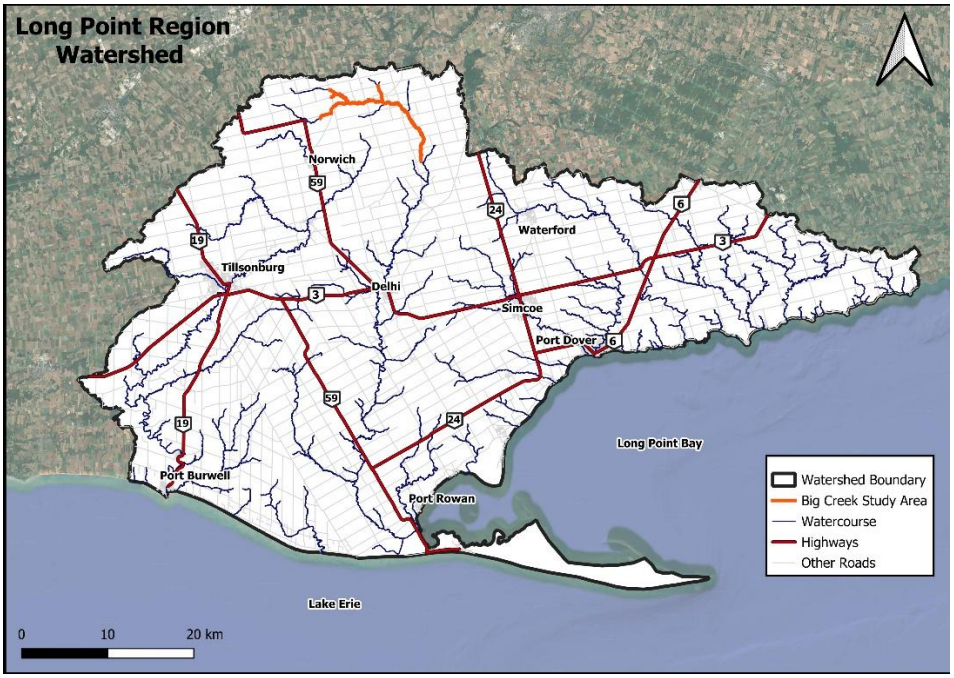
The purpose of this Project is to prepare, to current mapping and technical standards, flood and erosion hazard mapping for Upper Big Creek from below the Kelvin gauge at Windham Road 2 in Norfolk County, upstream through Brant County into Oxford County. The Project study area is shown generally in Appendix A, Figures 2 and 3. There is currently no flood hazard mapping on Big Creek in the study area. Flood and erosion hazard mapping are required to support flood and erosion-related response and mitigation planning, as well as land use planning and permitting decisions in at-risk communities across the watershed. LPRCA has mapped the slope related erosion hazard in the short sections of the upper Big Creek valley that are confined. Along with the flood hazard mapping, this project includes the meander belt delineation to allow the erosion hazard mapping to be completed in sections of the upper Creek valley that are unconfined. The Regulatory Flood in the LPRCA area of jurisdiction is the 100-year Flood (0.1% AEP flood).

Hydrology analysis is not required as part of this project. The return period and Regional Storm flow data for input to the hydraulic analysis will be provided by LPRCA. The development of the return period and Regional storm flow data is documented in the report, *Long Point Region Conservation Authority Upper Big Creek Hydrologic Modelling – Final Report,* Water's Edge Environmental Solutions Team, February 2026 and *Upper Big Creek Flood Hazard Mapping Technical Memorandum on Regional Storm Flood Flows*, LPRCA, February 2026.

This Project will focus on new base mapping derived from LiDAR topographic information which will be provided by LPRCA at the outset of the project; hydraulic analysis to determine water surface elevations including in-field channel and structure surveys; floodline delineation on the newly created maps; a buildings inventory within the Regulatory flood hazard; meander belt

delineation, integration of the available information in the confined and unconfined valleys to delineate the erosion hazard; and a public open house to engage with the local community on the revised flood and erosion hazard line.

Figure 1: Proposed Study Reach Within LPRCA Watershed



The Project will generally be carried out in accordance with the:

1. *Flood Hazard Identification and Mapping Program (FHMIP) – Program Guide* (Ontario Ministry of Natural Resources, 2024), particularly Section 1.7 Technical Requirements and Appendix C.
2. *Technical Guide - River & Stream Systems: Flood Hazard Limit* (Ontario Ministry of Natural Resources, 2002);
3. *Technical Guide - River & Stream Systems: Erosion Hazard Limit* (Ontario Ministry of Natural Resources, 2002);
4. *Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications* (Ontario Ministry of Natural Resources, 2023)
5. *Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation, Version 2.0* (Natural Resources Canada, 2023);

The successful Consultant Team must possess sufficient resources to meet the project timeline and skills in the following areas:

- Water resources engineering, hydraulic modeling with HEC-RAS and flood hazard mapping;
- Fluvial geomorphology and meander belt delineation;
- Geographic Information Systems and cartography;
- Project management; and
- Community engagement and facilitation.

In addition to technical qualifications, the Consultant Team must exhibit such skills as diplomacy, tact, strong communication ability (both written and oral), and a demonstrated history of working successfully as a team.

