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## **Clean Water Committee**

# **Meeting Agenda**

***\*\* PLEASE NOTE DATE AND START TIME***

**Date: Monday, June 8<sup>th</sup>, 2020**

**Time: 9:00 a.m.**

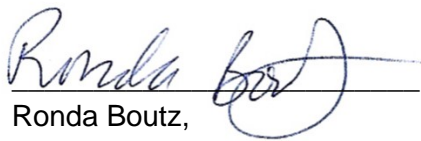


## Clean Water Committee

### Meeting Agenda

Monday, June 8<sup>th</sup>, 2020 at 9:00 a.m.

	Page No.
1. Welcome and Chair's Remarks	
2. Approval of Agenda and Supplemental Agenda (if any)	
3. Declarations of Conflict of Interest	
4. Request for Approval: Electronic Meeting Procedures: Ronda	3
5. Approval of:	
a. Clean Water Committee Meeting Minutes of March 5 <sup>th</sup> , 2020	4-11
b. Joint Standing Committee Meeting Minutes of March 5 <sup>th</sup> , 2020	12-16
6. Business Arising from Minutes:	
a. Request for Approval: 2020 EOWRP Budget: Ronda	17-19
b. Request for Approval: 2020 Eastern Ontario Children's Water Festival EOWRP Grant Deadline Extension: Ronda	20
c. Clean Water Program Working Group: Ronda	Verbal
7. Roundtable: Community Engagement	
8. New Business	
a. Eastern Ontario Water Resources Program Proposals: Ronda	21-22
i. Improving program and demonstration farm visibility within Eastern Ontario: Brendan Jacobs	23-24
ii. Lagoon Effluent Tree Irrigation and Evapo-transpiration Study: Chris Kinsley	25-26
iii. City of Ottawa Climate Station: Kat Watson	27-29
iv. Phase 1: South Nation River Watershed Water Budget Update Plan: Kat Watson	30-32
v. The Use of Radionuclides to Identify Vulnerable Fractured and Karst Bedrock Aquifers in Eastern Ontario: Alex Harrison	33-39
b. Request for Approval: Extension to Project Approval Deadlines: Lorie	40-41
c. Ottawa Rural Clean Water Program Project Applications: Reps	42
d. Summary of Clean Water Program Applications: Ronda	43-44
e. Clean Water Program Project Applications: Reps	45-66
9. Supplemental Agenda (if any)	
10. Next Meeting - September 14 <sup>th</sup> , 2020 at 9:00 a.m.	
11. Adjournment	

  
Ronda Boutz,  
Team Lead, Special Projects.



**To:** Clean Water Committee  
**From:** Ronda Boutz, Team Lead, Special Projects  
**Date:** May 25<sup>th</sup>, 2020  
**Subject:** Request for Approval: Electronic Meeting Procedures

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**RECOMMENDATION:**

The Clean Water Committee approve the Electronic Meeting procedures as outlined in this report.

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**DISCUSSION:** As a result of COVID-19, physical attendance at the Clean Water Committee meeting will be limited to the Ronda Boutz, Team Lead, Special Projects and Lorie Henderson, Administrative Assistant.

**Meeting Procedures:**

- Call in with the conference call number, and conference PIN number, and/or MS Teams meeting link, which will be provided 48 hours in advance;
- The Moderator will provide access as each Member calls in; if at all possible, please call in (or join MS Teams meeting) at least 10 minutes prior;
- At 9:00 a.m., the Chair will call the meeting to order;
- The Administrative Assistant will do Roll Call for attendance purposes;
- Report Presentations:
  - Staff will present each report;
  - The Chair will read the motion; call for a Mover, then call for a Seconder;
  - Ask for questions - 5-minute speaking rule applies;
  - The Chair will do a roll call vote of each member;
  - The Chair will then say 'Carried' or 'Defeated'.

**Reminders:**

- Please remain on mute unless speaking;
- Please don't speak unless you call for a point of order; then state your name for the Chair to receive permission to speak; and
- Please verbally advise the Chair when leaving the conference call.
- Audio of the meeting will be live-streamed and recorded for posting on the SNC webpage following the meeting.

Ronda Boutz,  
Team Lead, Special Projects.



## CLEAN WATER COMMITTEE MEETING

Meeting No. 01/20  
Thursday, March 5<sup>th</sup>, 2020 – 9:30 a.m.

Watershed Room, SNC

### Present:

Jacqueline Kelly-Pemberton, Committee Chair  
Ray Beauregard  
Russell Bennett  
Michel Kearney  
Alan Kruszel  
Lawrence Levere  
Glenn Mackey  
Tara Redpath  
Norman Riopel  
Terrence Sauvé  
Bill Smirle, SNC Chair (ex-officio)  
François St. Amour  
Doug Thompson, SNC Past Chair (ex-officio)  
Adrian Wynands

### Regrets:

George Darouze, SNC Vice Chair (ex-officio)  
Elizabeth Holmes  
Marc Laflèche  
Jack Hoogenboom  
René Lalonde  
David Lapen  
André Pommainville

### Absent:

Gib Patterson

### Staff Present:

Ronda Boutz, Team Lead, Special Projects  
Lorie Henderson, Administrative Assistant  
Kelsey Smith, Stewardship and Outreach Assistant







### **CHAIRS REMARKS**

Jacqueline Kelly-Pemberton, Committee Chair, called the Clean Water Committee meeting to order at 9:30 a.m. and welcomed everyone.

### **APPROVAL OF CLEAN WATER COMMITTEE MEETING AGENDA**

RESOLUTION NO. CWC-001/20

Moved by: Alan Kruszel  
Seconded by: Glenn Mackey

RESOLVED THAT:

The Members approve the Clean Water Committee agenda of March 5<sup>th</sup>, 2020 as submitted.

CARRIED

### **DECLARATION OF CONFLICT OF INTEREST**

There were no Declarations of Conflict of Interest.

### **APPROVAL OF:**

### **CLEAN WATER COMMITTEE MEETING MINUTES OF NOVEMBER 25<sup>th</sup>, 2019**

RESOLUTION NO. CWC-002/20

Moved by: François St. Amour  
Seconded by: Doug Thompson

RESOLVED THAT:

The Members approve the Clean Water Committee meeting minutes of November 25<sup>th</sup>, 2019 as submitted.

CARRIED

### **STAFF UPDATE - POWERPOINT PRESENTATION**

Staff presented the Committee with a program update.

### **NEW BUSINESS**

### **REQUEST FOR APPROVAL: ELECTION OF COMMITTEE CHAIR**

RESOLUTION NO. CWC-003/20

Moved by: Ray Beauregard  
Seconded by: Doug Thompson



RESOLVED THAT:

The Committee Members appoint Ronda Boutz, Team Lead, Special Projects as the Election Chair; and

FURTHER THAT:

SNC Administrative By-law 15.3: '*All elections shall be in accordance with the Procedures for Election of Officers*' be adhered to.

CARRIED

Ronda Boutz, Election Chair, declared the Clean Water Committee Chair position vacant.

**ELECTION OF COMMITTEE CHAIR**

Call for nominations three times for election of Chair (no seconder required).

**First Call for Nominations:**

Moved by: Adrian Wynands

Jacqueline Kelly-Pemberton be nominated for Chair, Clean Water Committee.

**Second Call for Nominations: None**

**Third Call for Nominations: None**

**Hearing none**, nominations closed for the position of Chair, Clean Water Committee.

Jacqueline Kelly-Pemberton accepted the nomination for Chair, Clean Water Committee.

**Approval of the following Motion:**

RESOLUTION NO. CWC-004/20

Moved by: Adrian Wynands

Seconded by: Alan Kruszel

RESOLVED THAT:

For the year 2020, and until the Joint Standing Committee Meeting of 2021, that Ms. Jacqueline Kelly-Pemberton be elected as Chair of the Clean Water Committee.

CARRIED



Jackie Pemberton thanked everyone for the continued support and for re-electing her as Clean Water Committee Chair.

**REQUEST FOR APPROVAL: 2020 CLEAN WATER COMMITTEE MEMBERSHIP**

RESOLUTION NO. CWC-005/20

Moved by: Ray Beauregard

Seconded by: Glenn Mackey

RESOLVED THAT:

The Clean Water Committee recommends to the Board of Directors to add four additional members to the Committee to bring total membership (not including ex-officio) to 19 members for 2020; and

FURTHER THAT:

The Clean Water Committee recommends the following Clean Water Committee membership to the Board of Directors for 2020 as amended:

- **Jackie Kelly-Pemberton, Committee Chair**
- Ray Beauregard
- Russell Bennett
- Elizabeth Holmes (non-voting)
- Jack Hoogenboom
- Michel Kearney
- Alan Kruszel
- Marc Laflèche
- René Lalonde
- David Lapen
- Lawrence Levere
- Glenn Mackey
- Gib Patterson
- André Pommainville
- Tara Redpath
- Normand Riopel
- Terrence Sauvé
- François St. Amour
- Adrian Wynands
- Bill Smirle, SNC Chair, (ex-officio)
- George Darouze, SNC Vice Chair, (ex-officio)



- Doug Thompson, SNC Past Chair,  
(ex-officio)

CARRIED

**COMMITTEE RECOMMENDATION FOR FRIENDS OF SOUTH NATION**

RESOLUTION NO. CWC-006/20

Moved by: Alan Kruszel  
Seconded by: Bill Smirle

RESOLVED THAT:

The Committee recommends that Norm Tinkler be recognized as a "Friends of the South Nation".

CARRIED

**REQUEST FOR APPROVAL: CLEAN WATER COMMITTEE MANDATE**

RESOLUTION NO. CWC-006/20

Moved by: Russell Bennett  
Seconded by: Alan Kruszel

RESOLVED THAT:

The Clean Water Committee review the draft Clean Water Committee mandate and provide feedback to staff; and

FURHTER THAT:

The Clean Water Committee recommends the Clean Water Committee mandate to the Board of Directors as amended.

CARRIED

**REQUEST FOR APPROVAL: EASTERN ONTARIO WATER RESOURCES PROGRAM 2019  
FINANCIAL STATEMENT – AS OF DECEMBER 31<sup>st</sup>, 2019**

RESOLUTION NO. CWC-007/19

Moved by: François St. Amour  
Seconded by: Adrian Wynands

RESOLVED THAT:

The Clean Water Committee approve the Eastern Ontario Water Resources Program Financial Statement as of December 31<sup>st</sup>, 2019.

CARRIED

**Bill Smirle left the meeting at 9:55 a.m.  
Doug Thompson left the meeting at 10:00 a.m.**



**Glen Mackey left the meeting at 10:00 a.m.**  
**Terrence Sauvé joined the meeting at 10:00 a.m.**

**REQUEST FOR APPROVAL: 2020 EASTERN ONTARIO WATER RESOURCES PROGRAM**

RESOLUTION NO. CWC-008/20

Moved by: Ray Beauregard  
Seconded by: Lawrence Levere

RESOLVED THAT:

The Clean Water Committee approves status quo for 2020 for the Eastern Ontario Water Resources Program (EOWRP) Application Form, Guidelines, and Rating System; and

FURTHER THAT:

The Clean Water Committee approves issuing a 2020 call for EOWRP grant proposals to be submitted for consideration at the June 8<sup>th</sup>, 2020 Clean Water Committee; and

FURTHER THAT:

Staff provide the final 2020 EOWRP budget to the Clean Water Committee at the June 8<sup>th</sup>, 2020 meeting.

