

**South Nation River Conservation Authority (SNC)**

**Bid Document**

**Request for Quote (RFQ)**

**Clarence Creek's Hydrologic and Hydraulic Models**

**2018-05- RFQ**

**Opening Date**

**Date: May 4, 2018**

**Closing Date**

**Date: May 30, 2018**

**Time: 12:00 p.m. local time**

Location: South Nation River Conservation Authority  
38 rue Victoria Street  
Finch, Ontario  
K0C 1K0

Attn: Michael Jones  
Water Resources Analyst

**Late bids will not be accepted.**

SNC reserves the right to accept or reject all or part of any Bid and also reserves the right to accept other than the lowest Bid and to cancel this Call for Bids at any time.

# 1. Purpose and Introduction

South Nation Conservation (SNC) is seeking quotes to complete modelling work for Clarence Creek. Pricing is requested for the following two options:

1. A hydrologic model only.
2. A hydrologic model and a HEC-RAS one dimensional (1D) hydraulic model.

Clarence Creek is located within the Clarence Rockland jurisdiction. The stream runs approximately 6.55 km before draining into the Ottawa River (see **Appendix D**). The hydrologic and hydraulic models will be used by SNC to delineate the 1:100 year floodline for Clarence Creek as part of a floodplain mapping initiative.

Below is an overview of the products to be completed.

1. Hydrology model that will meet the Ministry of Natural Resources and Forestry (MNR) Technical Guide for floodplain mapping. In addition, the model should meet SNC's Flood Management Program design standards. SWMHYMO and HEC-HMS will be considered. The rationale of model selection should be provided.
2. SWMHYMO or HEC-HMS model outputs for with the following design storms 5 yr, 25 yr, 50yr, 100yr.
3. Report delineating conclusions.
4. The hydrology model and report will be sent out to an external technical reviewer. The technical review comments must be addressed.
5. 1D HEC-RAS hydraulic model that will meet the Ministry of Natural Resources and Forestry (MNR) Technical Guide for floodplain mapping. In addition, the model should meet SNC's Flood Management Program design standards (**no other models will be considered**).
6. HEC-RAS model outputs for with the following design storms 5 yr, 25 yr, 50yr, and 100yr.
7. Report delineating conclusions
8. The hydraulic model and report will be sent out to an external technical reviewer. The technical review comments must be addressed.

For detailed requirements of the work and the data to be provided by SNC, please refer to **Appendix B**.

In this RFQ, the successful Bidder shall be referred to as the “**Vendor**”

### **1.1 Appendices**

*‘Appendix A’* – Acknowledgements

*‘Appendix B’* – Specifications

*‘Appendix C’* – Pricing

*‘Appendix D’* – The boundary of Clarence Creek Subwatershed

## **2. Closing Time**

One copy of the RFQ Bid Document, properly signed and sealed is to be submitted to SNC, Reception, 38 Victoria Street, Finch, Ontario, **prior to 12:00 p.m. on Tuesday, May 30, 2018 (the “Closing”)**.

Time registered on SNC’s digital phone system will be considered the official time to determine exact time of submission.

Submissions received after the Closing will not be accepted; however, they shall be time and date stamped and returned to the Bidder unopened.

## **3. Opening**

All Submissions received on time will be opened on **May 31, 2018 after 12:00 p.m.**

## **4. Contact Information and Questions**

### **4.1. Contacts**

Bidders may only contact Michael Jones, Water Resources Analyst **in writing only**, by email to related to this Request for Quotation.

Michael Jones is SNC’s official contact person for this RFQ. All other SNC employees and Board Members are not permitted to discuss this RFQ process with a potential Bidder from the time the RFQ is issued until such time as an award report has been prepared and submitted to the appropriate approval authority.

Bidders are cautioned therefore, to deal exclusively with the SNC contact person referenced in this section.

## 4.2. Errors, Omissions and Questions

SNC accepts no legal liability for any errors or omissions in any part of this RFQ.

