LOWER TRENT
CONSERVATION
714 Murray Street, R.R. 1, Trenton, Ontario K8V 0N1
Tel: 613-394-4829 Fax: 613-394-5226 Website: www.ltc.on.ca Email: information@ltc.on.ca
Registered Charitable Organization No. 107646598RR0001

NOTICE OF REGULAR MEETING OF THE LOWER TRENT CONSERVATION BOARD OF DIRECTORS

Board of Directors refers to the General Membership as set out in the Lower Trent Conservation Administrative By-Law No. 2023-01

Administration Office, 714 Murray Street, Trenton
Virtually Join Meeting HERE

Thursday, April 10, 2025 Time: 2:00 p.m.

AGENDA

1. **Meeting called to order by the Chair**

2. **First Nations Acknowledgement**

3. **Disclosure of pecuniary interests**

4. **Approval of the Agenda**
   RECOMMENDED:
   THAT the agenda be approved as presented.

5. **Delegations**
   There are no requests for delegations received for this meeting.

6. **Public Input** (3 minutes per speaker)

7. **Adoption of the Minutes:**
   a. Board Meeting Minutes of March 13, 2025 and March 17, 2025 Page # 4
   RECOMMENDED:
   THAT the Regular Board Meeting Minutes of March 13, 2025 be adopted; and
   THAT the Hearing Board Meeting and Closed Session Hearing Board Meeting Minutes for application RP-25-022 to RP-25-024 from March 13, 2025 be adopted; and
   THAT the Hearing Board Meetings and Closed Session Hearing Board Meetings Minutes for applications RP-24-232 and RP-25-002 from March 17, 2025 be adopted.

8. **Business arising from these minutes**

CORRESPONDENCE

9. **Correspondence** – Rhonda Bateman, CAO/Secretary-Treasurer Page # 24
   a. Congratulatory letter to MPP Piccini
   b. Congratulatory letter to MPP Bresee
   c. Congratulatory letter to MPP Allsopp

   RECOMMENDED:
   THAT the correspondence be received as information.

STAFF REPORTS

10. **Monthly Payments Issued –** Chitra Gowda, Manager, Corporate Services Page # 30
    RECOMMENDED:
    THAT the list of payments issued in the total amount of $226,190.86 for the month of March 2025 be received as information.

11. **2024 Surplus Allocation** – Rhonda Bateman Page # 31
    RECOMMENDED:
    THAT the 2024 Category 1 operating surplus be allocated to the following Category 1 expenses:
    $35,500 be allocated for a six-month contract for the Conservation Lands Maintenance Assistant position; and
    Funding be allocated for the organizational and salary review.

    THAT the 2024 Category 2 operating surplus of $16,493 remain with the source protection risk management and education and outreach for 2025.

    THAT the 2024 Category 3 operating surplus of $51,902 be allocated to the following Category 3 reserves and expenses:
    $13,382 to the Category 3 Community Stewardship Reserve; and
    $25,000 to the Category 3 Youth Education; and
    $13,520 be used for local monitoring.

12. **Watershed Management, Planning and Regulations Reports** – Gage Comeau, Manager, Watershed Management, Planning and Regulations
    a. Summary of Permits for Period March 1 – March 28, 2025 Page # 35
    b. Planning and Regulations
    c. Flood Forecasting and Warning (FFW) and Ontario Low Water Response (OLWR)

    RECOMMENDED:
    THAT the Watershed Management, Planning and Regulations Reports be received as information.

13. **Watershed Health Assessment and Brook Trout Monitoring Project** – Gage Comeau Page # 41
RECOMMENDED:
THAT the Lower Trent Conservation's Watershed Health Assessment and Brook Trout Monitoring Pilot Project report and presentation be received as information.

14. **Conservation Lands Report - March 31, 2025** – Chris McLeod, Conservation Lands Supervisor Page # 88
RECOMMENDED:
THAT the Conservation Lands Report for the period January 1 – March 31, 2025 be received as information.

15. **Education and Outreach Activities Report – March 31, 2025** – Anne Anderson, Manager, Community Outreach and Special Projects Page # 90
RECOMMENDED:
THAT the Summary of Education and Outreach Activities Report for the period January 1 – March 31, 2025 be received as information.

16. **Summary of Risk Management Official Activity Report – April 1, 2025** – Anne Anderson and Marcus Rice, Risk Management Official/Inspector Page # 92
RECOMMENDED:
THAT the Risk Management Official Activity Report pursuant to Part IV of the *Clean Water Act* report for the period of January 1 to April 1, 2025 be received as information.

17. **Bay of Quinte Remedial Action Plan Program** – Anne Anderson
    a. March 2025 Newsletter Page # 95
    b. BQRAP Annual Report Year Ending March 31, 2025 Page # 98

RECOMMENDED:
THAT the Bay of Quinte Remedial Action Plan Newsletter for March 2025; and
THAT the BQRAP Annual Report for year ending March 31, 2025 be received as information.

18. **CAO's Report** – Rhonda Bateman Page # 115
RECOMMENDED:
THAT the CAO's Report be received as information.

19. **Members Inquiries/Other Business**

20. **Adjournment**

PLEASE CONTACT THE OFFICE IF YOU ARE UNABLE TO ATTEND THIS MEETING
Chitra Gowda 613-394-3915 ext. #215
chitra.gowda@ltc.on.ca

LOWER TRENT CONSERVATION

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BOARD OF DIRECTORS

Board of Directors refers to the General Membership as set out in the Lower Trent Conservation Administrative By-Law No. 2023-01

REGULAR BOARD MEETING MINUTES
MEETING # 2025-02

DATE: March 13, 2025

TIME: 1:54 PM

LOCATION: Administration Office, 714 Murray Street, Trenton / Virtually

DIRECTORS PRESENT:

ON SITE		REMOTE SITE
Eugene (Gene) Brahaney (Chair)	Rick English	Lynda Reid
Sherry Hamilton (Vice-Chair)	Bob Mullin	Bobbi Wright
Mike Ainsworth	Eric Sandford	
Jim Alyea	Jeff Wheeldon	

ABSENT: None

STAFF: Rhonda Bateman, Chitra Gowda, Gage Comeau, Scott Robertson, Chris McLeod, Anne Anderson

GUESTS: Art Chamberlain (remotely)

1. **Meeting called to order by the Chair**
   The meeting was called to order by Chair Brahaney at 1:54 p.m.

2. **First Nations Acknowledgement**
   "This land is located on the traditional territories of the Anishnabek, Huron-Wendat, and Haudenosaunee (Iroquois) peoples. We acknowledge our shared responsibilities and obligations to preserve and protect the land, air and water. We are grateful to have the privilege to meet, explore, and connect here on these shared lands. In the spirit of friendship, peace and respect, we extend our thanks to all the generations that came before us and cared for these lands - for time immemorial."

3. **Disclosure of pecuniary interests**
   There were no pecuniary interests declared.

4. **Approval of the Agenda as amended**

RES: G21/25 Moved by: Bob Mullin Seconded by: Sherry Hamilton
THAT the agenda be approved as amended for Other Business.
Carried

5. **Delegations**

There were no delegations received for this meeting.

6. **Public Input** (3 minutes per speaker)

There was no public input at this meeting.

7. **Adoption of the Minutes:**

Annual General Meeting minutes February 13, 2025

RES: G22/25 Moved by: Jeff Wheeldon Seconded by: Lynda Reid
THAT the Annual General Meeting minutes of February 13, 2025 be adopted.
Carried

8. **Business arising from these minutes**

None.

CORRESPONDENCE

9. **Correspondence**

Directors Jeff Wheeldon and Sherry Hamilton indicated the importance of sharing the correspondence with municipalities. Rhonda Bateman responded that the correspondence would be sent to member municipalities.

a. 2025-02-03 Ontario Headwaters Institute – support of Conservation Authorities

RES: G23/25 Moved by: Jeff Wheeldon Seconded by: Sherry Hamilton
THAT the correspondence as provided in the agenda package be received as information.
Carried

STAFF REPORTS

10. **List of Monthly Payments Issued**

RES: G24/25 Moved by: Jim Alyea Seconded by: Jeff Wheeldon
THAT the list of payments issued in the total amount of $212,830.22 for the month of February 2025 be received as information.
Carried

11. **Audit Report to the Board for Year Ending December 31, 2024**

Dan Coleman (Welch LLP) presented the Audit Report to the Board for the year ending December 31, 2024.

Director Jim Alyea asked what the Shell funds are used for and if costs are offset by using that fund. Rhonda Bateman responded that the Shell fund can only be used for the Goodrich Loomis Conservation Centre, for example large repairs to the building. A new roof will be needed in the future.

RES: G25/25 Moved by: Eric Sandford Seconded by: Jeff Wheeldon
THAT the Audit Report to the Board, including the Draft Lower Trent Conservation Financial Statements for the period ended December 31, 2024 as prepared and presented by Welch LLP, Chartered Professional Accountants be adopted and circulated.

Carried

12. 2024 LTC Annual Report

Directors Sherry Hamilton and Jeff Wheeldon complimented LTC staff for all of the work achieved in 2024.

RES: G26/25 Moved by: Sherry Hamilton Seconded by: Jeff Wheeldon
THAT the Lower Trent Conservation 2024 Annual Report be received as information; and
THAT the audited financials be added to the 2024 Annual Report; and
THAT the 2024 Annual Report then be circulated to LTC's member municipalities.