CARRIED

**UPDATE: 2019 CLEAN WATER PROGRAM SUMMARY**

RESOLUTION NO. CWC-009/20

Moved by: Adrian Wynands  
Seconded by: Lawrence Levere

RESOLVED THAT:

The Clean Water Committee receive and file the Update: 2019 Clean Water Program Summary report.

CARRIED

**UPDATE: 2020 CLEAN WATER COMMITTEE WORK PLAN**

RESOLUTION NO. CWC-010/20

Moved by: Michel Kearney  
Seconded by: François St. Amour

RESOLVED THAT:

The Clean Water Committee receives and files the 2020 Clean Water Committee Work Plan update; and



FURTHER THAT:

The Committee provide comments for consideration on the 2021 Work Plan deliverables.

CARRIED

**REQUEST FOR APPROVAL: 2020 CLEAN WATER PROGRAM GUIDELINES AND 2020 STRUCTURE:**

RESOLUTION NO. CWC-011/20

Moved by: Adrian Wynands  
Seconded by: Alan Kruszel

RESOLVED THAT:

The Clean Water Committee recommends to the Board of Directors to approve the status quo for 2020 for the Clean Water Program Guidelines, Grant Structure, application review process and all project Rating Sheets; and

FURTHER THAT:

A working group be formed with the following members, to review grant structure and project guidelines for the 2021 Clean Water Program:

- Jackie Kelly-Pemberton
- Alan Kruszel
- Tara Redpath
- Terrance Sauvé

CARRIED

**CONFIRM COMMITTEE REPRESENTATION AT MARCH 19<sup>th</sup>, 2020 BOARD MEETING**

Jacqueline Kelly-Pemberton is unable to attend the March 19<sup>th</sup>, 2020 Board of Directors Meeting. Lawrence Levere will be presenting the Clean Water Committee meeting minutes in her absence.

**NEXT MEETING**

Clean Water Committee – June 8<sup>th</sup>, 2020 at 9:00 a.m., Watershed Room, SNC Office.

**DATE CHANGE FOR NOVEMBER 23<sup>rd</sup>, 2020 CLEAN WATER COMMITTEE MEETING**

RESOLUTION NO. CWC-012/20

Moved by: Russell Bennett  
Seconded by: Alan Kruszel



RESOLVED THAT:

The Committee approves the November 23, 2020  
Clean Water Committee meeting be changed to  
November 30, 2020.

CARRIED

**ADJOURNMENT**

RESOLUTION NO. CWC-013/20

Moved by: Alan Kruszel

RESOLVED THAT:

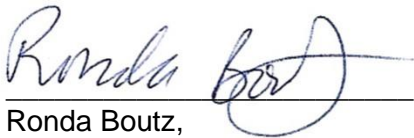
The Clean Water Committee meeting of  
March 5<sup>th</sup>, 2020 be adjourned at 11:00 a.m.

CARRIED

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Jacqueline Kelly-Pemberton,  
Committee Chair.

/lh



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Ronda Boutz,  
Team Lead, Special Projects.



## Joint Standing Committee Meeting

Thursday March 5<sup>th</sup>, 2020: 1:00 p.m.  
South Nation Conservation Meeting Rooms

### Present

#### SNC Board of Directors:

Bill Smirle, SNC Chair  
Doug Thompson, SNC Past Chair  
Gerrie Kautz, City of Ottawa

#### Committee Members:

##### **Clean Water Committee**

Jacqueline Kelly-Pemberton, Committee Chair, Clean Water  
Ray Beauregard, Beef Farmers of Ontario  
Russell Bennett, Farmer  
Lawrence Levere, Past Board Member  
Glenn Mackey, Past Board Member

##### **Fish and Wildlife Committee**

Fred Schueler, Committee Chair, Fish and Wildlife  
Malcolm Clark, Russell Fish and Game  
Bruce Clarke, Ottawa Fly Fishers  
Alvin Cluff-Clyburne, Russell Fish and Game Club  
Doug Culver, Naturalist / Recreational Angler  
Stéphane Dubuc, Trapper  
Cyril Holmes, Grenville Fish and Game Club  
Aleta Karstad, Fragile Inheritance Natural History  
Kirk Myelde, Member at Large  
Glen Runions, Member at Large  
Larry Smith, South Nation Archery Supply

##### **Forestry Committee**

François Allard, Private Citizen  
Lloyd Benedict, Mohawks of Akwesasne  
Alain Bertrand, Private Citizen  
Dorothy Hamilton, SDG OWA  
Ron Toonders, Ag Soil and Crop

##### **Communications Committee**

Charles Armstrong, Public Citizen  
Gerry Boyce, North Dundas  
Tim Jackson, Public Citizen  
Gerrie Kautz, Board Member  
Lawrence Levere, Past Board Member







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Cindy Saucier, Councillor, Russell  
Karen Switzer-Howse, Public Citizen  
Tom Van Dusen, Van Dusen Communications  
Byron Vienneau, Public Citizen

Staff Present:

Angela Coleman, General Manager/Secretary-Treasurer  
Ronda Boutz, Team Lead, Special Projects  
Taylor Campbell, Communications Specialist  
John Mesman, Team Lead, Communications  
Dianne MacMillan, Administrative Assistant  
Alison McDonald, Team Lead, Approvals  
Karen Paquette, Fisheries Technician  
Kelsey Smith, Stewardship and Outreach Assistant



**WELCOME:**

Bill Smirle, SNC Chair, opened the Joint Standing Committee meeting of March 5<sup>th</sup>, 2020 at 1:00 p.m. and welcomed members. Chair Smirle provided the following opening comments:

- Stressed the importance of the joint meeting, to understand the work and responsibilities of each Committee
- Emphasized the importance of Standing Committee's input to the Board of Directors who review and approve the minutes and recommendations of the Committees

**GENERAL MANAGER'S COMMENTS**

Angela Coleman, General Manager/Secretary-Treasurer updated the Committee members on the on-going work and responsibilities of South Nation Conservation, and thanked members for their participation, involvement and dedication to the local environment. The General Manager encouraged the Standing Committee members to fill out a survey being administered by the provincial government seeking public input on proposed changes to the *Conservation Authorities Act*, which could change how Conservation Authorities operate and provide environmental services to residents.

**APPROVAL OF JOINT STANDING COMMITTEE AGENDA**

RESOLUTION NO. JSC-001/20

Moved by: Tim Jackson  
Seconded by: Jacqueline Kelly-Pemberton

RESOLVED THAT:

The Committee Members approve the Joint Standing Committee agenda for March 5<sup>th</sup>, 2020 as presented.

CARRIED

**APPROVAL OF JOINT STANDING COMMITTEE MEETING MINUTES OF  
MARCH 7<sup>TH</sup>, 2019**

RESOLUTION NO. JSC-002/20

Moved by: Doug Thompson  
Seconded by: Glenn Mackey

RESOLVED THAT:

The Committee Members approve the Joint Standing Committee meeting minutes of March 7<sup>th</sup>, 2019 as presented.

CARRIED



**STANDING COMMITTEE CHAIR'S REMARKS:**

The Committee Chairs provided an overview of their Committee programs and projects.

RESOLUTION NO. JSC-003/20

Moved by: Larry E. Smith  
Seconded by: Lawrence Levere

RESOLVED THAT:

The Committee Members receive and file the verbal updates of the Standing Committee Chairs.

CARRIED

**STANDING COMMITTEE TERMS OF REFERENCE REVIEW**

RESOLUTION NO. JSC-004/20

Moved by: Ray Beauregard  
Seconded by: Jacqueline Kelly-Pemberton

RESOLVED THAT:

The Joint Standing Committees provide feedback on the Standing Committee Terms of Reference review.

CARRIED

**UPDATE: ENVIRONMENTAL PLANNING STUDY – ENGAGEMENT ACTIVITIES /  
NATURAL FEATURES PROJECT – PARTNER COUNTY PLANNING  
STUDY INFORMATION**

RESOLUTION NO. JSC-005/20

Moved by: Russell Bennett  
Seconded by: Tim Jackson

RESOLVED THAT:

The Joint Standing Committees receive information on the environmental planning study being conducted by SNC on behalf of the United Counties of Stormont, Dundas, and Glengarry (SDG), and the United Counties of Prescott Russell (UCPR); and



FURTHER THAT:

The Joint Standing Committees receive information on planned engagement activities for Fall 2020.

CARRIED

**HOUSEKEEPING**

Ronda Boutz, Team Lead, Special Projects, and John Mesman, Team Lead, Communications updated Members on the following subjects:

- a. Members Page
- b. Social Media Platforms
- c. Volunteer Paperwork for Per Diem / Mileage

**CLOSING REMARKS**

Bill Smirle, SNC Chair, thanked members for attending the Joint Standing Committee meeting day, their on-going work for SNC programs and projects, and the SNC staff for their continued support. Chair Smirle noted to members that SNC is one of the first Conservation Authorities incorporated in Ontario, and the only one to continue to expand its' jurisdiction.

**ADJOURNMENT**

RESOLUTION NO. JSC-006/20

Moved by: Doug Thompson

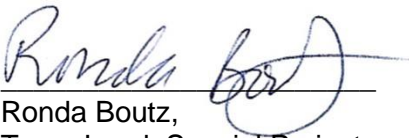
RESOLVED THAT:

The Joint Standing Committee meeting of March 5<sup>th</sup>, 2020 be adjourned at 3:08 p.m.

CARRIED

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Bill Smirle,  
SNC Chair.



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Ronda Boutz,  
Team Lead, Special Projects.

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John Mesman,  
Team Lead, Communications.

/dm



**To:** Clean Water Committee  
**From:** Ronda Boutz, Team Lead, Special Projects  
**Date:** May 29, 2020  
**Subject:** Request for Approval: 2020 EOWRP Budget

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**RECOMMENDATION:**

The Clean Water Committee approves the 2020 Eastern Ontario Water Resources Program (EOWRP) Budget as presented.

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**DISCUSSION:**

The City of Ottawa approved the 2020 Eastern Ontario Water Resources Program (EOWRP) Special Levy (\$50,000) at their May 13, 2020 Special Meeting.

Staff presented a draft 2020 EOWRP Budget at the March 5, 2020 Committee meeting. Since then, staff have finalized the South Bear Brook Catchment Study (EOWRP Special Project) work plan with the City of Ottawa.

The final budget reflects the draft presented, there are no revisions to line items or amounts. A copy of the final 2020 EOWRP Budget is attached.

**FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:**

Compliance with Budget: Funding for the Eastern Ontario Water Resources Program is included in the 2019 Budget under Resource Management: Partner Programs: Water on pages 18-19.