Bidders with questions related to this RFQ, finding errors in, or omissions from the Document, or having doubt as to the meaning or intent of any part of this Document, must contact the SNC contact listed in Section 4.1, **before 4:00 p.m. on May 14, 2018**. [To allow sufficient time to respond to or prepare and distribute an addendum as necessary, and to allow time for Bidders to receive any new information.]

Bidders should accurately reference the numbered item of the solicitation to which the enquiry relates. Care should be taken by the Bidders to explain each question in sufficient detail in order to enable SNC to provide an accurate answer. No questions will be accepted **after 4:00 p.m. on May 14, 2018**.

There will be no consideration of any claim after submission of the Quotation, that there is any misunderstanding respecting conditions imposed by the RFQ.

## 5. Instructions to Bidders

### 5.1 Addenda

The RFQ may be amended only by an addendum in accordance with this section. If SNC, for any reason, determines that it is necessary to provide additional information relating to the Request for Quotations, such information will be communicated to all Bidders through the SNC Contact by addenda. Each addendum forms an integral part of the RFQ.

SNC will issue all written addenda to the RFQ by e-mail to each bidder who has provided an e-mail address.

Such addenda may contain important information, including significant changes to the RFQ. It is the Bidder's responsibility to ensure all addenda have been received and are reflected in their quotes submission.

### 5.2 Quotation Submission

The Submission shall be typed or written in ink. It shall contain original signatures where required; shall clearly be marked "**ORIGINAL**" and shall include all requirements of this RFQ, as set out in **Section 8.0 "To Include in Quotation"**. The Bidder should submit **three (3) copies** of all submission requirements.

Offers made in the Submission will be considered by SNC to be binding and irrevocable and shall remain open for acceptance by SNC for a period of ninety (90) days from the Quotation closing.

A Submission shall be considered only if submitted in an envelope sealed and clearly addressed to “**South Nation River Conservation Authority**”, **38 Victoria Street, Finch Ontario, K0C 1K0**”. It should be marked “**Request for Quotation: 2018-05-RFQ – Clarence Creek Hydrologic & Hydraulic Models**”, and include the name and address of the Bidder.

Bidders should not send Quotations collect by courier or with insufficient postage. Quotations determined to be “collect” by courier or with insufficient postage will not be accepted.

Faxed or emailed submissions will not be accepted.

### **5.3 Adjustments to Submissions**

Adjustments to submissions by telephone, email, or fax will not be considered.

#### **5.3.1 Request to Adjust a Submission before Closing**

A Bidder wishing to make adjustments to a Submission must supersede it with a later Submission, which must be received by the closing time.

#### **5.3.2 Request to Withdraw a Submission Before Closing**

A Bidder who has submitted a Quotation may request that their Submission be withdrawn before the closing time. The request must be provided in writing, on company letterhead, and include contact information for verification. Authenticity of the request may be confirmed by SNC. Submissions withdrawn under this procedure cannot be reinstated.

#### **5.3.3 Request to Withdraw a Submission During Quotes Opening**

No request for withdrawal of a Submission shall be permitted during, or at any time after, the opening process.

### **5.4 Insurance**

#### **5.4.1 General Liability Insurance**

The Vendor shall procure and maintain Comprehensive General Liability Insurance:

- a. Having a limit of liability of not less than **two million dollars (\$2,000,000)** inclusive for any one occurrence;
- b. Including insurance against liability for bodily injury and property damage caused by vehicles or equipment owned by the Vendor;
- c. Being endorsed to provide that the policies will not be altered, cancelled, or allowed to lapse without thirty (30) days prior written notice to SNC;
- d. Name SNC as an additional insured party; and

- e. Contain a cross-liability clause.

The Vendor shall pay for all premiums and expenses incurred for the insurance.

Should any claim(s) arise, the Vendor shall be financially responsible for paying for any amount(s) up to and including the deductible amount under their policy.