2 INSTRUCTIONS TO PROPONENTS

2.1 SUBMISSION DETAILS

The proposal must be marked **"Long Point Region Conservation Authority – Upper Big Creek Flood and Erosion Hazard Mapping Study – Proposal"** addressed to Leigh-Anne Mauthe, Manager of Watershed Services. Digital submissions of the proposal in PDF format will only be accepted, by email, until 3:00 pm (ET) on March 17, 2026**.** Submitted proposals received after this time will not be considered. Proposal must be submitted to:

Leigh-Anne Mauthe, MCIP, RPP
Manager of Watershed Services
lmauthe@lprca.on.ca
Long Point Region Conservation Authority

A Read Receipt must be requested by the submitting proponent and an acknowledgement of the submitted proposal will be provided by LPRCA. It is the responsibility of the proponent to obtain acknowledgement of submission.

The budget for this project is **$100,000.00** excluding taxes.

All enquiries and requests for information will be addressed by addendum. All issued addenda will form part of the RFP. Receipt and acknowledgement of all issued addenda shall be included in the submitted proposal.

All submitted proposals including costs are public information and subject to the Freedom of Information and Privacy Acts. LPRCA will maintain the confidentiality of all submitted proposals until the proposal call has closed.

The LPRCA reserves the right to cancel this RFP for any reason without liability.

The contract award based on the RFP requires LPRCA Board of Directors approval.

2.2 Enquiries and Clarification

Proponents with questions related to this proposal may forward written submissions by EMAIL to:

Lorrie Minshall, P.Eng.
Project Consultant
519-842-4242 ext. 228
lminshall@lprca.on.ca

Questions in written form (email) will be received until **12:00 pm (ET) on Wednesday, March 11, 2026**. All questions received that may affect this RFP will be addressed through addenda issued by the LPRCA.

All Addenda shall be issued by the LPRCA by **4:00 pm (ET) on Thursday, March 12, 2026**.

Any revisions to this RFP will be issued as an addendum. Verbal clarification should not be interpreted to change the intent of the RFP. The LPRCA retains the right to decline to answer a given question. The addendum will become a part of the submission and will be taken into consideration in arriving at the final decision. Interpretations, corrections or changes made in any other way will not be binding and should not be relied upon by proponents. Although the LPRCA Project Team will make every reasonable effort to ensure a proponent receives all addenda issued, it is the proponent's ultimate responsibility to ensure all addenda have been received. Upon submitting a proposal, proponents will be deemed to have received notice of all addenda that have been circulated by the LPRCA.

2.3 Right to Accept, Reject or Modify Submissions

LPRCA reserves the sole right to reject any and/or all proposals submitted at its sole discretion. In the event that a prepared Proposal does not precisely and entirely meet the requirements of the Request for Proposal, the LPRCA reserves the right to enter into negotiations with the selected consultant(s) to arrive at a mutually satisfactory arrangement with respect to any modifications to the proposal.

2.4 Errors and Omissions

It shall be understood and acknowledged that, while this contract includes specific requirements, minor items or details not specified but obviously required shall be provided as if specified. Any omissions or errors or misinterpretation of these requirements or within this document shall not relieve the Consultant of the responsibility of providing the goods or services.

2.5 Submission Response Requirements and Evaluation Process

Proponents' Proposals will be limited to 15 pages (letter size, 7.5 pages if double-sided), exclusive of CVs, and will include the following:

1. Company profile, qualifications and experience of the firm(s), including a minimum of three previous projects that the company has undertaken that are similar in size and scope. Include a project description, services delivered and a reference with current contact information for each project.
2. Qualifications and experience of the Project Manager and Team, including proposed roles and responsibilities for the Project and CVs. Substitutes of the successful Proponent's team members will not be permitted without LPRCA approval.
3. Proposed approach to the Project, describing methods, deliverables and value-added services, and including detailed work plan and schedule broken down by task.
4. Detailed budget including time/task matrix indicating costs and allocated hours for individual team members. The budget will include all consulting fees and disbursements to complete the tasks. All disbursements including, but not limited to, travel,

communications, printing, etc., should be indicated separately. Provisional items should be indicated separately. Payment to sub-consultants and sub-contractors will be the responsibility of the successful Proponent.

5. Notwithstanding the text above, the project schedule and budget can be submitted on ledger size paper (11”x17”) if such provides improved legibility, single sided, and shall count as 1 page each toward the total.
6. This project must be completed by February 28, 2027.

In addition to the Proposal, the Proponent’s Submission will include a completed Declaration of Disclosure (Appendix C).

The successful consultant will be required to sign an agreement for services as attached in Appendix B. Any concern that the consultant may have with the attached agreement for services must be included in the proposal.

Submissions will be reviewed by an Evaluation Committee that will consist of relevant LPRCA staff and Project Team members. Submissions will be assessed on the basis of information provided by the Proponent at the time of submission, as well as any additional information that may be gained through subsequent correspondence, meetings, interviews, and negotiations.

Proposals will be evaluated using the following criteria:

- Proposal completeness and quality 10%
- Qualifications and experience of the firm, project manager, and team 25%
- Understanding, approach and methods 40%
- Schedule 10%
- Cost 15%

3 SCOPE OF WORK

3.1 Project Management

The Project will be managed by the LPRCA, guided by a Project Team that may include municipal representatives, and assisted by a Project Technical Team (PTT) consisting of staff from the Province and NRCan/ECCC. The Project Team will meet approximately every three (3) months or at key milestones. Additional on-line meetings will be scheduled as needed.

3.2 Background Review

The Consultant will review relevant background materials, including available data, existing technical studies, historic flood records, and current technical guidance.

The Consultant will prepare a technical memo for Project Team review and approval, describing the background review, confirming the analytical approach and identifying data gaps and a strategy to resolve them.