SNC Policy Adherence: All expenditures for the Eastern Ontario Water Resources Program (EOWRP) adhere to the SNC Purchasing Policy and the approved EOWRP Budget.

Ronda Boutz,  
Team Lead, Special Projects.

Attachments: 2020 Eastern Ontario Water Resources Program Budget



### **2020 Eastern Ontario Water Resources Program Budget**

		<b>2020 Budget</b>
<b>Revenue:</b>		
a)	United Counties of Prescott-Russell	\$25,000
b)	City of Ottawa	\$50,000
c)	Carry-over of 2019 encumbered funds	\$38,902
<b>TOTAL REVENUE</b>		<b>\$113,902</b>
<b>Expenses:</b>		
d)	EOWRP Project Management and Outreach	\$4,815
e)	EOWRP – Committee Representative Expenses	\$1,000
f)	EOWRP Grants	
	i) 2019: Eastern Ontario Children's Water Festival	\$2,031
	ii) 2019: Development of groundwater/surface water interaction constraint mapping	\$3,124
	iii) 2020 Project Grants	\$25,000
g)	EOWRP Special Projects	
	i) 2019: North Castor Catchment Study	\$15,000
	ii) 2019: Low Impact Development Project	\$18,737
	iii) 2020: UCPR Floodplain Mapping	\$25,000
	iv) 2020: South Bear Brook Catchment Study	\$19,195
<b>TOTAL EXPENSES</b>		<b>\$113,902</b>

#### **Budget Notes**

- a) **United Counties of Prescott-Russell (P&R)**  
P&R approved a 2020 EOWRP contribution of \$25,000 to a Floodplain Mapping Special Project.
- b) **The City of Ottawa**  
The City of Ottawa has budgeted \$50,000 to EOWRP for 2020. Approximately \$19,195 has been earmarked for a Special Project (South Bear Brook Catchment Study, see budget note g), the remaining funds will be allocated as EOWRP grants (\$25,000), Committee expenses (\$1,000), and project management including costs associated with the call for grant proposals (\$4,815).
- c) **Carry-over of 2019 encumbered funds**  
This encumbered 2019 funding has been carried into the 2020 budget. A total of \$38,874 is encumbered to two EOWRP Special Projects and two EOWRP grants for projects approved in 2019 for 2020 completion. The remaining \$28 is surplus from Committee meeting expenses, this amount has been carried forward and allocated to Committee meeting expenses in 2020.



d) **Project Management**

South Nation Conservation is retained as the project manager for EOWRP to provide the following services: facilitation of the EOWRP reports to the Clean Water Committee; coordination of project proposals and payments for approved projects, reporting to EOWRP funders, and preparation of financial statements (as banker for EOWRP). This line item also includes expenses related to issuing a call for project proposals.

e) **EOWRP – Committee Representative Expenses**

This item includes payment of volunteer EOWRP Clean Water Committee representatives (per diem and mileage) to attend meeting and presentations related to EOWRP business.

f) **EOWRP Grants**

Approximately \$25,000 is available in 2020 for allocation to project proposals approved by the Clean Water Committee as per the EOWRP guidelines and rating system. Encumbered 2019 funds for two EOWRP projects is also included in this line item.

g) **EOWRP Special Projects**

EOWRP funding partners have earmarked funding to EOWRP Special Projects as follows:

<b>2019 Special Projects – 2020 completion</b>	<b>2019 Funds</b>
City of Ottawa: North Castor Catchment Study	\$15,000
City of Ottawa: Low Impact Development Project	\$18,737
<b>TOTAL</b>	<b>\$33,737</b>
<b>2020 Special Projects</b>	<b>2020 Funds</b>
UCPR: Floodplain Mapping	\$25,000
City of Ottawa: South Bear Brook Catchment Study	\$19,195
<b>TOTAL</b>	<b>\$44,195</b>



**To:** Clean Water Committee  
**From:** Ronda Boutz, Team Lead, Special Projects  
**Date:** May 4, 2020  
**Subject:** Request for Approval: 2020 Eastern Ontario Children's Water Festival  
EOWRP Grant Deadline Extension

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**RECOMMENDATION:**

The Clean Water Committee approves an extension to the 2020 Eastern Ontario Children's Water Festival grant, under the Eastern Ontario Water Resources Program, until December 1, 2020.

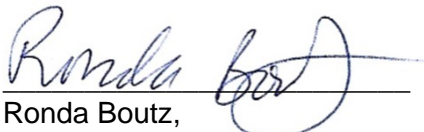
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**DISCUSSION:**

The St. Lawrence River Institute of Environmental Sciences (SLRIES) was approved for an Eastern Ontario Water Resources Program (EOWRP) grant of \$2,013 for the 2020 Eastern Ontario Children's Water Festival.

Funding was to support the Casselman festival scheduled for spring 2020. Due to the COVID-19 pandemic, the spring festival was postponed and will be delivered in the fall if public health restrictions allow for gatherings at that time.

SLRIES has requested an extension to their EOWRP grant deadline to allow for a fall delivery of the festival.



Ronda Boutz,  
Team Lead, Special Projects.





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**To:** Clean Water Committee  
**From:** Ronda Boutz, Team Lead, Special Projects  
**Date:** May 29, 2020  
**Subject:** Eastern Ontario Water Resources Program Proposals

**RECOMMENDATION:**

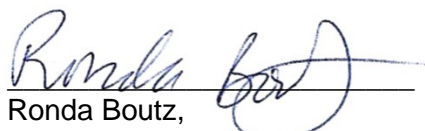
None, report is for information purposes.

**DISCUSSION:**

As per the 2020 EOWRP Budget, there is \$25,000 available for allocation to eligible projects. Below is a list (in no particular order) of project proposals, lead applicant, and amount requested.

Proposed Project	Lead Applicant	Amount Request
Improving program and demonstration farm visibility within Ontario East	Ontario East Alternative Land Use Services Inc.	\$7,900
Lagoon Effluent Tree Irrigation and Evapo-transpiration Study	University of Ottawa	\$3,000
City of Ottawa Climate Station	South Nation River Conservation Authority	\$10,000
Phase 1: South Nation River Watershed Water Budget Update Plan	South Nation River Conservation Authority	\$10,000
The use of Radionuclides to Identify Vulnerable Fractured and Karst Bedrock Aquifers in Eastern Ontario	Rachel Alexandra Harrison	\$3,000
<b>Total Requested</b>		<b>\$33,900</b>
Amount Available		\$25,000
Surplus/(Deficit)		\$(8,900)

The Committee will review and rate projects as per the 2020 EOWRP Guidelines. A copy of the Guidelines is attached for reference. Clean Water Committee member organizations submitting project proposals will abstain from the project proposal review and approval process.

  
Ronda Boutz,  
Team Lead, Special Projects

Attachment: EOWRP Project Proposal Guidelines



### **EOWRP Project Proposal Guidelines**

Proponents wishing to submit project proposals for EOWRP funding must complete the EOWRP Funding Application. Proposals must address recommendations from the Eastern Ontario Water Resources Management Study ([www.nation.on.ca/resources/science-research/technical-reports](http://www.nation.on.ca/resources/science-research/technical-reports)).

The application form must be received by South Nation Conservation, by the date indicated in the call for proposals. For more information, contact Ronda Boutz at [rboutz@nation.on.ca](mailto:rboutz@nation.on.ca) or 1-877-984-2948.

Clean Water Committee (CWC) members submitting project proposals will abstain from the EOWRP project proposal review and approval process.

Project proposals will be reviewed by the CWC based on the project rating system below.

#### **EOWRP Rating System:**

<b>Criteria</b>	<b>Available Points</b>	<b>Points Awarded</b>
1. Relevance to EOWRMS goals and recommendations (e.g. <i>impact on protecting water resources and achieving EOWRMS recommendations</i> )	10	
2. Project location and applicability and transferability to other areas within the EOWRMS Study Area	5	
3. % of project budget that is EOWRP funds and allocation of funding to overall project budget (e.g. <i>admin, staffing, materials and supplies, etc.</i> )	5	
<b>TOTAL</b>	<b>20</b>	

#### **EOWRP Approved Projects:**

EOWRP projects are required to report to the CWC periodically with progress reports and must provide a final report.

Final approved project reports will present the EOWRMS recommendation addressed, a summary of results associated with the project deliverables, a detailed budget, and future recommendations if applicable. The final report will be no longer than 3 pages in length, additional information can be provided to the CWC during the meeting.

Satisfactory invoices will be required for all projects completed and records available on request for audit purposes.

Payment terms are such that funding will be provided after the project is complete (final report provided to the EOWRP). Interim billing will only be considered on a case-by-case basis, proponents must request interim payment at time of application and provide justification for the request.

*Approved: March 5, 2020*



# Eastern Ontario Water Resources Program / Programme des ressources en eau de l'Est de l'Ontario

## Proposal Submission Form

Item	Description
1	<b>Applicant:</b>
	Name of Lead Applicant: Brendan Jacobs
	Name(s) of Partners: Raisin Region Conservation Authority, South Nation Conservation, Ontario Woodlot Association SD&G Chapter, Boisés Est,
2	<b>Contact Information:</b>
	Administrative Contact: Name and Contact Info Brendan Jacobs (Program Coordinator); 18045 County Road 2, Cornwall, Ontario, K6H 5T2, 613-938-3611 x234; cell (internal use) 514-961-5430.
	Signing Authority name(s) and position(s) Richard Pilon (General Manager, RRCA - Legal Entity for ALUS Ontario East) John Van Turnhout (PAC Chair, ALUS Ontario East)
	Legal Name of Lead Applicant Ontario East Alternative Land Use Service Inc.
3	<b>Name of Proposed Project:</b> Improving program and demonstration farm visibility within Ontario East
4	<b>Program Funding Request:</b> Total = \$7,900
5	<b>Project Description:</b> The intent of this project is to enhance the visibility of the ALUS Ontario East program, our partnerships, and participating landowners through the design and development of program and project-related outreach material and signage. This includes, but is not limited to, a community logo, program banner, demonstration farm signage, farm gate signs, and project-specific interpretive eco-type signs. Materials produced will be bilingual, and will recognize program and project partners, as required, or defined by ALUS Canada.
6	<b>Program Recommendations Addressed:</b>  (Reference ID# from Program Recommendations Summary Table in Appendix A of the Project Proposal Guidelines)  #2 - Water Resource Protection Land Use Policies #10 - Non-Point Source (NPS) Reduction Program #12 - Total Phosphorus Management (TMP) Program # 24 Public Education #30 - Stream Corridor Protection Plan #33 - Woodland Protection Policies

Item	Description
7	<p><b>Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area:</b></p> <p>The results of the Agri-Action Tour last fall and followup survey highlighted that there is an interest and an increased need for stewardship programming and partnerships within Eastern Ontario. For many of the participants, it was their first exposure to the ALUS program, local projects, and possible partnerships. This project will bring forward the public face of ALUS within the community and highlight our partnerships and projects throughout Ontario East. By increasing our visibility and ability to reach landowners, we will be better positioned to fill in stewardship programming gaps, where they exist. ALUS Ontario East will also build on our partnerships with existing programs or organizations to deliver increased support to landowners looking to implement land stewardship projects and BMPs on their farms as well as support municipalities interested in incorporating agricultural stewardship into their local plans.</p>

