



SOUTH NATION
CONSERVATION
DE LA NATION SUD

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

Clean Water Committee

Meeting Agenda

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

Date: Monday, September 13th, 2021

Time: 9:00 a.m.

NOTE:

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



Clean Water Committee

Meeting Agenda

Monday, September 13th, 2021 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:	
a. Clean Water Committee Meeting Minutes of June 7 th , 2021	3-12
5. Business Arising from Minutes	
a. Deferred Clean Water Grant Applications	
i. 2021-NAT-CW16: Cover Crop – Verbal: Andre	
ii. 2021-APL-CW19: Cover Crop – Verbal: Andre	
b. Appeals:	
i. 2021-NAT-CW08: Erosion Control – Appeal: Landowner	13-14
ii. 2021-CAS-CW03: Erosion Control - Updated Information: Jason	15
iii. 2021-CAS-CW06: Erosion Control - Updated Information: Jason	16
iv. 2021-APL-CW04: Erosion Control: Jason	17
v. 2021-APL-CW05: Erosion Control: Jason	18
c. Eastern Ontario Water Resources Program Applications:	
i. Assessing Future Flood Vulnerability in the South Nation River Watershed Proposal: Katherine	19-21
6. Staff Update	
7. Roundtable: Community Engagement	
8. New Business	
a. Request for Approval: Eastern Ontario Water Resources Program Financial Statement – As of August 31, 2021: Ronda	22-23
b. Update: Summary of Clean Water Program Applications: Ronda	24-26
c. Clean Water Program Project Applications: Reps	27-30
9. Supplemental Agenda (if any)	
10. Correspondence	
a. French Newspaper Clipping - La Terre De Chez Nous	31-33
11. Next Meeting – November 29 th , 2021 at 9:00 a.m.	
12. Adjournment	

Ronda Boutz,
Team Lead, Special Projects



CLEAN WATER COMMITTEE MEETING

Monday, June 7th, 2021, 9:00 a.m. – Meeting 02/2021

By Electronic Participation

               	Present: Jacqueline Kelly-Pemberton, Committee Chair Ray Beauregard, Farmer Russell Bennett, Farmer Michel Kearney, City of Ottawa Alan Kruszel, Farmer Daniel Lafleur, United Counties of Prescott and Russell René Lalonde, Farmer Glenn Mackey, Farmer André Pommainville, Farmer Tara Redpath, City of Ottawa Bill Smirle, SNC Past Chair, ex-officio François St. Amour, United Counties of Prescott and Russell Doug Thompson, Public Citizen Regrets: George Darouze, SNC Chair, ex-officio Marc Laflèche, Farmer David Lapen, Agriculture and Agri-Food Canada Pierre Leroux, SNC Vice Chair, ex-officio Gib Patterson, Ottawa Rural Clean Water Program Terrence Sauvé, Ontario Ministry of Agriculture, Food and Rural Affairs Adrian Wynands, Farmer Staff: Ronda Boutz, Team Lead, Special Projects Lorie Henderson, Administrative Assistant Jason Symington, Environmental Technologist Katherine Watson, Water Resources Specialist – Monitoring Guests: Rachel Alexandra Harrison, University of Ottawa Lexy Harquail, St. Lawrence River Institute of Environmental Sciences
--	---



CHAIR'S REMARKS

Jacqueline Kelly-Pemberton, Committee Chair, convened the Clean Water Committee meeting of Monday, June 7th, 2021 at 9:00 a.m. and welcomed everyone.

APPROVAL OF CLEAN WATER COMMITTEE MAIN AND SUPPLEMENTAL AGENDAS

RESOLUTION NO. CWC-012/21

Moved by: François St. Amour
Seconded by: Glenn Mackey

RESOLVED THAT:

The Members approve the Clean Water Committee main and supplemental agendas of June 7th, 2021 as amended:

Agenda item #7e., be moved up to follow Agenda item #7a, which also includes Supplemental Agenda items #1a. and #1b., Supplemental Agenda item #1c., be moved to Agenda item #7c.

CARRIED

DECLARATION OF CONFLICT OF INTEREST

Andre Pommainville declared a conflict of interest regarding Agenda Item 8e., Clean Water Program Applications: Reps, pertaining to grant application 2021-APL-CW01.

The following Committee Members declared a conflict regarding Agenda Item 7h., Items i-ii: François St. Amour and Bill Smirle.

APPROVAL OF: CLEAN WATER COMMITTEE VIRTUAL MEETING MINUTES OF MARCH 4th, 2021.

RESOLUTION NO. CWC-013/21

Moved by: Russell Bennett
Seconded by: Ray Beauregard

RESOLVED THAT:

The Clean Water Committee approve the electronic meeting minutes of March 4th, 2021 as submitted.

CARRIED



ROUNDTABLE DISCUSSIONS: COMMUNITY ENGAGEMENT

- Jackie Pemberton: advised everyone that in her position as Regional Director of the Ontario Federation of Agriculture, she always brings up South Nation and the Clean Water Program and how it benefits the farmers in that regard. Jackie also mentioned that she encourages the other Directors to get involved with their Conservation Authority and their ability to have agricultural representation.
- SNC Staff presented a short PowerPoint presentation on Clean Water Program and Project updates.

NEW BUSINESS

UPDATE: CONSERVATION AUTHORITIES ACT

Angela Coleman, General Manager/Secretary-Treasurer, provided the Forestry Committee Members with an update on the *Conservation Authorities Act*.

Alan Kruszel joined the meeting at 9:05 a.m.

Doug Thompson and Bill Smirle joined the meeting at 9:09 a.m.

UPDATE: SUMMARY OF CLEAN WATER PROGRAM APPLICATIONS

Ronda Boutz, Team Lead, Special Projects provided the Committee with an updated summary of 2021/22 Clean Water Program Applications for information only.

Bill Smirle left the meeting at 9:30 a.m.

OTTAWA RURAL CLEAN WATER PROGRAM PROJECT APPLICATIONS

Tara Redpath advised the Committee that the Ottawa Rural Clean Water Grant Program has been renewed for another 5 years.

RESOLUTION NO. CWC-014/21

Moved by: Andre Pommainville

Seconded by: François St. Amour

RESOLVED THAT:

05 21 2312 DDA Forest Management Plan

The Clean Water Committee approve funding at a grant rate of 75% to a maximum grant of \$487.50.

