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Clean Water Committee

Meeting Agenda

***** PLEASE NOTE START TIME *****

Date: Monday, November 30th, 2020

Time: 9:00 a.m.

NOTE:

Conference link, call-in number, and Conference PIN number will be provided 48 hours in advance.

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Clean Water Committee

Meeting Agenda

Monday, November 30th, 2020 at 9:00 a.m.

		Page No.
1.	Welcome and Chair Remarks	
2.	Approval of Agenda and Supplemental Agenda (if any)	
3.	Declaration of Conflict of Interest	
4.	Request for Approval:	
	a. Clean Water Committee meeting minutes, September 14th, 2020	3-10
5.	Business Arising from Minutes (if any)	
6.	Staff Updates: PowerPoint Presentation: Staff	
7.	New Business	
	a. Conservation Authority Act Changes: Angela	PowerPoint
	b. Request for Approval: Eastern Ontario Water Resources Program Financial Statement – as of October 31, 2020: Ronda	11-12
	c. Request for Approval: Eastern Ontario Water Resources Program Projects	
	i. Eastern Ontario Children's Water Festival Update: Lexy Harquail	13-15
	ii. Update and Approval: Catchment Studies: Katherine	16-17
	iii. Final Update: Low Impact Development Project: Jason	18-19
	iv. The Use of Radionuclides to Identify Vulnerable Fractured and Karst Bedrock Aquifers in Eastern Ontario: Alex Harrison	20-23
	v. SNC 155 Weather Station Project Update: Katherine	24
	vi. South Nation River Watershed Water Budge Update: Phase 1: Katherine	25
	vii. Lagoon Effluent Tree Irrigation and Evapo Transpiration Study: Chris Kinsley	26
	d. Request for Approval: Ottawa Rural Clean Water Grant Project Applications: Reps	27-29
	e. Request for Approval: 2020 Clean Water Program Waiting List: Ronda	30-31
	f. Request for Approval: 2021 Clean Water Committee Meeting Schedule: Lorie	32
8.	Supplemental Agenda (if any)	
9.	Roundtable: Community Engagement	
10.	Correspondence	
	a. TESA Nomination – Letter of Support for Jacqueline Kelly-Pemberton	33
11.	Date of Next Meeting:	
	• March 4th, 2021: Clean Water Committee at 9:00 a.m.	
	• March 4th, 2021: Joint Standing Committees at 1:00 p.m.	
12.	Adjournment	

Ronda Boutz,
Team Lead, Special Projects

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CLEAN WATER COMMITTEE MEETING

Meeting No. 03/20
Monday, September 14th, 2020 – 9:00 a.m.

By Electronic Participation

Present:	Jacqueline Kelly-Pemberton, Committee Chair Ray Beauregard Russell Bennett Elizabeth Holmes Michel Kearney René Lalonde Glenn Mackey André Pommainville Tara Redpath Norman Riopel Terrence Sauvé Bill Smirle, SNC Chair (ex-officio) François St. Amour Doug Thompson, SNC Past Chair (ex-officio)
Regrets:	George Darouze, SNC Vice Chair (ex-officio) Jack Hoogenboom Marc Laflèche David Lapen Lawrence Levere Gib Patterson Adrian Wynands
Absent:	Alan Kruszel
Staff:	Carl Bickerdike, Team Lead, Corporate Services Ronda Boutz, Team Lead, Special Projects Brent Harbours, Watershed Biologist Lorie Henderson, Administrative Assistant Katherine Watson, Water Resources Specialist - Monitoring
Guest:	Chris Kinsley, University of Ottawa

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CHAIRS REMARKS

Jacqueline Kelly-Pemberton, Committee Chair, called the Clean Water Committee meeting to order at 9:10 a.m. and welcomed everyone.

APPROVAL OF CLEAN WATER COMMITTEE MEETING AGENDA

RESOLUTION NO. CWC-030/20	Moved by:	Glenn Mackey
	Seconded by:	Russell Bennett
RESOLVED THAT:	The Members approve the September 14th, 2020 Clean Water Committee agenda with the following amendments: a. Agenda item 6.d., Request for Approval: Ottawa Rural Clean Water Program Project Applications page 33 be replaced with File Code 05 20 22308 DDA – Forest Management Plan; b. Agenda item 10., Next Meeting be changed to November 30th, 2020 at 9:00 a.m.	

CARRIED

DECLARATION OF CONFLICT OF INTEREST

There were no Declarations of Conflict of Interest.

REQUEST FOR APPROVAL:

CLEAN WATER COMMITTEE MEETING MINUTES OF JUNE 8th, 2020

RESOLUTION NO. CWC-031/20	Moved by:	François St. Amour
	Seconded by:	Andre Pommainville
RESOLVED THAT:	The Members approve the Clean Water Committee meeting minutes of June 8th, 2020 as submitted.	

CARRIED

BUSINESS ARISING FROM MINUTES
DEFERRED APPLICATIONS

2020-CAS-CW15 – STREAMBANK EROSION
The Committee discussed this project, which was rated at the June 8th, 2020 Committee meeting, this project will be considered with Agenda item 6.f.

2020-NAT-CW6B – BUFFER STRIP
The landowner informed Andre Pommainville, Program Representative, that they wish to withdraw their Buffer Strip grant application.

2020-NAT-CW09 – STREAMBANK EROSION
The Committee discussed and rated this project, it will be considered with Agenda Item 6.f.

2020-NAT-CW13A – CONTROL TILE DRAIN
The Committee discussed and rated this project, it will be considered with Agenda Item 6.f.