The following information will be made available to the Consultant as part of the project:

1. GIS and data as required, which may include the following:
    a. Orthoimagery (SWOOP 2025 [to be released Spring of 2026], 2020, 2015, 2010, 2006);
    b. LPRCA's slope stability and erosion hazard layers for confined valleys in the study area, with documentation on how the lines were created;
    c. Watercourses, Long Point Region Conservation Authority;
    d. Roads and other base map layers, Geospatial Ontario, Ministry of Natural Resources;
    e. Building footprints, provided by Municipalities.
2. 2018 LiDAR-derived Digital Terrain Model – Lake Erie, available from the Geospatial Ontario GeoHub
3. OSIM bridge condition assessment reports available from Brant County, Oxford County and Norfolk County (See Appendix A, Figure 3).
4. Historical aerial imagery (various from 1954).
5. Municipal drain maps and drainage department contact information are available at Agricultural drainage | ontario.ca, Municipal Drains - County of Brant, and Drainage - Township of Norwich.
6. *Nanticoke Creek Flood Hazard Mapping – Hydraulic Modelling Report,* Aquafor Beech Limited, available by June 30, 2026.
7. Hydrologic information from the *Long Point Region Conservation Authority Upper Big Creek Hydrologic Modelling – Final Report,* Water's Edge Environmental Solutions Team, February 2026 and *Upper Big Creek Flood Hazard Mapping Technical Memorandum on Regional Storm Flood Flows*, LPRCA, February 2026.
8. *LPRCA Riverine Flood Hydrology Study*, Matrix Solutions Ltd., 2024.

9. Historical streamflow and water level data from the Water Survey of Canada gauge, Big Creek near Kelvin (02GC011), available at https://wateroffice.ec.gc.ca/report/historical_e.html?stn=02GC011.
10. Any other data requested that is reasonably available to LPRCA.

Note: Municipal roads departments in this Region do not generally have as-built drawings for bridge structures.

The Agreement for Professional Consulting Services, the Declaration of Disclosure, the *Long Point Region Conservation Authority Upper Big Creek Hydrologic Modelling – Final Report,* Water's Edge Environmental Solutions Team, February 2026 and *Upper Big Creek Flood Hazard Mapping Technical Memorandum on Regional Storm Flood Flows*, LPRCA, February 2026, are available for download:

Upper Big Creek RFP

Other relevant documents include:

- *Flood Hazard Identification and Mapping Program (FHIMP) – Program Guide* (Ontario Ministry of Natural Resources and Forestry, 2024), particularly Section 1.7 Technical Requirements and Appendix C Technical Project Procurement Primer: Flood Hazard Modelling and Mapping Projects, available online at Flood Hazard Identification and Mapping Program (FHIMP) - Program Guide.
- *Technical Guide - River & Stream Systems: Flooding Hazard Limit,* Ontario Ministry of Natural Resources, 2002 (**the MNR Technical Guide**) available online at Policies & Guidelines - Long Point Region Conservation Authority (lprca.on.ca).
- *Technical Guide - River & Stream Systems: Erosion Hazard Limit,* Ontario Ministry of Natural Resources, 2002 (**the MNR Technical Guide**) available online at Rivers & Streams Systems Technical Guides: Erosion Hazard Limit
- *Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications* (Ontario Ministry of Natural Resources, 2023) available online at Technical Bulletin - Flooding Hazards: Data Survey and Mapping Specifications
- *Belt Width Delineation Procedures,* prepared for the Toronto and Region Conservation Authority by Parish Geomorphic Ltd, 2004, available online at 2004-TRCA-Belt-Width-Delineation-Procedures.pdf
- *Ontario Stream Assessment Protocol,* Ontario Ministry of Natural Resources, 2010. Available online at Ontario Stream Assessment Protocol (OSAP)
- *Geomorphic Considerations in Flood Mapping,* Natural Resources Canada, 2025. Available online at Geomorphic Considerations in Flood Mapping - NRCan
- *Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation, Version 2.0* (Natural Resources Canada, 2023) available online at Federal hydrologic and hydraulic procedures for flood hazard delineation - NRCan Open S&T Repository.

- *Case Studies on Climate Change in Floodplain Mapping Volume 1.0* (Natural Resources Canada, 2019) available online at Case studies on climate change in floodplain mapping, volume 1 - NRCan Open S&T Repository.
- *LPRCA Riverine Flood Hydrology Study*, Matrix Solutions Ltd., 2024.
- *Long Point Region Source Protection Plan* and supporting technical studies, including the 2020 *Long Point Region SPA Assessment Report* available online at Long Point Region Source Protection Area | Drinking Water Source Protection.

3.3 Base Mapping

The Consultant will prepare base mapping for the Project in accordance with the *Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications* (Ontario Ministry of Natural Resources, 2023). The base mapping will be derived from LiDAR-derived Digital Terrain Model available from the Ontario Land Information GeoHub and infield surveying completed by the consultant as necessary. Mapped features will include features as set out in the 2023 OMNR Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications, Section 5 Mapping Products: Flood Hazard Map Dissemination and Sharing, and include:

- 0.5 m topographic contours, labelled
- Structures (buildings)
- Infrastructure including: municipal roads and bridges; municipal drains; municipal treatment facilities and transmission mains
- Watercourses, waterbodies, wetlands

The mapped area will be of sufficient area to cover the flood and erosion hazard areas and setbacks, including the Regional storm floodplain and, where applicable, the riverine valley walls plus 100 metres.

Geometric reference for all models, analysis, and field data must use NAD83(CSRS) and CGVD2013 vertical datum.

Base mapping will be reviewed by the Project Team.