8	<b>Project Location(s):</b> Materials produced over the course of this project will be displayed at various demonstration farms as well as outreach and education events within the ALUS Ontario East area of operation (Raisin-South Nation Source Protection Area).				
9	<b>Deliverables Schedule:</b>				
	<b>Description of Deliverables</b>  <i>Note: Written deliverables for public distribution must be Bilingual – English and French</i>	<b>Bilingual</b>			<b>Delivery Date</b>
		<b>Yes</b>	<b>No</b>	<b>N/ A</b>	
	Community Logo	X			September 2020
	Pull Up Banner	X			December 2020
	Demonstration Farm Sign with Partner Recognition	X			December 2020
	Mail Box Sign	X			December 2020
	Interpretive Eco-Type Signage	X			December 2020
10	<b>Detailed Budget</b>				
	<b>Expenditure</b> (provide detailed breakdown)	<b>Program Funding</b>	<b>Lead/Partner Funding</b>	<b>Total</b>	
	Design Community Logo x 1	400	600	1000	
	Pull Up Banner x 2	800	0	800	
	Demonstration Farm Sign x 4	1500	500	2000	
	Mail Box Sign x 40	1500	600	2100	
	Interpretive Eco-Type Signage x 2-4	1500	500	2000	
	<b>Total</b>			<b>\$7,900</b>	



# Eastern Ontario Water Resources Program / Programme des ressources en eau de l'Est de l'Ontario

## EOWRP Proposal Submission Form

Item	Description
1	<b>Applicant:</b>
	Name of Lead Applicant: University of Ottawa (Chris Kinsley, Civil Engineering)
	Name(s) of Partners: Township of Alfred-Plantagenet, OCWA
2	<b>Contact Information:</b>
	Administrative Contact: Name and Contact Info Chris Kinsley. Email: ckinsley@uottawa.ca, Cell: 613-677-2559
	Signing Authority name(s) and position(s) Brian Julien, Assistant Director, Research Collaborations
	Legal Name of Lead Applicant University of Ottawa
3	<b>Name of Proposed Project:</b> Lagoon Effluent Tree Irrigation and Evapo-transpiration Study
4	<b>Program Funding Request:</b> \$3,000
5	<b>Project Description:</b> A pilot study of applying municipal lagoon effluent to a tree plantation will be undertaken at the Alfred Municipal Lagoon. The study will evaluate the most likely tree species, determine optimum effluent loading rates and evaluate reduction and uptake of nutrients (N,P).
6	<b>Program Recommendations Addressed:</b> (Reference ID# from Program Recommendations Summary Table in Appendix A of the Project Proposal Guidelines) #11. Municipal Sewage Treatment Optimization, #12 Total Phosphorus Management Program, #13 Regional Sewage Discharge Program, #14. Polish Municipal Lagoon Effluent
7	<b>Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area:</b> The advantages of this passive treatment technology are: 1) increased lagoon capacity and reduced effluent discharge to receiving surface water bodies, 2) Reduced nutrient (N,P) discharge to surface waters, 3) increased tree cover. This technology would be applicable to all seasonal discharge lagoons in the region.

8	<b>Project Location(s):</b> Alfred Municipal Lagoon				
9	<b>Deliverables Schedule:</b>				
	<b>Description of Deliverables</b>  <i>Note: Written deliverables for public distribution must be Bilingual – English and French</i>	<b>Bilingual</b>			<b>Delivery Date</b>
		Yes	No	N/A	
	Establish Tree plantation at Lagoon			X	July 2020
	Sampling Campaign (July - Oct)			X	Oct 2020
	Project Report		X		Dec 2020
10	<b>Detailed Budget</b>				
	<b>Expenditure</b> (provide detailed breakdown)	<b>Program Funding</b>	<b>Lead/Partner Funding</b>	<b>Total</b>	
	Site Establishment (pumps, electrician, trees)	\$3,000	\$7,000	\$10,000	
	Mileage (20 trips@150km x \$0.55/km)		\$1,650	\$1,650	
	Student Stipend		\$5,000	\$5,000	
	Field Sampling and Lab Supplies		\$3,000	\$3,000	
	<b>Total</b>			\$19,650	

**Submit completed application form to  
lhenderson@nation.on.ca**

**Application Deadline: May 31, 201900026**



# Eastern Ontario Water Resources Program / Programme des ressources en eau de l'Est de l'Ontario

## Proposal Submission Form

Item	Description
1	<b>Applicant:</b>
	Name of Lead Applicant: South Nation Conservation
	Name(s) of Partners: MECP, MNRF
2	<b>Contact Information:</b>
	Administrative Contact: Name and Contact Info Sandra Mancini, Team Lead Engineering South Nation Conservation 38 Victoria Street, Finch ON K0C 1K0
	Signing Authority name(s) and position(s) Angela Coleman, General Manager/Secretary-Treasurer Linda Hutchinson, Director Organization Effectiveness
	Legal Name of Lead Applicant South Nation River Conservation Authority
3	<b>Name of Proposed Project:</b> City of Ottawa Climate Station
4	<b>Program Funding Request:</b> \$10,000
5	<p><b>Project Description:</b></p> <p>In recent years, the frequency and severity of floods have increased across Canada. These flood events are often associated with spring snowmelt, rain-on-snow, long-duration heavy precipitation events or short-duration intense storms. Climate change makes these events more likely; land use change associated with urbanization worsens the consequences. Locally, flood events within the Ottawa River basin in 2017 and 2019 have caused substantial damage, including financial losses, damage to infrastructure and reduced crop productivity.</p> <p><b>Having accurate, timely, and reliable climate information, including the occurrence and severity of extreme events and their duration is essential information.</b> This data enhances SNC's ability to predict floods and their associated impacts, and provides municipalities with the ability to prepare and respond quickly and efficiently to save lives, prevent or limit property damage, and relieve local financial burdens.</p> <p>To improve the ability to predict and manage flood risk, SNC proposes to fill in a known gap within the Flood Forecasting and Warning (FF&amp;W) Program by establishing a data collection platform in the City of Ottawa. This station will provide real-time precipitation and climate information. Data will transmit hourly and will be captured in SNC's WISKI platform and hydro-geosphere model, allowing for more timely and precise forecasts. This data is key to making predictions for SNC's Emergency Management Toolkit – an automated alert system that uses products from SNC's Flood Forecasting</p>

Item	Description
	and Warning System and existing flood risk mapping projects, to provide advanced notice of watershed conditions to emergency managers.
6	<p><b>Program Recommendations Addressed:</b> (Reference ID# from Program Recommendations Summary Table in Appendix A of the Project Proposal Guidelines)</p> <p><b>#1 Regional Water Budget:</b> Establish and implement program for collecting complete data on surface groundwater quantity and quality.</p> <p><b>#7 Localized Model Development and Application:</b> collect data and develop model(s).</p> <p><b>#24 Public Education:</b> Multi-faceted plan to increase public understanding and action around surface &amp; groundwater management and protection.</p> <p><b>#28 Regional Water Supply Plan:</b> Identify water sources, quality and quantity; contributes to long-term extraction and protection of water supplies.</p>
7	<p><b>Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area:</b></p> <p>Data collected from the platform will be used in SNC's 3D Hydrologic Model, and will provide essential information for SNC's FF&amp;W Program and Emergency Management Toolkit. Data is applicable to Emergency Response Programs within the City of Ottawa and surrounding Municipalities. Climate information will be shared so that it can be used in other Programs and by other stakeholders (i.e., RVCA FF&amp;W Program, MNRF, MECP, AAFC etc.)</p>

8	<p><b>Project Location(s):</b> The proposed location for the climate station is on an SNC property located south-west of Greely, ON within the City of Ottawa. Data collected from the platform will be used in SNC's Hydro-Geosphere Model, and will provide essential information for SNC's FF&amp;W Program and Emergency Management Toolkit. Climate information will be shared so that it can be used in other Programs.</p>																																									
9	<p><b>Deliverables Schedule:</b></p> <table> <tr> <th rowspan="2">Description of Deliverables</th><th colspan="3">Bilingual</th><th rowspan="2">Delivery Date</th></tr> <tr> <th>Yes</th><th>No</th><th>N/A</th></tr> <tr> <td><i>Note: Written deliverables for public distribution must be Bilingual – English and French</i></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Survey SNC property and determine station location</td><td></td><td></td><td>X</td><td>July 2019</td></tr> <tr> <td>Order equipment, work with MECP/MNRF to secure a GOES NESID for station transmissions to NOAA and WISKI</td><td></td><td></td><td>X</td><td>July 2019</td></tr> <tr> <td>Station Installation – SNC staff has experience with equipment and station installation.</td><td></td><td></td><td>X</td><td>September 2019</td></tr> <tr> <td>Inclusion in WISKI and Hydro-Geosphere Model</td><td></td><td></td><td>X</td><td>September 2019</td></tr> <tr> <td>Education via social media/press release focusing on climate information collection and FF&amp;W Program</td><td>X</td><td></td><td></td><td>October 2019</td></tr> </table>				Description of Deliverables	Bilingual			Delivery Date	Yes	No	N/A	<i>Note: Written deliverables for public distribution must be Bilingual – English and French</i>					Survey SNC property and determine station location			X	July 2019	Order equipment, work with MECP/MNRF to secure a GOES NESID for station transmissions to NOAA and WISKI			X	July 2019	Station Installation – SNC staff has experience with equipment and station installation.			X	September 2019	Inclusion in WISKI and Hydro-Geosphere Model			X	September 2019	Education via social media/press release focusing on climate information collection and FF&W Program	X			October 2019
Description of Deliverables	Bilingual			Delivery Date																																						
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Education via social media/press release focusing on climate information collection and FF&W Program	X			October 2019																																						



	Final Report to Clean Water Committee			X	December 2019
<b>10</b>	<b>Detailed Budget</b>				
	<b>Expenditure</b> (provide detailed breakdown)	<b>Program Funding</b>	<b>Lead/Partner Funding</b>	<b>Total</b>	
	Survey location		\$ 525	\$ 525	
	Equipment	\$ 10,000	\$ 6,000	\$ 16,000	
	Installation (2 staff, 2 days)		\$ 2,100	\$ 2,100	
	<b>Sub-total</b>	\$ 10,000	\$ 8,625	<b>\$ 18,625</b>	



