



REQUEST FOR PROPOSALS

Lake Ontario Shoreline Hazards Management Plan

**Central Lake Ontario, Ganaraska Region and
Lower Trent Region Conservation Authorities**

ISSUED DATE: Thursday, July 12, 2018

CLOSING DATE: Thursday, August 9, 2018 at 3:00 pm

Submitted by: _____

Company Name: _____

SUBMIT TO:

Linda J. Laliberte, CPA, CGA
CAO/Secretary-Treasurer
Ganaraska Region Conservation Authority
2216 County Road 28, Port Hope, ON L1A 3V8
905 885 8173 ext. 223

Attention: Lake Ontario Shoreline Hazards Management Plan

Request for Proposal

Lake Ontario Shoreline Hazards Management Plan

1. INTRODUCTION

1.1 Purpose and Background

This Request for Proposal (RFP) is for the completion of a Lake Ontario Shoreline Hazards Management Plan.

The study area comprises the Lake Ontario Shoreline spanning the jurisdictions of the Central Lake Ontario Conservation Authority (CLOCA), the Ganaraska Region Conservation Authority (GRCA) and the Lower Trent Region Conservation Authority (LTRCA). The project will be run by a Steering Committee consisting of members from each Conservation Authority. All decisions regarding the selection of the proponent and administration of the contract will be made by the Steering Committee. The Steering Committee may accept a proposal in whole or in part, whether the submitted price is the lowest or not, and may reject any or all proposals. The administration of the proposal will be done by the GRCA.

Conservation Authority, Regional, County and local Municipality staff, along with representatives of the Ministry of Natural Resources and Forestry, will be invited to participate as a Technical Committee for the project. The role of the Technical Committee will be to attend presentations, review draft reports and provide comments to the Steering Committee for consideration.

This request for proposal covers Phase 1 of a three Phase study plan and the successful proponent shall in no way interpret selection for Phase 1 as providing any advantage or promise of consideration or award for any subsequent Phases.

It is recognized that coastal processes occurring along the Lake Ontario shoreline do not follow either conservation authority or municipal boundaries.

2. SUBMISSION DETAILS

2.1 Closing Time and Address for Proposal Delivery

Sealed proposal submissions, on this form, are to be submitted to the Ganaraska Region Conservation Authority (GRCA), 2216 County Road 28, Port Hope, Ontario, not later than **3:00 pm on Thursday, August 9, 2018**.

Submission by fax or e-mail will not be accepted.

Time registered on the GRCA's digital phone system will be considered the official time of day when determining exact time of submission. Proposals received even a few seconds past 3:00 pm will be considered late. Late proposals will be returned unopened. Delays caused by any delivery, courier or mail service(s) will not be grounds for an extension of the Closing Time.

Those firms interested in presenting a proposal should state their intentions by way of e-mail to iverge@on.ca prior to Tuesday, July 31, 2018 at 3:00 pm. This will ensure that all correspondence and addenda related to this proposal are shared with interested proponents.

2.2 Inquiries

Proponents with questions related to this proposal may forward written submissions to the Proposal Administrator:

Linda J. Laliberte, CPA, CGA
CAO/Secretary-Treasurer
Ganaraska Region Conservation Authority
2216 County Road 28, Port Hope, Ontario, L1A 3V8
905 885 8173 ext. 223
E-mail: llaliberte@grca.on.ca

All questions related to this RFP should be submitted by July 31, 2018 at 3 pm.

All participating Conservation Authority boards' members and employees, other than the Proposal Administrator for this Request for Proposal, are prohibited from discussing any aspect of a Bid Solicitation process with a prospective supplier from the time the Bid Solicitation document is first issued until such time as an award report has been prepared and submitted to the appropriate approval authority.

Therefore, Proponents are cautioned, to deal exclusively with the contact person as referenced above.

Proponents finding discrepancies or omissions in the Contract or RFP, or having doubts as to the meaning or intent of any provision, should immediately notify the Proposal Administrator. If the GRCA determines that an amendment is required to this RFP, the Proposal Administrator will issue an addendum in accordance with section 2.4. No oral conversation will affect or modify the terms of this RFP or may be relied upon by the Proponent.

2.3 Proposal Addendum

It may be necessary for a variety of reasons to issue addenda that may include but, not be limited to:

1. Correction to the proposal documents and any related forms.
2. To extend closing dates for the proposal.
3. Clarification of parts of the proposal documents.
4. Responses to specific questions asked by one Proponent that the Proposal Administrator feels should be made available to all Proponents.
5. Retraction or cancellation of the proposal.

All addenda will be issued to Proponents who have given notice of their intention as outlined in 2.1. No amendment of any kind to the RFP is effective unless it is circulated by the Proposal Administrator by e-mail.

Although the Proposal Administrator 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 Proposal Administrator.

2.4 Examination of Contract Documents

Proponents will be deemed to have carefully examined the RFP, including the attached Terms of Reference, prior to preparing and submitting a Proposal with respect to any and all facts which may influence a Proposal.