3.4 Flood and Erosion Hazard Mapping

The Consultant will undertake the technical work required to produce flood and erosion hazard mapping for Upper Big from below the Kelvin gauge at Windham Road 2 in Norfolk County, upstream through Brant County into Oxford County as shown in Appendix A, Figures 2 and 3, as follows:

3.4.1 Flood Hazard Delineation

Hydraulic analysis to determine flood levels will be carried out for the 25-year, 50-year, 100-year, 200-year, 350-year, 500-year and 1000-year floods (4%, 2%, 1%, 0.5%, 0.29%, 0.2% and 0.1% AEP floods) and the Regional Storm flood. The Regulatory Flood in the LPRCA area of jurisdiction is the 100-year Flood (1% AEP).

Hydraulic analysis will be carried out using the latest version of HEC-RAS.

Hydraulic analysis and documentation will be in accordance with the 2024 MNR Flood Hazard Identification and Mapping Program (FHIMP) – Program Guide, particularly Section 1.7 Technical Requirements and Appendix A and C; the 2023 MNR Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications; and the 2002 MNR Technical Guide – River and Stream Systems: Flooding Hazard Limit.

Field investigations should be conducted to obtain relevant and required information outlined in the relevant technical guidance documents including the 2023 MNR Technical – Bulletin – Flood Hazards: Data Survey and Mapping Specifications. The 2023 Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation may also be used to support data collection, when used in conjunction with Ontario's technical guidance.

The consultant will carry out field inspections of the creek system in the study area to identify, measure and create an inventory of all culverts, bridges and other obstructions and features as required to complete the analysis. All measurements, data and photographs will be included in the final report.

If discrepancies or areas of concern are noted when reviewing the 2018 LiDAR-derived Digital Terrain Model (DTM), additional field data should be collected as needed to verify the site features or to supplement the DTM.

Field surveyed channel cross-sections should be obtained to adequately define the river geometry in accordance with the 2023 MNR Technical Bulletin – Flood Hazard: Data Survey and Mapping Specifications, Section 3.1.4 Channel Bathymetry and Floodplain Topography.

The consultant will ensure that the number, location, and orientation of cross-sections will be consistent with standard HEC-RAS modeling methodology and the 2023 MNR Technical Bulletin – Flood Hazard: Data Survey and Mapping Specifications, Section 3.1.4. In addition, the consultant will ensure that the ineffective flow option, expansion/contraction coefficients, and Manning's N values used are consistent with HEC-RAS modeling methodology.

The consultant will generate water surface elevations for existing land use conditions for the 25-year, 50-year and 100-year, 200-year and 350-year floods and the Regional Storm flood, as no future land use conditions have been identified within the study area.

Hydraulic calculations must be approved by the Conservation Authority before the flood hazard limits are delineated. HEC-RAS output for review should include at least the following parameters: water surface elevation; energy grade level; top width; channel, left and right overbank flow; and channel, left and right overbank velocity.

The consultant will generate a summary of the hydraulic performance of all structures including peak flow that they convey, hydraulic head change across the structure, depth and velocity of flood flow that spills across a roadway (for all return periods where spill occurs).

The consultant will identify and document all buildings that are in the regulatory flood hazard and identify the return period at which flood encroachment on the building will occur.

3.4.2 Meander Belt Delineation

The determination of the appropriate meander belt allowance for unconfined areas of the stream usually involves a wide range of study areas such as geomorphology, engineering, ecology and biology. The existing and the ultimate configuration of the channel in the future must be considered.

Meander belt delineation will be undertaken in accordance with the 2024 MNR Flood Hazard Identification and Mapping Program (FHIMP) – Program Guide, particularly Section 1.7 Technical Requirements; the 2002 MNR Technical Guide – River and Stream Systems: Erosion Hazard Limit; and the 2023 MNR Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications.

Understanding the challenges in assessing meander belt widths and the need for more than one method of approach, the Consultant will describe in the proposal the approaches they propose to take to delineate the meander belt, referencing Sections 3.0, 3.3 and 4.4 of the 2002 MNR Technical Guide and the current versions of the documents referenced in the Guide: *Belt Width Delineation Procedures*, Parish Geomorphic Ltd., 2004 and *Ontario Stream Assessment Protocol*, Stanfield, 2010.

Field investigations should be conducted to obtain relevant and required information for meander-belt delineation outlined in the relevant technical guidance documents.

All measurements, data and photographs will be included in the final report.

Meander belt delineation must be approved by the Conservation Authority before being integrated with the flood lines and erosion hazard lines.

3.4.3 Erosion Hazard Delineation

Erosion hazards have been identified and mapped by the LPRCA within confined valleys in the study area. It is not expected the Consultant team will re-create the slope stability and erosion hazard lines within confined valleys. The slope stability and erosion hazard vectors, along with documentation on how the erosion hazard lines were determined, will be provided to the Consultant. As part of this project, these lines should be reviewed with regards to the updated information including floodlines, meander belts, LIDAR and aerial photography in order to integrate the flood and erosion hazard lines through the confined and unconfined valleys in the study area.

3.4.4 Hazard Mapping

The Consultant will prepare 1:2,000 mapping and digital data, consistent with federal standards and guidelines and the 2023 MNR Technical Bulletin – Flood Hazard: Data Survey and Mapping Specifications, Section 5.