#### **5.4.2 Professional Indemnity Insurance (Errors and Omissions)**

The Vendor shall maintain Professional Indemnity Insurance in the amount of **two million dollars (\$2,000,000)** inclusive for any one occurrence.

The Vendor shall pay for all premiums and expenses incurred for the insurance.

Should any claim(s) arise, the Vendor shall be financially responsible for paying for any amount(s) up to including the deductible amount under their policy.

#### **5.4.3 Proof of Insurance**

The Bidder shall provide proof of insurance required in Items 5.4.1 and 5.4.2 with their Quotation.

In the event that satisfactory proof of insurance cannot be provided, a letter from the Bidder's insurance company confirming that the Bidder will be able to obtain the required insurance will suffice. The insurance company must be satisfactory to SNC.

#### **5.4.4 Certificate of Insurance**

Within ten (10) working days of notification of award of this RFQ and prior to the start of any work, the Vendor shall file with SNC, together with the signed Contract, a Certificate of Insurance, clearly stating that all the insurance coverage required complies with all requirements listed in **Item 5.4.1 and 5.4.2**.

If the Vendor fails to file the Certificate of Insurance with SNC within ten (10) working days of notification of award of this RFQ, SNC reserves the right to cancel the award.

#### **5.5 Workplace Safety and Insurance Act and Employment Insurance**

The Bidder must submit with their Quotation a valid and current "Clearance Certificate" from the Workplace Safety and Insurance Board ("WSIB"), or a letter from the WSIB confirming their exemption. This information is available to the Bidder on-line at **wsib.on.ca**.

The Vendor, within ten (10) working days of notification of award of this RFQ and prior to the start of any work, shall provide SNC with a valid and current Clearance Certificate from the WSIB.

**If the Vendor does not provide a valid and current Clearance Certificate as herein requested, or proof of exemption, or proof of application for exemption, SNC reserves the right to cancel the award.**

The Vendor shall be responsible for providing Worker's Compensation coverage for their employees, and no extras will be allowed for such items.

The Vendor clearly understands and agrees that they are not, nor is anyone hired by them, covered by SNC under the **Workplace Safety Insurance Act, Employment Insurance Act**, or any other act, whether provincial or federal, in respect of themselves, their employees and operations, and shall, upon request, furnish SNC with satisfactory evidence that they have complied with the provisions of any such acts.

## **5.6 Contract**

Once the RFQ is awarded, this RFQ, all addenda issued and the Quotation submitted by the successful bidder will become the Contract. SNC will issue a formal Purchase Order as confirmation of the award of Contract. The successful bidder must accept SNC's Purchase Order/Contract, which will supersede all other contracts.

Failure to execute the Contract or to file any of the required documentation required in this RFQ, within the specified time period, shall be just cause for the cancellation of the award.

## **6. General Terms and Conditions**

**The following terms and conditions are deemed accepted by all Bidders in response to this RFQ and are deemed incorporated into every contract resulting from this RFQ:**

### **6.1 Freedom of Information**

All information obtained by the Bidder in connection with the preparation of this RFQ is the property of SNC and must be treated as confidential. It may not be used for any purpose other than for replying to this RFQ, and for fulfillment of any subsequent contract. Any Bidder who requires that the information in its Quotation be kept confidential must explicitly advise SNC of that fact.

The Bidder may declare confidentiality of their Quotation; however, SNC is required by law to adhere to the requirements of the Municipal Freedom of Information and Protection of Privacy Act, as amended from time to time.

### **6.2 The Occupational Health and Safety Act**

The Vendor shall comply with all conditions and regulations of the Occupational Health and Safety Act 1990 and amendments thereto, any other Federal or Provincial statute or local bylaw concerning safety or any other phase of work on this contract.