CARRIED



RESOLUTION NO. CWC-015/21

Moved by: Alan Kruszel
Seconded by: Daniel Lafleur

RESOLVED THAT:

05 21 2313 DDA Forest Management Plan

The Clean Water Committee approve funding at a grant rate of 75% to a maximum grant of \$750.00.

CARRIED

RESOLUTION NO. CWC-016/21

Moved by: Alan Kruszel
Seconded by: Doug Thompson

RESOLVED THAT:

05 21 2314 DDA Septic System

The Clean Water Committee approve funding at a grant rate of 50% to a maximum grant of \$1,000.00.

CARRIED

RESOLUTION NO. CWC-017/21

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

RESOLVED THAT:

05 21 2315 DDA Forest Management Plan

The Clean Water Committee approve funding at a grant rate of 75% to a maximum grant of \$375.00.

CARRIED

REQUEST FOR APPROVAL: INCREASE MAXIMUM GRANT LIMIT

RESOLUTION NO. CWC-018/21

Moved by: Tara Redpath
Seconded by: Russell Bennett

RESOLVED THAT:

The Clean Water Committee approve increasing approved grant limits to the following projects below:



05 20 2310 DDA - Well Decommissioning
grant increase at a rate of 90% to a maximum
grant of \$855.00.

05 20 2310 DDB - Well Decommissioning
grant increase at a rate of 90% to a maximum
grant of \$2,045.00.

CARRIED

SUMMARY OF CLEAN WATER PROGRAM GRANT APPLICATIONS

Ronda Boutz, Team Lead, Special Projects provide the Committee with a summary of Clean Water Program Grant Applications for information purposes.

Bill Smirle joined the meeting at 10:00 a.m.

Tara Redpath left the meeting at 10:27 a.m.

CLEAN WATER PROGRAM PROJECT APPLICATIONS

Andre Pommainville declared a conflict of interest and did not participate in the rating or discussion of Clean Water Program grant application 2021-APL-CW01.

RESOLUTION NO. CWC-019/21

Moved by: Alan Kruszel
Seconded by: Francois St. Amour

RESOLVED THAT:

The Clean Water Committee deny funding to project 2021-APL-CW02, as the proposed project does not meet Program eligibility criteria, piping sections of watercourses is ineligible for funding.

CARRIED

RESOLUTION NO. CWC-020/21

Moved by: Alan Kruszel
Seconded by: Michel Kearney

RESOLVED THAT:

The Clean Water Committee deny funding to project 2021-NAT-CW08 as it was considered a low priority for funding.

CARRIED

RESOLUTION NO. CWC-021/21

Moved by: Doug Thompson



Seconded by: Ray Beauregard

RESOLVED THAT:

The Clean Water Committee approves funding to the following projects:

Project Code	Project Type	Grant %	Grant Amount	Rating
2021-NAT-CW07	Erosion Control	50%	\$5,000.00	25.8
2021-APL-CW18	Cover Crop	n/a	\$1,000.00	24.93
2021-APL-CW21	Well Decommissioning	100%	\$1,000.00	24.7
2021-NST-CW24	Well Decommissioning	100%	\$1,000.00	24.5
2021-NAT-CW20	Well Decommissioning	100%	\$1,000.00	24.3
2021-SDU-CW10	Well Decommissioning	100%	\$1,000.00	24.1
2021-APL-CW23	Well Decommissioning	100%	\$1,000.00	23.9
2021-APL-CW01	Erosion Control	50%	\$5,000.00	23.4
2021-APL-CW25	Well Decommissioning	100%	\$1,000.00	23.3
2021-RUS-CW15B	Cover Crop	n/a	\$1,000.00	22.9
2021-APL-CW17	Cover Crop	n/a	\$1,000.00	22.4
Total Approved			\$19,000.00	

AND FURTHER THAT:

The Clean Water Committee placed the following projects on a waiting list to be re-considered at a future meeting if funding is available:

Project Code	Project Type	Grant %	Grant Request	Rating
2021-NAT-CW22	Erosion Control	50%	\$5,000.00	21.4
2021-NDU-CW11	Manure Storage	50%	\$8,000.00	21.2
2021-NDU-CW13	Well Decommissioning	100%	\$1,000.00	20.7
2021-RUS-CW15A	Buffer Strip	50%	\$2,320.00	19.7
2021-NGR-CW14	Well Decommissioning	100%	\$1,000.00	19.6
2021-NDU-CW12	Well Decommissioning	100%	\$1,000.00	19.3
2021-CAS-CW03	Erosion Control	50%	\$4,390.00	18.3
2021-CAS-CW06	Erosion Control	50%	\$4,391.00	18.3
2021-SDU-CW09	Well Decommissioning	100%	\$1,000.00	16.4
Total Requested			\$28,101.00	

CARRIED



RESOLUTION NO. CWC-022/21

Moved by: Alan Kruszel
Seconded by: Doug Thompson

RESOLVED THAT:

The Clean Water Committee defer project 2021-NAT-CW16 to the September 13th, 2021 meeting to confirm if the cover crop was harvested or tilled-in and planted over.

CARRIED

RESOLUTION NO. CWC-023/21

Moved by: Russell Bennett
Seconded by: Glenn Mackey

RESOLVED THAT:

The Clean Water Committee defer project 2021-APL-CW19 to the September 13th, 2021 meeting to confirm if the cover crop was harvested or tilled-in and planted over.

CARRIED

RESOLUTION NO. CWC-024/21

Moved by: Alan Kruszel
Seconded by: Ray Beauregard

RESOLVED THAT:

The Clean Water Committee deny funding to erosion projects 2021-APL-CW04 and 2021-APL-CW05 as both projects are considered low priorities, scoring below the minimum threshold of 15.0 points on the Project Rating.

CARRIED

REQUEST FOR APPROVAL: EXTENSION TO PROJECT APPROVAL DEADLINE

RESOLUTION NO. CWC-025/21

Moved by: Doug Thompson
Seconded by: Ray Beauregard

RESOLVED THAT:

The Clean Water Committee approve extending project deadline for the following project below:



2020-NGR-CW08 Well Decommissioning,
grant approved at a grant rate of 100% to a
maximum grant of \$1,000.00; Project
deadline extension to November 15th, 2021.

CARRIED

**REQUEST FOR APPROVAL: 2021 EASTERN ONTARIO WATER RESOURCES
PROGRAM**

RESOLUTION NO. CWC-026/21

Moved by: Russell Bennett
Seconded by: Glenn Mackey

RESOLVED THAT:

The Clean Water Committee approve the 2021
Eastern Ontario Water Resources Program
Budget, as presented.