The following details shall be included, in addition to what is illustrated on the base maps:

a) The 25-year, 100-year, 200-year, 350-year and Regional Storm floodlines;
b) Meander belt delineation;
c) Erosion hazard line;
d) Modelling cross-sections including the cross-section number and the water surface elevations for the 100-year and Regional Storm flood;
e) Structure label with an identification number;
f) Spills from the floodplain;
g) Seal and signature of a qualified Professional Engineer licensed in the Province of Ontario.

The consultant will provide three sets of maps for ease of interpretation. Two of these will be flood hazard maps, one set with the 100-year, 200-year and 350-year floodlines and one set with 25-year, 100-year and Regional floodlines. Additionally, a separate map will be completed with the meander belt, regulatory (100-year) floodplain and the erosion hazard.

The consultant will document in the report where a meander belt allowance was applied and tie it to a cross-section numbers such that LPRCA staff can easily locate these areas.

Maps should be provided in suitable resolution for reproduction purposes. Subject to the 2023 MNR requirements, the maps should follow the same layout and format as the 2025-26 Aquafor Beech flood hazard maps on Nanticoke Creek, available by June 30, 2026.

3.5 Public Engagement

The Consultant will prepare for and conduct a drop-in Public Education Centre (PEC) (i.e. no formal presentations) held at one location in the study area. PECs will:

- Provide information to property owners on flood and erosion hazard mitigation and emergency preparedness, and
- Provide project information and an opportunity for the public to contribute knowledge of local conditions.
- Fulfill the requirements for public consultation for any resulting amendments to regulated area mapping of Ontario Regulation 41/24 made under the *Conservation Authorities Act*.

The Consultant will be expected to provide support for the PECs, including:

- Preparing technical summaries and memoranda;
- Creating hand-out and display materials;
- Providing a minimum of two (2) professional staff to attend and interact with the public; and
- Summarizing PEC results (#participants, discussion topics, etc.).

The LPRCA will be responsible for costs and administrative efforts related to advertising, mailing lists, venue coordination, and other details associated with running the PEC (e.g. refreshments).

All draft display materials must be provided to the Project Team three (3) weeks prior to the PEC, for a one (1) week review period. All final PEC display materials must be approved by the Project Team prior to the meeting.

4 DELIVERABLES

The Consultant shall be responsible for providing the following deliverables to the satisfaction of the Project Team. This project will be initiated in 2026 and must be completed by February 28, 2027.

All deliverables will be supplied in digital format that is easily printed for dissemination, with the exception of the paper floodplain maps. Floodplain maps will be supplied in paper, digital and web formats as explained below. Hard copy reports are not expected. The conservation authority shall have ownership of copyright and other intellectual property rights in all these deliverables, subject to the terms of the FHIMP program.

The Consultant is responsible for providing:

- Discussion materials and action/decision summaries for all discussion meetings.
- Agendas and minutes of all Project Team meetings (PDF).
- Technical summaries, hand-outs and display materials to support the public education centre event.
- Draft and final copies (PDF) of the following reports:
  1. Background Review technical memo;
  2. Base Mapping technical memo;
  3. Interim Report #1 – HEC-RAS hydraulic model set-up and validation;
  4. Interim Report #2 – Meander belt delineation methods and validation;
  5. Upper Big Creek Flood and Erosion Hazard Mapping Technical Report and Appendices.
- Floodplain, meander belt and erosion hazard maps in paper, digital and web formats as set out in the 2023 OMNR Technical Bulletin – Flooding Hazards: Data Survey and Mapping Specifications, Section 5 Mapping Products: Flood Hazard Map Dissemination and Sharing.
- Electronic copies of all model input data and output files. HEC-RAS files shall be supplied in an executable format.
- Geospatial flood features in vector or raster format as specified in the 2024 Flood Hazard Identification and Mapping Program (FHMIP) – Program Guide, particularly Section 1.7.12 Geospatial Flood Features.
- All delivered spatial data, including but not limited to vector and raster data, must be georeferenced and have the same spatial reference. Metadata must be provided for all delivered spatial data along with supplemental data dictionaries for each layer delivered. Each hazard limit must be delivered as an individual layer, be segmented and attributed by reach (at minimum) and a map sheet identifier.
- Completed Canada Flood Map Inventory (CFM) Compliance Form provided by NRCan to facilitate the conversion of flood mapping data products to CFM database standards.

4.1 Reports

4.1.1 Interim Reports

The Consultant will prepare two Interim Reports summarizing all work completed to develop and validate the HEC-RAS model and the meander belt delineation for review by the Project Team and the FHIMP Project Technical Team. Interim Reports should be submitted to LPRCA by November 30, 2026 to facilitate FHIMP reporting.

4.1.2 Final Report

The Consultant will prepare a Draft Flood and Erosion Hazard Mapping Technical Report and Appendices summarizing all work completed for review by the Project Team and the FHIMP Project Technical Team.

The detailed engineering flood hazard maps, engineering reports and data being created as a result of this project must be suitable for regulatory applications by the Ontario and municipal governments and the conservation authority.

Engineering reports must include at minimum:

- Information on hydrology and hydraulic setting;
- Information on erosion hazard setting;
- Data inputs;
- Assessment approach, assumptions and rationale;
- Details of assessment and results, including hydraulic model validation and calibration; meander belt delineation, erosion hazard integration in Upper Big Creek confined and unconfined valleys; and
- Discussion on estimated level of quality and limitations;
- A summary of the Public Education Centre results.

The engineering report should allow third parties to reproduce the modelling and delineation study including its results, without the need to refer to other material. All associated information included in interim reports and memoranda should be included in the final engineering report.

The Technical Report/Appendix must include tabular flood level data for each cross-section for each flood.