# Eastern Ontario Water Resources Program / Programme des ressources en eau de l'Est de l'Ontario

## Proposal Submission Form

Item	Description						
1	<b>Applicant:</b> <table><tr><td>Name of Lead Applicant:</td><td>South Nation Conservation</td></tr><tr><td>Name(s) of Partners:</td><td></td></tr></table>	Name of Lead Applicant:	South Nation Conservation	Name(s) of Partners:			
Name of Lead Applicant:	South Nation Conservation						
Name(s) of Partners:							
2	<b>Contact Information:</b> <table><tr><td>Administrative Contact: Name and Contact Info</td><td>Michael Melaney, Hydrogeologist South Nation Conservation 38 Victoria Street, Finch ON K0C 1K0</td></tr><tr><td>Signing Authority name(s) and position(s)</td><td>Angela Coleman, General Manager/Secretary-Treasurer Linda Hutchinson, Director Organization Effectiveness</td></tr><tr><td>Legal Name of Lead Applicant</td><td>South Nation River Conservation Authority</td></tr></table>	Administrative Contact: Name and Contact Info	Michael Melaney, Hydrogeologist South Nation Conservation 38 Victoria Street, Finch ON K0C 1K0	Signing Authority name(s) and position(s)	Angela Coleman, General Manager/Secretary-Treasurer Linda Hutchinson, Director Organization Effectiveness	Legal Name of Lead Applicant	South Nation River Conservation Authority
Administrative Contact: Name and Contact Info	Michael Melaney, Hydrogeologist South Nation Conservation 38 Victoria Street, Finch ON K0C 1K0						
Signing Authority name(s) and position(s)	Angela Coleman, General Manager/Secretary-Treasurer Linda Hutchinson, Director Organization Effectiveness						
Legal Name of Lead Applicant	South Nation River Conservation Authority						
3	<b>Name of Proposed Project:</b> Phase 1: South Nation River Watershed Water Budget Update Plan						
4	<b>Program Funding Request:</b> \$10,000						
5	<b>Project Description:</b> <p>The South Nation River watershed is approximately 3,800 km<sup>2</sup>. The area will likely experience changes related to a warming climate, land conversion from forest cover to other land uses, and increasing water demands due to an increasing population. An updated water budget is essential for the South Nation River watershed to effectively evaluate how these future changes may impact water resources.</p> <p>Previous watershed water budgets are dated and do not account for future climate or demographic scenarios. SNC proposes to update the water budget (2008) for the South Nation River watershed using a state of the art 3D hydrologic model developed by Aquanty.</p> <p>The Aquanty model couples the climate/weather system to the terrestrial hydrosphere of the South Nation watershed, creating a fully integrated groundwater-surface water model for the area. The model currently assimilates field data (using real time stream gauges, groundwater levels, soil moisture, and precipitation) and weather forecasts (The Weather Company and the North American Ensemble Forecast System) to produce forecasts for up to 14 days of watershed conditions. Given a different set of inputs, this model has the potential to predict water budgets under different climate, land use or forecast timeframes.</p> <p>Using the 2008 Source Water Protection Water Budget as a reference, SNC will investigate and update current conditions (water losses or gains) in the watershed. SNC will research future climate,</p>						

Item	Description
	land use and water demand scenarios, supported through climate science and Municipal input. SNC will consult with model experts to determine the best way to move forward with a water budget update. The project will include a series of recommendations that will be presented to municipalities and stakeholders. Phase 2 of the project will be a model upgrade to forecast proposed scenarios.
6	<p><b>Program Recommendations Addressed:</b> (Reference ID# from Program Recommendations Summary Table in Appendix A of the Project Proposal Guidelines)</p> <p><b>#1 Regional Water Budget:</b> Establish and implement program for collecting complete data on surface groundwater quantity and quality.</p> <p><b>#5 Groundwater Constraints Mapping:</b> develop a map and documentation identifying limitations on resource development based upon groundwater availability/quality.</p> <p><b>#7 Localized Model Development and Application:</b> collect data and develop model(s).</p> <p><b>#21 Ground Water Management Plans:</b> Develop plans for specific areas that provide policies regarding water supply, water quality, and source vulnerability and protection.</p> <p><b>#25 Groundwater Model:</b> Update model developed for the EOWRMS to include aquifer depth and flow parameters.</p> <p><b>#28 Regional Water Supply Plan:</b> Identify water sources, quality and quantity; contributes to long-term extraction and protection of water supplies.</p>
7	<p><b>Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area:</b> An updated South Nation River Basin water budget is the first step to evaluating how the system responds to changes in climate, land conversion from forest to other land uses, or increased water demands. An updated water budget will assist in the evaluation of possible mitigation actions. The methodology undertaken in this project would be widely shared with other Conservation Authorities and water resources managers.</p>

8	<b>Project Location(s):</b> South Nation River Watershed				
9	<b>Deliverables Schedule:</b>				
	<b>Description of Deliverables</b>  <i>Note: Written deliverables for public distribution must be Bilingual – English and French</i>	<b>Bilingual</b>			<b>Delivery Date</b>
		Yes	No	N/A	
	<b>Data Collection and Review:</b> Review existing models and reports and evaluate findings			X	October 2020
	<b>Gap Analysis:</b> Identify data gaps and analyse current conditions and water demand			X	October 2020

	<b>Stakeholder Outreach:</b> Summarize future municipal water budget needs; anticipated land cover change			X	November 2020
	<b>Watershed/Scenario Assessment:</b> Identify and analyse trends and research related to future watershed inputs including land cover, population growth, changes in water demand and permits to take water			X	November 2020
	<b>Selection of Preferred Scenarios:</b> Determine acceptable climate predictions and changes to inputs; consult model experts			X	November 2020
	<b>Scope Watershed Model Update:</b> Based on all data reviewed, select appropriate scenarios and timeframes to Simulate the 3D model; consult model experts			X	December 2020
	<b>Reporting and Knowledge Sharing:</b> Final Report to Clean Water Committee. Presentation to stakeholder.		X		December 2020
<b>10</b>	<b>Detailed Budget</b>				
	<b>Expenditure</b> (provide detailed breakdown)	<b>Program Funding</b>	<b>Lead/Partner Funding</b>	<b>Total</b>	
	Data Collection and Review		\$3,000	\$3,000	
	Data Gap Analysis	\$2,000	\$3,000	\$5,000	
	Stakeholder Outreach	\$3,000		\$3,000	
	Watershed/Scenario Assessment	\$3,000	\$7,000	\$10,000	
	Selection of Preferred Scenarios		\$3,000	\$3,000	
	Scope Watershed Model Update	\$2,000	\$5,000	\$7,000	
	Reporting and Knowledge Sharing		\$4,000	\$4,000	
	<b>Sub-total</b>	<b>\$ 10,000</b>	<b>\$ 25,000</b>	<b>\$ 35,000</b>	



# Eastern Ontario Water Resources Program / Programme des ressources en eau de l'Est de l'Ontario

## EOWRP Proposal Submission Form

Item	Description
1	<b>Applicant:</b>
	Name of Lead Applicant: R. A. Harrison, University of Ottawa
	Name(s) of Partners: T. Al, University of Ottawa T. Di Iorio, City of Ottawa S. Hamilton, Ontario Geological Survey
2	<b>Contact Information:</b>
	Administrative Contact: Name and Contact Info Dr. Tom Al, University of Ottawa, Dept. of Earth & Environmental Science, tom.al@uottawa.ca
	Signing Authority name(s) and position(s) Dr. Tom Al, Professor
	Legal Name of Lead Applicant Rachel Alexandra Harrison
3	<b>Name of Proposed Project:</b> The Use of Radionuclides to Identify Vulnerable Fractured and Karst Bedrock Aquifers in Eastern Ontario
4	<b>Program Funding Request:</b> \$3,000.00
5	<b>Project Description:</b>  Protection of groundwater resources is paramount for all communities and it is particularly challenging in rural areas that rely on widely dispersed municipal and domestic wells. Unregulated domestic water systems can become compromised when harmful pathogens and contaminants are introduced into the aquifer. It is essential to identify hydrogeologically vulnerable areas to reduce risk the to human health. Fractured bedrock and karst environments are of particular concern because of the high-permeability connection between the surface and the sub-surface. These environments are subject to rapid recharge and infiltration, such that surface-sourced contaminants are rapidly transported into the aquifer.