CARRIED

**REQUEST FOR APPROVAL: THE USE OF RADIONUCLIDES TO IDENTIFY
VULNERABLE FRACTURE AND KARST BEDROCK AQUIFERS IN EASTERN
ONTARIO**

RESOLUTION NO. CWC-027/21

Moved by: Doug Thompson
Seconded by: Alan Kruszel

RESOLVED THAT:

The Clean Water Committee approve the final
report and expenditures of \$3,000.00 for the Use
of Radionuclides to Identify Vulnerable Fractures
Karst Bedrock Aquifers in Eastern Ontario project
in 2021.

CARRIED

EASTERN ONTARIO WATER RESOURCES PROGRAM PROPOSALS

Bill Smirle declared a conflict of interest and did not participate in the discussion or
rating of the Eastern Ontario Water Resources Program Proposals.

Ray Beauregard and François St. Amour left the meeting at 11:30 a.m.



The Committee discussed and rated the proposals as per the 2021 EOWRP Guidelines.

RESOLUTION NO. CWC-028/21

Moved by: Alan Kruszel
Seconded by: Doug Thompson

RESOLVED THAT:

The Clean Water Committee approves funding to the South Nation Conservation Climate Station at \$12,000.00; and

FURTHER THAT:

The Committee defer the Assessing Future Flood Vulnerability in the South Nation River Watershed proposal to the September 13th, 2021 Clean Water Committee meeting.

CARRIED

EASTERN ONTARIO CHILDRENS'S FESTIVAL 2021

RESOLUTION NO. CWC-029/21

Moved by: Daniel Lafleur
Seconded by: Doug Thompson

RESOLVED THAT:

The Clean Water Committee approves the final report for the Eastern Ontario Children's Festival 2021; and

FURTHER THAT:

The Committee approved payment of the EOWRP grant in the amount of \$2,031.00.

CARRIED

DATE OF NEXT MEETING

September 13th, 2021 at 9:00 a.m. via MS Teams.



SOUTH NATION
CONSERVATION
DE LA NATION SUD

ADJOURNMENT

RESOLUTION NO. CWC-00/21

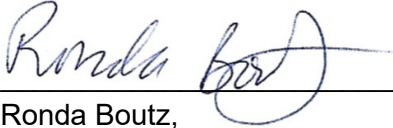
Moved by: Alan Kruszel

RESOLVED THAT:

The Clean Water Committee meeting of
June 7th, 2021 be adjourned at 12:37 p.m.

CARRIED

Jacqueline Kelly-Pemberton,
Committee Chair.



Ronda Boutz,
Team Lead, Special Projects.

/lh

2021-NAT-CW08
Appeal Letter from Landowner

August 17, 2021

Lorie
South Nation Conservation
38 Victoria Street, Box 29 Finch ON
K0C 1K0

RE: Erosion Control Grant – Castor River

Dear Lorie:

Please find attached photos of my property at the above noted address. I have marked on the pictures where there are large fissures on the riverbank close to the river.

Since I've occupied the residence (2018), I have noticed that the riverbank has eroded some. I have found several cracks in the ground close to the river and feel that part of my property will fall into the river in short order. The cracks in the riverbank have gotten larger in the last few months and make it difficult to mow the lawn close to the river. Additionally, because the slope of the riverbank has become more pronounced in the last 2 years, it has become increasingly dangerous to walk too close to the river. I am hoping the photos I have enclosed help with my written explanation. It may be helpful for someone to come to my property and get an up-close look at the erosion.

Although I have not measured the amount of erosion, my neighbours have informed me that several feet of the shoreline has collapsed into the river over the last several years.

Sincerely,

00013

FOR OFFICE USE:	Project Code: <u>2021-NAT-CW08</u>	Project Type: <u>Erosion</u>
	Total Project Cost: \$ <u>16,000.00</u>	Grant Rate: <u>50</u> %
	Grant Requested: \$ <u>5,000.00</u>	
	Program Representative: <u>Jason Symington</u>	

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? my river bank is eroding into the river (coster)

Name of adjacent watercourse: Coster

☒ 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.

Please see attached documentation

Total estimated cost (excluding taxes): \$ 16000 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: 2021-APL-CW03	Project Type: Erosion
	Total Project Cost: \$ 8,780.00	Grant Rate: 50 %
	Grant Requested: \$ 4,390.00	
	Program Representative: Jason Symington	

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?

Please see attached summary of existing situation

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.

Please see attached summary of proposed work

- vegetation and trees approx - 780'

Total estimated cost (excluding taxes): \$ 8,780.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: <u>2021-CAS-CWDB</u>	Project Type: <u>Erosion</u>
	Total Project Cost: \$ <u>8,782.00</u>	Grant Rate: <u>50%</u>
	Grant Requested: \$ <u>4,391.00</u>	
	Program Representative: <u>Jason Symington</u>	

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 river bank of the South Nation River, for the above mentioned lot, is currently greatly unstable and vulnerable to the high river stream currents of the spring season and to the annual ice shield expansions and retractions of the winter. As seen on the attached photos, large segments of soil are currently separating and displacing from the river bank occasioning loss and further exposure of shoreline. We can also observe in other parts of the shoreline, the water process of erosion that is digging further in the river bank and eventually creating other lumps of soil separations from the main land. In another photo, we can clearly observe the lack of natural vegetation of shrubs and trees to create an adequate root system to slow down the process.

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.

Immediate action to protect the shoreline must be taken and project is planned for July 2021. The contractor ConstructExc is to execute the work as described per the attached quote and permit request sent to SNC October 22, 2020.

- Stabilize the whole shoreline by placement of geotextile and riprap, covered with armour stone as steps down the slope of the bank, resulting in a maximum footprint of 45 square meters below the high water mark and above 57.15 m.a.s.l.

- Establish riparian vegetation with native plant species as recommended by South Nation Conservation to maximize soil stabilization.

- The following permits have already been obtained: DFO 20-HCAA-02246; SNC 2020-CAS-R126; MNRF Work Permit (March 30th, 2021)

Total estimated cost (excluding taxes): \$ 8,782.00 (An itemized quote must accompany your application)

À L'USAGE DU BUREAU	Code du projet : 2021-APL-CW04	Type de projet : Erosion
	Total des coûts du projet \$18,000.00 \$	Taux de subvention : 50 %
	Subvention demandée : \$5,000.00	
	Représentant(e) du programme : Jason Symington	

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) : _____

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? THE EROSION AND
LANDSLIDE MAKES WATER COURSE DIRTY
AND MURKY

Nom du cours d'eau : _____

☒ Rivière ou ruisseau
☐ Drain municipal

☐ Zone humide
☐ 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.