### **6.3 Compliance with Codes, Regulations and By-Laws**

The Vendor agrees to obey all government, municipal and underwriters codes and regulations, etcetera and perform all work in accordance with the requirements of bylaws in force in the area where the work is to be carried out. All permits or licenses are the responsibility of the Vendor.

### **6.4 Required Warranties**

Each Bidder expressly declares and warrants that;

- a. This quotation submission is in all respects fair and without collusion or fraud.
- b. There has been no violation of copyrights or patent rights in manufacturing, producing or selling the materials and/or services shipped or ordered as a result of this quotation, and the vendor agrees to hold SNC harmless from any and all liability, loss, expense, action or suit occasioned by any such violation.
- c. All materials and/or services proposed to be supplied to SNC conform in all respects to the standards set forth by Federal and Provincial agencies.
- d. The Bidder of the quotation:
  - a. is competent to perform the work described in this RFQ;
  - b. has the necessary qualifications, including knowledge, skill and experience to perform the services, together with the ability to use those qualifications effectively for that purpose;
  - c. shall supply everything necessary for the performance of the work;
  - d. shall carry out the work in a diligent and efficient manner;
  - e. ensures the work is of proper quality, material and workmanship; is in full conformity with the specifications; and meets all other requirements of this RFQ and any subsequent contract.

### **6.5 No Obligation to Contract**

The Bidder's RFQ submission does not constitute the acceptance of a contract with SNC. Submissions constitute offers which SNC may or may not accept in its sole discretion.

SNC further reserves the right to accept or reject any or all quotations or parts of quotations, or to accept any quotations considered in SNC's best interest, and to request re-submission on the required materials and/or services. SNC also reserves the right to waive irregularities and technicalities and to do so in its sole discretion.

SNC also reserves the right to cancel and reissue the RFQ as deemed necessary and in the best interest of SNC.

SNC reserves the right not to accept a Quotation from any person or corporation which includes all non arms length corporations who, or which, has a claim or legal proceeding against SNC or against whom SNC has a claim or legal proceeding with respect to any previous contracts, bid submissions, or business transactions who is listed as either the Bidder or sub-contractor within the submitted Quotation.



The Bidder's RFQ submission is deemed an irrevocable offer which may be accepted, at the sole option of SNC with or without negotiation, only by entering into a formal contract upon such acceptance the terms, responsibilities, and specifications as required by SNC including but not limited to those set out herein.

SNC reserves the right to reject an offer to supply goods and services presented in response to SNC's procurement processes where SNC determines that the person making the offer is in any way indebted to SNC and in its sole discretion is of the opinion that it is in SNC's best interests that the offer be rejected.

### **6.6 Assignment**

The Vendor shall not assign the Contract or any portion thereof without prior written consent of SNC. Such consent shall not release or relieve the Vendor from any of their obligations or liabilities under this Contract.

### **6.7 Costs Incurred**

SNC will not, under any circumstances, be responsible for any costs incurred by the Bidder in the preparation of the quotation submission, including, but not limited to: costs to prepare documentation; travel; attendance at any site meetings; or interviews (if required).

### **6.8 Pricing and Taxes**

The quotation submission amount must include: all applicable excise taxes; customs, freight; exchange and all other charges. HST is extra.

### **6.9 Terms of Payment**

Invoices will be paid net thirty (30) days from date of invoice and verification that goods/services listed have been provided to the satisfaction of SNC.

### **6.10 Rights of South Nation River Conservation Authority (SNC)**

SNC retains the right to ensure that an acceptable standard of use, service, and operation is maintained. SNC also reserves the right to communicate with one or more Bidders (following the RFQ closing date) to clarify elements of the submission.