2020-NAT-CW13B – COVER CROP
The Committee discussed and rated this project, it will be considered with Agenda Item 6.f.

2020-NAT-CW13C – STREAMBANK EROSION
The Clean Water Committee discussed and rated this project, it will be considered with Agenda Item 6.f.

NEW BUSINESS
REQUEST FOR APPROVAL: EASTERN ONTARIO WATER RESOURCES PROGRAM FINANCIAL STATEMENT – AS OF AUGUST 31st, 2020

RESOLUTION NO. CWC-032/20	Moved by:	Doug Thompson
	Seconded by:	Ray Beaureguard
RESOLVED THAT:	The Clean Water Committee approve the Eastern Ontario Water Resources Program 2020 Financial Statement – as of August 31st, 2020.	

CARRIED

UPDATES: EASTERN ONTARIO WATER RESOURCES PROGRAM

CITY OF OTTAWA WEATHER STATION PROJECT UPDATE

RESOLUTION NO. CWC-033/20 Moved by: Tara Redpath
Seconded by: Bill Smirle

RESOLVED THAT: The Clean Water Committee receive and file the report.

CARRIED

SOUTH NATION RIVER WATERSHED WATER BUDGET UPDATE: PHASE 1

RESOLUTION NO. CWC-034/20 Moved by: Andre Pommainville
Seconded by: Bill Smirle

RESOLVED THAT: The Clean Water Committee receive and file the report.

CARRIED

LAGOON EFFLUENT TREE IRRIGATION AND EVAPO-TRANSPIRATION STUDY

RESOLUTION NO. CWC-035/20 Moved by: Terrence Sauvé
Seconded by: Doug Thompson

RESOLVED THAT: The Clean Water Committee receive and file the report.

CARRIED

REQUEST FOR APPROVAL:

EXTENSION TO PROJECT APPROVAL DEADLINE

RESOLUTION NO. CWC-036/20 Moved by: Andre Pommainville
Seconded by: Glenn Mackey

RESOLVED THAT: The Clean Water Committee approve extending 2018-EDW-CW25B – Manure Storage project deadline to December 1, 2020.

CARRIED

OTTAWA RURAL CLEAN WATER PROGRAM PROJECT APPLICATION

RESOLUTION NO. CWC-037/20

Moved by: Rene Lalonde
Seconded by: Tara Redpath

RESOLVED THAT: **05 20 2306 DDA Well Decommissioning**
The Clean Water Committee conditionally approve at a grant rate of 90% to a maximum grant of $2,227.50 pending funding availability.

CARRIED

RESOLUTION NO. CWC-038/20

Moved by: Andre Pommainville
Seconded by: Russell Bennett

RESOLVED THAT: **05 20 2307 DDA Forest Management Plan**
The Clean Water Committee conditionally approve at a grant rate of 75% to a maximum grant of $375.00 pending funding availability.

CARRIED

RESOLUTION NO. CWC-039/20

Moved by: Tara Redpath
Seconded by: Doug Thompson

RESOLVED THAT: **05 20 2308 DDA Forest Management Plan**
The Clean Water Committee conditionally approve at a grant rate of 75% to a maximum grant of $375.00 pending funding availability.

CARRIED

RESOLUTION NO. CWC-040/20

Moved by: Ray Beaureguard
Seconded by: Glenn Mackey

RESOLVED THAT:

05 20 2309 DDA Well Decommissioning
The Clean Water Committee conditionally approve at a grant rate of 90% to a maximum grant of $675.00 pending funding availability

CARRIED

SUMMARY OF CLEAN WATER PROGRAM GRANT APPLICATIONS

Ronda Boutz, Team Lead, Special Projects provided the Committee with an updated summary of 2020 Clean Water Program Applications for information only.

François St. Amour left the meeting at 10:10 a.m.
Doug Thompson left the meeting at 10:18 a.m.

The Clean Water Committee meeting recessed at 11:02 a.m.
The Committee Chair reconvened the Clean Water Committee meeting at 11:10 a.m.

Doug Thompson joined the meeting at 11:10 a.m.

CLEAN WATER PROGRAM PROJECT APPLICATIONS

The Clean Water Committee reviewed all the 2020 Clean Water Program grant applications on the agenda and rated them accordingly.

RESOLUTION NO. CWC-041/20

Moved by: Doug Thompson
Seconded by: Ray Beaureguard

RESOLVED THAT:

The Clean Water Committee approves funding to the following projects:

Project Code	Project Type	Grant %	Grant Request	Rating
2020-EDW-CW25	Well Decommissioning	100%	$1,000.00	24.7
2020-NAT-CW13 A	Control Tile Drainage	50%	$5,000.00	24.1
2020-APL-CW16 B	Cover Crop	N/A	$1,000.00	23.9
2020-NAT-CW21	Well Decommissioning	100%	$500.00	23.9
2020-CLR-CW22	Septic System	50%	$2,000.00	23.7

Project Code	Project Type	Grant %	Grant Request	Rating
2020-CLR-CW23	Well Decommissioning	100%	$1,000.00	23.7
2020-APL-CW24	Well Decommissioning	100%	$1,000.00	23.5
2020-NAT-CW13 B	Cover Crop	N/A	$1,000.00	23.1
2020-NST-CW09	Streambank Erosion	50%	$5,000.00	22.2
	Total Requested		**$17,500.00**	

AND FURTHER THAT: The Clean Water Committee placed the following projects on a waiting list and will be re-considered at a future date if funding is becomes available:

Project Code	Project Type	Grant %	Grant Request	Rating
2020-NST-CW33	Well Decommissioning	100%	$850.00	22
2020-NAT-CW31	Well Decommissioning	100%	$1,000.00	21.9
2020-CAS-CW15	Streambank Erosion	50%	$4,500.00	21.6
2020-NAT-CW13 C	Streambank Erosion	50%	$5,000.00	21.3
2020-NAT-CW30	Streambank Erosion	50%	$4,500.00	20.9
2020-RUS-CW20	Cover Crop	N/A	$1,000.00	20.2
2020-NGL-CW32	Well Decommissioning	100%	$850.00	17.9
2020-CAS-CW28	Streambank Erosion	50%	$1,656.50	16.6
2020-CAS-CW29	Streambank Erosion	50%	$1,656.50	16.4
2020-CAS-CW26	Streambank Erosion	50%	$5,000.00	15.8
2020-CAS-CW27	Streambank Erosion	50%	$5,000.00	15.6
	Total Requested		**$31,013.00**	

CARRIED

RESOLUTION NO. CWC-042/20

Moved by: Glenn Mackey
Seconded by: Terra Redpath

RESOLVED THAT: The Clean Water Committee approve staff to cease site visits, affective immediately, for the remainder of 2020;

AND FURTHE THAT: New applicants will be asked to document their project if it is proceeding prior to 2021 site visit by

Program Representative. Application will be under the 2021 Clean Water Program grant structure and guidelines.

CARRIED

ROUNDTABLE: COMMUNITY ENGAGEMENT

Jacqueline Kelly-Pemberton

- Informed Members that she sits on the Low Water Response Committee as an agricultural representative and they discuss challenges with the summer's drought conditions.

Bill Smirle

- Conveyed thanks to SNC staff for adapting so well, working from home, in the office and in the field during this pandemic.

NEXT MEETING

The next Clean Water Committee Clean Water Committee is scheduled for November 30th, 2020 at 9:00 a.m., unless otherwise stated, this meeting will be held virtually.

CORRESPONDENCE

a. Ecological Farmers Association of Ontario: Small Grans Program 2021

ADJOURNMENT

RESOLUTION NO. CWC-043/20 Moved by: Bill Smirle

RESOLVED THAT: The Clean Water Committee meeting of September 14th, 2020 be adjourned at 11:30 a.m.

CARRIED

Jacqueline Kelly-Pemberton,
Committee Chair.

Ronda Boutz,
Team Lead, Special Projects.

/lh

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To: Clean Water Committee
From: Ronda Boutz, Team Lead, Special Projects
Date: November 22, 2020
Subject: Request for Approval: Eastern Ontario Water Resources Program 2020 Financial Statement – as of October 31, 2020

RECOMMENDATION:
The Clean Water Committee approve the Eastern Ontario Water Resources Program 2020 Financial Statement – as of October 31, 2020.

DISCUSSION:

The 2020 Eastern Ontario Water Resources Program Financial Statement, as of October 31, 2020, is attached.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:

Compliance with Budget: Funding for the Eastern Ontario Water Resources Program was included in the 2020 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 Financial Statement – as of October 31st, 2020

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

2020 Financial Statement – as of October 31st, 2020

Revenue:

United Counties of Prescott-Russell	$25,000
City of Ottawa	$50,000
Carry-over of 2019 dollars	$38,902
TOTAL REVENUE	**$113,902**

	Expenses:	**2020 Budget**	**Expenses as of Oct. 31, 2020**	**Forecast to Dec. 31, 2020**	**Carry-over to 2021 Budget**
1.	**EOWRP Project Management[1]**	$4,815	$3,477	$4,815	$0
2.	**EOWRP Committee[2]**	$1,000	$903	$1,220	$0
3.	**2019 EOWRP Projects**				
	a) Eastern Ontario Children's Water Festival	$2,031	$0	$0	$2,031
	b) North Castor Catchment Study[3]	$15,000	$0	$15,000	$0
	c) Development of groundwater/surface water interaction constraint mapping	$3,124	$0	$3,124	$0
	d) Low Impact Development Project[3]	$18,737	$0	$18,737	$0
4.	**2020 Special Projects**				
	a) UCPR: Floodplain Mapping	$25,000	$25,000	$25,000	$0
	b) South Bear Brook Catchment Study	$19,195	$0	$14,575	$4,620
5.	**2020 Grants[5]**				
	a) Lagoon Effluent Tree Irrigation and Evapo-transpiration Study	$3,000	$0	$0	$3,000
	b) The Use of Radionuclides to Identify Vulnerable Fractured Karst Bedrock Aquifers in Eastern Ontario	$3,000	$0	$2,780	$0
	c) City of Ottawa Climate Station	$9,500	$0	$9,500	$0
	d) Phase 1: South Nation River Watershed Water Budget Update Plan	$9,500	$0	$0	$9,500
	TOTAL EXPENSES	**$113,902**	**$29,380**	**$94,751**	**$19,151**

[1] South Nation Conservation provides project management services to EOWRP to facilitate the Project Grants; this includes developing project application materials, coordinating call for proposals, administering grants to approved projects. Funding from City of Ottawa 2020 EOWRP contribution.

[2] EOWRP funding from previous year surplus to support meeting expenses for appointed EOWRP members on the Clean Water Committee.

[3] EOWRP Special Projects identified by the EOWRP funding contributor, approved in 2019 and to be completed in 2020.

[4] EOWRP Special Projects in 2020 identified by the EOWRP funding contributor.

[5] City of Ottawa earmarked $25,000 of their $50,000 2019 contribution for grants to be allocated through a grant proposal submission. Projects reviewed and approved at the June 8, 2020 meeting.

[6] Unspent funds to be carried forward to the 2021 Budget for project completion.