2.5 Proposal Opening and Results

All proposal submissions received on time will be opened on Thursday, August 9, 2018 at 3:15 pm at the GRCA's Administration Building Board Room. The opening will be closed. Proponents can contact Julie Verge, GRCA at 905 885 8173 ext. 221 after 3:30 pm to obtain a list of Proponents who have submitted a response.

As this is a proposal document for which a number of criteria will be evaluated, only the names of Proponents who have submitted a proposal will be identified after the opening and the price submitted will not be disclosed.

Proponents acknowledge that by submitting a proposal, they have made themselves fully aware of the requirements and that any and all inquiries pertaining to this proposal have been satisfied and are included as part of the submitted price.

3. SUBMISSION REQUIREMENTS AND EVALUATION

3.1 Package

Submission for this proposal call will be physically received by the Ganaraska Region Conservation Authority (GRCA), 2216 County Road 28, Port Hope, ON L1A 3V8, not later than 3:00 pm on Thursday, August 9, 2018. The Proponent must submit three (3) complete colour copies of this proposal document with original signatures and three (3) electronic copy on CD-ROM or flash drive of the proposal in a sealed envelope/package.

One copy of the pricing proposal with original signatures and three (3) electronic copies on CD-ROM or flash drive shall be included in a separately sealed envelope marked "Pricing Proposal". All references to pricing, including hourly rates, should be submitted separately and not referred to in the main proposal.

No other forms, terms or conditions will be acceptable.

All submission documents should be submitted in an envelope sealed and clearly addressed to:

Linda J. Laliberte, CPA, CGA
CAO/Secretary-Treasurer
Ganaraska Region Conservation Authority
2216 County Road 28, Port Hope, ON, L1A 3V8
905 885 8173 ext. 223

E-mail: llaliberte@grca.on.ca

Attention: Lake Ontario Shoreline Hazard Management Plan

The envelope/packages should also be marked "Lake Ontario Shoreline Hazard Management Plan" and include the name and address of the submitting company.

3.2 Evaluation Team

The evaluation of proposals will be undertaken by the Steering Committee who may consult with others including third party consultation and references, as the Steering Committee may in its discretion decide.

3.3 Evaluation Criteria

The lowest or any bid will not necessarily be accepted and the Steering Committee, participating municipalities and conservation authorities reserve the right to accept or reject any part or all proposals and to award this proposal to one or more proponents.

The proponent shall provide a breakdown of the tasks and approach (methodology) to each part of the proposal (research, design, etc.); references for work on similar projects; timelines for delivery; an upset fee for each part and a per diem and expense breakdown if applicable; and background information on the individual(s) assigned to the project.

Applications will be judged on the project team's suitability and experience in related projects; completeness and quality of the work plan and schedule; as well as the price.

Evaluation Criteria	Evaluation Points
Recent and relevant proven team member experience in similar projects and references from Ontario.	35
Project Methodology including an outline of Compliance with the RFP, a Statement of Understanding of the work to be provided (i.e. full and complete listing of services and project timetable) and project schedule.	40
Price	25
Total	100

Any questions regarding this RFP are to be directed to Linda J. Laliberte, CAO/Secretary-Treasurer, Ganaraska Region Conservation Authority, 2216 County Road 28, Port Hope, ON L1A 3V8. E-mail: llaliberte@grca.on.ca, in writing. All questions must be submitted by Tuesday, July 31, 2018 at 3 pm.

The GRCA will require that the successful candidate enter into a standard consulting agreement between the GRCA and the proponent.

4. GENERAL TERMS AND CONDITIONS

4.1 Intent of Proposal

Please refer to the attached, "Lake Ontario Hazard Management Plan Terms of Reference."

4.2 Freedom of Information Act

The Proponent hereby consents to the disclosure of the information contained in this Proposal submission, pursuant to the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, C.M. 56 (MFIPPA). If a Proponent considers any part of the proposal submission proprietary, the Proponent shall clearly mark such page or section of the submission as confidential.

This procedure will not automatically protect the submission from release, but will assist in making a determination on release if a request is made. Any decision made under MFIPPA may

be appealed to the Information and Privacy Commissioner of Ontario who may direct the release of such information.

The identity of submitting Proponents as well as the successful Proponent's submission amount may be available to the public as part of the award process.

The MFIPPA Coordinator for this submission is:

Linda J. Laliberte, CPA, CGA
CAO/Secretary-Treasurer
Ganaraska Region Conservation Authority
905 885 8173 ext. 223

4.3 Accept/Reject

The Steering Committee may accept a proposal in whole or in part, whether the submitted price is the lowest or not, and may reject any or all proposals. There will be no requirement of this RFP, implied or otherwise, that the proposal representing the lowest submitted price would be selected or preferred. The RFP process is used as a means of evaluating a number of criteria (one of which is submitted price).

In the event that a favourable proposal does not exactly meet with the Steering Committees requirements, the Steering Committee reserves the right to enter into negotiations with Proponents to arrive at a mutually satisfactory arrangement with respect to any modifications to the proposal. Revised proposals will not be called for if only minor changes are contemplated.

This RFP is not a tender and does not commit the Steering Committee in any way to select a Preferred Proponent, or to proceed to negotiations for a Contract, or to award any Contract, and the Steering Committee reserves the complete right to, at any time, reject all Proposals, and to terminate this RFP process for any reason without liability.