### **6.11 SNC's Right to Terminate Contract Under Certain Conditions**

SNC has the right to terminate the Contract immediately and without penalty, with written notice to the Vendor, if:

- a. The Vendor makes an assignment for the benefit of creditors or becomes bankrupt or insolvent, or an order is made for the winding-up of the Vendor, or if a receiver is appointed on account of the Vendor's insolvency; or
- b. The Vendor refuses or fails to supply sufficient properly skilled employees or proper materials at all times to perform the Work in the manner and to the standards required under this Contract, or the vendor fails to observe and comply with any provisions of law, including, without limiting the generality of the foregoing, all requirements of all governmental authorities including federal, provincial, and municipal legislative enactments, by-laws and other regulations now or hereafter in force which pertain to or affect the services or the conduct of the Vendor's business; or
- c. The Vendor fails to institute appropriate corrective action within three (3) days after verbal notification by SNC (which will be confirmed subsequently in writing), of any failure on the part of the Vendor to comply with the terms and specifications of the Contract; or
- d. The Work performed is not satisfactory; or
- e. Delivery requirements are not met.

SNC reserves the right to terminate this contract at anytime without cause with thirty (30) days written notice.

Immediately following, the termination of the Contract, for any reason, the Vendor shall provide to SNC all of their financial records specific to this Contract, concerning the conduct of the operations and a statement of all outstanding accounts.

#### **6.12 Remedies for Non-Performance**

In the event that the Vendor fails to perform any obligations hereunder, SNC shall be entitled to exercise any one or more of the following remedies:

- a. SNC may with-hold any payment due hereunder until the Vendor has remedied their failure;
- b. SNC shall be entitled, in the event that the Vendor does not remedy their default within three (3) working days of a request, SNC be entitled to engage other vendors to complete the work of the Vendor and to deduct the cost of obtaining such other vendors from any amounts owing to the Vendor hereunder;
- c. SNC may terminate this Agreement if the Vendor does not remedy their default within three (3) working days of a request that they do so from SNC in writing; and,
- d. SNC may exercise any other right available to it in law or equity.

A failure of SNC to exercise any of the foregoing remedies, or the granting of any extension or indulgence, shall not be prejudicial to the right of SNC to subsequently obtain such remedies.

### **6.13 Failure to Execute Contract**

Failure to execute the Contract or failure to file any of the required documentation required in this RFQ within the specified time period is cause for the cancellation of the award.

### **6.14 Indemnification**

The Vendor shall indemnify and save harmless SNC, from and against all claims, actions, losses, expenses, costs or damages of every nature and whatsoever which SNC, its employees, officers or agents may suffer, to the extent the Vendor is legally liable as a result of the negligent acts of the Vendor, their employees, officers or agents in the performance of this Contract.

### **6.15 Ownership of Documents**

All information and data developed and used by the Vendor in connection with this Contract will be wholly owned by SNC.

### **6.16 Governing Law**

This RFQ and subsequent contract shall be governed by the law of the Province of Ontario.

### **6.17 Venue for Litigation**

The Vendor and SNC agree that the venue for any litigation shall be Ottawa, Ontario.

### **6.18 Force Majeure**

Neither party shall be held responsible for any remedy arising from delay or failure to perform obligations under this RFQ or the Services to be provided when such delay or failure is due to fires, strikes, floods, acts of God or the Queen's enemies, lawful acts of public authorities, or delays or defaults caused by common carriers, which cannot reasonably be foreseen or provided against.

### **6.19 Confidentiality**

The Vendor recognizes that it will, by the nature of the goods and services being provided to SNC, have access to confidential information. It is understood and agreed that the Vendor, its employees, agents, representatives and officers, (the "Vendor") shall hold all information, whether confidential or not, in the strictest confidence. The Vendor 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 its contract with SNC. Nor will the Vendor use any information however obtained as a result of performing duties for SNC for its own commercial, financial, or personal advantage.

The Vendor also acknowledges that it may be held both criminally and civilly responsible for any breach of confidentiality.

## 6.20 Employees

In the performance of this contract, the Vendor shall be an independent Vendor. Neither the Vendor nor any of their employees shall be deemed to be employees of SNC.

## 7. Specifications

The Bidder will review the Specifications listed (**Appendix B**) as part of the Quotation Submission.