	<p>These vulnerable environments, and associated issues of contamination, have been identified across Eastern Ontario. This is true in Alfred-Plantagenet where there is independent hydrological data that demonstrates vulnerability due to karst geology (Dyck, 2017). However, there is a high degree of uncertainty in identifying individual wells that are vulnerable to contamination.</p> <p>This project aims to develop a geochemical method using radionuclides (<math>^{210}\text{Pb}</math> and <math>^{137}\text{Cs}</math>) to identify hydrogeologically vulnerable environments in Eastern Ontario (Map 1). These radionuclides are transported in the atmosphere and fall to the surface with rainfall in extremely small, but measurable amounts. At the ground surface, they attach to surface soil particles, which is what prevents them from infiltrating through the soil and into underlying aquifers. Erosion of soil particles and direct transport of the particles through fractures and karst channels is the only pathway for these radionuclides to enter an aquifer. These radionuclides should then be effective indicators of rapid, fracture-controlled recharge. The hope is that this study will lead to a novel method for identifying vulnerable wells in karst terrain. Additionally, improved awareness of areas with highly vulnerable aquifers will support informed and evidence-based decision making related to development, land use, and safe water supplies.</p> <p>The proposed project is the focus of the lead applicant's Master's Thesis at the University of Ottawa under the supervision of Dr. Tom Al. The project complements work from four previous groundwater sampling and mapping projects within Eastern Ontario (herein referred to as the Eastern Ontario Groundwater Studies); which include the City of Clarence-Rockland (2013-2016), the Township of Alfred and Plantagenet (2015-2016), East Ottawa and Champlain Township (2017 – present), and West Ottawa (2019 – present). The Eastern Ontario Water Resources Committee provided funding contributions for the first two study areas.</p> <p>The Eastern Ontario Groundwater Studies were borne from the need to develop maps of expected groundwater quality and quantity to assist in evaluating the development potential of properties where private services are proposed. The maps serve as a pre-screening tool for development applications and helping direct land use zoning or servicing decisions.</p> <p>A regional groundwater geochemistry analysis in Eastern Ontario (Colgrove, 2016) was conducted using the geochemical sampling data obtained from the Ontario Ambient Groundwater Geochemistry Project (Hamilton, 2012). The data indicated that aquifers in some regions of Eastern Ontario are particularly vulnerable to surface-derived contaminants. The region has been mapped with: (a) more than sixty percent of the area covered in thin to absent overburden (&lt;2m); (b) approximately fifty percent as known, potential, or inferred karst (GRS005, Brunton and Dodge, 2008).</p> <p>A small-scale domestic-well testing program was conducted in the Plantagenet area in 2019 to do a preliminary test of the hypothesis. The 2019 sampling program involved a small number of wells, some with known karst influence and others without. Comprehensive hydrochemical analyses were conducted, including testing for the</p>
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	<p>presence of nitrate, tritium, and bacteria. The 2019 data suggest that slightly elevated concentrations of <math>^{210}\text{Pb}</math> are associated with wells in vulnerable karst aquifers, but the dataset is too small to draw conclusions with confidence. The proposed project will include a field program where follow-up work will be conducted to build a larger dataset from additional sites in Alfred-Plantagenet.</p> <p>Field work for the proposed study will consist of well sampling and analysis for several parameters including: <math>^{137}\text{Cs}</math>, <math>^{210}\text{Pb}</math>, bacteria, and turbidity. Field work will also involve the collection of surface soil samples in Alfred-Plantagenet and West Ottawa, to determine a good measure of the radionuclide concentrations in the soils that enter the aquifer. This field program will be conducted within Alfred-Plantagenet because is there strong independent evidence that the groundwater is influenced by karst geology (Dyck, 2017). As such, sample collection in this area is essential to verify if the radionuclide technique is reliable. Although this proposal focuses on the Alfred-Plantagenet component of the work, the lead applicant's MSc research also includes additional testing in West Ottawa in areas where karst geology has been mapped and in areas of thin soils. This broader geographic representation is important in demonstrating that this method is broadly applicable.</p> <p>References:</p> <p>Brunton, F.R. and Dodge, J.E.P. 2008. Karst of southern Ontario and Manitoulin Island; Ontario Geological Survey, Groundwater Resources Study 5. ISBN 978-1-4249-8376-6</p> <p>Colgrove, L. M. (2016). <i>A Regional Chemical Characterization and Analysis of Groundwater in Eastern Ontario</i>. 156.</p> <p>Dyck, A. 2017. Determining groundwater travel time along discrete pathways in a karst aquifer using stable water isotopes and specific conductance. Unpublished BSc Thesis, University of Ottawa.</p> <p>Hamilton, S. M., Brunton, F. R., &amp; Priebe, E. H. (2017). <i>Regional-scale mapping of buried, surface-connected, karstic groundwater systems using dissolved <math>\text{CO}_2</math>-<math>\text{O}_2</math> in groundwater</i>. 8.</p>
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6	<p><b>Program Recommendations Addressed:</b></p> <p>ID#5</p> <p>An ACST has been developed for the City of Clarence-Rockland (2013-2016), for the Township of Alfred-Plantagenet (2015-2017), and is being developed for East Ottawa (2017-present) and West Ottawa (2019-present). This work is being done as part of OGS-support groundwater mapping studies to define hydrostratigraphy and groundwater flow patterns. The development of a geochemical method to identify</p>
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	<p>hydrogeologically vulnerable environments will improve the confidence in mapping these systems and help corroborate karst maps previously developed by the OGS.</p> <p><b>ID#16</b>  In vulnerable fractured-rock and karst environments there is a high-permeability connection from the surface to the sub-surface. This connection means that contaminants can move quickly and easily into the aquifer. The proposed project aims to develop a technique to assess the vulnerability of the wells and aquifers to surface-derived contamination, building on the use of other recognized parameters of vulnerability such as bacteria, turbidity, nitrate, and tritium.</p> <p><b>ID#17</b>  Well sampling will be conducted at private wells in Alfred-Plantagenet and West Ottawa. Volunteers for private well sampling were sought through a project advertisement program (local papers, posters, presentations, mail drops) following the methodology established for the Clarence-Rockland study. This process identifies existing and abandoned wells. The proposed project will expand our dataset and allow us to fully test the hypothesis that the presence of radionuclides (<math>^{210}\text{Pb}</math> and/or <math>^{137}\text{Cs}</math>) in aquifers is indicative of highly vulnerable groundwater with the potential for contamination.</p> <p><b>ID#18</b>  Data compilation and analysis from previous studies in Alfred-Plantagenet and West Ottawa have identified areas of potential soil and groundwater contamination arising from natural exceedances in the groundwater as well as current and historical land uses. The proposed project will improve confidence in groundwater vulnerability designation.</p> <p><b>ID#21</b>  The development of a geochemical method will improve the identification and mapping of vulnerable fractured and karst environments. This identification will support the development of plans for specific areas and guide decisions concerning land use and safe water supplies. The geochemical testing will also broaden the understanding of local groundwater quality and, if successful, has the potential to be applied at the regional scale. The proposed project may also support the development of policy related to the protection of vulnerable groundwater.</p> <p><b>ID#22</b>  Data compilation and analysis from previous studies in Alfred-Plantagenet and West Ottawa have identified areas that require further analysis, based on the presence of thin to absent overburden (&lt;2m) and/or the presence of known, potential, or inferred karst. The proposed project undertakes tests to refine the characteristics of aquifer and overlying aquitard material by testing radionuclide concentrations in surface soil and groundwater, and parameters such as bacteria, turbidity, nitrate, and tritium. These tests aim to determine the impact recharge events have on the aquifer and private wells, and the corresponding vulnerability of the system.</p>
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	<p><b>ID#26</b></p> <p>Data compilation and analysis from previous studies in Alfred-Plantagenet and West Ottawa have identified sensitive areas with thin to absent overburden (&lt;2m) and/or the presence of known, potential, or inferred karst. These sensitive areas are subject to rapid recharge and infiltration, which can occur at rates high enough to carry surface-sourced contaminants into the aquifer. Some of the sensitive areas identified are in proximity to agricultural land.</p>
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<b>7</b>	<p><b>Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area</b></p> <p>Previous work from the groundwater sampling and mapping projects within the Township of Alfred and Plantagenet (2015-2016) and West Ottawa (2019-present), in addition to the city-wide groundwater geochemistry analysis (Colgrove, 2016) have identified areas of hydrogeological vulnerability. The regions identified in Alfred-Plantagenet and West Ottawa are considered vulnerable aquifer systems because of the presence of thin to absent overburden (&lt;2m) and/or the presence of known, potential, or inferred karst. The sites in Alfred-Plantagenet are particularly significant because there is independent hydrological data that indicates groundwater is influenced by karst geology.</p> <p>The proposed project seeks to develop a geochemical method to assess vulnerability that relies on the high-permeability connection between the surface and the subsurface. This method will primarily involve testing for radionuclides <sup>137</sup>Cs and <sup>210</sup>Pb, in addition to other parameters including the presence of bacteria, turbidity, nitrate, and tritium. The sites in Alfred-Plantagenet are particularly valuable for the initial evaluation of the new method because there is independent hydrological data that indicates groundwater is influenced by karst geology.</p> <p>If successful, sample collection in Alfred-Plantagenet will verify the viability of the technique, and additional testing in West Ottawa will indicate that it is broadly applicable and transferable to other hydrogeologically vulnerable areas. Additionally, this field work and subsequent analysis will provide additional data that supports the presence of karst geology and vulnerable wells in Alfred-Plantagenet.</p>
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<b>8</b>	<p><b>Project Location(s):</b></p> <p>Map 1 (Attached) shows the location of the proposed study areas in the Township of Alfred and Plantagenet and western rural Ottawa as well as the previous areas included in the Eastern Ontario Groundwater Studies.</p>
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9	<b>Deliverables Schedule:</b>				
	<b>Description of Deliverables</b>	<b>Bilingual</b>			<b>Delivery Date</b>
	Note: Written deliverables for public distribution must be Bilingual – English and French	<b>Yes</b>	<b>No</b>	<b>N/A</b>	
	Summary Budget Statement <ul style="list-style-type: none"> <li>Summary of summer field program</li> <li>Review of expenses</li> </ul>		x		October 2020
	Final Summary Report and Presentation to Clean Water Committee <ul style="list-style-type: none"> <li>Summary of summer field program and lab analysis</li> <li>Template of well volunteer letter (bilingual)</li> <li>Overview of preliminary results</li> </ul>	x			Nov/Dec 2020
	Data Compilation and Analysis (Digital Thesis) <ul style="list-style-type: none"> <li>Karst identification methodology assessment</li> <li>Vulnerability assessment</li> <li>Review of radionuclide technique</li> </ul>		x		May 2021

10	<b>Detailed budget</b>			
	<b>Expenditure</b> (provide detailed breakdown)	<b>Program Funding (EOWR)</b>	<b>Lead/Partner Funding (University of Ottawa and City of Ottawa)</b>	<b>Total</b>
	<b>Staffing</b>			
	Field Lead – Student (10 days x \$120/day)		\$1,200	\$1,200
	Field Assistant – Ottawa Staff (10 days x \$280/day)		\$2,800	\$2,800
	Analysis and Reporting - Student (3 months x \$2000/month)		\$6,000	\$6,000
	Sr. Geochemist Data Review		\$7,500	\$7,500
	<b>Equipment</b>			
	Equipment supplied by partners (filtering apparatus, sample bottles, hoses, fittings, etc.)		\$300	\$300
	YSI rental (2 weeks x \$375/week)	\$750		\$375
	Turbidity Meter	\$1,000		\$1,000
	Calibration Standards	\$100		\$100
	25 Filter Papers	\$200		\$200
	Vehicle Rental (2 weeks x \$250/week)	\$500		\$500
	Vehicle Fueling (10 days x \$40/day)	\$400		\$500
	Miscellaneous Equipment Expenses	\$50		\$50
	<b>Lab Analysis</b>			
	Bacteria Samples (15 samples x \$25/sample)		\$375	\$375
	Radionuclide Samples (15 samples x \$125/sample)		\$1,875	\$1,875
	Total	\$3,000	\$20,050	\$23,050



**To:** Clean Water Committee  
**From:** Lorie Henderson, Administrative Assistant  
**Date:** May 11, 2020  
**Subject:** Request for Approval: Extension to Projects Approval Deadline

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**RECOMMENDATION:**

The Clean Water Committee approves extending project deadlines for the following projects below:

**05 16 2102 DDB – Cover Crop**, grant approved at \$1,000.00 per year (\$50.00/acre for 20 acres) for 3 years, pending funding availability and annual confirmation of cover crop by Program Representative; Project deadline extension to June 30<sup>th</sup>, 2021.

**05 17 92 DDA – Cover Crop**, grant approved at \$1,000.00 per year (\$50.00/acre for 20 acres) for 3 years pending funding availability and annual confirmation of cover crop by Program Presentative; Project deadline extension to June 30<sup>th</sup>, 2021.

**2019-RUS-CW21 – Septic System**, grant approved at a grant rate of 100% to a maximum grant of \$2,000.00; Project deadline extension to September 30, 2020.

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**DISCUSSION:**

**1. 05 16 2102 DDB – Cover Crop – Year 3**

The Cover Crop project was approved on June 11<sup>th</sup>, 2018 under the Ottawa Rural Clean Water Program. The landowner was unable to plant his cover crop due to wet weather conditions in the fall of 2019.

The landowner spoke to Andre Pommainville, Program Representative and is requesting approval for an extension to allow for project completion date of June 30<sup>th</sup>, 2021.

**2. 05 17 2192 DDB – Cover Crop – Year 3**

The Cover Crop project was approved on June 11<sup>th</sup>, 2018 under the Ottawa Rural Clean Water Program. The landowner was unable to plant his cover crop due to wet weather conditions in the fall of 2019.

The landowner spoke to Andre Pommainville, Program Representative and is requesting approval for an extension to allow for project completion date of June 30<sup>th</sup>, 2021.