4.4 Confidentiality

The Proponent recognizes that it will, by the nature of the goods and services being provided to the CLOCA, GRCA and LTRCA, have access to confidential information. It is understood and agreed that the Proponent, its employees, agents, representatives, and officers, shall hold all information, whether confidential or not, in the strictest confidence. The Proponent shall not disclose nor permit by any act or failure to act, the disclosure of any information to any third party at any time during or after the term of this contract. Nor will the Proponent use any information, however obtained, as a result of performing duties for the CLOCA, GRCA and LTRCA for its own commercial, financial, or personal advantage. The Proponent also acknowledges that it may be held both criminally and civilly responsible for any breach of confidentiality.

All submissions become the property of CLOCA, GRCA and LTRCA and will not be returned to the Proponent. All submissions will be held in confidence by CLOCA, GRCA and LTRCA unless otherwise required by law.

4.5 Proponent's Expenses

Proponents are solely responsible for their own expenses, relating to or arising from this RFP which includes but is not limited to, preparing and submitting a Proposal, and for any meetings, negotiations or discussions with the CLOCA, GRCA and LTRCA or its representatives and consultants. CLOCA, GRCA and LTRCA and its representatives, agents, consultants, and advisors will not be liable to any Proponent for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the

Proponent in preparing and submitting a Proposal, or participating in negotiations for a Contract, or other activity related to or arising out of this RFP.

4.6 Proposal Price/Taxes/Costs

All prices submitted shall be FIRM for the project and shall include, any/all required labour, materials, tools, equipment, design, and any/all other services as described herein and elsewhere in this document.

The prices must clearly show the Harmonized Sales Tax as a separate item.

The proponent agrees that the contract bid price as stated in the RFP form shall be open to acceptance by the Steering Committee for a period of 60 days from the date of the closing time of this RFP.

4.7 No Claims

By submitting a Proposal and participating in the process as outlined in this RFP, Proponents expressly agree that in no event, including a claim for breach or fundamental breach of contract by CLOCA, GRCA and LTRCA, will they have any claim against CLOCA, GRCA and LTRCA, or any of their employees, or representatives or advisors, including any claim to reimburse or compensate the Proponent in any manner whatsoever, including but not limited to costs of preparation of a Proposal, cost of participation in the processes described in the RFP, loss of anticipated profits, loss of opportunity or for any other matter.

4.8 Conflict of Interest

A Proponent shall disclose in its Proposal any actual or potential conflicts of interest and existing business relationships it may have with CLOCA, GRCA and LTRCA, their elected or appointed officials or employees. CLOCA, GRCA and LTRCA may rely on such disclosure.

4.9 Insurance

Prior to commencing any work, the Proponent shall provide to the Proposal Administrator a Certificate of Liability Insurance or a certified copy of the Proponent's Insurance Policy providing the following coverage:

- i. have a limit of comprehensive general liability, errors and omissions and professional of not less than \$2,000,000.00 inclusive for any one occurrence;
- ii. have comprehensive liability insurance covering all operations and liability assumed under the Contract with the GRCA;
- iii. include insurance against liability for bodily injury and property damage caused by vehicles owned by the Contractor and used on the work, and in addition, shall include insurance against liability for bodily injury and property damage caused by vehicles not owned by the Contractor and used on the work, each such insurance shall have a limit of liability of not less than \$2,000,000.00 inclusive for any one occurrence (a vehicle shall be as defined in *The Highway Traffic Act*);
- iv. be endorsed to provide that the policy or policies will not be altered, canceled or allowed to lapse during the duration of the project, without thirty days' prior notice to the GRCA;
- v. name CLOCA, GRCA and LTRCA as insured parties, if required by the GRCA.

4.10 Ontario Workplace Safety and Insurance Board (WSIB)

Prior to execution of the Contract, a certificate from the WSIB stating that all assessments or compensation payable to the Board have been paid and that the Contractor is in good standing, shall be supplied to the Proposal Administrator.

The Contractor must remain in good standing with WSIB throughout the duration of the contract.

4.11 Revisions of Work

Proposals shall not contain any revision of the description of work to be completed. No oral, telephonic, or electronic proposals or modifications will be considered.

4.12 Invoicing and Payment

The successful Proponent shall include the terms of payment in their proposal response. The GRCA will NOT pay a down payment prior to work starting. The GRCA's standard terms of payment are net 30 days.

4.13 Ownership

All information, data, policies, plans, and documents prepared and collected by the Proponent shall become the property of CLOCA, GRCA and LTRCA. The Proponent shall deliver all information, data, policies, plans, and documents to the GRCA immediately upon completion or abandonment of the Project.

5. PROPOSAL ADMINISTRATOR'S RESPONSIBILITY

The GRCA reserves the right to substitute or change the Proposal Administrator at any time. Such substitution or change will promptly be made known to the Proponent.