HAVE CONTRACTOR MAKE A BED FOR
WATER TO PREVENT EROSION AND
LANDSLIDE

Total des coûts estimés (taxes exclues) \$18,000.00 Une soumission détaillée doit accompagner votre demande.)

FOR OFFICE USE:	Project Code: 2021-APL-CW05	Project Type: Erosion
	Total Project Cost: \$ 18,000.00	Grant Rate: 50 %
	Grant Requested: \$ 5,000.00	
	Program Representative: Jason Symington	

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 amount of water flowing to
rapidly every spring and causes erosion.
The water comes from road side ditch on is very dirty
and causes pollution in the water of the ditch flowing for into the
woods.

Name of adjacent watercourse: _____

☐ 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.

Ditch Rehabilitation / erosion control slope.

Total estimated cost (excluding taxes): \$ 18,000.00 (an itemized quote must accompany your application)



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

Proposal Submission Form

Item	Description
1	Applicant:
	Name of Lead Applicant: South Nation Conservation
	Name(s) of Partners:
2	Contact Information:
	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	Name of Proposed Project: Assessing future flood vulnerability in the South Nation River Watershed
4	Program Funding Request: \$12,000
5	Project Description: The South Nation River watershed is approximately 3,800 km². In 2020, SNC utilized an updated version of the South Nation River Watershed's hydrologic model, a fully integrated groundwater-surface water model, to identify catchments that will be sensitive to climate impacts and land use change in 2050 and 2080. Analysis identified percentage increase in flows as a result of increased precipitation and land conversion from forest cover to other land uses. The next step is to identify how these flows impact recently modeled flood hazard mapping, and to determine best ways to mitigate increased flood extents.
6	Program Recommendations Addressed: (Reference ID# from Program Recommendations Summary Table in Appendix A of the Project Proposal Guidelines) #1 Regional Water Budget: Establish and implement program for collecting complete data on surface groundwater quantity and quality. #5 Groundwater Constraints Mapping: develop a map and documentation identifying limitations on resource development based upon groundwater availability/quality. #7 Localized Model Development and Application: collect data and develop model(s).

Item	Description
	#21 Ground Water Management Plans: Develop plans for specific areas that provide policies regarding water supply, water quality, and source vulnerability and protection. #25 Groundwater Model: Update model developed for the EOWRMS to include aquifer depth and flow parameters. #28 Regional Water Supply Plan: Identify water sources, quality and quantity; contributes to long-term extraction and protection of water supplies.
7	Potential for Regional impact on protecting water resources, including applicability and transferability to Program Study Area: In 2020 EOWRP contributed to phase 1 of the project which included an update to the South Nation River hydrologic model. Model inputs were then changed to reflect future increases in precipitation and future land use (forecasted through an Agriculture and Agri-Food project). This model can now be used to identify impacts to existing flood hazard maps across the City of Ottawa and United Counties of Prescott and Russell. Modelling efforts can also evaluate possible mitigation actions. The methodology undertaken in this project would be widely shared with other Conservation Authorities and water resources managers.

8	Project Location(s): South Nation River Watershed				
9	Deliverables Schedule:				
	Description of Deliverables <i>Note: Written deliverables for public distribution must be Bilingual – English and French</i>	Bilingual			Delivery Date
		Yes	No	N/A	
	Delineate Flood Hazard Maps using 2050 and 2080 flow regime data: Use existing flood hazard models in City of Ottawa and United Counties of Prescott and Russell. Update HecGeoRas with 2050 and 2080 flow forecasts for 1% Annual Exceedance Probability Storms. Map flood extents.			X	September 2021
	Assess Impacts Scenarios: Determine impacts scenarios (increases in forest cover, wetland cover, riparian cover) and change raster datasets to reflect these scenarios.			X	October 2021
	Flood Vulnerability Analysis: Update flow models using vulnerability rasters and compare flows for different scenarios and different catchments.			X	Decemebr 2021
	Identify case study watersheds: demonstrate how mitigation factors improve flood resiliency			X	February 2021
	Reporting and Knowledge Sharing: Final Report to Clean Water Committee. Presentation to stakeholder.		X		June 2022

10	Detailed Budget			
	Expenditure (provide detailed breakdown)	Program Funding	Lead/Partner Funding	Total
	Delineate Flood Hazard Maps using 2050 and 2080 flow regime data	\$5,000	\$5,000	\$10,000
	Assess impact scenarios	\$1,000	\$1,000	\$2,000
	Flood Vulnerability Analysis	\$2,000	\$2,000	\$4,000
	Generate case study using catchments that demonstrate effective mitigation of flooding	\$1,500	\$1,500	\$3,000
	Reporting and Knowledge Sharing	\$2,500	\$2,500	\$5,000
	Sub-total	\$ 12,000	\$ 12,000	\$ 24,000



To: Clean Water Committee
From: Ronda Boutz, Team Lead, Special Projects
Date: September 7, 2021
Subject: Request for Approval: Eastern Ontario Water Resources Program
2021 Financial Statement – as of August 31st, 2021

RECOMMENDATION:

The Clean Water Committee approve the Eastern Ontario Water Resources Program Financial Statement for the period of January 1 – August 31, 2021.

DISCUSSION:

The 2021 Eastern Ontario Water Resources Program Financial Statement, as of August 31, 2021, 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: 2021 Financial Statement – as of August 31st, 2021



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

2021 Financial Statement – as of August 31st, 2021

United Counties of Prescott-Russell	\$25,000
City of Ottawa	\$50,000
Carry-over of 2020 dollars	\$22,151
TOTAL REVENUE	\$97,151

Expenses:	2021 Budget	Expenses as of Aug. 31, 2021	Forecast to Dec. 31, 2021	Funds carried to 2022 Budget⁶
1. EOWRP Project Management¹	\$4,500	\$3,000	\$4,500	\$0
2. EOWRP Committee²	\$1,252	\$150	\$1,252	\$0
3. 2020 EOWRP Projects³				
a) Eastern Ontario Children's Water Festival	\$2,031	\$2,031	\$2,031	\$0
b) Lagoon Effluent Tree Irrigation and Evapo-transpiration Study	\$3,000	\$0	\$3,000	\$0
c) The Use of Radionuclides to Identify Vulnerable Fractured Karst Bedrock Aquifers in Eastern Ontario	\$3,000	\$3,000	\$3,000	\$0
d) Phase 1: South Nation River Watershed Water Budget Update Plan	\$9,500	\$20,964	\$25,000	\$0
4. 2021 Special Projects⁴				
a) UCPR: Floodplain Mapping	\$25,000	\$25,000	\$25,000	\$0
b) South Bear Brook Catchment Study	\$25,068	\$15,000	\$19,068	\$6,000
5. 2021 Grants⁵				
a) South Nation Conservation Climate Station	\$10,000	\$0	\$10,000	\$0
b) Unallocated funds	\$13,800	\$0	\$13,800	\$0
TOTAL EXPENSES	\$97,151	\$74,921	\$91,151	\$6,000

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 2021 EOWRP contribution.