Carried

13. Watershed Management, Planning and Regulations Update

a. Summary of Permits for Period February 1 – February 28, 2025
b. Planning and Regulations
c. Flood Forecasting and Warning (FFW) and Ontario Low Water Response (OLWR)

RES: G27/25 Moved by: Rick English Seconded by: Bob Mullin
THAT the Watershed Management, Planning and Regulations Update be received as information.

Carried

14. Bay of Quinte Remedial Action Plan Program

a. February 2025 Newsletter

RES: G28/25 Moved by: Sherry Hamilton Seconded by: Jeff Wheeldon
THAT the Bay of Quinte Remedial Action Plan Newsletter for February 2025 be received as information.

Carried

15. CAO's Report

Rhonda Bateman provided an update on the Category 2 Risk Management Official/Inspector services agreement discussions. The Municipality of Trent Hills has accepted LTC's offer and an updated agreement is being prepared accordingly.

RES: G29/25 Moved by: Rick English Seconded by: Jeff Wheeldon
THAT the CAO's Report be received as information.

Carried

OTHER BUSINESS

16. Members Inquiries/Other Business

Rhonda Bateman provided an update on the purchase of the truck and trailer. She indicated that it is a lower cost to purchase a truck with towing capacity and a separate galvanized dump trailer.

Chris McLeod, Conservation Lands Supervisor, provided the background on the existing truck, indicating that it has dump capacity and was purchased around 20 years ago. The current need is a heavy-duty truck that can pull a trailer and be capable of managing travel on hills.

Director Eric Sandford asked if the existing trailer can be traded in. Chris McLeod replied that it would cost around $9,000 to fix the existing trailer, and that it would sell for around $6,000 after fixing it.

Chris McLeod noted the need to dispose of the existing truck. Rhonda Bateman added that any proceeds would be placed in the vehicle and equipment reserve.

RES: G30/25 Moved by: Rick English Seconded by: Jeff Wheeldon
THAT $10,000 from the vehicle and equipment reserve be used as a down payment on a new truck; and
THAT $16,000 from the vehicle and equipment reserve be used as payment for a new dump trailer.

Carried

17. Adjournment

Chair Gene Brahaney thanked the Board and looks forward to the year. There being no further business, the meeting was adjourned.

RES: G31/25 Moved by: Jeff Wheeldon Seconded by: Mike Ainsworth
THAT the meeting be adjourned.

Carried

Time: 3:30 p.m.

Gene Brahaney, Chair

Rhonda Bateman, CAO/ST

LOWER TRENT CONSERVATION

LOWER TRENT REGION CONSERVATION AUTHORITY
HEARING BOARD
for
O. Reg. 41/24 PERMIT APPLICATION #RP-25-022 to RP-25-024

MINUTES

DATE: March 13, 2025

TIME: 1:00 p.m.

LOCATION: Administration Office, 714 Murray Street, Trenton / Virtually

PRESENT:

ON SITE		REMOTE SITE
Eugene (Gene) Brahaney (Chair)	Rick English	Lynda Reid
Sherry Hamilton (Vice-Chair)	Bob Mullin	Bobbi Wright
Mike Ainsworth	Eric Sandford	
Jim Alyea	Jeff Wheeldon	

ABSENT: None

STAFF: Rhonda Bateman, Chitra Gowda, Gage Comeau, Scott Robertson

APPLICANTS: Property Owners – Ken Nicholson, Caleb Nicholson

Agent – Arnold H. Vandermeer (VanMEER LTD.)

GUESTS: Crowe Valley Conservation Authority, Art Chamberlain (remotely)

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1. **Meeting called to order by the Chair**
   The meeting was called to order by Chair Brahaney at 1:00 p.m.

2. **Motion for the Board of Directors to sit as the Hearing Board**
   RES: HC1/25 Moved by: Sherry Hamilton Seconded by: Rick English
   THAT the Board of Directors sit as the Lower Trent Conservation Hearing Board.

   Carried

3. Opening Remarks by Chair for RP-25-022 to RP-25-024

Chair Brahaney made the following remarks:

We are now going to conduct a hearing under Section 28.1 of the Conservation Authorities Act in respect of an application by VanMEER LTD. on behalf of 2632863 Ontario Inc., for permission to undergo site preparation to construct future dwelling structures in the Trent River floodplain on North Trent Street, Village of Frankford, City of Quinte West, Geographic Township of Sidney, Concession 6, Part of Lot 3-4.

The Authority has adopted regulations under section 28.1 of the Conservation Authorities Act which requires the permission of the Authority for development within an area regulated by the Authority in order to ensure no adverse effect on the control of flooding, erosion, dynamic beaches, unstable soils or bedrock, or to permit alteration to a shoreline or watercourse or interference with a wetland. This Hearing is about granting permission to develop under the Authority regulations; a separate matter from approvals under the Planning Act.

The Staff has reviewed this proposed work and a copy of the staff report has been given to the applicant.

The Conservation Authorities Act (Section 28.1 [5]) provides that:
"(5) An authority shall not refuse an application for a permit or attach conditions to a permit unless the applicant for the permit has been given an opportunity to be heard by the authority."
While holding this hearing, the Hearing Board is to determine whether or not a permit is to be issued, with or without conditions. In doing so, we can only consider the application in the form that is before us, the staff report, such evidence as may be given and the submissions to be made on behalf of the applicant. Only information disclosed prior to the hearing is to be presented at the hearing. It is not our place to suggest alternative development methods.

It is to be noted that if the Hearing Board decision is "to refuse" or not support the proposed work within the permit submission, the Chair or Acting Chair shall notify the owner/applicant of his/her right to appeal the decision to the Ontario Land Tribunals.

The proceedings will be conducted according to the Statutory Powers Procedure Act. Under Section 5 of the Canada Evidence Act, a witness may refuse to answer any question. The procedure in general shall be informal without the evidence before it being given under oath or affirmation.
If the applicant has any questions to ask of the Hearing Board or of the Authority representative, they must be directed to the Chair of the Board.

At this time, if any member of this Board has intervened on behalf of the Applicant with regards to this matter, they should recuse themselves so there is no apprehension of bias and that a fair and impartial Hearing may be conducted.

4. Disclosure of pecuniary interests

There was no disclosure of pecuniary interests for this Hearing.

5. Staff Report and Presentation

Gage Comeau, Manager, Watershed Management, Planning and Regulations presented the comprehensive staff report to the Hearing Board as provided in the agenda package.

Director Eric Sandford asked if the area is prone to ice pack formation. Gage Comeau responded that the area is not prone to ice pack formation issues.

Director Rick English asked about the size of each lot, and Gage Comeau replied that each lot is approximately half of an acre in area.

6. Applicant Presentation

The applicant's agent Arnold H. Vandermeer (VanMEER LTD.) described the project, including the history. The project was first a draft plan of condominium, where the vacant lot was proposed to hold condominium units, and the common driveway owned by the condominium corporation. Environmental Impact Statement (EIS), Fisheries, Parks Canada, pre-servicing related and other approvals were obtained using the previous LTC floodplain mapping.

With the new floodplain mapping, the two-dimensional modelling resulted in an increase in water levels by 0.2 to 0.3 meters. Due to the flat nature of the property, this in turn resulted in increased water levels. There is major flow on the east side of the island, and the river widens.

The three units are proposed in an ineffective flow area where the proposed development will not increase the water levels. Further, the floodproofing proposed will not affect the flow of water, and the flood level will be outside of lot lines. Five units were built last year. For the proposed development, all underground servicing is completed, utilities installed, roads are completed, a roundabout is roughed in, and the shoreline was cleaned up.

It is proposed that there be a 30-meter buffer from top of bank to the houses; of which an 18-meter setback from the bank will be naturalized area which condominium owners will not have access.

Arnold H. Vandermeer concluded that if the application was approved last year using the previous floodplain mapping, the development would have been built, and flood issues may have occurred. However, now there are solutions being proposed.

7. Additional Information Sharing

a. **Additional Questions from the Board**

As noted below, additional questions arose from Board members after the property owner's agent presented.

Director Bob Mullin asked if fill had been brought to the property. Arnold H. Vandermeer replied that fill was placed on the property, outside of the regulated area. He added that the lot sizes are approximately 50 feet by 100 feet and comply with R2 zoning of the City of Quinte West by law.

Director Bobbi Wright asked for an explanation of how future owners will be restricted access to the river shore. Arnold H. Vandermeer responded that the City of Quinte West has designated the area as an Environmental Protection Area. The condominium agreement would also designate the 18-meter buffer as a setback to the edge of the river. It is the responsibility of the condominium corporation to demonstrate that condominium owners will not have access to the designated area. Large boulders will be placed at the setback line to delineate property maintenance limits. The agreement will be registered on title as well.

b. **Comments or Questions from the Applicant**
There were no additional comments or questions from the applicant or their agent.

c. **Comments or Questions from Staff**
There were no additional comments or questions from Staff.

8. Deliberation (In-Camera/Closed Session)

RES: HC2/25 Moved by: Jeff Wheeldon Seconded by: Rick English
THAT the Hearing Board move into closed session.
Carried

Guests and Staff left the meeting for the Board to carry out deliberation in closed session.
Time 1:29 pm

RES: HC3/25 Moved by: Eric Sandford Seconded by: Rick English
THAT the Lower Trent Conservation Hearing Board move out of closed session.
Carried

Time 1:41 pm

Guests and Staff returned to the Hearing Board meeting.