**3. 2019-RUS-CW21 – Septic System**

The septic System project was approved at the June 10<sup>th</sup>, 2019 Clean Water Committee meeting. Staff were contacted on January 9<sup>th</sup>, 2020 and the landowner explained that the contractor hired to do the work, did not show up. A new contractor



SOUTH NATION  
**CONSERVATION**  
DE LA NATION SUD

has been hired, but due to the current pandemic situation, the work will not be completed by the project deadline completion date of June 30<sup>th</sup>, 2020.

The landowner is requesting approval for an extension to allow for project completion date of September 30<sup>th</sup>, 2020.

**FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:**

Compliance with Budget: Clean Water Program and Ottawa Rural Clean Water Program funding and delivery adheres to the approved Clean Water Program and Ottawa Rural Clean Water Program budgets. Funding for both Programs is included in the approved 2020 Budget under Resource Management: Partner Programs: Water on pages 18-19.

SNC Policy Adherence: Allocation of Grants adheres to SNC's Purchasing Policy.

Lorie Henderson,  
Administrative Assistant.

05/19/22 DDA

Grant Request  
\$1000

5. Where did you hear about the Ottawa Rural Clean Water Program?

Internet search.

6. Number of Livestock

☒ Not Applicable

Please indicate type (e.g. beef, dairy, poultry, hogs, etc.) and number of all livestock (e.g. # cows, # heifers, # calves, # hens, # pullets, # sows, etc.) that pertain to the proposed project

7. Additional Information

Please refer to the Project Guidelines for your proposed project and the Program Guide for additional information on project eligibility, Program requirements, and the application review process. Copies of these documents will be provided to you by Program staff.

8. Existing Situation

What is the water quality impact of your current situation? Please be as specific as possible

50 year old septic system tile bed remained wet and with an odour throughout the spring and into the summer

Name of watercourse:

Distance from the watercourse:

☐ River, stream or creek

☐ Municipal drain

☒ N/A - Groundwater

9. Proposed Project

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

New septic tank and new septic tile bed.

Total estimated cost (excluding taxes): \$ 22,300

(An itemized quote must accompany your application)

Have you applied for or received other funds for this project?

☐ Yes ☒ No

If yes, indicate source(s):

Amount:\$

other source:

Amount:\$

00042



**To:** Clean Water Committee  
**From:** Ronda Boutz, Team Lead, Special Projects  
**Date:** May 29, 2020  
**Subject:** Summary of Clean Water Program Grant Applications

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**RECOMMENDATION:**

No recommendation, this report is for information purposes.

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**DISCUSSION:**

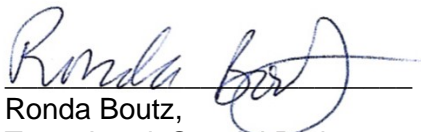
As per the Committees decision at the March 5<sup>th</sup>, 2020 meeting; projects have been rated under the 2020 rating sheets. A project must achieve a minimum rating score of 21.5 points to be allocated funding at the June 2020 Committee meetings. To be eligible for funding consideration, a project must achieve a minimum rating score of 15 points.

A list of project applications to date is below for the Committee's information. As per the approved Clean Water Program budget, a total of \$60,000 is available for grants.

**FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:**

Compliance with Budget: Clean Water Program funding and delivery adheres to the approved Clean Water Program budget. Funding for the Clean Water Program is included in the approved 2020 Budget under Resource Management: Partner Programs: Water on pages 18-19.

SNC Policy Adherence: Allocation of Grants adheres to SNC's Purchasing Policy.

  
Ronda Boutz,  
Team Lead, Special Projects.

Attachments: Summary of 2020 Clean Water Program Applications



**Summary of 2020 Clean Water Program Applications**

Project Code	Project Type	Grant %	Grant Request	Rating
2020-NST-CW01	Well Decommissioning	100%	\$1,000.00	
2020-RUS-CW02	Manure Storage	50%	\$8,000.00	
2020-NST-CW03	Manure Storage	50%	\$8,000.00	
2020-EDW-CW04	Well Decommissioning	100%	\$1,000.00	
2020-SDU-CW05	Manure Storage	50%	\$8,000.00	
2020-NAT-CW06 A	Streambank Erosion	50%	\$5,000.00	
2020-NAT-CW06 B	Buffer Strip	50%	\$2,100.00	
2020-NAT-CW07	Buffer Strip	50%	\$2,373.50	
2020-NGR-CW08	Well Decommissioning	100%	\$1,000.00	
2020-NST-CW09	Streambank Erosion	50%	\$5,000.00	
2020-NGR-CW10	Well Decommissioning	100%	\$1,000.00	
2020-CAS-CW11	Streambank Erosion	50%	\$5,000.00	
2020-APL-CW12	Well Decommissioning	100%	\$1,000.00	
2020-NAT-CW13 A	Control Tile Drain	50%	\$5,000.00	
2020-NAT-CW13 B	Cover Crop	n/a	\$999.00	
2020-NAT-CW13 C	Streambank Erosion	50%	\$5,000.00	
2020-APL-CW14	Streambank Erosion	50%	\$5,000.00	
2020-CAS-CW15	Streambank Erosion	50%	\$4,300.00	
2020-APL-CW16	Streambank Erosion	50%	\$5,000.00	
2020-CAS-CW17	Streambank Erosion	50%	\$1,840.50	
2020-CLR-CW18	Well decommissioning	100%	\$1,000.00	
2020-NAT-CW19	Streambank Erosion	50%	\$5,000.00	
<b>Total Requested</b>			<b>\$81,613.00</b>	
<b>Grant Amount Available</b>			<b>\$60,000.00</b>	
<b>Surplus/(Deficit)</b>			<b>(\$21,613.00)</b>	



FOR OFFICE USE:	Project Code: 2020-NST-CW01	Project Type: Well Decommissioning
	Total Project Cost: \$ 1,420.00	Grant Rate: 100 %
	Grant Requested: \$ 1,000.00	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

Unused dug well presently  
E wood cover allowing surface flow + contaminants  
directly into aquifer

Name of adjacent watercourse: Payne

☒ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Decommission well entirely.

Total estimated cost (excluding taxes): \$ 1,420- (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-NST-CW02	Project Type: Manure Storage
	Total Project Cost: \$ 89,728.00	Grant Rate: 50 %
	Grant Requested: \$ 8,000.00	
	Program Representative: Jackie Pemberton	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? manure pad, air pumped from barn. Manure spread. spring/fall r. will spread 3rd on hay.

Issue - Run off - close to barn - want to manage better

Name of adjacent watercourse: \_\_\_\_\_

Castor - south 649m  
Municipal drain  
North East 220m

☒ river or stream

☒ Municipal drain

☐ wetland

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

- install new storage, concrete floor, wall design tbd - working OMAFRA -  
location - to the North.

wishes to continue c semi solid manure as he has own equipment. to land apply.

Total estimated cost (excluding taxes): \$ 89,728.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-NST-CW03	Project Type: Manure Storage
	Total Project Cost: \$ 148,000.00	Grant Rate: 50 %
	Grant Requested: \$ 8,000.00	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? We do not have enough storage for a full year, the situation is now that we have to spread manure till the end of november in order to have enough storage till end of april. so rather spread manure in sept and oct and then in june after first cut is done.

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☒ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Work get done by contractor

Total estimated cost (excluding taxes): \$ 148,000.00 (An itemized quote must accompany your application)



FOR OFFICE USE:	Project Code: 2020-EDW-CW04	Project Type: Well Decommissioning
	Total Project Cost: \$ 1,000.00	Grant Rate: 100 %
	Grant Requested: \$ 1,000.00	
	Program Representative: Jackie Pemberton	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☐

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? **Well not being used and in the middle of field.**

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

**Dig down 7 feet, plug and cut off.**

Total estimated cost (excluding taxes): \$ 1,000.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-SDU-CW05	Project Type: Manure Storage
	Total Project Cost: \$ 149,750.00	Grant Rate: 50 %
	Grant Requested: \$ 8,000.00	
	Program Representative: Jackie Pemberton	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☒ No ☐

If yes, indicate source: Canadian Agricultural Partnership

Amount: \$ 20,000

source: (Project has not been

Amount: \$ \_\_\_\_\_

Approved As of 3/23/2020)

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? See Attached Fig #1

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☒ Municipal drain

☒ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

See Attached Fig #2

Total estimated cost (excluding taxes): \$ 149,750.00 (An itemized quote must accompany your application) See Quote

FOR OFFICE USE:	Project Code: 2020-NAT-CW06 A	Project Type: Streambank Erosion
	Total Project Cost: \$ 20,375.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

lots of erosion along  
black creek.

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

put Rock (riprap) and geotextile were  
there is erosion (especially the bends)

Total estimated cost (excluding taxes): \$ 20,375.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-NAT-CW06 B	Project Type: Buffer Strip
	Total Project Cost: \$ 4,200.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

There is a lot of erosion especially in all the bends

Name of adjacent watercourse: black creek

☒ river or stream

☐ Municipal drain

☐ wetland

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

3 M buffer strips on each side of the creek. 2500 foot each side total or 5000 foot

Total estimated cost (excluding taxes): \$ 4,200.00 (An itemized quote must accompany your application)



FOR OFFICE USE:	Project Code: 2020-NAT-CW07	Project Type: Buffer Strip
	Total Project Cost: \$ 4,747.00	Grant Rate: 50 %
	Grant Requested: \$ 2,373.50	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? The Castor River is eroding our property shoreline all year via the eight water level rise in the Spring, caused by the Casselman dam, and also because of the speeding boats and other pleasure crafts that exceed speed limits causing waves to come crashing on our shore.

Name of adjacent watercourse: The Nation River

☒ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Riparian area between our home and the Castor river. 2020 - Planting of specific trees and shrubs in buffer zone.

Total estimated cost (excluding taxes): \$ 4,747.00 (An itemized quote must accompany your application)



FOR OFFICE USE:	Project Code: 2020-NGR-CW08	Project Type: Well Decommissioning
	Total Project Cost: \$ 4,500.00	Grant Rate: 100 %
	Grant Requested: \$ 1,000.00	
	Program Representative: Jackie Pemberton	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? Original well from - Late  
1800's - 27" Diameter roughly 57' to bed rock  
Drilled to total depth of 79ft in 50-60's,  
Water tested poor quality, doesn't meet Eastern  
Ontario health standards. SEE ATTACHED water test.  
Drainage ditch to the North east  
 Name of adjacent watercourse: Drainage ditch  
& South Nation

☒ River or stream

☐ wetland

☒ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

- Drainage ditch through the middle of the property  
flows west east. South Nation 4 km South.  
500m municipal ditch from well.  
- Well decommission in accordance to Ontario  
regulation 903 as amended.  
WELL TO BE DECOMMISSIONED CURRENTLY SUPPLIES HOUSE & BARN

Total estimated cost (excluding taxes): \$ 4,500.00 (An itemized quote must accompany your application)

<b>FOR OFFICE USE:</b>	<b>Project Code:</b> 2020-NST-CW09	<b>Project Type:</b> Streambank Erosion
	<b>Total Project Cost:</b> \$ 18,100.00	<b>Grant Rate:</b> 50 %
	<b>Grant Requested:</b> \$ 5,000.00	
	<b>Program Representative:</b> Brent Harbers	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

*(Please ensure writing is legible)*

What is the water quality impact from your current situation? Sideslope failure and erosion is causing entry of sediment into the Payne Municipal drain.