## 8. To Include in RFQ

### 8.1 Acknowledgement

The Bidder shall complete and submit **Appendix A**.

### 8.2 Specifications

The Bidder shall ensure all Specifications listed in **Appendix B** have been considered as part of the Quotation Submission.

### 8.3 Pricing

The Bidder will complete and submit the Pricing Form (**Appendix C**)

### 8.4 Other

- All addenda issued; and
- Quotation submission as per **Section 5.2**

## 9. Award and Approval

### 9.1 Award

This RFQ will be awarded based on the following:

- a. Proper Completion of all submission requirements (Section 8);
- b. Compliance to specifications and deadlines as listed in **Appendix B**; and

- c. Price (as a clarification, should all other evaluations appear equal, at the sole discretion of SNC, lowest Total Price shall govern award).
- d. SNC reserves the right to award either the hydrology by itself or the hydrology and hydraulic together.

SNC reserves the right to reject any Quotation if the evidence submitted by, or investigation of such Bidder, fails to satisfy SNC that the Bidder is qualified to carry out the obligations of the contract.

The decision of South Nation River Conservation shall be final.

The Bidder shall not make any claims for additional costs or expenses due to the delay in, or cancellation of the award of this RFQ, due to the approval process.

APPENDIX A

**ACKNOWLEDGEMENTS**

**I/WE ACKNOWLEDGE** that this Quotation is made without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person submitting a Quotation for the same goods/services and is in all respects fair and without collusion or fraud.

**I/WE ACKNOWLEDGE** that all matters stated in the said Quotation are, in all respects, true.

**I/WE ACKNOWLEDGE** that, having read and understood the Clarence Creek 2018- 05- RFQ Document, I/WE have satisfied ourselves as to the terms, conditions and specifications and do hereby submit a Quotation for the work to be completed.

**I/WE ACKNOWLEDGE** that it is the Bidder's responsibility to ensure all addenda issued have been received.

**I/WE ACKNOWLEDGE** that acceptance of this Quotation and the execution of an Agreement shall be considered a binding Contract upon both parties. If specified at any time by SNC, it is agreed that the terms and conditions and the representations made in reference to this Request for Quotations shall be incorporated in the Contract to be executed by the parties once SNC has formally accepted the Quotation.

Dated at \_\_\_\_\_ this \_\_\_\_ day of \_\_\_\_\_ 2017.

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Firm or Organization Name

Signing Authority

---

Street Address

Signature

---

City

Postal Code

Telephone and Fax Number

## APPENDIX B

### 1. Bidder Profile

The Bidder should provide a summary of the following:

- i. Company profile
- ii. Project Lead and team members including their qualifications
- iii. Past projects and qualified expertise related to hydrology and HEC-RAS hydraulic modeling.
- iv. Proposed methodology to complete the hydrology and HEC-RAS hydraulic model.
- v. Scheduling and timelines
- vi. Two References that can support qualifications
- vii. The bidder also **MUST** include the WSIB and proof of insurance as stated in sections above (5.4).

### 2. Evaluation

- i) Qualifications and experiences related to hydrologic and HEC-RAS hydraulic modeling
- ii) Hydrologic and HEC-RAS hydraulic modeling project examples
- iii) Scope of work and methodology
- iv) Ability to meet timelines
- v) Price

### 3. Scope of the Work

#### 3.1. Clarence Creek Hydrologic Modelling

- i) The rationale of model selection (SWMHYMO and HEC-HMS) should be provided.
- ii) Build the hydrologic model for Clarence Creek. **Appendix D** shows the Clarence Creek location.
- iii) Enter all the necessary parameters into the model.
- iv) Enter all the channel geometry into the model.
- v) Enter all the SWM facility data where applicable.
- vi) Use appropriate commands.
- vii) Run the model with 100-year (yr) design storms (Chicago/ SCS Type II)
- viii) Run the model with other storm events (5 yr, 25 yr, 50 yr)
- ix) Confirm that the model meets the Ministry of Natural Resources and Forestry (MNRF) Technical Guide River & Stream Systems: Flooding Hazard Limit. In

addition, the model should meet SNC's Flood Management Program design standards

- x) Extract peak flows for the different design storms in a tabulated form.
- xi) Prepare a report of the model and include the table of peak of flows mentioned above.
- xii) Provide the model and the report to SNC
- xiii) The hydrology model and report will be sent out to an external technical reviewer. The technical review comments must be addressed.