9. Motion on the Hearing Board Decision for RP-25-022 to RP-25-024
The Board will approve the permit with the following conditions:

- *Final grades of the filled and graded area is to be surveyed and provided to LTC confirming any floodplain changes. Additionally, engineered fill is to be used through the approved filled and graded area;*
- *Permits are to be amended to include the construction drawings for each freehold condominium unit;*
- *Side slopes of all fill material are to be graded to a 3:1 (horizontal: vertical) slope ratio;*
- *Appropriate erosion and sediment control measures are to be implemented prior to construction, maintained in good repair during the construction phase, and remain in place until all disturbed soil surfaces have become stabilized and/or revegetated to prevent the movement of sediment away from the construction site;*
- *All disturbed areas are to be revegetated (e.g., reseeded using a native seed mix) upon*

completion of the permitted works as soon as planting conditions permit;

- *Local drainage is to be maintained; and,*
- *LTC staff are to be contacted and advised of when the work is being undertaken.*

Chair Brahaney noted that the Board members discussed the quality of the required fill. Director Eric Sandford said that the terminology discussed was "engineered fill". Gage Comeau added that the fill type is determined at the site level with the City of Quinte West, and can also be included as a condition in the permit. Director Eric Sandford asked if the applicant agreed with the conditions. The applicant Ken Nicholson responded that he agrees with the permit conditions.

RES: HC4/25 Moved by: Lynda Reid Seconded by: Sherry Hamilton

THAT the permit application RP-25-022 to RP-25-024 be approved with conditions as provided by staff.

Carried

10. Motion to adjourn the Hearing Board

There being no further business, the meeting was adjourned.

RES: HC5/25 Moved by: Jeff Wheeldon Seconded by: Bob Mullin

THAT the Hearing Board meeting for permit application RP-25-022 to RP-25-024 be adjourned.

Carried

Time: 1:46 pm

_____ _____

Gene Brahaney, Chair Rhonda Bateman, CAO/ST

LOWER TRENT REGION CONSERVATION AUTHORITY
HEARING BOARD
for
O. Reg. 41/24 PERMIT APPLICATION #RP-24-232

MINUTES

DATE: March 17, 2025

TIME: 1:02 p.m.

LOCATION: Administration Office, 714 Murray Street, Trenton / Virtually

PRESENT:

ON SITE		REMOTE SITE
Eugene (Gene) Brahaney (Chair)	Rick English	Lynda Reid
Sherry Hamilton (Vice-Chair)	Bob Mullin	
Jim Alyea	Eric Sandford	
Jeff Wheeldon		

ABSENT/REGRETS: Mike Ainsworth, Bobbi Wright

STAFF: Rhonda Bateman, Chitra Gowda, Gage Comeau, Scott Robertson, Kim Stephens

APPLICANTS: Property Owners – Al LeBlanc (LeBlanc Enterprises)

Agent – Bryon Keene and Elliott Fledderus (Jewell Engineering Inc.)

GUESTS: Nicholas Fischer (Conservation Ontario)

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1. **Meeting called to order by the Chair**
   The meeting was called to order by Chair Brahaney at 1:02 p.m.

2. **Motion for the Board of Directors to sit as the Hearing Board**
   RES: HC6/25 Moved by: Jeff Wheeldon Seconded by: Eric Sandford
   THAT the Board of Directors sit as the Lower Trent Conservation Hearing Board.

   Carried

3. Opening Remarks by Chair for RP-24-232

Chair Brahaney made the following remarks:

We are now going to conduct a hearing under Section 28.1 of the Conservation Authorities Act in respect of an application by Al LeBlanc, for permission to undergo site preparation to support future development in the Butler and Arena Creek floodplains and within 30 metres of a wetland on the Vacant lot on Cedar Street, Municipality of Brighton, Northumberland County, Geographic Township of Cramahe, Concession 1, Part of Lot 1.

The Authority has adopted regulations under section 28.1 of the Conservation Authorities Act which requires the permission of the Authority for development within an area regulated by the Authority in order to ensure no adverse effect on the control of flooding, erosion, dynamic beaches, unstable soils or bedrock, or to permit alteration to a shoreline or watercourse or interference with a wetland. This Hearing is about granting permission to develop under the Authority regulations; a separate matter from approvals under the Planning Act.

The Staff has reviewed this proposed work and a copy of the staff report has been given to the applicant.

The Conservation Authorities Act (Section 28.1 [5]) provides that:
"(5) An authority shall not refuse an application for a permit or attach conditions to a permit unless the applicant for the permit has been given an opportunity to be heard by the authority."
While holding this hearing, the Hearing Board is to determine whether or not a permit is to be issued, with or without conditions. In doing so, we can only consider the application in the form that is before us, the staff report, such evidence as may be given and the submissions to be made on behalf of the applicant. Only information disclosed prior to the hearing is to be presented at the hearing. It is not our place to suggest alternative development methods.

It is to be noted that if the Hearing Board decision is "to refuse" or not support the proposed work within the permit submission, the Chair or Acting Chair shall notify the owner/applicant of his/her right to appeal the decision to the Ontario Land Tribunals.

The proceedings will be conducted according to the Statutory Powers Procedure Act. Under Section 5 of the Canada Evidence Act, a witness may refuse to answer any question. The procedure in general shall be informal without the evidence before it being given under oath or affirmation.
If the applicant has any questions to ask of the Hearing Board or of the Authority representative, they must be directed to the Chair of the Board.

At this time, if any member of this Board has intervened on behalf of the Applicant with regards to this matter, they should recuse themselves so there is no apprehension of bias and that a fair and impartial Hearing may be conducted.

4. Disclosure of pecuniary interests

There was no disclosure of pecuniary interests for this Hearing.

5. Staff Report and Presentation

Gage Comeau, Manager, Watershed Management, Planning and Regulations presented the staff report to the Hearing Board as provided in the agenda package.

Director Jeff Wheeldon asked if fill is proposed to be placed beyond the current setback area (regulatory flood hazard limit). Gage Comeau confirmed that the fill is proposed to be placed beyond the regulatory flood hazard limit.

Chair Gene Brahaney noted the presence of a bale of straw on the property and asked if there was any relevance or significance. Gage Comeau indicated that there is no significance currently; however, straw bales may be used during construction.

6. Applicant Presentation

The property owner's agent Bryon Keene and Elliott Fledderus (Jewell Engineering Inc.) presented to the Hearing Board as provided in the agenda package.

Director Wheeldon asked if the proposed development and flood mitigation measures would increase the velocity of flow. Elliott Fledderus confirmed that the velocity could be affected; however, the modelled water levels are mapped at several cross sections to the outlet to Lake Ontario and there are no concerns with velocity changes.

Director Wheeldon asked about the purpose of the berm. Gage Comeau noted that there is no documentation of the original purpose of the berm. It may have been a flood berm in the 1980s. There is a channel that handles drainage from another watercourse feature that has been heavily altered over time. This water feature is a small tributary that runs north to south and joins Butler Creek. The municipality has an easement to maintain the drainage system including the berm.

7. Additional Information Sharing

a. **Additional Questions from the Board**

As noted below, additional questions arose from Board members after the property owner's agent presented.

Director Jim Alyea noted that he had visited the subject property a few times and asked if the type of fill had been determined to help mitigate scour. He mentioned the example of shot rock, to help mitigate scour from Butler Creek. Director Alyea also asked if the culvert size would increase due to the water level increase, and how much of the tree line would need to be removed.

Bryon Keene (Jewell Engineering Inc.) responded by indicating that the fill would include engineered fill; fill moved from one part of the property to another or brought in from outside; and that the perimeter would be riprap to mitigate scour. Bryon Keene also said that the culvert would need to be a larger span, which is a consideration for the municipality. He showed the Hearing Board where trees must be removed using a map within the presentation.
Director Alyea asked about the quantity of fill needed. Bryon Keene (Jewell Engineering Inc.) responded that approximately 30,000 cubic meters of fill is needed for the development. He noted that the required fill could be moved from the northern part of the property, or it could

be brought from outside. He added that engineered fill is required for certain locations including below roads.

Director Wheeldon asked if the fill would be placed beyond the 30-meter setback. Gage Comeau noted that fill can be placed beyond the 30-meter setback, but that development is restricted in the floodplain.

Director Eric Sandford asked if there would be any impacts to aquatic life in Arena Creek. Gage Comeau responded that aquatic life is present in Arena Creek, outside of the area of development. During flooding, spills can occur into the area of development.

Director Sandford asked who is responsible for maintaining the drainage ditches. Gage Comeau responded that the drainage channels are maintained by the property owner.

Director Sherry Hamilton asked if the municipality would become responsible for the channel where Arena Creek is proposed to be directed to. Gage Comeau noted that it is not possible to determine who is responsible at this time; however, similar to stormwater management ponds, the municipality may take over responsibility from the developer.

Bryon Keene added that there are several municipal ditches draining to the subject property. The proposed development would provide the municipality with an improvement to drainage.

The property owner Al LeBlanc (LeBlanc Enterprises) said that the drainage ditch would be protected by an easement. If the development results in freehold, the municipality would be responsible to maintain the ditch; while if it becomes a condominium, the corporation would be responsible. A legal easement will help ensure maintenance.