Name of adjacent watercourse: Payne Municipal Drain

☐ river or stream

☐ wetland

☒ Municipal drain

☐ private ditch

#### 6. Proposed Project

*(Please ensure writing is legible)*

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Re-shape ditch banks and protect with geotextile and rip rap stone. Will also be using coconut blankets along sections of ditch bank as well as seeding. Incorporating grass/ hay buffer strip of minimum 3m from top of bank to be planted by landowner along both sides of drain for entire length of property.

After stabilization and protection of ditch banks we will be doing a half bottom width cleanout along the Blair property to remove the sediment accumulation (SNCA & DFO permits have already been received)

**Total estimated cost (excluding taxes):** \$ 18,100.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-EDW-CW10	Project Type: Well Decommissioning
	Total Project Cost: \$ 3,000.00	Grant Rate: 100 %
	Grant Requested: \$ 1,000.00	
	Program Representative: Jackie Pemberton	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

1800 well dug - water quality issues.

Name of adjacent watercourse: EARL MARTIN DRAIN

☐ river or stream

☐ wetland

☒ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

WELL DE-COMMISSIONED IN ACCORDANCE TO ONTARIO  
REGULATION 903 AS AMENDED.

Total estimated cost (excluding taxes): \$ 3000.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-CAS-CW11	Project Type: Streambank Erosion
	Total Project Cost: \$ 12,300.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐ No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

There is a lot of erosion on the edge of the river and that modifications are necessary to control erosion and for the safety of anybody walking near the edge.

Name of adjacent watercourse: South Nation River

☒ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

The work is streambank erosion control. We will be using the riprap stone method, cutting the water bank to a +/- 30 degree for 3 meters and installing the riprap on a geotextile membrane.

Total estimated cost (excluding taxes): \$ 12300 \* (An itemized quote must accompany your application)

\* this includes the permit and the purchase of trees + shrubs, see attached for quote (A)

<b>FOR OFFICE USE:</b>	<b>Project Code:</b> 2020-CAS-CW12	<b>Project Type:</b> Well Decommissioning
	<b>Total Project Cost:</b> \$ 2,212.38	<b>Grant Rate:</b> 100 %
	<b>Grant Requested:</b> \$ 1,000.00	
	<b>Program Representative:</b> Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? Well contains high amount of sodium which causes everything in the house to rust. I had to replace a 5 year old dishwasher, 2 faucets, several cartridges, and several plumbing parts are rusting. The well was put in use in 2014.

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Decommission the existing well and get a better source of water.

**Total estimated cost (excluding taxes):** \$ 2212.38 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-NAT-CW13A	Project Type: Controlled Tile Drainage
	Total Project Cost: \$ 17,000.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? Water quality is deteriorating due to major erosion problem caused by tile drainage outlet damage and by having the Scotch river at proximity. There are many gullies and very high elevation. There is very high risk of land fall/slide.

Name of adjacent watercourse: Scotch River

☒ river or stream  
☐ Municipal drain

☐ wetland  
☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

With the installation of the water control chambers, this will control the flow of water and avoid sediment outflows in the stream. This should effectively reduce N and P losses to surface waters.

Total estimated cost (excluding taxes): \$ 17,000 (An itemized quote must accompany your application)



FOR OFFICE USE:	Project Code: 2020-NAT-CW13B	Project Type: Cover Crop Grant
	Total Project Cost: \$ 999.99	Grant Rate: 50 % per acre/yr up to a maximum of 20 acres
	Grant Requested: \$ 999.99	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

In the situation where no cover crops were put on this land there would be sediment wash out and erosion going into the water of the Scotch River.

Name of adjacent watercourse: Scotch River

☒ river or stream

☐ Municipal drain

☐ wetland

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

After spraying the wheat, we will broadcast red clover in the wheat field. The red clover will do a root system to prevent erosion and avoid sediment wash out in the stream. Red clover will also improve the earth worm and provide nitrogen for the next crop and build organic matter. Phacelia will bring a broader root system.

Total estimated cost (excluding taxes): \$ 999.99 (An itemized quote must accompany your application)

4 kg/lac - Trefu rouge - \$22.80 x 50% = 11.40  
 5 kg/lac - Phacelia - \$77.10 x 50% = 38.55

\$49.95  
 x 20 acres

FOR OFFICE USE:	Project Code: 2020-NAT-CW13C	Project Type: Streambank Erosion
	Total Project Cost: \$ 25,157.25	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation?

Water quality is deteriorating due to major erosion problem caused by tile drainage outlet damage and by having the Scotch river at proximity. There are many gullies and very high elevation. There is very high risk of land fall/slide.

Name of adjacent watercourse: \_\_\_\_\_

Scotch River & branch.

☒ river or stream

☐ Municipal drain

☐ wetland

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

We need to correct tile drainage outlet and set up catch basins which will provide a 3 meter buffer setback from top of streambank (stone, grass & tree buffer). The catch basins are also called spillway drop structures.

Total estimated cost (excluding taxes): \$

25,157.25

An itemized quote must accompany your application)



FOR OFFICE USE:	Project Code: 2020-NAT-CW14	Project Type: Streambank Erosion
	Total Project Cost: \$ 10,875.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Rene Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? Field bordering Atocas Creek  
on 900 m long. Field used for cash crop - corn, wheat  
& soybeans. Creek in some places is 30-50 ft below  
lower than adjacent field - clay loam.

Name of adjacent watercourse: Atocas Creek

☒ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Do necessary rectifications using geotextile  
big/coarse rocks and levelling wherever  
necessary as per estimate.

Total estimated cost (excluding taxes): \$ 10,875.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-NAT-CW15	Project Type: Streambank Erosion
	Total Project Cost: \$ 8,600.00	Grant Rate: 50%
	Grant Requested: \$ 4,300.00	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? The impact of the water, through ice, wind and waves, is currently causing the erosion of the soil, which is stripping and cutting into the banks of the land, moving soil + particles + changing the size + shape of the river.

Name of adjacent watercourse: South Nation River

☒ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

The intention is to maintain existing grade between the terrace zone + bank zone, adding a combination of vegetation and riprap (stone/rock) along the shoreline up to the bank zone for stabilization. Site preparation requires selective removal of vegetation, however once project is completed, we will re-introduce native trees, shrubs and vegetation (habitat friendly) to the area.

Total estimated cost (excluding taxes): \$ 8,600.00 (An itemized quote must accompany your application)



À L'USAGE DU BUREAU	Code du projet : 2020-APL-CW16	Type de projet : Streambank Erosion
	Total des coûts du projet : 10,750.00 \$	Taux de subvention : 50 %
	Subvention demandée : 5,000.00 \$	
	Représentant(s) du programme : Andre Pommainville	

#### 4. Autres sources de financement

Avez-vous demandé ou reçu d'autres fonds pour ce projet? ☐ Oui ☒ Non

Si oui, de quelle(s) source(s) : N/A

Montant : \$

Montant : \$

#### 5. Conditions existantes

(Assurez-vous que le texte soit écrit de manière lisible)

Quel sont les effets de la qualité de l'eau dans votre situation actuelle? Le Top-soil et les sédiments sont entraînés par l'eau de surface dans le ruisseau

Top soil and sediments are carried by surface water in the stream

Nom du cours d'eau? Creek du Lac George

☒ Humide ou ruissseau

☐ Zone humide

☐ Drain municipal

☐ Drain privé

#### 6. Projet proposé

(Assurez-vous que le texte soit écrit de manière lisible)

Décrivez les travaux que vous prévoyez faire. Veuillez vous reporter aux Lignes directrices de projet pour connaître en détail ce qui est exigé pour votre projet.

Installer chute de roche (rock chute) pour ralentir l'eau de surface qui cause l'érosion lorsqu'il y a de grosse pluie ou à la fonte des neiges

Install "rock chute" to slow down surface water which causes erosion when there is heavy rain or snow melts

Total des coûts estimés (taxes exclues) : 10,750.00 \$ (Une soumission détaillée doit accompagner votre demande.)

FOR OFFICE USE:	Project Code: 2020-CAS-CW17	Project Type: Streambank Erosion
	Total Project Cost: \$ 3,681.00	Grant Rate: 50 %
	Grant Requested: \$ 1,840.50	
	Program Representative: Andre Lalonde	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? erosion has increased dirt particles in the water and has reduced vegetation. Therefore, this has caused an impact on water quality. The river bank is also unstable due to erosion.

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

See attached summary of request and Annex A.

Total estimated cost (excluding taxes): \$ 3,681.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2020-CLR-CW18	Project Type: Well Decommissioning
	Total Project Cost: \$ 1,073.50	Grant Rate: 100 %
	Grant Requested: \$ 1,000.00	
	Program Representative: Andre Pommainville	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

(Please ensure writing is legible)

What is the water quality impact from your current situation? Surface well doesn't replenish

fast enough

Had drilled well made

Name of adjacent watercourse: \_\_\_\_\_

☐ river or stream

☐ wetland

☐ Municipal drain

☐ private ditch

#### 6. Proposed Project

(Please ensure writing is legible)

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

Surface well to be decommissioned

Total estimated cost (excluding taxes): \$ 1073.50 (An itemized quote must accompany your application)

<b>FOR OFFICE USE:</b>	<b>Project Code:</b> 2020-NAT-CW19	<b>Project Type:</b> Streambank Erosion
	<b>Total Project Cost:</b> \$ 19,000.00	<b>Grant Rate:</b> 50 %
	<b>Grant Requested:</b> \$ 5,000.00	
	<b>Program Representative:</b> Geoff Owens	

#### 4. Other Sources of Funding

Have you applied for or received other funds for this project?

Yes ☐

No ☒

If yes, indicate source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

source: \_\_\_\_\_

Amount: \$ \_\_\_\_\_

#### 5. Existing Situation

*(Please ensure writing is legible)*

What is the water quality impact from your current situation? \_\_\_\_\_

The water debit and flow coming from the municipal culvert at the road in the spring and during heavy rail falls has increased over the years and since it was replaced a few years ago. There is a requirement for a ditch along the property line between the culvert at the road and the Castor river where the water disperses. The water is currently eroding the land along the property line (mostly on my side) and causing more serious erosion damage and land slide as it nears the river. If no action is taken, the erosion could eventually reach and damage the septic system.

Name of adjacent watercourse: **Castor River**

☐ river or stream

☐ wetland

☐ Municipal drain

☒ private ditch

#### 6. Proposed Project

*(Please ensure writing is legible)*

Describe the work you are planning to do. Please refer to the project guidelines for details on what is required for your project.

**See attached "Application Scope of Work" Document**

**Total estimated cost (excluding taxes):** \$ 19,000.00 (An itemized quote must accompany your application)