5.1 Changes and Alterations

The Proposal Administrator may, by order in writing, at any time before or after commencement of the work, delete, extend, increase, vary or otherwise alter the work to be done or material to be furnished or any part thereof. If the character of the work to be done or material to be furnished is actually changed from that on which the Proponent based his bid, by reason of such written order of the Proposal Administrator or by reason of incorrect written information supplied by the GRCA, and if the change increases or decreases the cost of the work to be done or material to be furnished, the Proponent shall proceed with the work to be done and upon the written request of either party to the RFP, negotiations shall, as soon as reasonably possible, be carried out to determine the amount of compensation to be paid.

5.2 Proposal Administrator's Authority

The Proposal Administrator may supervise and direct all work to the extent of ensuring the fulfillment of the RFP and the completion of the work in accordance with any plans and specifications. He/she shall determine the quantities of the several kinds of work which are to be paid for under RFP, and determine all questions relating to the said work and the construction thereof. The Proponent shall at all times and at his own expense furnish all reasonable aid and assistance required by the Proposal Administrator for the proper inspection and examination of the work or part thereof. The Proponent shall obey the directions and instructions of the Proposal Administrator and they shall be made in writing at the request of the Proponent.

5.3 Additional Work

Where the Proposal Administrator directs or otherwise authorizes the Proponent in writing to undertake work in addition to that provided in the RFP and for which the Proposal Administrator and the Proponent agree that there is no applicable proposal item, the Proponent shall proceed

with the work and such work shall be considered extra work and shall be paid for as negotiated. Therefore, hourly rates for additional works must be identified.

5.4 Suspension of Work

The Proponent shall, upon written notice from the Proposal Administrator, discontinue or delay and or cease all of the work when, in the opinion of the Proposal Administrator it is unwise to proceed for any reason whatsoever, and the work shall not be resumed until the Proposal Administrator shall in writing so direct.

6. PROPONENT'S RESPONSIBILITY

The Proponent declares that in bidding for the works that he/she has either investigated for himself/herself the character of the work, and all conditions that might affect the proposal or acceptance of the work, or assume all risk of conditions arising or developing in the course of the work which might or could make the work, or any items thereof, more expensive in character, or more onerous to fulfill, than was contemplated or known when the proposal was made. The Proponent also declares that he/she did not and does not rely upon information furnished by any methods whatsoever by CLOCA, GRCA and LTRCA or their officers or employees or members, or the Proposal Administrator, being aware that any information from such sources was and is approximate and speculative only, and was not in any manner warranted or guaranteed by CLOCA, GRCA and LTRCA or the Proposal Administrator.

6.1 Supply of Materials

All materials necessary for the proper completion of the work, except those listed as being supplied by CLOCA, GRCA and LTRCA, shall be supplied by the Proponent.

All materials supplied by the Proponent shall conform to the requirements and specifications as approved by the Proposal Administrator prior to incorporation in the work. Where required by the Proposal Administrator, the Proponent shall furnish a complete written statement to the origin, composition and manufacture of any materials to be supplied by him and shall furnish samples thereof. The Proponent shall not change the source of supply of materials without the written authorization of the Proposal Administrator.

6.2 Execution of Contract

The Contract shall be deemed as having been awarded when formal notice of award shall be duly served by the GRCA upon the Proponent.

If the Proponent refuses or fails to commence the works within the time specified within the contract, it will be considered that the Proponent has abandoned all rights and interests in the award.

6.3 Compliance with the Accessibility for Ontario with Disabilities Act, 2005

The Proponent shall ensure that all its employees and agents receive training regarding the goods and services contemplated herein to persons with disabilities in accordance with Section 6 of the *Ontario Regulation 429/07* made under the *Accessibility for Ontarians with Disabilities Act, 2005*, as amended. The Proponent shall ensure that such training includes without limitation, a review of the purposes of the Act and the requirements of the regulation, as well as instruction regarding all matters set out in Section 6 of the Regulation.

6.4 Proponent's Responsibility for Damages

The Proponent, his/her agents and all workers and persons employed by him/her or under his/her control, including sub-suppliers, shall use due care that no person or property is injured

and that no rights are infringed in the prosecution of the work, and the Proponent shall be solely responsible for all damages by whomsoever claimable in respect of any injury to persons or to land, building, structures, utilities, survey markers, fences, livestock, trees, roads, ways, ditches, drains and watercourses, whether natural or artificial, or property of whatever description and in respect of any infringement of any right, privilege or easement whatever occasioned in the carrying on of the work or any part thereof, or by any neglect, misfeasance or nonfeasance of the Proponent's part or on the part of any of his agents, workers or person employed by him or under his/her control, including Sub-Suppliers, and shall bear the full cost thereof and shall at his own expense make such temporary provisions as may be necessary to ensure the avoidance of any such damage, injury or infringement and to prevent the interruption of or danger or menace to the traffic on any railway or any private or public road entrance or sidewalk and to secure to all persons and authorities the uninterrupted enjoyment of their rights, in and during the performance of the work and the Proponent shall indemnify and save harmless, CLOCA, GRCA and LTRCA from and against all claims, demands, loss, costs, damages, actions, suits or other proceedings by whomever made, brought or prosecuted in any manner based upon, occasioned by, or attributed to any such damage, injury or infringement.