² Meeting expenses for appointed EOWRP members on the Clean Water Committee.

³ EOWRP grants approved in 2020 and to be completed in 2021.

⁴ EOWRP Special Projects in 2021 identified by the EOWRP funding contributor.

⁵ City of Ottawa earmarked \$23,800 of their \$50,000 2021 contribution for grants to be allocated through a grant proposal submission. Projects reviewed and approved at the June 7, 2021 and September 13, 2021 meetings.

⁶ Unspent funds to be carried forward to the 2022 Budget for project completion.



To: Clean Water Committee
From: Ronda Boutz, Team Lead, Special Projects
Date: September 7, 2021
Subject: Summary of Clean Water Program Grant Applications

RECOMMENDATION:

No recommendation, this report is for information purposes.

DISCUSSION:

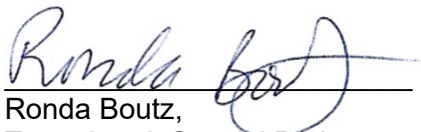
As per the Committees decision at the March 4th, 2021 meeting; projects have been rated under the 2021 rating sheets. A project must achieve a minimum rating score of 21.5 points to be allocated funding at the June 2021 Committee meetings. To be eligible for funding consideration, a project must achieve 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 2021 Budget under Resource Management: Partner Programs: Water on pages 16-17.

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


Ronda Boutz,
Team Lead, Special Projects.

Attachments: Summary of 2021 Clean Water Program Applications



Summary of 2021 Clean Water Program Applications

Table 1: Applications Approved as of June 7th, 2021

Project Code	Project Type	Grant %	Grant Approved	Rating
2021-NAT-CW07	Erosion Control	50%	\$5,000.00	25.8
2021-APL-CW18	Cover Crop	n/a	\$1,000.00	24.93
2021-APL-CW21	Well Decommissioning	100%	\$1,000.00	24.7
2021-NST-CW24	Well Decommissioning	100%	\$1,000.00	24.5
2021-NAT-CW20	Well Decommissioning	100%	\$1,000.00	24.3
2021-SDU-CW10	Well Decommissioning	100%	\$1,000.00	24.1
2021-APL-CW23	Well Decommissioning	100%	\$1,000.00	23.9
2021-APL-CW01	Erosion Control	50%	\$5,000.00	23.4
2021-APL-CW25	Well Decommissioning	100%	\$1,000.00	23.3
2021-RUS-CW15B	Cover Crop	n/a	\$1,000.00	22.9
2021-APL-CW17	Cover Crop	n/a	\$1,000.00	22.4
Total Approved			\$19,000.00	

Table 2: Business Arising Applications from June 7th, 2021 Meeting

Project Code	Project Type	Grant %	Grant Request	Rating
2021-NAT-CW16	Cover Crop	N/A	\$1,000.00	Deferred
2021-APL-CW19	Cover Crop	N/A	\$1,000.00	Deferred
2021-CAS-CW03	Erosion*	50%	\$4,390.00	18.3 (<i>waiting list</i>)
2021-APL-CW04	Erosion*	50%	\$5,000.00	Denied - Appeal
2021-APL-CW05	Erosion*	50%	\$5,000.00	Denied - Appeal
2021-CAS-CW06	Erosion*	50%	\$4,391.00	18.3 (<i>waiting list</i>)
2021-NAT-CW08	Erosion	50%	\$5,000.00	Denied - Appeal
Total Requested			\$25,781.00	

*Applicants have provided additional information that may affect the previous rating score.

Table 3: New Applications as of September 13, 2021

Project Code	Project Type	Grant %	Grant Request	Rating
2021-CAS-CW26	Erosion	50%	\$2,477.29	
2021-NST-CW27	Well Decommissioning	100%	\$1,000.00	
2021-APL-CW28	Cover Crop	n/a	\$1,000.00	
2021-NDU-CW29	Erosion	50%	\$4,785.00	
Total Requested			\$9,262.29	



Table 4: 2021 Waiting List

Project Code	Project Type	Grant %	Grant Request	Rating
2021-NAT-CW22	Well Decommissioning	50%	\$1,000.00	21.4
2021-NDU-CW11	Manure Storage	50%	\$8,000.00	21.2
2021-NDU-CW13	Well Decommissioning	100%	\$1,000.00	20.7
2021-RUS-CW15A	Buffer Strip	50%	\$2,320.00	19.7
2021-NGR-CW14	Well Decommissioning	100%	\$1,000.00	19.6
2021-NDU-CW12	Well Decommissioning	100%	\$1,000.00	19.3
2021-SDU-CW09	Well Decommissioning	100%	\$1,000.00	16.4
Total Requested			\$15,320.00	

Table 5: Summary of Grant Requests for September 13th, 2021 Meeting

Applications	Total Grants Requested
2021 grant funds available	\$60,000.00
2020 grant funds – surplus from projects not proceeding	\$5,000.00
Projects applications approved at June 7 th meeting	\$19,000.00
Total funding available for September 13th meeting	\$46,000.00
Business Arising – applications reconsidered at September 13 th meeting	\$25,781.00
New applications for September 13 th Meeting	\$9,262.29
Total Requested	\$35,043.29
Potential Surplus/(Deficit) after September 13 th meeting	\$10,956.71
2021 Waiting List as of June 7 th , 2021	15,320.00

FOR OFFICE USE:	Project Code: 2021-CAS-CW26	Project Type: Erosion Control
	Total Project Cost: \$ 4,954.58	Grant Rate: 50%
	Grant Requested: \$ 2,477.29	
	Program Representative: Jason Symington	

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 SHORELINE IS BEING ERODED BY STREAMS &
WAVES CREATED BY BUSY BOAT TRAFFIC.
MIXING SEDIMENT WITH CLEAN WATER.