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Eastern Ontario Children's Water Festival 2020

Report to Eastern Ontario Water Resources Program

November 2nd

Lexy Harquail
lharquail@riverinstitute.ca
613-966-6620 ext. 308

The Eastern Ontario Children's Water Festival is a unique environmental education program that teaches young people important messages about water in our environment. The River Institute coordinates three festivals every year in communities throughout Eastern Ontario. In May, festivals are held in Casselman and Spencerville ON, and in September, the festival is held in Cornwall, ON. Every year, approximately 20 schools, 1500 students, and 450 volunteers participate from Ottawa, Prescott-Russell, Leeds-Grenville, Stormont, Dundas and Glengarry, and Akwesasne.

The River Institute EOWRP proposal was to support the 2020 Water Festivals held in Casselman and Spencerville which are part of the eligible areas. The two-day festival featured approximately twenty-five hands-on Water Discovery Centers that address water-related themes such as water conservation, water protection, water attitude, water technology, and water science. Other topics include ground water and wells, septic systems, hydropower, contaminants in rivers and lakes, and invasive species. Each water station involves games, demonstrations or activities, with review to ensure the water-related messages are understood. School groups have a full day at the Festival to complete all the activities. Activity stations are presented by high school students, who take a leadership role in delivering the messages and demonstrations to the children. The River Institute trains and supervises all volunteer presenters in advance, and oversees all aspects of the event.

The Eastern Ontario Children's Water Festival attracts participants from both urban and rural areas of Eastern Ontario. At every festival, teachers are provided with take-home materials to continue water education in the classroom. Feedback and testimonials from teachers and parents tell us that the young participants take messages home and encourage their families to make changes, from turning off taps and fixing drips, to becoming aware of runoff and environmental contaminants at home and in their own neighbourhoods. The Water Festival gives many children real-life examples of environmental biology and ideas for a career path in science. Likewise, the high school volunteers are empowered to inspire younger children and provide an example of environmental responsibility. The water festival provides an important step towards empowering youth and raising awareness of how our individual and collective behaviour affects the environment.

Due to COVID-19, all three of the Eastern Ontario Children's Water Festivals were cancelled, and because of ongoing concerns for spring 2021 we have decided to merge all three festivals into one online festival in the spring of 2021. This aligns with the decisions of many of Ontario's other water festivals. Our hope is that due to the online nature of the festival we will be able to reach more students than we were able to reach with in-person festivals—as there will be no cap on how many classes will be able to register, and schools which normally may not be able to arrange transportation will be able to participate. Additionally, the aim will be to have the virtual format be something we can utilize in future years, so that schools who are not able to attend our in-person festival will still be able to participate.

We would like the Clean Water Committee to carry forward remaining funds of approximately $2031 to the 2021 budget for the Eastern Ontario Virtual Children's Water Festival completion in May 2021.

Summary Budget for the 2021 Casselman and Spencerville Water Festival (online)

Expenditure	**Program Funding**	**Lead/Partner Funding**
Staffing Costs: Festival coordinator, Supervision and support	1000	3920
Transportation: Moving activities, Trailer rental fees and maintenance	131	505
Program costs: Volunteers costs (t-shirts) , Maintenance and purchase of festival activities, video recording and editing, website development& updating	900	5731
Administrative: - Overhead, office, registration, Parking and supplies	-	1885
Total	**$2,031**	**$12,041**

Note: The River Institute also receives funding for Water Festivals from Ontario Power Generation, TD Canada Trust Friends of the Environment, TransCanada Corporation. In kind contributions are provided by the River Institute

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To: Clean Water Committee
From: Katherine Watson, Water Resources Specialist
Date: November 16, 2020
Subject: Update and Approval: Catchment Studies

RECOMMENDATION:

The Clean Water Committee approve expenditures of $15,000 for completion of the North Castor River Catchment Study in 2020;

AND FURTHER THAT: The Clean Water Committee approve expenditures of $3,124 for completion of the development of groundwater/surface water interaction constraint mapping project in 2020;

AND FURTHER THAT: The Committee approve expenditures of approximately $14,575 for completion of Year 1 field work for the South Bear Brook Catchment Study in 2020;

AND FURTHER THAT: The Committee approve to carry forward funds of approximately $4,620 to the 2021 budget for completion of Headwater Drainage Feature Monitoring for the South Bear Brook Catchment Study;

AND FURTHER THAT: The Committee receive and file the final reports for the North Castor River Catchment Study and the Development of Groundwater/Surface Water Interaction Constraint Mapping Project.

DISCUSSION:
South Nation Conservation has undertaken several monitoring initiatives in 2018 and 2019 to assess the condition of the North Castor River Catchment. SNC has also undertaken several monitoring initiatives in 2020 to assess the condition of the South Bear Brook Catchment. Funding is provided under the Eastern Ontario Water Resources Program as a special project with the City of Ottawa.

These studies include the collection of baseline surface water quantity and quality data to support City of Ottawa subwatershed reporting initiatives, and recommendations for best management practices to protect and enhance water resources. Data collected as part of these studies includes:

- Headwater drainage features
- Baseflow investigations
- Water quality
- Biological communities – benthic invertebrates and fish
- Thermal assessments

All work has been completed related to the North Castor River Catchment Study and a final report is available. This report will be presented to the Clean Water Committee.

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All year 1 field work has been completed related to the South Bear Brook Catchment Study, with the exception of headwater drainage feature sampling which was disrupted due to the COVID-19 pandemic. This sampling will be included with the year 2 investigations in 2021 and a report will be completed detailing findings and recommendations.