### **3.2. Clarence Creek Hydraulic Modelling**

- i. Build a HEC-RAS 1D hydraulic model for the Clarence Creek Watershed (see **Appendix D**)
- ii. Enter all necessary parameters into the model
- iii. Enter all structures into the model.
- iv. Run the model with the 100 yr flow
- v. Run the model with other flow events (5 yr, 25 yr, 50 yr)
- vi. Confirm that the model meets the Ministry of Natural Resources and Forestry (MNRF) Technical Guide River & Stream Systems: Flooding Hazard Limit. In addition, the model should meet SNC's Flood Management Program design standards
- vii. Sensitivity analysis: Conduct a sensitivity analysis on the 100 yr flow by
  - Increasing Mannings roughness by 1.5 and 2
  - Increasing flow rate by 10 and 25%
- viii. Running a riparian model with all structures removed.
- ix. Write a report of the model/parameters and include a table of the peak flow, water surface elevation and channel velocity at various locations
- x. Provide the model and the report to SNC
- xi. The hydraulic model and report will be sent out to an external technical reviewer. The technical review comments must be addressed.

## **4. SNC Responsibilities**

SNC will be responsible for:

- i. Background information (Summaries of SWM reports, Drainage reports etc.).
- ii. Applicable guidelines if needed such as the MNRF Technical Guide – River & Stream Systems: Flooding Hazard Limit.
- iii. Products of LIDAR (DEM, DTM, Contour) and TIN.
- iv. Bathymetric survey data for Clarence Creek.
- v. SNC will conduct all field work needed
- vi. Drainage boundaries and subcatchment areas for Clarence Creek
- vii. Centreline, DEM Processed products including flow direction, accumulation, drainage lines and drainage nodes.



- viii. Necessary GIS layers such as land use, subdivision, zoning, and aerial imagery
- ix. Photos taken during the field work if needed.
- x. All data of structures / culverts / bridges collected from field work.

## 5. Timelines

This timetable reflects SNC's intent in issuing, receiving and evaluating the RFQ and is subject to change at SNC's discretion.

May 4, 2018	- RFQ Issued
May 14, 2018	- Deadline for Questions from bidder
May 30, 2018	- Closing Date for Request for Quotes
August 10, 2018	- Deadline for hydrologic model and report completion
September 21, 2018	- Deadline for hydraulic model and report completion
February 28, 2019	- Deadline to address technical review comments

Teleconference/video conference meeting at the start and end of project will be required. If issues arise, a meeting in between can be organized.

**APPENDIX C**

SNC reserves the right to award just the hydrology alone, or the hydrology and hydraulics together.

**Pricing Form**

**Hydrology Price**                      \$ \_\_\_\_\_

**HST**    \$ \_\_\_\_\_

**Total**    \$ \_\_\_\_\_

**Hydrology and Hydraulics Price**                      \$ \_\_\_\_\_

**HST**    \$ \_\_\_\_\_

**Total**    \$ \_\_\_\_\_

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
\_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**FAX:** \_\_\_\_\_