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.

CREATE SEDIMENT CONTROL BARRIER.
EXCAVATING SHORELINE (NO IN WATER WORK) TO
30 DEGREE ANGLE (2:1 SLOP). GEOTEXTILE FILTER
INSTALLED UNDERNEATH RIP-RAP. INSTALLED
RIP-RAP ROCK BELOW THE HWM (HIGH WATER MARK)
AND ABOVE NORMAL SUMMER LEVELS. REVEGETATED
RIPARIAN AREA USING NATIVE VEGETATION.

Total estimated cost (excluding taxes): \$ 4,954.58 (An itemized quote must accompany your application)

FOR OFFICE USE:

Project Code: 2021-NST-CW27

Project Type: Well Decommissioning

Total Project Cost: \$ 3,000.00

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? N/A unknown

Name of adjacent watercourse: Payne 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.

decommissioning a well

Total estimated cost (excluding taxes): \$ 3,000.00 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: <u>2021-APL-CW28</u>	Project Type: <u>Cover Crop</u>
	Total Project Cost: \$ <u>1,800.00</u>	Grant Rate: \$ <u>50.00</u> / acre up to
	Grant Requested: \$ <u>1,000</u>	<u>a maximum of 20 acres</u>
	Program Representative: <u>Andre Pommerville</u>	

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?

Spring wheat

Name of adjacent watercourse: Natural 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.

peas & Fall Rye to re-till soybean (2022)
(40 acres)

Total estimated cost (excluding taxes): \$ 1800 (An itemized quote must accompany your application)

FOR OFFICE USE:	Project Code: <u>2021-NDU-CW29</u>	Project Type: <u>Erosion Control</u>
	Total Project Cost: \$ <u>9,570.00</u>	Grant Rate: <u>50</u> %
	Grant Requested: \$ <u>4,785.00</u>	
	Program Representative: <u>Jason Symington</u>	

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 stream line erosion
we moved to location in 2011 and over the
last 10 years we have lost approx. 6 feet of
Shoreline due to erosion.

Name of adjacent watercourse: 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.

Reshape existing shoreline bank to achieve a stable slope of
no more than 3:1
Protection would be 9'6" x 4' tall
Install geo-fabric underlayment along entire shoreline bank
pinned to slope. Spread clean gabion stone along entire bank
to a depth of 18". Spread topsoil along top to tie in
existing yard heights.

Total estimated cost (excluding taxes): \$ 9,570.00 (An itemized quote must accompany your application)

La Terre

Fondée en 1929

DE CHEZ NOUS

DISPONIBLE SUR:



Une autre façon
de lire La Terre



L'application est propulsée par
JOHN DEERE | JLD-LAQUÉ

Vol. 92 n° 26 / 30 juin 2021 – laterre.ca – 28 pages – 2,99 \$

PP40069165



Les épisodes de sécheresse se succèdent par endroits, comme chez Alain Gervais à Saint-Denis-sur-Richelieu, qui a encore dû détruire son blé en raison du manque de pluie. *La Terre* fait le point sur les moyens mis à l'essai pour affronter le réchauffement climatique.

MARTIN MÉNARD/TCN

FRAISES

Percée dans la
conservation

Page 6

INTRUSION À LA FERME

Une famille
ébranlée

Page 7



MARTHE AU JARDIN

Des œufs sur
les choux

Page 10

EXPOS AGRICOLES

Une logistique
ardue

Page 22

Des semences
tombées du ciel

Page 13



GRACIEUSEMENT DE WILLIAM OVERBEEK

Distinction ultime
pour quatre sirops

Page 11



FACEBOOK/FONDATION DE LA COMMANDERIE DE L'ÉRABLE

**estrie
richelieu**
MUTUELLE D'ASSURANCE AGRICOLE

212642

La tranquillité d'esprit

*c'est être protégé par une entreprise
100% québécoise et à votre service
depuis plus de 129 ans.*

www.estrierichelieu.com



00031

À LA UNE

Vers des solutions pour s'adapter au manque d'eau

La sécheresse qui a marqué le début de la saison 2021 s'inscrit dans une tendance qui sera de plus en plus présente dans un horizon de trente à cinquante ans, selon des experts interrogés par *La Terre*. Devant cette nouvelle réalité, des agriculteurs et des chercheurs travaillent sur des solutions pour s'y adapter tant bien que mal.



PATRICIA BLACKBURN
pblackburn@laterre.ca

SAINT-DENIS-SUR-RICHELIEU – « Il n'y a rien de drôle pour un producteur agricole de détruire ce qu'il essaie de produire. Je le prends comme un échec. C'est *ben, ben* frustrant », confie avec amertume Alain Gervais, un producteur de grains de Saint-Denis-sur-Richelieu, en Montérégie. Ce dernier a dû se résoudre à détruire sa récolte de blé qui faisait près de 40 cm de hauteur après avoir constaté que la sécheresse compromettait sérieusement le développement des épis ainsi que le rendement. « Il est tombé seulement 22 mm de pluie depuis qu'on a semé en avril. Il fallait prendre une décision et ça fait deux fois en deux ans que je détruis une récolte de blé en raison de la sécheresse. Je n'avais jamais fait ça en 40 ans. »