Notwithstanding the indemnity provisions contained in this section, where in the opinion of the Proposal Administrator, the Proponent has failed to rectify any damage, injury or infringement or has failed to adequately compensate any person for any damage, injury or infringement for which the Proponent is responsible under the contract, the GRCA, following notice in writing to the Proponent of his intention to do so, may withhold payment of any monies due to the Proponent under this or any other Proposal until the Proponent has rectified such damage, injury or infringement; provided, however, that the GRCA will not withhold such monies which in the opinion of the Proponent denies liabilities for such damage, injury or infringement and the Proponent has given the claimant a reasonable time in which to establish the validity of his/her claim, and provided further that the amount withheld under this section shall not exceed the amount for such claims against the Proponent.

6.5 Non-fulfillment of the Proposed Works

If the Proponent fails or neglects to commence or to prosecute the work diligently at a rate of progress that in the opinion of the Proposal Administrator will ensure the entire completion of it within the time limit permitted under the Proposal, or should the Proponent become bankrupt or insolvent, commit any act of insolvency, abandon the work, or fail to observe and perform any of the provisions of the works contracted herein, of which the Proposal Administrator shall be the sole judge, then and in any of such cases, the Proposal Administrator may notify the Proponent to discontinue all works approved under the contract and the works to be supplied herein, and the GRCA may employ such means as it may deem necessary to complete the work, and in such case the Proponent shall have no claim for further payment in respect of work performed and no claim against CLOCA, GRCA and LTRCA for any loss or damage caused by or resulting from the work being taken out of the control of the supplier.

6.6 Employment Insurance & Workplace Safety and Insurance Act

The Proponent shall be responsible for *Employment Insurance and Workplace Safety and Insurance Act* contributions and other incidental expenses, and no extras will be allowed for such items. A Workplace Safety and Insurance Board (WSIB) Clearance Certificate must be provided prior to the commencement of work.

The Proponent shall comply with all conditions and regulations of the *Workplace Safety and Insurance Board Act, 1997, S.O. 1997, c. 16, Sched. A.*, current statute July 1, 2018, and amendments thereto, any other Federal or Provincial Statute or Local By-Law concerning safety or any other phase of his work on this contract.

The Proponent will take all necessary precautions to ensure that duties are performed safely and shall comply with all applicable provisions of law relating to injury to persons and property on, or about the premises where the work is performed.

Acknowledgement of Conditions

The following should be included in the proposal:

1. I/WE ACKNOWLEDGE that this proposal is made without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person making a proposal for the same work and is in all respects fair and without collusion or fraud.
2. I/WE ACKNOWLEDGE that all matters stated in the submitted proposal are in all respects true.
3. I/WE ACKNOWLEDGE that _____ addenda have been received and that it is my/our ultimate responsibility to ensure all addenda issued have been received.
4. I/WE ACKNOWLEDGE that I/We have read the Request for Proposal Document entitled "Lake Ontario Shoreline Hazard Management Plan," and the attached "Terms of Reference" and are satisfied with the conditions and work outlined to be carried out, and do hereby make an offer with the Ganaraska Region Conservation Authority to provide the necessary services for the completion of said business case.
5. I/WE ACKNOWLEDGE that any and all pricing for this proposal, including hourly rates is included in a separately sealed enveloped marked "Pricing Proposal."
6. I/WE ACKNOWLEDGE that 10 km of shoreline within the City of Quinte West may be excluded from the Request for Proposal issued July 12, 2018. If so, this will be subject of an Addendum.

Dated at _____ this _____ day of _____ 2018.

Firm or Organization Name Signing Authority

Name

Signature

Address

City

Postal Code

Tel

Fax

email

Lake Ontario Shoreline Hazard Management Plan

Terms of Reference

Lower Trent Region, Ganaraska Region and Central Lake Ontario Conservation Authorities

INTRODUCTION

In 1990 the Central Lake Ontario, (CLOCA), the Ganaraska Region (GRCA) and the Lower Trent Region Conservation Authorities (LTRCA) completed a Shoreline Management Plan for the Lake Ontario Shoreline to guide shoreline management within their respective jurisdictions. The 1990 plan was prepared in accordance with the Guidelines for Preparing Shoreline Management Plans developed by the Ontario Ministry of Natural Resources and Forestry in 1987, giving consideration to the following key components:

- prevention
- protection
- emergency response
- public information
- environment
- and monitoring

The major goals of a shoreline management plan are to:

1. Minimize danger to life and property damage from flooding, erosion and associated hazards along the shoreline;
2. Ensure that shoreline development adequately addresses hazards through a combination of public and private management and development alternatives; and,
3. Ensure that new development does not impact the environmental features and functions of the shoreline.

The shoreline in each watershed was divided into reaches. The specific aspects of the shoreline management plan considered within each reach included: specific site conditions, the nature of development, the nature of problems being experienced and the risk of damage to property and life. Field surveys were conducted for a number of reaches and design data and design criteria were derived to provide design wave conditions, design water levels, alongshore and offshore sediment transport rates, design uprush levels and allowable flood depths. However, the methods used to gather information and the detail available for each study reach may have varied across the shoreline under consideration.