**SIGNATURE OF BIDDER:** \_\_\_\_\_

**PRINT NAME:** \_\_\_\_\_

**DATE SIGNED:** \_\_\_\_\_

# APPENDIX D

## Clarence Creek

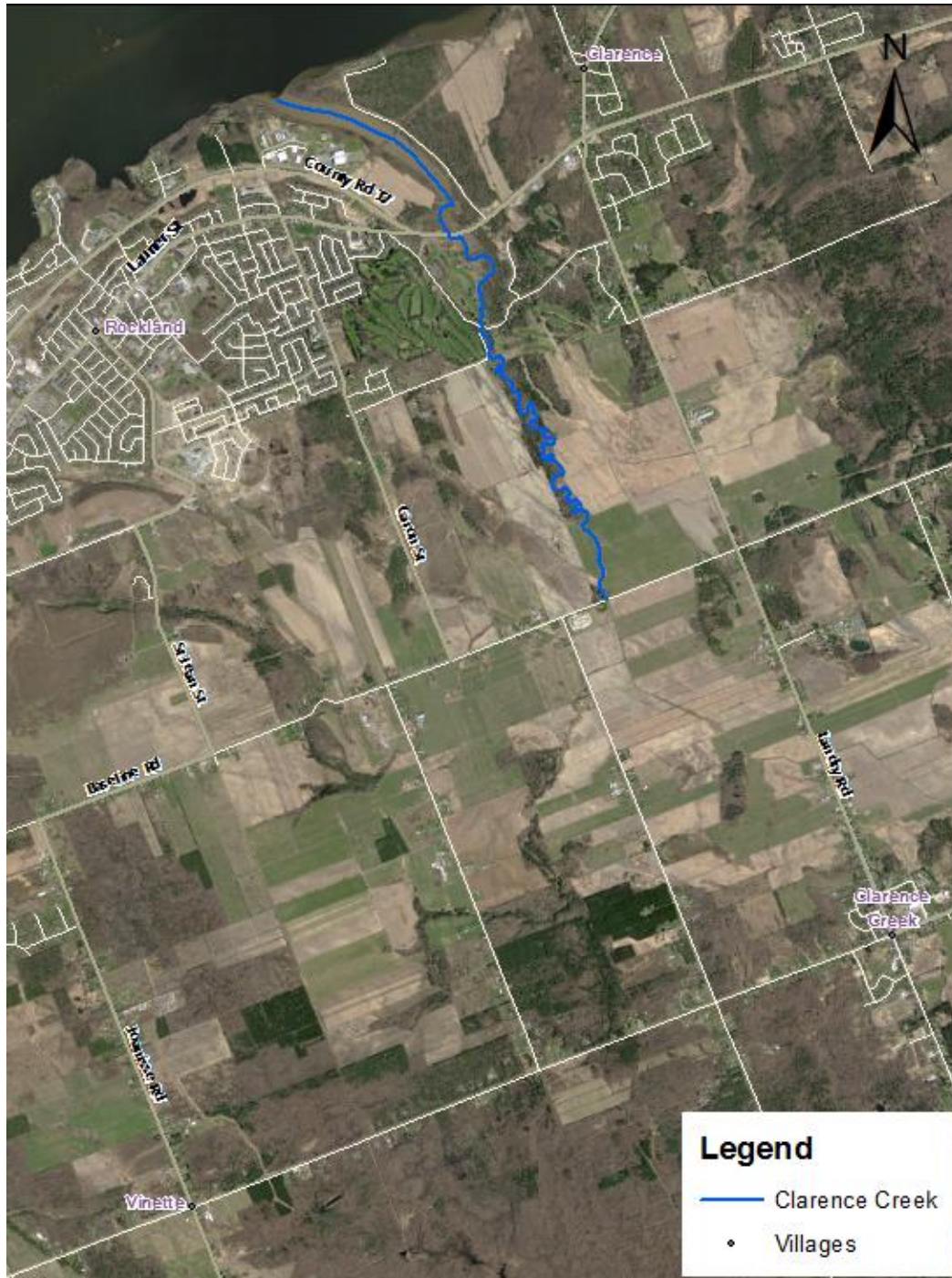


Figure 1: Clarence Creek with length of 6.55 km