The groundwater/surface water interaction constraint mapping project was completed using output from SNC's HydroGeosphere Model to identify potential groundwater/surface water interactions within the North Castor River. These areas were then field validated using standardized methodologies: water chemistry indicators, heat mapping, and biological indicators. The effectiveness of, and recommendations for, each methodology was discussed.

All work has been completed related to the development of groundwater/surface water interaction constraint mapping. A final report will be presented to the Clean Water Committee.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: Catchment Studies are included in the 2020 Budget under Approvals, Projects: Subwatershed Studies, page 68-69, and the 2021 Budget (subject to approval) under Approvals, Projects: Subwatershed Studies, pages 70-71

SNC Policy Adherence: All purchases follow the SNC Purchasing Policy for purchases $200 up to $5,000. All field work follows SNC's Health and Safety Policies.

Katherine Watson
Water Resources Specialist

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To: Clean Water Committee
From: Jason Symington, Environmental Technologist
Date: November 23, 2020
Subject: Final Update: Low Impact Development Project

RECOMMENDATION:

The Clean Water Committee approve expenditures of $18,737 for completion of the Low Impact Development Project in 2020; and

FURTHER THAT: The Committee receives and files the final report for the Low Impact Development Project.

DISCUSSION:
The City of Ottawa contributed $50,000 to the Eastern Ontario Water Resources Program (EOWRP) in 2018 for Special Projects. Based on discussions with the City, $21,000 of this contribution was allocated to complete a Low Impact Development (LID) project.

The focus of this project is to develop a demonstration site which will highlight and promote various LID concepts which may be used in future developments.

SNC staff approached the United Counties of Prescott and Russell (UCPR) and a site has been chosen at parking area P1 within Larose Forest.

JP2G Consultants Inc. was retained to create a detailed design for and LID demonstration site. UCPR will use the design for budgeting purposes to implement the proposed project. The design will use elements for various LID components such as bioswales and bioretention.

Funds provided by EOWRP covered staff time, site meetings and the collection of site information such as vegetation, topography and soil conditions. UCPR will be responsible to fund the remaining portions of the project, including draft and detailed designs.

The consultant is currently completing the draft design to be submitted to SNC and UCPR for review. Once the design has been finalized, a detailed design package will be submitted to the Ministry of the Environment, Conservation and Parks for Provincial approval.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: This project was not included in the 2020 Budget however it will be 100% cost recovery.

SNC Policy Adherence: Expenses related to this project adhered to SNC's Purchasing Policy

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Jason Symington,
Environmental Technologist

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

Recommendation to the Committee:

Clean Water Committee approve to carry forward remaining funds of approximately $3,000 to the 2021 budget for The Use of Radionuclides to Identify Vulnerable Fractured and Karst Bedrock Aquifers in Eastern Ontario completion.

Item	Description
1	**Project Objective:** Protection of groundwater resources is paramount for all communities and it is particularly challenging in rural areas that rely on widely dispersed domestic wells. Unregulated domestic wells can become compromised when harmful pathogens and contaminants are introduced into the aquifer. It is essential to identify hydrogeologically vulnerable areas to reduced 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. This project aims to develop a geochemical method using radionuclides (^{137}Cs and ^{210}Pb) to identify hydrogeologically vulnerable environments in Eastern Ontario. Ongoing field work is being conducted to collect samples of sediment from private domestic water wells in Eastern Ontario, in order to test for the presence of the aforementioned radionuclides. These radionuclides should be effective indicators of rapid, fracture-controlled recharge and help to identify vulnerable wells. NOTE: due to the COVID-19 pandemic there were delays in obtaining permission to initiate the field program, which involves sampling private residential wells. The field program included additional safety measures to ensure the safety of field staff and well sampling volunteers. In addition to the delay in starting the field program, the novel well sampling technique applied in this study was refined as the sampling progressed, thus several sites were re-visited to apply the improved sampling method. Field sampling was initiated on November 3rd and was still ongoing at the time this report was prepared.

2	**Project Location(s):** Map 1 (attached) shows the locations of ongoing field work in two regions of Eastern Ontario; western rural Ottawa and the Township of Alfred and Plantagenet. Approximately 10 inferred vulnerable and 10 inferred non-vulnerable locations have been selected for testing. Vulnerable and non-vulnerable sites were selected based on an assessment of geochemical data collected during the 2019 field season of the West

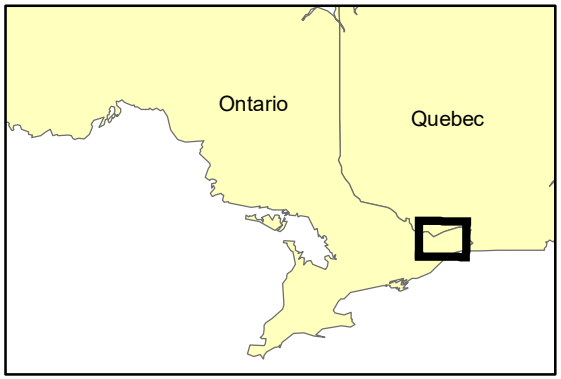
	Ottawa Groundwater Study. Field sampling is ongoing at the time this report was prepared, an updated map with sampling locations will be provided once field work has been completed.