Director Rick English noted that the required fill amount is large and asked how much could be moved from the north part of the property. The property owner Al LeBlanc responded that approximately 5,000 cubic meters could be moved from the southern part of the property.

Director Bob Mullin noted that he visited the property. He asked if the property was zoned commercial. Bryon Keene replied that it is currently zoned residential and that it was farmed several years ago.

b. **Comments or Questions from the Applicant**
There were no additional comments or questions from the Applicant.

c. **Comments or Questions from Staff**
There were no additional comments or questions from Staff.

8. Deliberation (In-Camera/Closed Session)

RES: HC7/25 Moved by: Eric Sandford Seconded by: Sherry Hamilton
THAT the Hearing Board move to in-camera session.
Carried

Guests and Staff left the meeting for the Board to carry out deliberation in closed session
Time 1:29 pm

RES: HC8/25 Moved by: Eric Sandford Seconded by: Jim Alyea
THAT the Lower Trent Conservation Hearing Board move out of closed session.

Carried

Time 1:41 pm

Guests and Staff returned to the Hearing Board meeting.

9. Motion on the Hearing Board Decision for RP-24-232

The Board will approve the permit with the following conditions:

- *Permit be valid for a period of 5 years to allow for the placement and alteration activities within identified work area noted in the grading plan and flood mitigation report (Jewell Engineering, dated December 19, 2024);*
- *Final grades of the filled and graded area including the proposed drainage channel is to be surveyed and provided to LTC confirming any floodplain changes;*
- *Side slopes of all fill material are to be graded to a 3:1 (horizontal: vertical) slope ratio;*
- *Following the removal of the earthen berm, the area is to be revegetated with a native seed mix identified in consultation with LTRCA staff;*
- *Appropriate erosion and sediment control measures are to be implemented prior to construction, maintained in good repair during the construction phase, and remain in place until all disturbed soil surfaces have become stabilized and/or revegetated to prevent the movement of sediment away from the construction site;*
- *All disturbed areas are to be revegetated (e.g., reseeded using a native seed mix) upon completion of the permitted works as soon as planting conditions permit;*
- *Local drainage is to be maintained; and,*
- *LTC staff are to be contacted and advised of when the work is being undertaken.*

RES: HC9/25 Moved by: Eric Sandford Seconded by: Bob Mullin
THAT the permit application RP-24-232 be approved with conditions as provided by staff.

Carried

10. Motion to adjourn the Hearing Board

There being no further business, the meeting was adjourned.

RES: HC10/25 Moved by: Rick English Seconded by: Sherry Hamilton

THAT the Hearing Board meeting for permit application RP-24-232 be adjourned.

Carried

Time: 2:28 pm

_____ _____

Gene Brahaney, Chair Rhonda Bateman, CAO/ST

LOWER TRENT CONSERVATION

LOWER TRENT REGION CONSERVATION AUTHORITY
HEARING BOARD
for
O. Reg. 41/24 PERMIT APPLICATION #RP-25-002

MINUTES

DATE: March 17, 2025

TIME: 2:35 p.m.

LOCATION: Administration Office, 714 Murray Street, Trenton / Virtually

PRESENT:

ON SITE		REMOTE SITE
Eugene (Gene) Brahaney (Chair)	Rick English	Lynda Reid
Sherry Hamilton (Vice-Chair)	Bob Mullin	
Jim Alyea	Eric Sandford	
Jeff Wheeldon		

ABSENT/REGRETS: Mike Ainsworth, Bobbi Wright

STAFF: Rhonda Bateman, Chitra Gowda, Gage Comeau, Scott Robertson, Kim Stephens

APPLICANTS: Property Owners – Mike Voskamp, Randy Voskamp

Agent – Steve Blakey (Greer Galloway Group)

GUESTS: Victoria Hefferman (Township of Cramahe), Nicholas Fischer (Conservation Ontario)

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1. **Meeting called to order by the Chair**
   The meeting was called to order by Chair Brahaney at 2:35 p.m.

2. **Motion for the Board of Directors to sit as the Hearing Board**
   RES: HC11/25 Moved by: Bob Mullin Seconded by: Jim Alyea
   THAT the Board of Directors sit as the Lower Trent Conservation Hearing Board.

   Carried

3. Opening Remarks by Chair for RP-25-002

Chair Brahaney made the following remarks:

We are now going to conduct a hearing under Section 28.1 of the Conservation Authorities Act in respect of an application by Steve Blakey of Greer Galloway on behalf of Mike Voskamp, for permission for development works as part of a future plan of subdivision which includes the removal and alteration of a Colborne Creek tributary, the removal and alteration of wetland features, and the placement of fill material within the Colborne Creek floodplain on Spencer Street, Village of Colborne – Spencer Street Subdivision Lands, Geographic Township of Cramahe, Concession 2, Part of Lot 28.

The Authority has adopted regulations under section 28.1 of the Conservation Authorities Act which requires the permission of the Authority for development within an area regulated by the Authority in order to ensure no adverse effect on the control of flooding, erosion, dynamic beaches, unstable soils or bedrock, or to permit alteration to a shoreline or watercourse or interference with a wetland. This Hearing is about granting permission to develop under the Authority regulations; a separate matter from approvals under the Planning Act.

The Staff has reviewed this proposed work and a copy of the staff report has been given to the applicant.

The Conservation Authorities Act (Section 28.1 [5]) provides that:
"(5) An authority shall not refuse an application for a permit or attach conditions to a permit unless the applicant for the permit has been given an opportunity to be heard by the authority."
While holding this hearing, the Hearing Board is to determine whether or not a permit is to be issued, with or without conditions. In doing so, we can only consider the application in the form that is before us, the staff report, such evidence as may be given and the submissions to be made on behalf of the applicant. Only information disclosed prior to the hearing is to be presented at the hearing. It is not our place to suggest alternative development methods.

It is to be noted that if the Hearing Board decision is "to refuse" or not support the proposed work within the permit submission, the Chair or Acting Chair shall notify the owner/applicant of his/her right to appeal the decision to the Ontario Land Tribunals.

The proceedings will be conducted according to the Statutory Powers Procedure Act. Under Section 5 of the Canada Evidence Act, a witness may refuse to answer any question. The procedure in general shall be informal without the evidence before it being given under oath or affirmation.
If the applicant has any questions to ask of the Hearing Board or of the Authority representative, they must be directed to the Chair of the Board.

At this time, if any member of this Board has intervened on behalf of the Applicant with regards to this matter, they should recuse themselves so there is no apprehension of bias and that a fair and impartial Hearing may be conducted.

4. Disclosure of pecuniary interests

There was no disclosure of pecuniary interests for this Hearing.

5. Staff Report and Presentation

Gage Comeau, Manager, Watershed Management, Planning and Regulations presented the comprehensive staff report to the Hearing Board as provided in the agenda package.

6. Applicant Presentation

The property owner's agent Steve Blakey (Greer Galloway Group) presented on the application. He explained that the proposal is for 45 new homes on the property, and that a wetland and creek located centrally across the property impacts the proposal by taking away area needed for the development. Steve said that the request to the LTC Hearing Board is to remove the centrally located wetland. He clarified that the proposal does not include any change to the wetland located at the north end of the property. He added that the two existing wetlands are approximately half an acre in area combined and not connected to other wetlands.

Steve Blakey said that flood issues affecting a neighbouring property could be addressed through a stormwater management pond. He proposed placing a pipe under the road for drainage and indicated that there would be no impacts to the creek nor to the hydrologic function of the wetlands. Steve Blakey said that there is a 3.5-meter level difference in ground elevation from east to west and that the property is relatively flat with no dynamic beaches. The applicant is requesting permission to alter the property as explained, in order to create 45 new homes on the property.

7. Additional Information Sharing

a. **Additional Questions from the Board**

Director Jim Alyea noted his visit to the property that morning and asked what the proposed drainage plan is for the centrally located wetland. Gage Comeau responded that a swale is proposed to be constructed to convey drainage to the west during construction of the homes. The property will eventually be piped to convey the flow. Steve Blakey added that a stormwater management facility is needed in order to mitigate impacts to neighbouring properties.

Director Eric Sandford asked if the centrally located wetland is proposed to be removed entirely. Steve Blakey confirmed the same. Director Sandford asked how a wetland could be removed. Gage Comeau said that it would start by removing the organic soils first; however, there are groundwater considerations. He added that the groundwater table varies throughout the subject lands with test pits indicating groundwater presence at or near the surface. Sump pumps and engineered and graded fill would be needed. Director Sandford noted that the proposal does not include a stormwater management pond and asked if it was planned to fill the entire lowland. Steve Blakey explained that the fill would not be level across the property, and that drainage would need to occur properly, and that pipes would need to be placed where the centrally located wetland is currently located.

Director Sherry Hamilton asked for an elaboration of the extensive dewatering required as noted in the proposal. Steve Blakey explained that the north creek sometimes seeps into the north wetland, and the geotechnical report refers to artesian conditions in that area. Director Sherry Hamilton asked how artesian conditions would be managed. Steve Blakey responded that French drains would need to be installed. Director Hamilton noted that such details were undetermined at this time. She sought clarity on what the Hearing Board is being asked to allow. Gage Comeau responded that the ask to the Hearing Board is to allow the construction of 45 new homes on the subject property.