A minimum of 2 weeks will be allowed for review. The Consultant will revise the Draft report based on input from the Project Team with comments from the FHIMP Project Technical Team. The revised Draft report will be reviewed by the Project Team, and updated by the Consultant, for final approval.

All final reports are to be web-enabled and compliant with the *Accessibility for Ontarians with Disabilities Act*.

4.2 Meetings

Meetings with the LPRCA Project Team shall be held at key times throughout the project at a mutually agreed location or online via Microsoft Teams. The Consultant's proposal should include a minimum of four (4) meetings. At a minimum, meetings shall be held as per the following schedule:

a) Start-up to confirm methodology, schedule and expectations following award of the project;
b) Following submission of the draft Interim Report documenting the field surveys and hydraulic model development;
c) Following submission of the draft Interim Report documenting the meander belt delineation;
d) Following submission of the draft Final Report.

The Consultant will produce agendas, minutes, and all materials needed for the meetings. A contingency fee for additional on-line Project Team meetings should be identified in the Consultant's proposal.

5 GENERAL TERMS AND CONDITIONS

5.1 Contract

The LPRCA will require a legally binding contract to be signed before work commences (sample Appendix C). No proponent will acquire any legal or equitable rights or privileges relative to the goods and services until the contract has been signed by both parties.

5.2 Confidential Data

The Consultant shall not at any time before, during or after the completion of the services divulge any confidential information communicated to or acquired by the Service Provider or disclosed by LPRCA in the course of carrying out the services provided for herein. No such information shall be used by the Service Provider before, during or after the completion of the services on any other project without the prior written consent of LPRCA.

All developed HEC-RAS models, data, facts and information, including third party information, provided by LPRCA to the Service Provider for any purpose related to this Agreement shall remain the sole property of LPRCA.

5.3 Pricing

a) All prices are in Canadian funds;
b) All pricing will exclude HST;
c) All pricing will remain firm for 120 days; Proposal is to be open to acceptance for a period of 120 days beyond the deadline for the submission of Proposals;
d) When submitting prices, all Consultants should realize that quoted prices are not confidential after acceptance, and may be given to all competing Consultants upon request. All prices will be held in confidence until after acceptance;
e) The LPRCA is under no obligation to accept the lowest quoted amount;
f) This partially federally funded project has an upset limit of $100,000. Scope changes resulting in budget increases are not likely to be approved.

5.4 Payment Terms

Payments to the Consultant:

a) Will be made based on the pricing offered in the submission;
b) Will be made subject to the goods and services being provided to the satisfaction of the LPRCA;
c) Work outlined in the proposal must be completed before payment will be issued;
d) The LPRCA will approve completed work, before any invoice is paid;
e) Net thirty (30) days from invoice date.

5.5 Compliance

The Proponent agrees to comply with all laws and regulations affecting this RFP document in any manner and agree to take further steps as may be necessary to effect such compliance. All laws and regulations required to be incorporated in contracts of this character are hereby incorporated by inference.

5.6 Assignment and Sub-Contracting

The Consultant shall not, without the prior written approval of the LPRCA:

a) Assign, either directly or indirectly, the contract or any right of the Consultant under the contract; or
b) Sub-contract any obligation of the Consultant under the contract.

5.7 Workplace Safety and Insurance Board (WSIB)

The Consultant must maintain, for the duration of the contract and for the protection of all employees engaged thereunder, WSIB coverage as required by the current labour law of the Province of Ontario and all municipal and federal liability laws. Evidence of this protection must be supplied to the LPRCA prior to commencement of any work by the Consultant. It is the responsibility of the Consultant to provide a new WSIB certificate of clearance every 90 days until final payment is made. A Consultant must provide WSIB coverage for a contractor or subcontractor who has no employees and works for them on a contract for service.

5.8 Indemnification

The Consultant agrees to fully indemnify and save harmless the LPRCA from all actions, suits, claims, demands, losses, costs, charges and expenses whatsoever for all damage or injury including death to any person and all damage to any property which may arise directly by reason of a breach by the Consultant of a requirement of the contract, save and except for damage caused by the negligence of the LPRCA or its employees.

5.9 Insurance

During the term of the contract awarded, and until the expiry of all applicable warranty periods, the Consultant shall carry Professional Liability Insurance covering the work and services described in this Agreement. Such policy shall provide coverage for an amount not less than two million ($2,000,000) dollars with respect to all of the responsibilities relating to this Agreement, providing coverage for acts, errors and omissions arising from the professional services provided. The Consultant must submit proof of insurance to the LPRCA before any work begins or an agreement is signed.

5.10 Termination of Contract

In addition to the LPRCA's option to cancel the contract before the expiry of the contract term upon thirty (30) calendar days' notice to the Consultant, the following conditions will also contribute to consideration of contract cancellation:

a) Changes/alterations to the scope of work that are not approved for acceptance by the LPRCA; or
b) The expected level of performance by the Consultant is not being provided; or
c) The Consultant is adjudged bankrupt, becomes insolvent or unable to discharge its liabilities as they become due, makes an assignment for the benefit of its creditors, is subject to the appointment of a receiver, or a petition of bankruptcy is made against it.

5.11 News Release/Publicity

An award of contract to a Consultant does not constitute a general endorsement of the Proponent's goods or services, and the award of a contract cannot be used by the Consultant to promote the sale of products or services, without the express written permission of the LPRCA.