3	**Deliverables:** *(1) Summary of Field Program to Date* The field program required the development of a new technique to collect sediment from the bottom of in-use private water wells. The challenge was to design a sampling device narrow enough to lower down the well past the existing submersible pump. Several iterations of this technique were tested in the field and ruled out. Several iterations of this technique were tested in the field and ruled out. The most recent and successful trial involves lowering a weighted probe (~500mg) attached to thin aircraft cable to the bottom of the sampled well. The probe is a copper tube fitted with a metal ball valve, resembling a .Wattera foot valve. Once at the bottom of the well, the probe is moved up and down in order to pump sediment laden water at the bottom of the well, into the tube. Once the probe is pulled up out of the well, the tube is emptied and contents rinsed into a sample container using deionized water Several iterations of this technique have been tried and ruled out. The most recent involves lowering a weighted probe (~500mg) attached to thin aircraft cable to the bottom of each well. The probe is a copper tube fitted with a metal ball valve, resembling a Wattera foot valve. Once at the bottom of the well, the probe is moved up and down in order to pump the sediment laden water at the bottom of the well, into the tube. Once at the surface, the tube is emptied and contents rinsed into a sample container using deionized water. The sediment will be isolated in the lab at the University of Ottawa and will be tested in accordance with the methods described in Manolopoulou et al., 2003. *(2) Review of expenses* Due to the changes in the field work plan, and updated budget has been included. A final summary of expenses will be provided once field work has been completed. *(3) Template of well volunteer letter (bilingual)* Due to the delayed timeline for fieldwork, a template of the well volunteer letter cannot be included in this report as results have not been determined. Once field work has been completed, a letter will be sent to all homeowners who participated, which will provide information about the research hypothesis and the methods used to process the samples, as well as an overview of preliminary results and the specific results for their well (time depending). Please note that the results will be provided for interest only, as volunteers are aware that this is a scientific study and not a drinking water testing service. *(4) Overview of preliminary results* Due to the delayed timeline for field work, an overview of preliminary results is not

	available at this time. Once field work has been completed, samples will be processed in the lab and assessed using a gamma spectrometer. The raw results for that analysis can be expected around February/March 2021. A summary of results can be provided once available, on request. Furthermore, a digital copy of the final Master's thesis will be provided once completed. References: Manolopoulou, M., Stoulos, S., Mironaki, D., & Papastefanou, C. (2003). A new technique for the accurate measurement of 226Ra by gamma spectroscopy in voluminous samples. *Nuclear Instruments and Methods in Physics Research A, 508*, 362-366. doi:10.1016/S0168-9002(03)01701-7

6	**Updated Detailed Budget**			
	Expenditure (provide detailed breakdown)	**Program Funding** (EOWRP)	**Lead/Partner Funding** (University of Ottawa and City of Ottawa)	**Total**
	Staffing			
	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
	Field Equipment			
	Field Lead Vehicle Fueling (10 days x $20/day)	$200		
	Field Lead Vehicle Mileage ($0.53/km x 1000km)	$530		
	Field Assistant Vehicle Fueling (10 days x $20/day)	$200		
	Field Assistant Vehicle Rental (3 weeks x $250/week)		$750	
	Sampling Device Construction Materials	$750		
	Contingency Plan - Well Driller Fee	$500		
	Miscellaneous Equipment Expenses (bleach, tape, rubber gloves, batteries, etc.)	$100		
	Lab Analysis			
	Radionuclide Samples (20 samples x $125/sample)		$2,500	$2,500
	Radionuclide Sample Analysis Equipment	$500		
	Total	$2,780	$19,550	$22,330

Map 1: Overview Map of Proposed Study Areas in Eastern Ontario



TOWNSHIP OF CHAMPLAIN
TOWNSHIP OF ALFRED AND PLANTAGENET
TOWNSHIP OF CHAMPLAIN
CITY OF CLARENCE-ROCKLAND
MUNICIPALITY OF THE NATION
TOWNSHIP OF RUSSELL
CITY OF OTTAWA
TOWN OF ARNPRIOR
TOWN OF MISSISSIPPI MILLS
TOWNSHIP OF BECKWITH
TOWNSHIP OF NORTH DUNDAS
TOWNSHIP OF MONTAGUE
MUNICIPALITY OF NORTH GRENVILLE
VILLAGE OF MERRICKVILLE-WOLFORD

Constance Bay
Fitzroy Harbour
Galetta
Dunrobin
Kinburn
Carp
Cumberland
Sarsfield
Notre-Dame-des-Champs
Navan
Carlsbad Springs
Vars
Fallowfield
Greely
Kemmore
Manotick
Richmond
Marionville
Ashton
Munster
Kars
Osgoode
Vernon
North Gower
Burritt's Rapids

2019-2020 Study Area Boundary
Previous Groundwater Study Areas
Lower Tier Municipalities
Upper Tier Municipalities
Village Boundaries (Official Plan)
City Boundary (Official Plan)

N
W
E
S

0 5 10 20 30
Kilometers

Date: May 26, 2020

00023

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38 rue Victoria Street, Finch, ON K0C 1K0 Tel: 613-984-2948 Fax: 613-984-2872 Toll Free: 1-877-984-2948 www.nation.on.ca

To: Clean Water Committee
From: Katherine Watson, Water Resources Specialist
Date: November 16, 2020
Subject: SNC 155 Weather Station Project Update

RECOMMENDATION:
The Clean Water Committee approve the final report and expenditures of $9,500 for the SNC 155 Weather Station Project in 2020.

DISCUSSION:
SNC was successful in receiving $9,500 EOWRP funds for the installation of a continuous, real-time data collection platform and weather station on an SNC property south of Greely, in the City of Ottawa. Additional funds are budgeted in SNC's Water Resources Program.

This station improves the Flood Forecasting and Warning Program by filling in known data gaps for precipitation and soil moisture. Having timely reliable climate information on the occurrence and severity of extreme precipitation events is essential to reducing the impacts of floods and droughts in Ottawa and Eastern Ontario.