Gage Comeau summarized that the Hearing Board's three choices: approve the permit for the proposal, or approve the permit with conditions, or deny the permit. Gage Comeau noted that Victoria Heffernan, Manager of Planning at the Township of Cramahe, was present at this meeting of the LTC Hearing Board. Victoria Heffernan said that a planning application has not been received yet and that she is hearing about the details only at this LTC Hearing Board meeting. Victoria Heffernan would like to know about the downstream impacts of the proposal.

b. **Comments or Questions from the Applicant**
There were no additional comments or questions from the Applicant.

c. **Comments or Questions from Staff**
There were no additional comments or questions from Staff.

8. Deliberation (In-Camera/Closed Session)

RES: HC12/25 Moved by: Eric Sandford Seconded by: Bob Mullin
THAT the Hearing Board move to in-camera session.
Carried

Guests and Staff left the meeting for the Board to carry out deliberation in closed session.
Time 3:35 pm

RES: HC13/25 Moved by: Eric Sandford Seconded by: Jeff Wheeldon
THAT the Lower Trent Conservation Hearing Board move out of closed session.
Carried

Time 3:53 pm
Guests and Staff returned to the Hearing Board meeting.

9. Motion on the Hearing Board Decision for RP-25-002
Chair Brahaney thanked the applicants for their patience and indicated that the Hearing Board cannot approve the permit. The Board felt that the development proposal did not meet the legislative and policy requirements. Specifically, it is in the opinion of the Board that the proposal does not adequately address concerns of unstable soils or flooding, and the proposed activities could jeopardize the health and safety of persons and property.

RES: HC14/25 Moved by: Eric Sandford Seconded by: Jeff Wheeldon
THAT the permit application RP-25-002 be denied and staff be directed to inform the applicant.

Carried

10. Motion to adjourn the Hearing Board

There being no further business, the meeting was adjourned.

RES: HC15/25 Moved by: Gene Brahaney Seconded by: Sherry Hamilton
THAT the Hearing Board meeting for permit application RP-25-002 be adjourned.

Carried

Time: 3:58 pm

_____ _____

Gene Brahaney, Chair Rhonda Bateman, CAO/ST

LOWER TRENT
CONSERVATION

714 Murray Street, R.R. 1, Trenton, Ontario K8V 0N1
Tel: 613-394-4829 Fax: 613-394-5226 Website: www.ltc.on.ca Email: information@ltc.on.ca
Registered Charitable Organization No. 107646598RR0001

March 28, 2025

Honourable David Piccini, Minister of Labour, Immigration, Training and Skills Development MPP
Northumberland and Peterborough South
117 Peter Street
Port Hope, ON L1A 1C

Dear Minister Piccini,

On behalf of the Lower Trent Conservation Authority Board of Directors, we wish to congratulate you on your recent re-election and your reappointment as the Minister of Labour, Immigration, Training and Skills Development.

As you know, Lower Trent Conservation is one of 36 Conservation Authorities in the province of Ontario which are local watershed management agencies, mandated to ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs.

The Lower Trent Conservation (LTC) watershed region includes the furthest downstream section of the Trent River watershed, encompassing 2,070 square kilometres. Our jurisdiction includes the Trent River, the watersheds of eight main tributaries and includes a number of smaller watercourses that flow directly into Lake Ontario. The western portion of the LTC's jurisdiction includes the Townships of Alnwick-Haldimand, Cramahe and the Municipalities of Brighton and Trent Hills located within the Northumberland - Peterborough South riding.

For the past 57 years, Lower Trent Conservation has taken pride in providing the residents of the watershed with mandated programs and services including hazard management through services such as flood forecasting and warning, planning, regulations and infrastructure maintenance. Lower Trent Conservation is the lead for the Trent Conservation Coalition Source Protection Region which covers 14,500 square kilometre area within its five source protection areas.

Lower Trent Conservation supports local communities by delivering environmental education programs and recreational opportunities in our conservation areas for the benefit of our residents and visitors, accessible at no charge.

In addition to mandated programs, LTC is home to the Bay of Quinte Remedial Action Plan {BQRAP) office. The BQRAP is funded by the federal and provincial governments through Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health to restore, protect and conserve the Great Lakes.

We hope to continue our work with you to ensure the health and well-being of the constituents of your riding. We look forward to meeting with you to discuss our ongoing efforts to advance our programs and initiatives in your riding.

Sincerely,

Gene Brahaney

Gene Brahaney, Chair
Lower Trent Region Conservation Authority

Rhonda Bateman, CAO
Lower Trent Region Conservation Authority
rhonda.bateman@ltc.on.ca
613-394-3915 ext. 212

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March 28, 2025

Ric Bresee,
MPP Hastings-Lennox and Addington
26A St. Lawrence St W.
Madoc, ON K0K 2K0

Dear MPP Bresee,

On behalf of the Lower Trent Conservation Authority Board of Directors, we wish to congratulate you on your recent re-election and your appointment as Parliamentary Assistant to the Minister of Transportation.

As you know, Lower Trent Conservation is one of 36 Conservation Authorities in the province of Ontario which are local watershed management agencies, mandated to ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs.

The Lower Trent Conservation (LTC) watershed region includes the furthest downstream section of the Trent River watershed, encompassing 2,070 square kilometres. Our jurisdiction includes the Trent River, the watersheds of eight main tributaries and includes a number of smaller watercourses that flow directly into Lake Ontario. The north eastern portion of the LTC's jurisdiction includes the Townships of Stirling-Rawdon and Centre Hastings located within the Hastings-Lennox and Addington riding.

For the past 57 years, Lower Trent Conservation has taken pride in providing the residents of the watershed with mandated programs and services including hazard management through services such as flood forecasting and warning, planning, regulations and infrastructure maintenance. Lower Trent Conservation is the lead for the Trent Conservation Coalition Source Protection Region which covers 14,500 square kilometre area within its five source protection areas.

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We hope to continue our work with you to ensure the health and well-being of the constituents of your riding. We look forward to meeting with you to discuss our ongoing efforts to advance our programs and initiatives in your riding.

Sincerely,

Gene Brahaney, Chair
Lower Trent Region Conservation Authority

Rhonda Bateman, CAO
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March 28, 2025

Tyler Allsopp,
MPP Bay of Quinte
5503 Hwy 62 S
Unit D, Box 6-2
Belleville, ON K8N 0L5

Dear MPP Allsopp,

On behalf of the Lower Trent Conservation Authority Board of Directors, we wish to congratulate you on your recent re-election and your appointment as the Parliamentary Assistant to the Minister of Long Term Care.

Lower Trent Conservation is one of 36 Conservation Authorities in the province of Ontario which are local watershed management agencies, mandated to ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs.

The Lower Trent Conservation (LTC) watershed region includes the furthest downstream section of the Trent River watershed, encompassing 2,070 square kilometres. Our jurisdiction includes the Trent River, the watersheds of eight main tributaries and includes a number of smaller watercourses that flow directly into Lake Ontario. A portion of the LTC's jurisdiction includes the City of Quinte West located within the Bay of Quinte riding.

For the past 57 years, Lower Trent Conservation has taken pride in providing the residents of the watershed with mandated programs and services including hazard management through services such as flood forecasting and warning, planning, regulations and infrastructure maintenance. Lower Trent Conservation is the lead for the Trent Conservation Coalition Source Protection Region which covers 14,500 square kilometre area within its five source protection areas.

Lower Trent Conservation supports local communities by delivering environmental education programs and recreational opportunities in our conservation areas for the benefit of our residents and visitors, accessible at no charge.

In addition to mandated programs, LTC is home to the Bay of Quinte Remedial Action Plan {BQRAP) office. The BQRAP is funded by the federal and provincial governments through Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health to restore, protect and conserve the Great Lakes.

We hope to continue our work with you to ensure the health and well-being of the constituents of your riding. We look forward to meeting with you to discuss our ongoing efforts to advance our programs and initiatives in your riding.

Sincerely,

Gene Brahaney

Gene Brahaney, Chair
Lower Trent Region Conservation Authority

Rhonda Bateman, CAO
Lower Trent Region Conservation Authority
rhonda.bateman@ltc.on.ca
613-394-3915 ext. 212