Appendix A – Study Area Maps

Figure 2: Long Point Region Conservation Authority Project and Study Area

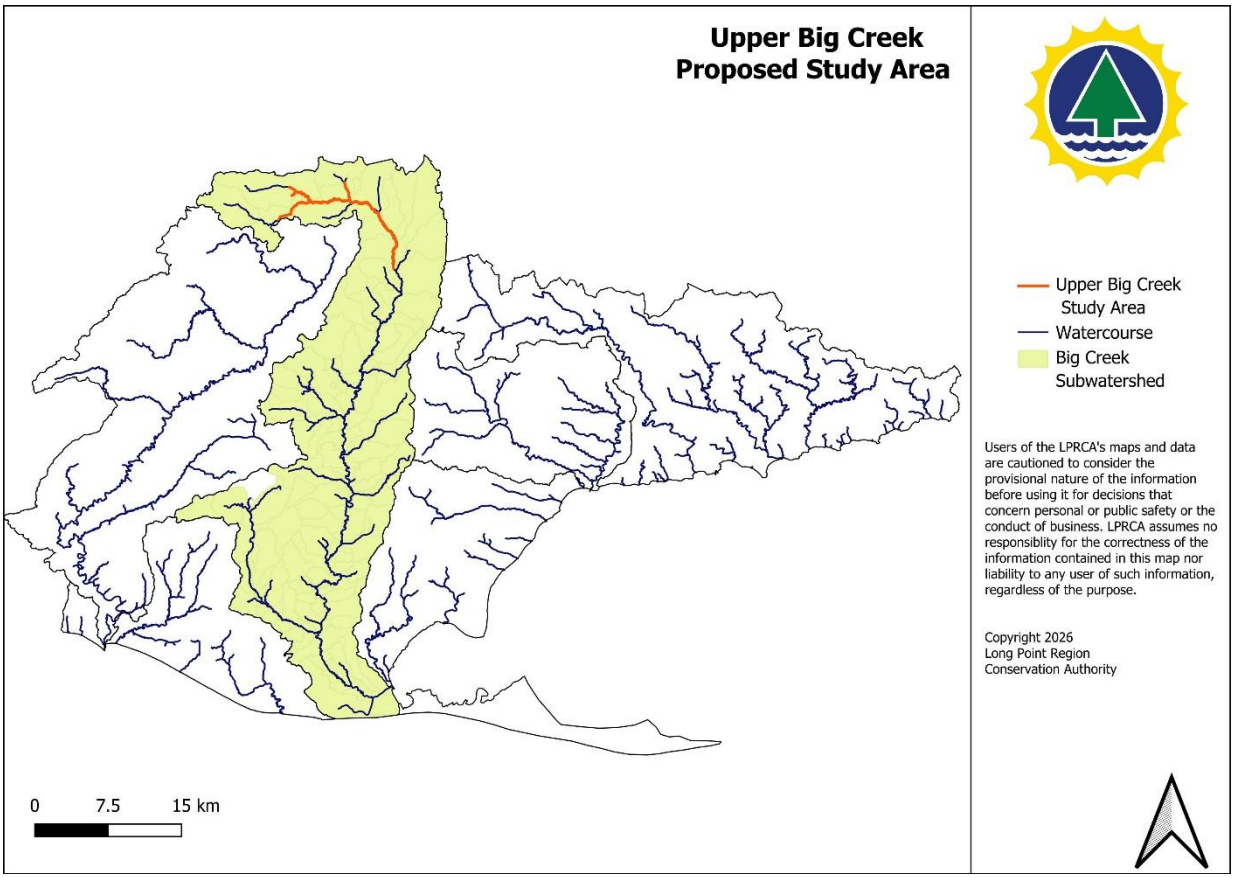


Figure 3: Long Point Region Conservation Authority Project and Study Area – Zoomed in Look