Installation of equipment is complete, data is transmitted on an hourly basis over the GOES satellite Network and data is automatically captured in SNC's Water Integration System.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: EOWRP $9,500; remaining funds approved in 2020 Budget, Page No. 14, Resource Management – Water Response Programs, Page 14-15

SNC Policy Adherence: Purchasing Policy, Page No. 4, Section E, Non-Competitive Purchasing; Board of Directors must approve any Non-Competitive purchasing over $10,000; when it is necessary to ensure compatibility with existing products.
All field work will follow SNC's Health and Safety Policies.

Katherine Watson
Water Resources Specialist

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To: Clean Water Committee
From: Katherine Watson, Water Resources Specialist
Date: November 16, 2020
Subject: South Nation River Watershed Water Budget Update: Phase 1

RECOMMENDATION:

Clean Water Committee receive and file the SNC Water Budget Update;

AND FURTHER THAT: The Committee approve to carry forward funds of approximately $9,500 to the 2021 budget for project completion.

DISCUSSION:
SNC was successful in receiving $9,500 EOWRP funds for Phase 1 of a South Nation River Watershed Water Budget Update. Additional funds for this project are budgeted in SNC's 2020 Water Response Program. The project was approved by the SNC Board of Director's (Resolution No. BD-077/20).

SNC has signed a contract with Aquanty Inc. to provide the model infrastructure and inputs needed to update the water budget. Aquanty will create different land cover and storm event scenarios to capture water quantity conditions under a changing climate. Model infrastructure and inputs will be provided to SNC in December.

Work will continue through the winter and a final report will be submitted in June 2021.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: EOWRP 2020: $9,500, SNC 2020: Water Budget Update included in the 2020 Budget under Resource Management: Water Response Programs, page 14-15.

SNC Policy Adherence: All purchases will follow the SNC Purchasing Policy for purchases $5,000 up to $10,000.

Katherine Watson
Water Resources Specialist

Lagoon Effluent Tree Irrigation and Evapo-transpiration Study

Interim Report to EOWRP

Prepared by: Chris Kinsley, Ph.D., P.Eng.

November 20th, 2020

The dosing line to the wetland had cracked. The break was located and the broken section of piping replaced. The roofing for the electric control shed was also replaced. The wetland system is now operational. However, it was too late in the season to plant the hybrid-poplar trees. Additionally, covid restrictions are still impacting student mobility. The dock and dosing pump have been removed from the lagoon for the winter and the research project will commence in Spring 2021.

Picture Caption: Repaired dosing line from Alfred lagoon to wetland header pipe.

Recommendation: The Clean Water Committee approve to carry forward remaining funds of approximately $3000 to the 2021 budget for PROJECT completion.

Faculté de génie
Faculty of Engineering
613-562-5682
613-562-5174
genie.uOttawa.ca
engineering.uOttawa.ca
161 Louis Pasteur
Ottawa ON K1N 6N5
Canada

Grant Request

05 20 2310 DDA $1,100.00

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

Well Company

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

I have two wells on my property which were disconnected but not decommissioned when I purchased the house (2016) one well is 260' and was drilled ≈1981 and the second is 90' drilled ≈ 2000 both wells do not have sufficient flow - have gone dry. We would like to decommission to prevent contamination of aquifers/grand water sources. There is a 3rd well which we had dug 2020 to supply water to the house (see sketch)

Name of watercourse: N/A Distance from the watercourse: N/A

☐ 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.

Decommissioning of of 2 wells which have gone dry on my property 90' and 260' deep

Total estimated cost (excluding taxes): $ 1,100.00 **(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:$ _____

05 20 2310 DDB

Grant Request $1,100.00

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

Well Company

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

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I have two wells on my property which were disconnected but not decommissioned when I purchased the house (2016) one well is 260' and was drilled ≈1981 and the second is 90' drilled ≈ 2000 both wells do not have sufficient flow - have gone dry. We would like to decommission to prevent contamination of aquifers/ground water sources. There is a 3rd well which we had dug 2020 to supply water to the house (see sketch)

Name of watercourse: N/A Distance from the watercourse: N/A

☐ 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.

Decommissioning of of 2 wells which have gone dry on my property 90' and 260' deep

Total estimated cost (excluding taxes): $ 1,100.00 **(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:$

Cover Crop

Grant Request $1,000.00
$50.00/acre per year, maximum 20 acres, maximum 3 yrs

05 20 2311 DDA

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

FRIEND

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, # barns, # 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

Name of watercourse: BEAR BROOK Distance from the watercourse: BORDERS BEAR BROOK

☒ 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.

Cover Crop, Seed down Reduce

Total estimated cost (excluding taxes): $ 2000.00 (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 $

00029

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To: Clean Water Committee
From: Ronda Boutz, Team Lead, Special Projects
Date: November 22, 2020
Subject: Request for Approval: 2020 Clean Water Program Waiting List

RECOMMENDATION:

The Clean Water Committee approved the following projects on the 2020 Waiting List, to be funded from surplus Special Project grant funds:

Project Code	Project Type	Grant Approved	Rating
2020-NST-CW33	Well Decommissioning	$850.00	22.0
2020-NAT-CW31	Well Decommissioning	$1,000.00	21.9
2020-CAS-CW15	Streambank Erosion	$4,500.00	21.6
2020-NAT-CW13 C	Streambank Erosion	$5,000.00	21.3
2020-NAT-CW30	Streambank Erosion	$4,500.00	20.9
2020-RUS-CW20	Cover Crop	$1,000.00	20.2
	Total Grants Approved	**$16,850.00**	

AND FURTHER THAT: The Clean Water Committee deny funding to projects on the 2020 waiting list with a score of less than 20.0 points.