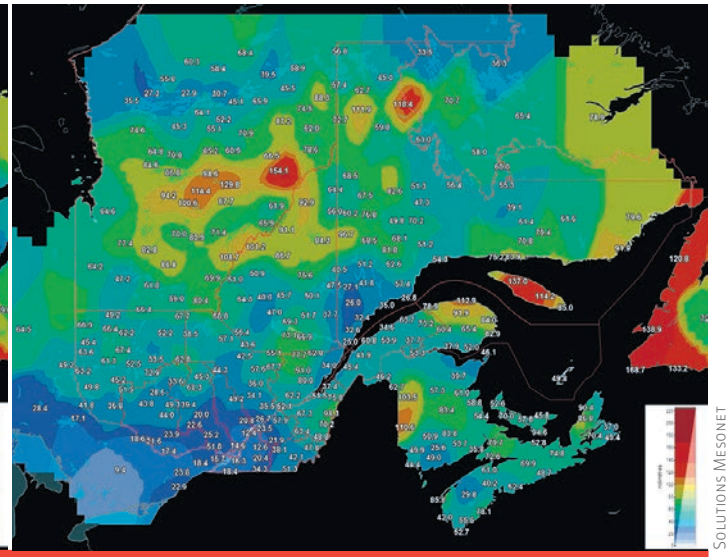
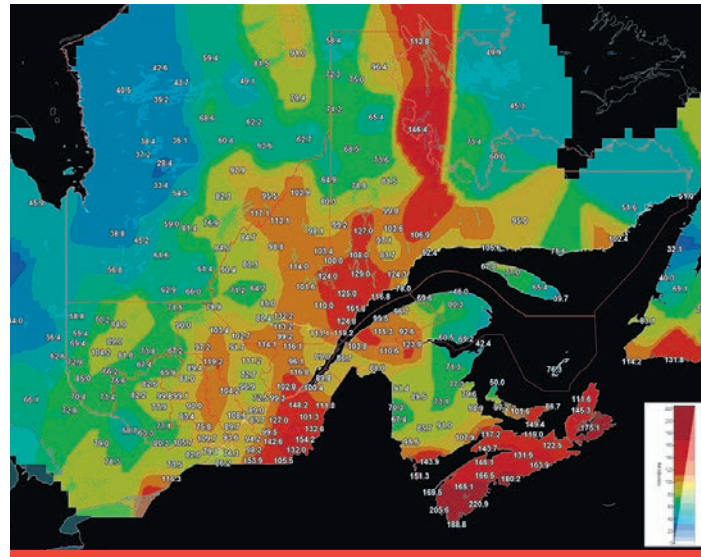


MARTIN MÉNARD/ICN

La situation ne s'améliore pas chez Alain Gervais; le soja qu'il tente de faire pousser au lieu du blé n'a reçu que 10 mm d'eau en date du 24 juin. Le sol est complètement sec. « C'est de la vraie sécheresse! Moi, je n'ai jamais vu ça », dit-il.

Selon Anne Blondlot, coordonnatrice du programme agriculture chez Ouranos, un consortium sur la climatologie régionale et l'adaptation aux changements climatiques, cette situation de stress hydrique pourrait être davantage observée dans le futur. Nous pourrions avoir un répit de plusieurs années de suite sans sécheresse, mentionne-t-elle, mais sur un horizon de trente à cinquante ans, ce sera malheureusement plus fréquent pendant la saison estivale.

Les extrêmes de température ponctueront également de plus en plus le



SOLUTIONS MESNET

Ces deux cartes permettent de visualiser le peu d'eau tombée pendant le mois de mai 2021, comparativement à la même période en 2019. Les secteurs en rouge foncé sont ceux qui ont été les plus arrosés (en mm de pluie), alors que ceux en bleu l'ont moins été.

quotidien des agriculteurs, comme les épisodes de gels ou de pluies torrentielles. « Il faut savoir que les coups d'eau sont moins bien absorbés par les plantes quand le sol est sec, puisque l'eau a tendance à ruisseler à la surface », signale Mme Blondlot. De même, des gels tardifs comme ceux qui ont touché certaines régions cette année contribuent à amoindrir les réserves d'eau accumulées au printemps étant donné que les producteurs doivent arroser leurs cultures pour éviter qu'elles gèlent avec des réserves qui sont généralement gardées pour les premières sécheresses. « C'est un peu comme partir la saison avec deux prises au bâton », illustre Carl Boivin, chercheur à l'Institut de recherche et de développement en agroenvironnement (IRDA).

Il recommande de s'y prendre d'avance pour faire face à la sécheresse. Certains le font déjà. Jocelyn Gibouleau, président de l'entreprise maraîchère Margiric, participe à un projet de recherche avec l'IRDA et le ministère de l'Agriculture des Pêcheries et de l'Alimentation du Québec (MAPAQ) pour trouver des méthodes qui permettront à ses brocolis de mieux résister aux variations de température (voir autre texte en page 5). Le producteur maraîcher de Laval est d'ailleurs bien placé pour savoir ce qui attend ses légumes québécois, puisque son entreprise possède des fermes de production dans le sud-ouest de l'Ontario et en Floride. « Là-bas, les changements climatiques ont cinq à dix ans d'avance sur le Québec, et il y a des solutions pour mieux y faire face », témoigne-t-il.



Anne Blondlot

L'irrigation en mode développement
L'une des voies les plus accessibles pour faire face à l'enjeu de l'eau est l'irrigation, pense Carl Boivin. « Mais actuellement, nous sommes encore au même niveau que nous pouvions l'être avec l'engrais il y a trente ans, déplore le chercheur. La consigne était d'en mettre partout et en bonne quantité et c'est à peu près ce qu'on fait avec l'eau. On arrose n'importe comment, alors que pour que l'irrigation soit efficace, il y a plusieurs facteurs à prendre en compte. Il faut par exemple le faire au bon moment, quand le sol en a réellement besoin et avec la bonne quantité. Car au-delà d'un certain seuil, la terre et

la plante ne l'absorbent plus et il y a des risques de perdre de l'engrais par ruissellement », signale-t-il.

Or, si l'irrigation se prête bien aux cultures maraîchères, elle se heurte à certaines limites du côté des grandes cultures. « Avec des superficies de cette ampleur, il faut encore évaluer si c'est rentable de développer un système d'irrigation ou si il ne vaut pas mieux acheter le grain ou le foin ailleurs quand il y a des sécheresses », indique M. Boivin, qui travaille présentement avec plusieurs producteurs pour évaluer cet aspect (voir autre texte en page 5).

Avec la collaboration de Martin Ménard

La situation sous surveillance

Les conseillers régionaux du MAPAQ ainsi que ceux de La Financière agricole du Québec (FADQ) surveillent les conditions de sécheresse sur le terrain. Si la situation nécessite une intervention, la cellule de crise, sous la responsabilité de la FADQ, auquel participent le MAPAQ et l'Union des producteurs agricoles, pourra être mise en branle. L'état ne le requiert pas encore. Cette cellule de crise a pour objectif de suivre l'évolution de la situation et les dommages, de partager l'information ainsi que faciliter la coordination des activités des différentes organisations. M.V.

4 façons d'affronter les sécheresses

- 1- Faire une irrigation efficace avec des outils d'aide à la décision comme un tensiomètre.
- 2- Avoir un sol en santé, pas trop compact, avec une bonne teneur en carbone qui permet une installation efficace des racines.
- 3- Choisir les variétés de plantes qui résistent le mieux à la chaleur.
- 4- Stocker l'eau de pluie en vue de la réutiliser.