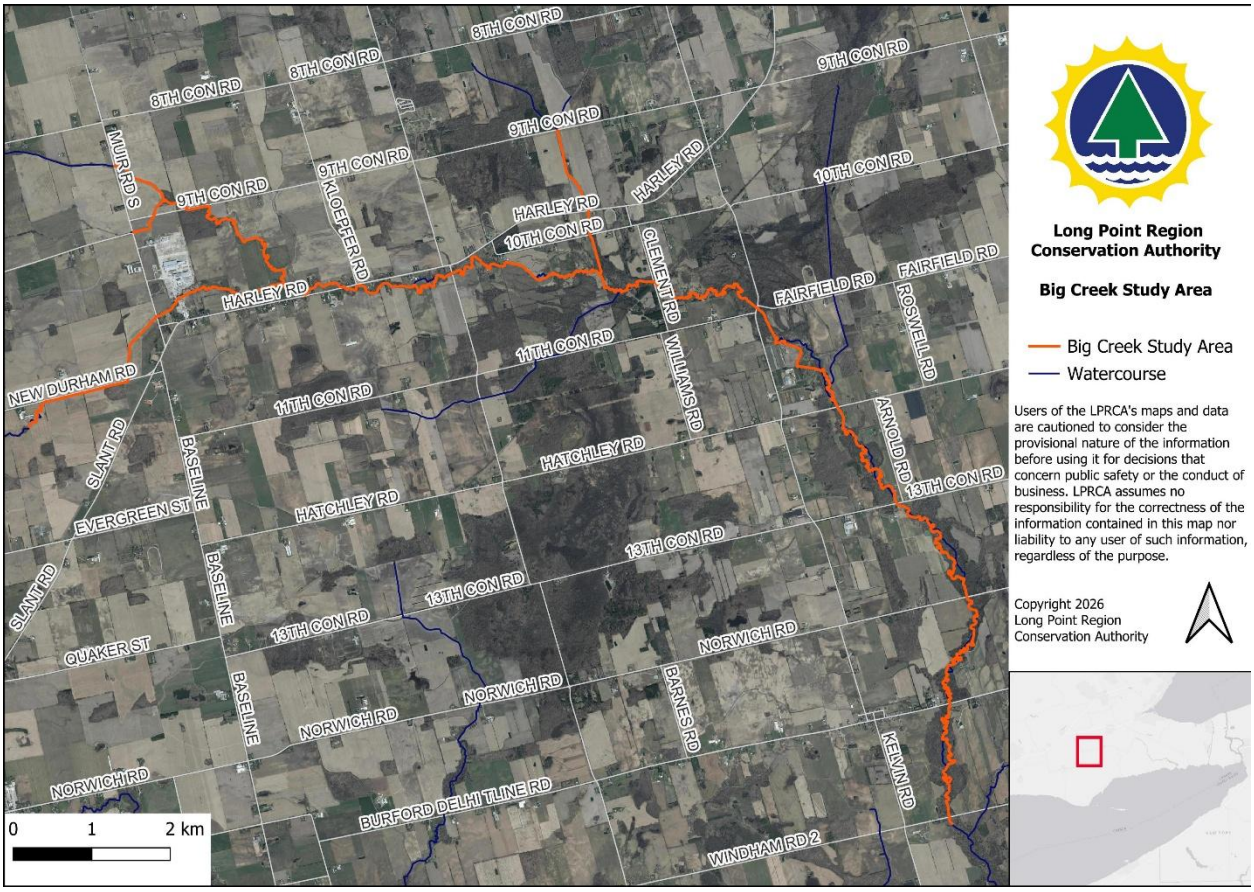
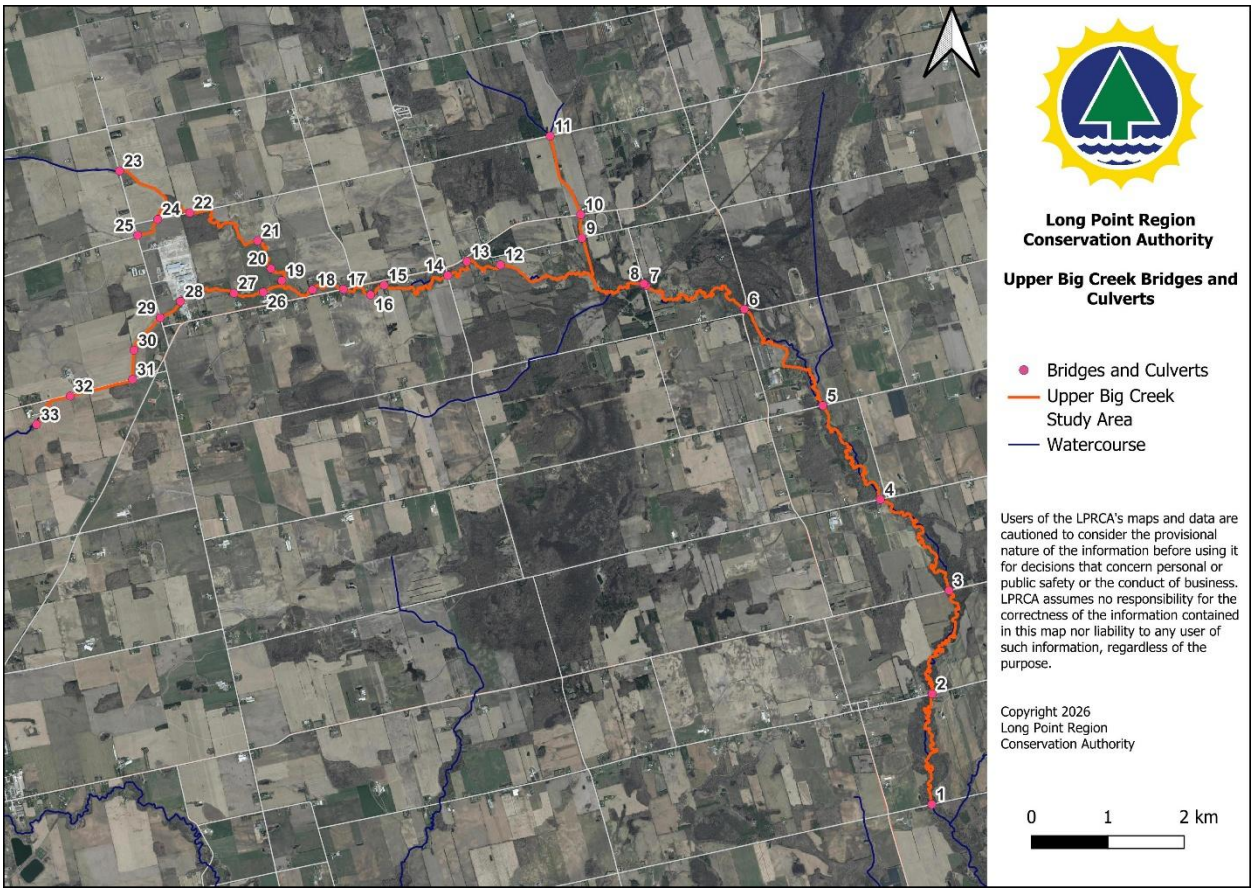


Figure 4: Upper Big Creek Study Area Bridges and Culverts



Appendix B – Professional Services Agreement

Available for download at the link provided in Section 3.2

Appendix C - Declaration of Disclosure

Available for download at the link provided in Section 3.2