DISCUSSION:
There are 14 projects on the 2020 Clean Water Program waiting list with project ranking scores of 15.6 and 22.0 points. These projects meet Program eligibility criteria; however, there was insufficient funding in 2020 to address these grant requests. A summary of the 2020 Clean Water Program Waiting List is below:

Project Code	Project Type	Grant %	Grant Request	Rating
2020-NST-CW33	Well Decommissioning	100%	$850.00	22.0
2020-NAT-CW31	Well Decommissioning	100%	$1,000.00	21.9
2020-CAS-CW15	Streambank Erosion	50%	$4,500.00	21.6
2020-NAT-CW13 C	Streambank Erosion	50%	$5,000.00	21.3
2020-NAT-CW30	Streambank Erosion	50%	$4,500.00	20.9
2020-RUS-CW20	Cover Crop	N/A	$1,000.00	20.2
2020-CAS-CW11	Streambank Erosion	50%	$5,000.00	18.7
2020-CAS-CW17	Streambank Erosion	50%	$1,840.50	18.7
2020-NGL-CW32	Well Decommissioning	100%	$850.00	17.9
2020-NST-CW01	Well Decommissioning	100%	$1,000.00	17.5

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Project Code	Project Type	Grant %	Grant Request	Rating
2020-CAS-CW28	Streambank Erosion	50%	$1,656.50	16.6
2020-CAS-CW29	Streambank Erosion	50%	$1,656.50	16.4
2020-CAS-CW26	Streambank Erosion	50%	$5,000.00	15.8
2020-CAS-CW27	Streambank Erosion	50%	$5,000.00	15.6
	Total Funds Requested		**$38,853.50**	

All 2020 Clean Water Program grant funds were allocated at the September 14, 2020 meeting. Each year Special Project funding is budgeted under the Clean Water Program for special projects (e.g. innovative and demonstration projects) and leveraging of external funding for projects that improve water quality.

As of October 31, 2020; there is surplus funding under Special Projects that can be directed to the Clean Water Program waiting list. Staff recommend allocating Special Project funding to projects that score 20.0 points or higher. This would fund four projects to a total of $16,850.

Given the 2021 program year is likely to be over-subscribed, staff recommend denying all remaining projects on the waiting list with a score less than 20.0.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: No impact to the 2020 SNC Budget.

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

Ronda Boutz,
Team Lead, Special Projects.

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To: Clean Water Committee
From: Lorie Henderson, Administrative Assistant
Date: October 21st, 2020
Subject: Request for Approval: 2021 Clean Water Committee Meeting Schedule

RECOMMENDATION:
The Clean Water Committee approves the 2021 Committee meeting schedule as presented.

DISCUSSION:
As per the Standing Committee Terms of Reference, all Standing Committees will meet at least 4 times per year, with one of these meetings being a Joint Meeting of all Standing Committees.

Staff recommend the following meeting schedule for 2021:

- March 4th (Clean Water Committee at 9:00 a.m. and Joint Standing Committees meeting at 1:00 p.m.)
- June 7th
- September 13th
- November 29th

Meetings will be at 9:00 a.m. at the SNC office unless otherwise stated in the Agenda package. Meeting location will be indicated on the Agenda package.

The Standing Committee Terms of Reference allows for additional meetings to be called if there is 75% concurrence of the Committee at which there is quorum.

FINANCIAL IMPLICATIONS/ADHERENCE TO SNC POLICY:
Compliance with Budget: Committee expenses for the Clean Water Committee will be included in the 2021 SNC Budget to an upset limit of $4,600/Committee.

SNC Policy Adherence: The Clean Water Committee membership and meeting schedule adheres to the SNC By-laws and SNC Standing Committee Terms of Reference.

Lorie Henderson

Lorie Henderson,
Administrative Assistant.

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September 28, 2020

Beef Farmers of Ontario
130 Malcolm Rd.
Guelph, ON N1K 1B1

RE: TESA Nomination
Letter of Reference for Jacqueline Kelly-Pemberton

Dear Award Committee,
I would like to offer this letter of reference for Jacqueline Kelly-Pemberton's (Jackie) nomination for the Environmental Stewardship Award in Ontario.

Jackie has had a strong partnership with South Nation Conservation (SNC) since the late 1990's; she started working as a Program Representative for the SNC Clean Water Program at that time. In this role, Jackie assists other farmers (and landowners) seeking to make improvement on their properties that had a positive impact on water quality in the South Nation River watershed. Her extensive knowledge of agricultural best management practices and excellent standing with the local agricultural community have been invaluable in advancing the goals of the Clean Water Program.

In 2013, Jackie was elected as Chair of the SNC Clean Water Committee, a position she still holds today. The Committee is responsible for overseeing the Clean Water Program and other water quality grant programs and initiatives. Jackie's leadership ensure that meetings are well run, and all members have the opportunity to actively participate in Committee business.

And in 2017, Jackie once again took a leadership role in chairing the SNC Agricultural Forest Cover Committee (AFCC). As a very sensitive environmental topic in Eastern Ontario, Jackie led the Committee through a very intensive consultation process to ultimately table preliminary recommendations to SNC's Board of Directors on improving forest cover in SNC's jurisdiction. Jackie continued to represent the AFCC on the 2018 Forest Conservation Working Group; where she represented agricultural producers and brought forth her knowledge from the AFCC's previous work.

Jackie is a local environmental leader that SNC is very pleased to be able to work with, we look forward to her continued participation in our various agri-environmental initiatives.

Sincerely,

Ronda Boutz,
Team Lead, Special Projects.