Lower Trent Conservation
Payments LOG - MARCH 2025

CHEQUE # / EFT #	PAYEE	DETAILS	AMOUNT
	Staff Payroll	Mar/25 Payroll Period #5 and #6	130,016.81
EFT 76122913	OMERS	Mar/25 Pension Contributions	23,055.00
EFT 76122952	Workplace Safety Insurance Board (WSIB)	Mar/25 WSIB Premium	4,004.90
EFT 76123034	Sun Life Assurance Company of Canada	Apr/25 Group Benefits Premium	8,876.90
EFT 76123106	Nesda Technologies Ltd	Monthly IT services, project and tickets fees	7,252.07
EFT 76123450	CIBC VISA	Mar/25 Payment	10,575.99
EFT 76123498	Staff	Staff Expenses - Reimbursed	41.80
17064	Gerald Weaver	Return of coastal engineering work deposit for RP-19-316	1,000.00
17065	OT Group - DCB Business Systems Group Inc	Monthly Photocopier Usage Service fees	293.29
17066	Staples Commercial	Office stationary supplies	111.92
17067	Trenton Home Hardware Building Centre	Property/building maintenance, janitorial	17.50
17068	Templeman LLP	Work related to RP-21-049 (Prince Edward Estates)	379.68
17069	Terry Sprague	BQRAP Webinar - guest speaker	250.00
17070	City of Quinte West	Utilities - water/sewer - workshop	71.98
17071	Township of Asphodel-Norwood	Community Centre hall rental for SPC Meeting Mar27/25	421.50
17072	Earl Rosebush Fuels	Propane - bulk - Goodrich Loomis Centre	341.23
17073	Waste Management of Canada Corporation	Waste Services - Workshop	118.97
17074	Township of Stirling-Rawdon	2025 Interim Property Taxes	340.92
17075	Minister of Finance	2024 EHT Annual Return	93.52
17076	City of Quinte West	2025 Interim Property Taxes	22,490.85
17077	Hydro One Networks Inc.	Utilities - electricity - admin bldg, workshop	1,104.74
17078	Purolator Inc.	Courier	5.66
17079	Cogeco Connexion Inc.	Monthly Internet Services - workshop	135.54
17080	Free Flow Petroleum	Monthly Vehicle and Equipment Fuel	666.20
17081	Telizon Inc	Monthly Telephone Lines	514.86
17082	Staples Commercial	Office stationary supplies	176.94
17083	Brighton Springs	Drinking water for Admin bldg	48.75
17084	Welch LLP	Audit 2024 - field work completion	11,865.00
17085	Obsentia	Vehicle maintenance	186.42
17086	Snap360 Ltd.	LTC annual website, security and wordpress	1,418.15
17087	Enbridge	Utilities - gas - workshop	90.06
17088	Bell Mobility Inc.	Monthly Cellular Phones - Service	223.71
		Total of Payments	**226,190.86**

LOWER TRENT CONSERVATION

STAFF REPORT

Date: April 2, 2025
To: LTC Board of Directors
Re: 2024 Surplus Allocation
Prepared by: Rhonda Bateman, CAO/Secretary-Treasurer

PROPOSED RESOLUTION:

THAT the 2024 Category 1 operating surplus be allocated to the following Category 1 expenses:
$35,500 be allocated for a six-month contract for the Conservation Lands Maintenance Assistant position; and
Funding be allocated for the organizational and salary review.

THAT the 2024 Category 2 operating surplus of $16,493 remain with the source protection risk management and education and outreach for 2025.

THAT the 2024 Category 3 operating surplus of $51,902 be allocated to the following Category 3 reserves and expenses:
$13,382 to the Category 3 Community Stewardship Reserve; and
$25,000 to the Category 3 Youth Education; and
$13,520 be used for local monitoring.

BACKGROUND:

Lower Trent Conservation 2024 end of year reserves balances are:

Reserve for Buildings, Structures, Bridges	$117,720
Reserve for Vehicles and Equipment	$70,624
Reserve for Special Projects	$74,335
Reserve for IT Infrastructure	$55,752
Reserve for Conservation Lands and Infrastructure	$69,563
Reserve for community stewardship	$18,164
Reserve for Legal Fees	$90,000
Reserve for Youth Education	$65,350
Restricted Funds from Land Sales	$225,245

The reserve funds include annual levy funding through the capital asset management plan except for the following reserves:
Community Stewardship
Legal Fees
Youth Education
Restricted Land Sales

Motions from the Board of Directors are required to place surplus funds into reserves and to subsequently draw upon them.

DISCUSSION:

Category 1

Based on the 2024 Audited Financial Statement as presented at the March 13, 2024 Board Meeting, Lower Trent Conservation's 2024 operating surplus in Category 1 programs was $183,614. The surplus was primarily due to increased revenue generated from earned interest and lower spending in administration. $80,000 of the surplus has been designated for spending under the 2025 budget. That leaves $103,614 to be reallocated to under Category 1 programs. However, we received notification that our monthly fees for internet usage will be increasing drastically and the Wi-Fi in the administrative building required an upgrade; neither of these items were anticipated spending for 2025. Therefore, the overall surplus has been decreased by approximately $14,000.

Category 1 includes conservation lands and our request to bring back our conservation lands maintenance assistant at a cost of $35,500. Conservation Lands requires increased staffing to allow for progress in their annual workplan targets. The hiring of a six-month contract Conservation Lands Maintenance Assistant position will assist in meeting these targets.

The requirement for an organization and salary review is long overdue and the remainder of the surplus funds in Category 1 should be utilized for this purpose.

Category 2

There is a surplus noted in Category 2 because Administration did not collect the 20% overhead to the program in 2024. It is requested that this surplus be allocated to the 2025 expenses for the risk management and source water education and outreach which will be underfunded due to the newly negotiated municipal agreement.

Category 3

The Community Stewardship Reserve as a Category 3 initiative assists in watershed stewardship initiatives and therefore the stewardship money raised in 2024 through the native plant sale should be allocated to this reserve. The agreements with our municipal partners currently do not cover the full extent of wages and expenses for local stewardship projects as they are being recognised this year for the first time. Therefore, it is requested that $13,382 be moved to the Category 3 Community Stewardship Reserve.

I would like to put forward that $25,000 of the Category 3 program surplus be designated to youth education for operational costs of running the program over and above the municipal agreement payments.
The remainder of the surplus, $13,520 be used to cover increased lab fees, equipment and wages for the local water quality monitoring program if required.

RECOMMENDATION:

THAT the Board approve the allocation of the 2024 surplus as presented.

DESCRIPTION OF LOWER TRENT CONSERVATION CAPITAL ASSET RESERVES	
RESERVE NAME	**PURPOSE/RESTRICTIONS**
Information Technology Infrastructure	Applies to the purchase of hardware and software technology for LTC operations and communications.
Vehicles and Heavy Equipment	Applies to the purchase of vehicles and heavy equipment of our Conservation Lands or for any of our programs.
Buildings and Structures	Applies to any major repairs or upgrades to LTC buildings, structural additions, or towards the purchase of new facilities.
	Restricted Funds for Goodrich-Loomis Conservation Centre To be drawn on for capital improvements at the Goodrich-Loomis Conservation Centre. A Board motion is required to access these funds from a short-term investment account.
Reserve for Special Projects	This is a broad category and could be used for watershed studies, watershed plans, monitoring programs, flood and erosion control projects, or any special project as approved by the Board of Directors.
	Flood and Erosion Control Infrastructure Applies to replacement and maintenance costs for existing flood infrastructure not covered by Water Erosion and Control Infrastructure (WECI) funding.
	Flood and Watershed Monitoring and Other Equipment Applies to replacement and maintenance of data loggers, sensors, shelters, probes and specialized monitoring equipment.
Land Infrastructure	Applies to major repairs and upgrades to conservation lands and lands adjacent to LTC facilities such as parking areas, infrastructure such as trails, bridges, gazebos, fencing, gates, etc.
Conservation Lands	Applies to the purchase of additional LTC properties. This includes conservation area lands and/or any administrative lands.

DESCRIPTION OF LOWER TRENT CONSERVATION CAPITAL ASSET RESERVES	
	Restricted Funds for Conservation Lands Funds are generated through the sale of conservation lands which require approval from the Ministry of the Environment, Conservation and Parks. Spending of these funds are restricted to the following criteria: a) Flood control operations, major maintenance of flood control structures and related flood control studies. b) Acquisition of provincially significant conservation lands including valley lands, hazard lands, wetlands, headwater recharge and discharge areas, forested areas, but not including land where the primary purpose is for the generation of revenue. c) Hazard land mapping in support of the conservation authority municipal plan input for land use planning for consistency with the natural hazard policies of the Provincial Policy Statement under the Planning Act.

DESCRIPTION OF LOWER TRENT CONSERVATION GENERAL RESERVES	
RESERVE NAME	**PURPOSE/RESTRICTIONS**
Legal Fees	To be drawn upon to cover unanticipated legal fees for matters initiated by or against the Authority.
Youth Education	This is an operating reserve to support Lower Trent Conservation's youth education programs which will be used to carry forward and will be budgeted upon and drawn upon annually, as required.

Summary of Permits Approved by Staff

Part VI of the Conservation Authorities Act and Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits

Prepared by: Gage Comeau, Manager, Watershed Management, Planning and Regulations