Source : Ouranos et l'IRDA

À LA UNE

Des tests pour irriguer les champs de foin et de maïs

Au Bas-Saint-Laurent, le producteur laitier Jean-Luc Laplante effectue des tests d'irrigation dans ses cultures de plantes fourragères de concert avec l'Institut de recherche et de développement en agroenvironnement (IRDA).

« On a des sondes dans le sol et on applique de l'eau si les plantes en ont besoin. Pour l'instant, on a fait une seule application. C'est expérimental », explique celui qui s'intéresse à l'irrigation en raison des quatre dernières années de temps sec qui lui ont fait perdre du rendement. Le chercheur de l'IRDA Carl Boivin précise que des tests sont effectués dans trois autres sites pour évaluer l'efficacité et la rentabilité de l'irrigation dans des champs de plantes fourragères, de soya et de maïs-grain. Des essais précédents effectués à l'île d'Orléans avaient démontré des gains de rendements de 25 % dans les parcelles irriguées lors de la 2^e coupe de foin et de 75 % lors de la 3^e coupe. La question demeure le retour sur investissement puisque les coûts de l'équipement de drainage, de la main-



Jean-Luc Laplante



Carl Boivin

d'œuvre pour déplacer les dispositifs, et ceux en carburant pour faire fonctionner les pompes pourraient ne pas être remboursés par l'augmentation de rendement. Carl Boivin mentionne par ailleurs que les problèmes de compaction des sols, nombreux au Québec, doivent être réglés à la ferme avant de penser à irriguer. « On le voit, dans les champs compactés, la plante ne peut pas aller chercher l'eau avec ses racines. Avec un enracinement à 30 cm de profond versus 60 cm, tu as deux fois moins d'eau », insiste-t-il.

Jean-Luc Laplante ajoute qu'un sol en santé avec un plus haut taux de matière organique facilite la rétention d'eau. Il discute avec des producteurs américains sur Facebook afin de s'inspirer de leurs techniques pour contrer la sécheresse. L'une des solutions proposées consiste à diminuer les populations de maïs ensilage lors des semis. Moins de plants pour pomper l'eau et des plants qui deviennent plus gros se sont avérés une réussite chez certains voisins du Sud, raconte M. Laplante.

M.M. ■

M.M. ■

Différentes variétés de brocolis testées

À Laval, en banlieue de Montréal, la ferme maraîchère Margiric collabore avec le ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, l'IRDA et l'Association des producteurs maraîchers du Québec pour tester la résistance de différentes variétés de brocolis. « Il s'agit d'une plante très sensible aux variations de température, explique le producteur Jocelyn Gibouleau. Aujourd'hui, avec des écarts qui peuvent passer de 4 °C à 32 °C en une journée, il faut trouver un moyen

de rester compétitif. »

L'équipe tente actuellement de refroidir les brocolis avec différentes techniques d'irrigation. Pour ce faire, des variétés de brocolis qui se situent aux deux extrêmes de la résistance sont utilisées. « Car il faut s'imaginer le pire pour arriver à s'en sortir, explique M. Gibouleau. Donc si les tests sont concluants avec les brocolis les moins résistants, ils devraient l'être encore plus avec les variétés plus tolérantes aux variations. » P.B. ■



SHUTTERSTOCK

Récupération de l'eau de pluie de bâtiments agricoles

Des chercheurs de l'IRDA, en collaboration avec des producteurs agricoles de l'île d'Orléans, font actuellement des tests, dans le cadre d'un projet pilote, de réutilisation de l'eau de pluie accumulée sur des bâtiments et structures en milieu agricole. Le but de l'exercice est de déterminer comment cette eau, une fois captée, peut servir à l'irrigation des cultures ou au lavage de légumes. « Mon rôle sera surtout au niveau de la qualité de l'eau. Il faudra procéder à une analyse des contaminants et déterminer des moyens de contrôle », explique Caroline Côté, chercheuse à l'IRDA. Son collègue Carl Boivin précise que la collecte de données devrait s'échelonner jusqu'en 2023. « On a choisi l'île d'Orléans pour faire nos tests parce que c'est un endroit où on remarque des problèmes d'approvisionnement en eau », explique-t-il, ajoutant que la récupération d'eau de pluie de bâtiments est un procédé qui existe déjà, sans que cette méthode ait été explorée pour usage en milieu agricole. C.M. ■

Fermer en partie ses drains pour garder l'eau

L'agriculteur franco-ontarien Marc Laflèche possède un système qui lui permet de conserver l'eau dans son système de drainage. « C'est un projet de recherche mis en place par l'Université d'Ottawa depuis une douzaine d'années. J'ai remarqué que durant les temps de sécheresse de juillet, ça garde les nappes d'eau plus égales au lieu d'assécher le champ. Je suis convaincu que c'est parfait pour les cultures de foin. Mais il faut un champ assez plat; s'il est en pente, ça ne marchera pas », dit-il, en entrevue avec *La Terre*. Selon les données fournies par les chercheurs, il obtient un gain de rendement d'environ 5 % dans ses cultures avec son système. Ce dernier fonctionne comme un barrage miniature avec une vanne qui laisse sortir l'eau au-delà d'un certain niveau. Le coût est d'environ 1 000 \$. M.M. ■



Marc Laflèche devant son système qui lui permet de régler le niveau d'eau de ses drains.

GRACIEUSEMENT DE MARC LAFLECHE

L'irrigation de précision au service des patates

Patates Dolbec, de Saint-Ubalde, dans la région de la Capitale-Nationale, a décidé d'investir dans un système d'irrigation pour éviter d'être pris de court par les changements climatiques. Dès 2017, l'entreprise a entamé des recherches avec Carl Boivin de l'IRDA pour déterminer quelle serait la meilleure option. Leur choix s'est arrêté sur une technologie d'aspersion à pivots, qui requiert peu d'eau et qui est fonctionnelle depuis 2020 dans une partie de ses champs. L'entreprise travaille actuellement avec des chercheurs en intelligence artificielle pour lier son système d'irrigation à un système informatique. Ceci pour déterminer avec plus de précision comment et quand irriguer les champs selon des modèles prévisionnels et des facteurs de risques. Malgré les coûts élevés d'un tel dispositif, Patates Dolbec considère que l'investissement sera rentable puisqu'un stress hydrique de plus de 48 heures sur la plante peut causer une perte de rendement potentiel de l'ordre de 25 à 35 %. P.B. ■