Using the information available at the time, different preferred and alternate management plans or concepts were developed for the different reaches of the shoreline. The one common aspect of the plan for each shoreline reach is the definition of a regulatory shore land zone.

The steps to update the shoreline management plan for each stretch of shoreline within each of the three conservation authorities would be the same. The update would need to take into account current Provincial Policy and technical guidelines, Official Plans, local landscape/natural heritage changes and climate change implications.

Consistency along the LTRCA, GRCA, and CLOCA shoreline is desired however some reaches of the shoreline are unique and will require unique recommendations.

The benefits of a coordinated 3 Conservation Authority shoreline management plan would include:

1. Recognition of littoral cells. Coastal processes cross municipal and watershed boundaries.
2. An up-to-date study of the Northumberland County and Durham Region shoreline (outside of the TRCA jurisdictional area) would provide a more accurate understanding of the dynamics of the entire extent of the shoreline rather than sectional or watershed views.

3. Provision for a consistent management approach throughout the Regional Municipality of Durham (outside of the TRCA jurisdictional area) and Northumberland County. The consultant will review existing management plans abutting the study area to ensure consistency, where possible, across municipal jurisdictions.
4. A joint plan could be incorporated into the Northumberland County and Durham Region Official Plans (OP) to be reviewed and be updated every five years. Noting that the Durham OP is currently under review and slated to be completed in 2022. The technical assumptions would be reviewed regularly to ensure that they are still appropriate for use.
5. Recommendations for new technical solutions would be recognized early, allowing landowners to understand requirements for required shoreline works.

SCOPE OF THE STUDY

The intent of this project is to create a coordinated approach to shoreline management planning for the entire length of the north shore of the Lake Ontario Shoreline within the County of Northumberland, the Regional Municipality of Durham (less the area within the TRCA jurisdiction) and a small segment of the City of Quinte West. The approach will incorporate current mapping, technical standards, policies and legislation for flooding, wave uprush, erosion and dynamic beaches (e.g. PPS 2014 issued under the *Planning Act* and MNR Technical Guidelines for the Great Lakes – St. Lawrence River System and Large Inland Lakes, 2001).



The study area is the study length of shoreline (approximately 135 km), within the boundaries of Northumberland County, the Regional Municipality of Durham (outside of the TRCA jurisdictional area), and approximately 10 km within the City of Quinte West (to be confirmed). This 135 km stretch of shoreline is comprised of beach and bluff (high & low) sections with some coastal wetlands.

It should be recognized that the shoreline management plan from 1990 exists for the reach of shoreline within the LTRCA, GRCA and CLOCA. A key objective of the project will be to bring the entire extent of the shorelines being managed to an updated, consistent and comprehensive standard. This technical study, the update of the Sandwell Swan Wooster study, will be developed as a single project under the guidance of a steering committee composed of the three Conservation Authorities and the contract will be administered by the GRCA.

The management plan development process is to be undertaken using a phased approach, where by the major phases of the plan are completed independently but in a manner that allows them to be integrated into final shoreline plans. The major phases are:

Current Project:

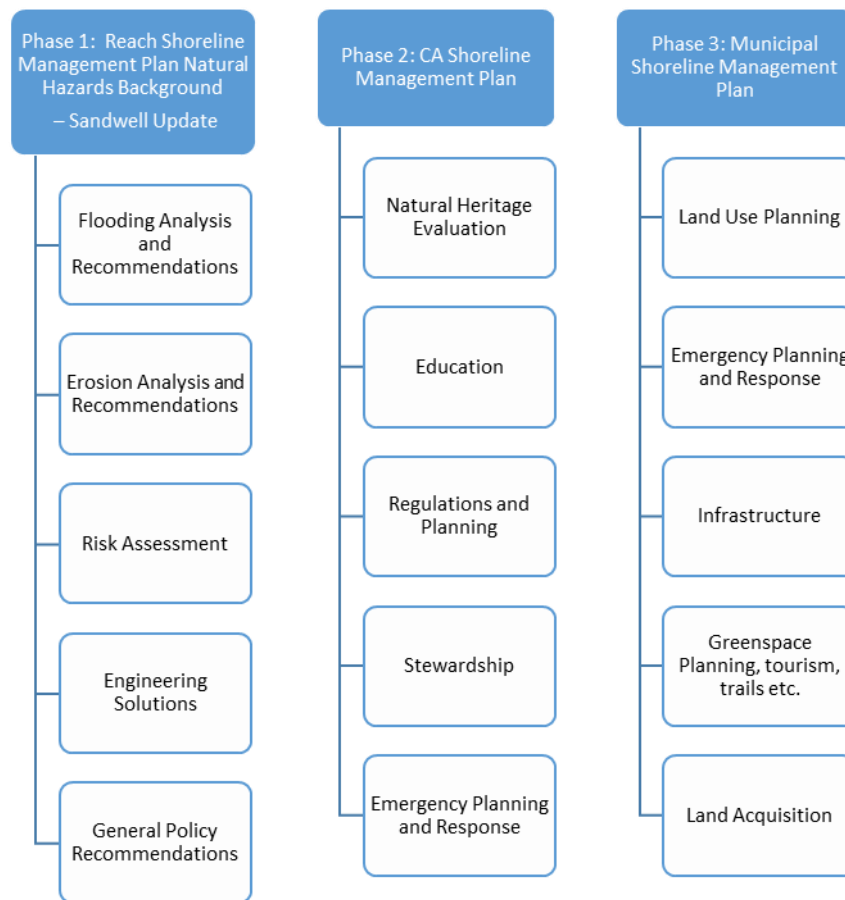
Phase 1: Technical Background Update – Update of Sandwell Swan Wooster Study