For Period: March 1, 2025 to March 28, 2025

Permit #	Municipality	Ward	Geographic Township	Concession	Lot	Street Address	Regulated Area	Permitted Activity
P-24-280 (minor)	Alnwick/Haldimand	Alnwick	Alnwick	7	24	26 West Court	Rice Lake floodplain (allowance)	To construct an approximately 15m^2 concrete slab foundation for a shed
P-25-001	Quinte West	Frankford	Sidney	5	3	31 Mill Street	Cold Creek floodplain (allowance)	To convert the existing rear structure into a residential unit
P-25-021	Quinte West	Frankford	Sidney	6	3-4	260 North Trent Street	Trent River floodplain (allowance); Field verified wetland (allowance)	To conduct site preparation works for the future construction of a single-family dwelling
P-25-025	Quinte West	Frankford	Sidney	6	3-4	260 North Trent Street	Trent River floodplain (allowance)	To conduct site preparation works for the future construction of a single-family dwelling
P-25-026	Quinte West	Frankford	Sidney	6	3-4	260 North Trent Street	Trent River floodplain (allowance)	To conduct site preparation works for the future construction of a single-family dwelling
P-25-027	Quinte West	Frankford	Sidney	6	3-4	260 North Trent Street	Trent River floodplain (allowance)	To conduct site preparation works for the future construction of a single-family dwelling
P-25-031 (compliance)	Trent Hills	Seymour	Seymour	1	5	595 Percy Boom Road	Trent River floodplain (allowance)	To construct an approximately 45m^2 deck with an approximately 15m^2 covered portion
P-25-032	Trent Hills	Percy	Percy	12	20	501 Concession Road 13 E	Trent River tributary, Trent River tributary floodplain	To install a 600mm CSP entrance culvert
P-25-034 (minor)	Trent Hills	Seymour	Seymour	9	24	3699 10th Line East	Unevaluated wetland (allowance)	To install and upgrade the existing driveway
P-25-037	Quinte West	Sidney	Sidney	BF & 1	27 & 28	1849 Old Highway 2	Bay of Quinte tributary (allowance)	To extend the existing parking area and to undergo the construction of 3 pickle ball courts
P-25-039 (minor)	Cramahe	Cramahe	Cramahe	5	21	Hydro One ROW	Tributary of Lake Ontario; Tributary of Cold Creek	To remove/replace a poles & anchors and undergo brush clearing
P-25-040	Brighton	Brighton Town	Murray	C	35	3 Quick Lane	Lake Ontario flood hazard	To construct an approximately 222ft2 (21m2) sunroom onto the existing deck
P-25-043 (minor)	Trent Hills	Campbellford	Seymour	6	9	Alma Street	Trent River floodplain (allowance); Trout Creek floodplain (allowance)	Replace approximately 10 metres of NPS 2PE IP Gas Main and install in place 1.5 metres deep (southeast corner of Alma Street and Simpson Street);replace approximately 14 metres of NPS 2 PE IP Gas Main and install in place 1.5 metres deep (northwest corner of Alma Street and Simpson Street); andrelocate approximately 26 metres of NPS 2 PE IP gas main (Alma Street west of Grand Road).
P-25-045	Alnwick/Haldimand	Alnwick	Alnwick	4	24	10193 County Road 45	Percy Creek Wetland (allowance)	To construct a 1200ft2 (111.50m2) garage to the northwest of an existing detached dwelling
P-25-047 (minor)	Quinte West	Sidney	Sidney	7	9	751 Frankford-Stirling Road	Trent River floodplain (allowance); Unevaluated wetland (allowance)	To construct an approximately 5m2 attached porch onto the existing single-family dwelling
AMENDMENTS								
P-24-270	Quinte West	Sidney	Sidney	8	17-18	1538 Frankford Stirling Road	Rawdon Creek floodplain; Unevaluated wetland (allowance)	Original Permit: to undergo bank stabilization works; amended to include the updated site plan and scope of work on both sides of Rawdon Creek

LOWER TRENT CONSERVATION

STAFF REPORT

Date: March 28, 2025
To: LTC Board of Directors
Re: Watershed Management, Planning and Regulations UPDATE
Prepared by: Gage Comeau, Manager, Watershed Management, Planning and Regulations

PROPOSED RESOLUTION:
THAT the Watershed Management, Planning and Regulations update be accepted as information.

BY THE NUMBERS:
Here are the numbers for new files and deliverables in 2025 and compared to similar numbers for previous years. Highlighted boxes indicate that 2025 has MORE files to date than previous years.

Table 1. File review – New files and deliverables in 2025 versus previous years

	# Files for 2025 (as of March 27, 2025)	**Dates for Similar Number for Previous Years (Total for Year)**			
		2024	**2023**	**2022**	**2021**
Permits	**56**	Mar 18 (283)	Mar 7 (320)	Mar 8 (398)	Mar 22 (383)
Planning	**51**	Mar 11 (204)	Apr 4 (213)	Mar 16 (310)	Feb 10 (259)
Complaints	**17**	Apr 13 (96)	May 2 (74)	May 7 (66)	Apr 19 (65)
Enforcement	**6**	Feb 5 (39)	Feb 7 (39)	Jan 21 (63)	Mar 22 (45)
Online Inquiries	**243**	Mar 5 (1435)	May 15 (1003)	Apr 8 (738)	Feb 27 (1132)
Legal Requests	**7**	Jan 8 (49)	Apr 27 (58)	Mar 30 (36)	Apr 6 (48)
Clearance Letters	**21**	May 10 (102)	Jun 16 (52)	Sep 29 (25)	n/a
Site Visits	**53**	Mar 27 (303)	Jun 9 (246)	Apr 21 (363)	May 21 (282)

Watershed Management

- LTC staff have reviewed all the monitoring data collected in 2024. Data analysis is being completed and a draft report has been prepared. The annual report will be completed for the May 2025 Board Meeting.
- LTC Staff met with Trent Hills staff to go over permitting requirements for the Trout Creek flood channel clean-out on March 27, 2025. An LTC permit file has been started and LTC Staff are assisting Trent Hills with the additional permit approvals through the Ministry of Natural Resources.
- Staff are reviewing the Wetland Assessment Waiting list for 2025 and will be scheduling assessments into the middle of Spring.
- REMINDER - LTC FFW Staff are currently partaking in a beta test from March 2, 2025 to April 30, 2025 that provides forecasted streamflow and water levels for our local creeks/streams. Staff are using the program daily and it has provided a set of tools that were not previously available. A move to purchase the software in the future could be warranted where it could provide a valuable service.

Online Inquiries

For the month of March, inquiries have been coming into the office at a steady rate. Staff have been observing a large volume of files coming into the office that require a greater amount of staff time to properly educate landowners and proponents due to highly complex proposals and site conditions. Historical subdivisions, development proposals and planning files are continuously appearing, and these files take staff long periods of time to manage as many of the properties are regulated and development may be restricted or require further review from staff. As usual, to ensure a timely response time, we are asking that people continue to use our online inquiry service and avoid directly contacting staff unless they are following up on a pre-existing file.

Permitting & Regulations:

The first two weeks of March, staff saw a decreased volume of files related to permits, complaints and enforcement. The reduction in new permit and complaint files provided staff more flexibility to get caught up with ongoing enforcement matters, permit inspections and previous permit submissions that required additional review. This observed decline in the volume of files was primarily due to various factors including cold temperatures, snow conditions and market uncertainty; however, following the large snowmelt and warmer temperatures that came through the watershed in the middle of March, we have seen a large resurgence of files coming into the office. For instance, over the past two weeks, we have received over 10 complaints related to alleged *Conservation Authorities Act* violations. Staff are expecting that the volume of files will start to equalize, but with the market uncertainty it is difficult to predict at this time.

Ongoing Permit files:

- Staff have prepared and presented for **3** Permit Hearings, issued **15** permits since the previous reporting period with **1** permit amendment issued.
- Staff are currently reviewing and commenting on **20** open 2025 permit files and **35** files from previous years (includes requested permit amendments and Hearing files that require conditions to be met).
- Staff met with the Trent Hills Building and Planning departments to present on LTC's mandatory programs with a focus on our planning and regulatory role.
- Staff have initiated the process of updating the Regulatory Policy document and hope for the document to be completed by the end of the second quarter in 2025. Various stakeholders have been contacted regarding this update and we are hoping to get positive feedback for the update.
- A second set of SOPs are currently being created and adapted. Currently, 4 SOPs have been drafted. These drafts will be circulated through the department to ensure that there is staff buy-in and feedback prior to adopting the procedures.

Planning:

- LTC Staff reviewed and commented on **12** Subdivision and Condominium Files in 2025 (new and ongoing). Since the last reporting period, LTC Staff reviewed and/or commented on **3** Subdivision and Condominium files. Many of these files are ongoing and staff expect to work on these continuously throughout the year.
- Since the last reporting period, LTC Staff reviewed and commented on **18** Planning Act Applications (Severances, Zoning By-law amendments, Official Plan amendments, Site Plan Control applications

and/or Minor Variances). Additionally, we are reviewing several technical reports for pre-consultation files including but not limited to; **1** site plan and **2** Environmental Impact Studies.

Lastly, kind reminder to let your Municipal staff know that LTC is here to assist our Municipal partners where possible. LTC Staff can walk landowners through our permitting process, the planning process and other procedures/processes that may be applicable to their proposal or inquiries. LTC Staff are incredibly knowledgeable and we are here to help the residents of our Watershed.

RECOMMENDATION:

- Staff recommends to the Board of Directors that the Planning and Regulations Update be accepted as information.

LOWER TRENT CONSERVATION

STAFF REPORT

Date: March 28, 2025
To: LTC Board of Directors
Re: Flood Forecasting and Warning UPDATE
Prepared by: Gage Comeau, Manager, Watershed Management, Planning and Regulations

PROPOSED RESOLUTION:
THAT the Flood Forecasting and Warning Update be accepted as information.

BY THE NUMBERS:
Here are the number of flood communications issued and compared to the total number of statements issued in previous years.

Table 1. Number of flood communications issued by Staff.

Statements	Flood Communications Issued (as of March 28, 2025)	Total Number for Previous Years						
		2024	2023	2022	2021	2020	2019*	2018
Water Safety	**1**	5	4	2	2	3	8	2
Flood Outlook	**3**	2	8	4	4	5	5	5
Flood Watch	**2**	2	2	0	0	3	6	7
Flood Warning	**0**	0	2	0	0	0	13	0
Total (System)	**6**	9	15	6	6	11	32	14

*Lake Ontario water levels were highly elevated during 2019, which led to a high volume of flood warning statements and updates.