Future Projects:

Phase 2: Individual Conservation Authority Shoreline Management Plans

Phase 3: Municipal Shoreline Management Plans

The first phase will be completion of the technical background document in a comprehensive shoreline engineering study. Phase 2 will be completed independently by each Conservation Authority integrating the technical findings of Phase 1 into each plan. Phase 3 of the study will take the elements of Phases 1 and 2 and incorporate local municipal needs to develop a municipal shoreline management plans.



PHASE 1: TECHNICAL STUDY - PROJECT TASKS

This study will focus on using the current technical standards for defining 100-year flood, wave uprush, stable slope, erosion hazard and dynamic beach hazards and mapping for approximately 135 km of Lake Ontario shoreline.

Project tasks will include:

1. A literature review of all historical and current technical studies and regulations pertaining to shoreline management;
2. A reconnaissance of shoreline sites which are representative of the various shoreline conditions encountered within the study area; a photo inventory is to be taken;
3. A review of the 1990 reach delineations to determine their suitability for this updated and expanded plan;
4. A review of significant natural features within the shoreline study area;
5. Review and create Detailed Study Zones where significant natural features, hazards and/or development pressures exist, and where more detailed analysis is required for management purposes;
6. Review of the technical assumptions (e.g. average annual shoreline recession rates, modelling parameters) from the 1990 study to determine if they are still appropriate for use today. If they remain appropriate include an explanation of why. If not appropriate, recommend new technical assumptions and include supporting documentation for the same;
7. Model Regulatory Flood Hazard using expanded existing models (where possible), meeting provincial standards;
8. Complete analysis of Erosion Hazards using provincial standards;
9. Create a recession rate chart with related mapping for each reach within the study area;
10. Review and comment on existing municipal and private infrastructure along the shoreline (e.g., shoreline protection structures and piers) and how they may relate to existing and proposed development;
11. Evaluate emergency response (contained within existing plans as well as recommendations for new);
12. Develop hardening thresholds for nodal areas and specifically recommend types of protection for each reach as it relates to the type of development (e.g., new, rebuild), natural heritage features and shoreline processes;
13. Update preferred and alternate shoreline management concepts considering current legislation, policies and guidelines regarding shoreline hazards;
14. Complete a cost benefit analysis in the development of preferred alternatives;
15. Hold public meetings (minimum of three, one for each CA area) with interested general public, private landowners, not for profit agencies, user groups as well as municipal/provincial/federal agencies and present the findings to the Steering Committee.

Modelling shall include:

16. Integrated shoreline model;
17. Recession rate evaluations for each reach.

Mapping tasks will include:

18. Production mapping (paper and digital data) with all components consistent with the Ministry of Natural Resources and Forestry and the Flood Damage Reduction Program requirements and the Conservation Authorities Regulations;
19. All spatial data produced during the study will be delivered in ESRI shapefile format;
20. Each hazard limit, including stable slope analysis, must be delivered as an individual shapefile, be segmented and attributed a minimum, a reach and a map sheet identifier;
21. Any shoreline protection features encountered and noted throughout the study will be mapped and delivered as an individual shapefile and attributed with an appropriate feature type or categorizing code (i.e. rock break wall);
22. Maps composed for the study should be provided in suitable resolution PDFs for reproduction purposes.

Note: Phase 1 is to be developed to facilitate Phase 2: Conservation Authority Shoreline Management Plans. Phase 1 will be developed to allow for the integration of the technical study into the three Conservation Authority Shoreline Management Plans.

REPORT AND DELIVERABLES – Phase 1

Draft Technical Report and Shoreline Mapping for Review

6 final draft copies and three electronic copies of the draft report (including photo inventory), three full sets of draft electronic mapping and three sample paper map sheets shall be submitted for review.

While the study will be one comprehensive review of the entire shoreline, the document should be separated into three chapters, with each representing a separate Conservation Authority jurisdiction. This is to ensure the final product will help each CA meet its regulatory requirements to have a document specific to the CA named in its regulation.

For Example, *Ganaraska Region Conservation Authority*, O.Reg 168/06 states:

“Development prohibited 2. (1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on areas within the jurisdiction of the Authority that are:

(a) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beaches, including the area from the furthest offshore extent of the Authority’s boundary to the furthest landward extent of the aggregate of the following distances:

(i) the 100 Year flood level, plus the appropriate allowance for wave up rush, (ii) the predicted long term stable slope projected from the existing stable toe of the slope or from the predicted location of the toe of the slope as that location may have shifted as a result of shoreline erosion over a 100-year period, (iii) where a dynamic beach is associated with the waterfront lands, the appropriate allowance inland to accommodate dynamic beach movement, and (iv) 15 meters inland”;

And;

“Permission to Develop 3. (1) The Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development. O. Reg. 168/06, s. 3(1).”

Final Technical Report and Mapping

6 hard copies and three electronic copies of the final report (including photo inventory), six full sets of final electronic map files and nine full paper map sets shall be submitted. The electronic copies shall be in Microsoft Office (e.g. Word and Excel) and in PDF format. In all copies of the final report, hard copies of images are to be presented in colour, where applicable.

PROGRESS REPORTING, MEETINGS and PRESENTATIONS – Phase 1

Steering Committee – Phase 1

A Steering Committee consisting of the Staff of all three conservation authorities will manage the project including reviewing the responses to the Request for Proposals and making the project award. The Steering Committee will rule by consensus. The Steering Committee will ensure the objectives of the project are met on budget and according to the established deadlines.

Technical Advisory Committee – Phase 1

A Technical Advisory Committee consisting of the Steering Committee members and additional conservation authority staff, representatives from the County of Northumberland (and member municipalities), the Regional Municipality of Durham (and member municipalities), City of Quinte West municipal staff and Ministry of Natural Resources and Forestry staff will review and comment on project documentation as well as attend public meetings and progress meetings.

It is anticipated that the progress meetings will be held at the Ganaraska Region Conservation Authority Administration Centre in Port Hope, Ontario:

2216 County Rd. 28
Port Hope, ON L1A 3V8

The three Conservation Authorities will work together in the administration of the project including the management of the budget, but always under the direction of the Steering Committee.

The Project Manager will be:

Janice Teare, P.Eng., PMP.
Watershed Services Coordinator
Ganaraska Region Conservation Authority

Consultant Role in Supporting Administration of the Phase 1 Technical Study:

The consultant shall prepare minutes of the progress meetings and send the draft minutes to each party for review and approval prior to the dissemination for action. The draft minutes are to be circulated no later than two weeks from the date of the meeting. The consultant may be required to maintain an action item list.

The consultant is to organize and conduct a minimum of three public open houses and presentation/display at locations across the shoreline areas (one per CA) which allow for full public engagement. The consultant is to document the public consultation phase and incorporate key items in the Shoreline Management Technical Study as well as present all public consultation documentation in a separate Appendix to the Plan.

Bi-weekly Progress Reports

Regular progress reports shall be provided to the Project Manager. The progress reports shall include a synopsis of work completed during the latest report period and the projected work plan for the following period. The consultant shall be prepared to meet with the Project Manager to discuss any matters concerning the progress and findings of the site investigation.

Meetings and Presentations Timeline

Kick-off meeting	Week of August 7, 2018	Steering Committee
Interim Progress Meeting	February, 2019	Steering Committee
Meeting to present draft outcomes	June 2019	Technical Committee
Meeting to address consultant's revisions	August 2019	Steering Committee
Presentation to Technical Committee	August 2019	Technical Committee
Open House and Presentation GRCA	September 2019	
Open House and Presentation CLOCA	September 2019	
Open House and Presentation LTRCA	September 2019	
Meeting to address public input/revision	November 2019	Steering Committee
Final Presentation to Technical Committee	February 2020	Technical Committee
Project Completion	March 2020	

PHASE 2: INDIVIDUAL CONSERVATION AUTHORITY SHORELINE MANAGEMENT PLANS

The Conservation Authorities shall be responsible for completion of Phase 2 of the individual Conservation Authority Shoreline Management Plans under separate Terms of Reference.

PHASE 3: MUNICIPAL SHORELINE MANAGEMENT PLANS

The Municipalities shall be responsible for completion of Phase 3 of the individual Municipal Shoreline Management Plans under separate Terms of Reference.

ADDITIONAL REFERENCES

- NY Sea Grant / Cornell Lake Ontario Shoreline Stewardship Guide
- de Gues 1988 CVC Shoreline Plan
- W.6 Shoreline file
- GRCA Riverine Floodplain Mapping, Regulation, and Planning and Regulation Policy
- LTRCA Riverine Floodplain Mapping, Regulation, and Planning and Regulation Policy
- CLOCA
 - Riverine Floodplain and Erosion Hazard Mapping,
 - *Ontario Regulation 42/06*
 - Policy and Procedural Document for Regulation and Plan Review (CLOCA 2014)
- Lake Ontario Shoreline Management Plan, Sandwell Swan Wooster Dec 1990
- Durham Region Coastal Wetland Monitoring Report
- Lakefront Promenade Development Plan file.
- PPS 2014 issued under the *Planning Act*
- MNR Technical Guidelines for the Great Lakes – St. Lawrence River System and Large Inland Lakes, 2001.
- Cramahe Shorelands Project 1997: http://www.ltc.on.ca/cms_lib/Cramahe_Shoreline-Project.pdf
- Alnwick-Haldimand Township Lake Ontario Shoreline Project 2003: http://www.ltc.on.ca/cms_lib/AH-LakeOnt-ShorelineReport.pdf
- We will provide the best available base map data set(s) for the area.