Summary of Current Conditions (since last report)

The month of March has been filled with several small to moderate precipitation events, which has led to the start of the Spring freshet season (see Table 2). It is important to note that 2 large weather systems are forecasted to move through the watershed following the date of this report (i.e., over the next 5 days), which will lead to further increases in water level and streamflow in our local creeks and streams. So far, a total of 54.6 mm of precipitation has been recorded between March 1 to March 28, 2025; however, up to 40-to 60mm of rainfall expected over the next few days. Over the month of March, stream flows were slightly above average and representative of the spring snowmelt. As we continue to progress through Spring, it is expected that stream flows and water levels will be higher than normal as the systems receive runoff from snowmelt and seasonal rainfall.

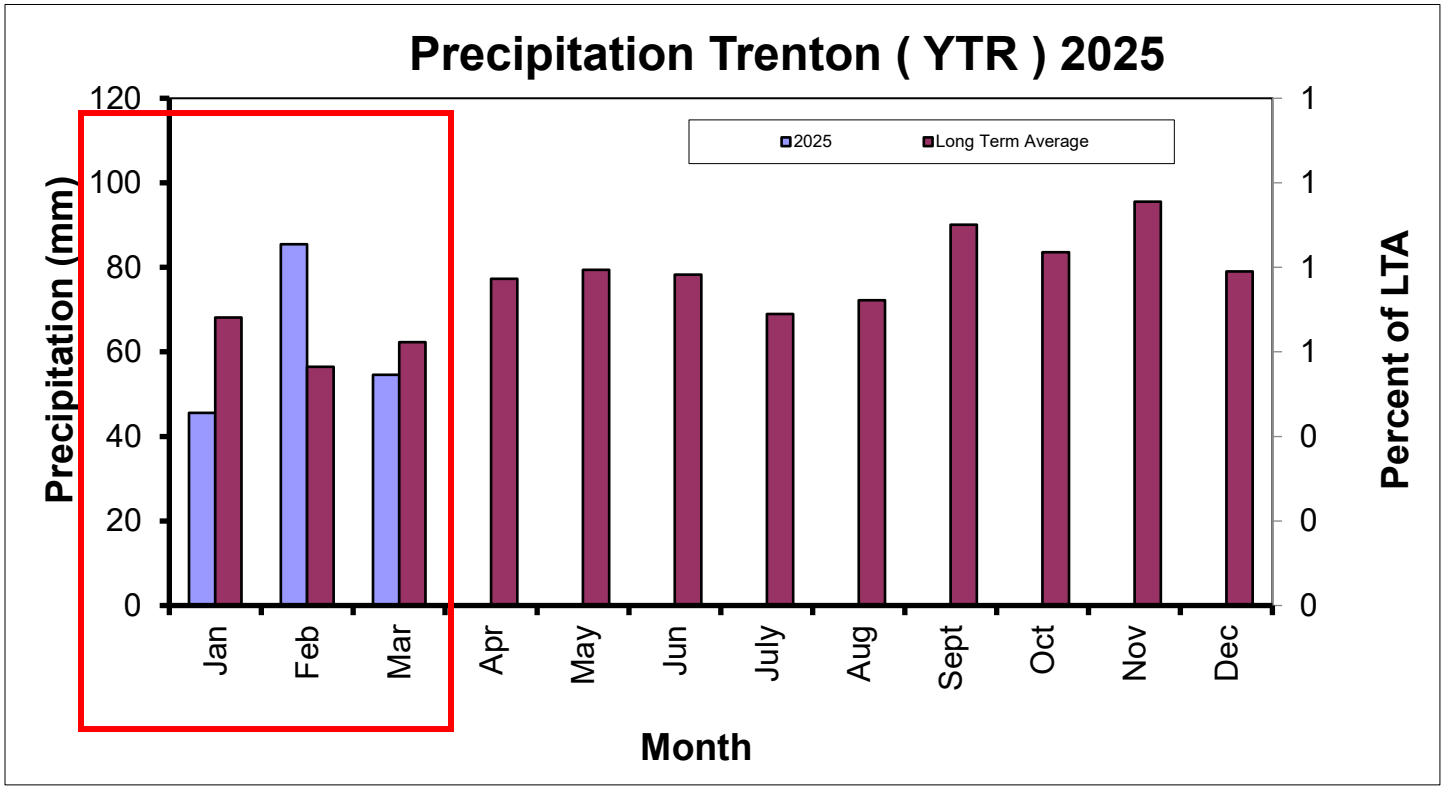
Please be advised that the Level 1 Low Water condition was removed at the end of February. Currently, there are no concerns for low water at this time.

LTC staff will continue to review the weather and stream conditions and will report further if there appears to be any potential flood or worsened drought issues.

Local Creeks

The local creeks and streams are currently experiencing seasonal averages for streamflow and water level. Some of the local systems are seeing slightly higher than average streamflow and water level, and this is due to receiving higher rainfall volumes than other areas. The current forecast shows a mix of warm and cold temperatures; therefore, water levels and streamflow may fluctuate due to possible snowmelt. Staff will be continuing to review the conditions and forecast for updates.

Table 2. Observed Monthly Precipitation (mm) in 2025 compared to the monthly long-term average.



Trent River

The Trent River system is experiencing seasonal average flow and water levels as it continues to receive run-off from the Upper Trent River watershed. As we continue through the Spring Freshet, higher flows and water levels are expected over the next few weeks. LTC is working with Parks Canada to ensure that appropriate messaging is out in a timely manner as water levels fluctuate. If there are any concerns or issues with the water levels on the Trent River system, owners are advised to contact Parks Canada-Trent Severn Waterway.

Lake Ontario

Currently, water levels are **below** average for this time of year. Staff are continuing to review weather conditions for any high wind events that may result in storm surges with waves exceeding 1 metre.

RECOMMENDATION:
Staff recommend that the Flood Forecasting and Warning Update be received as information.

LOWER TRENT CONSERVATION

STAFF REPORT

Date: March 28, 2025
To: Board of Directors
Re: Watershed Health Assessment and Brook Trout Monitoring Pilot Project
Prepared by: Gage Comeau, Manager, Watershed Management, Planning and Regulations

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PROPOSED RESOLUTION:
THAT the Lower Trent Conservation's Watershed Health Assessment and Brook Trout Monitoring Pilot Project report and presentation be received as information.

BACKGROUND:

The Watershed Health Assessment and Brook Trout Monitoring Pilot Project was a new project for 2024, funded by the Ontario Federation of Anglers and Hunters (OFAH) Community Conservation grant, the Grassroots Conservation Fund, ECO Canada Wage Subsidy Program and private donations. The project aimed to address critical gaps in understanding the health of LTC's waterways, particularly within the context of critical species habitat for cold-water fish species, like Brook Trout. These habitats support various important species and ecological functions, but without thorough assessment, we risk overlooking vulnerable areas that could be degraded before we are even aware of them.

LTC staff have limited data regarding the characterization of many watercourses within the LTC watershed, as restricted resources have prevented wide-spread study of many areas, apart from those sampled on an annual basis within LTCs existing monitoring programs. Fish related programs have not occurred within the LTC watershed for over 10 years, leaving a large data gap in our understanding of potentially important species. This pilot project was undertaken to provide LTC Staff with baseline information related to habitats present across the watershed, information on the presence of Brook Trout within key areas and allow us to purchase key pieces of equipment to easily continue these types of projects in the future.

RECOMMENDATION:
Staff recommends to the Board of Directors that the LTC Brook Trout Pilot report and presentation be received as information.

WATERSHED HEALTH ASSESSMENT AND BROOK TROUT MONITORING PILOT PROJECT

2025

Report Drafted by Simon Pollard
Project Manager – Final Report by Massimo Narini

Contents

Introduction

Brook Trout (*Salvelinus fontinalis*) are a native freshwater fish species found in most of Eastern North America (Haxton 2020; **Figure 1**). These fish inhabit a variety of freshwater environments including first-order tributaries, rivers, ponds, lakes and estuaries. Brook Trout populations in Southern Ontario are primarily insectivorous, do not grow as large as those that are anadromous and carry-out their entire life cycle in streams. Brook Trout require cold (<18 degree C), clean and oxygen-rich waters with gravel substrates for spawning (Stewart 2017; Haxton 2020), making them an excellent indicator of good water quality and sustained cold water temperatures. In addition, these fishes prefer: numerous in-stream structures, pools (ideally > 1m), overhead shade, boulders and fallen trees/branches which offer lower velocity flows for energy conservation, provide protection from predators and shade for cooler water temperatures (Adams et al., 2008; Stanfield et al., 2006).

Figure 1: Native Geographic Range of Brook Trout. Figure from Haxton et al.,2020

Unfortunately, populations of Brook Trout in Southern Ontario are in decline, with an estimated 75% reduction in their historical range and limited data collected to monitor their populations conducted within the last several decades (**Figure 2**; Stanfield et al., 2006; TRCA, 2017). Several

factors are believed to contribute to these population declines, including urbanisation, sedimentation, climate change, habitat degradation and fragmentation, invasive and introduced species and many other factors (Jacquelyn Wood, 2017; TRCA, 2017). To our knowledge, limited fish, let alone Brook Trout, monitoring has occurred historically within the Lower Trent Conservation (LTC) watershed, with the last studies conducted in the early 2010s. Due to budget cuts, lack of staff time and shifting priorities, LTC has not had access to electrofishing equipment or properly trained staff in order to complete rigorous data collection to assess the current status of Brook Trout populations within the many wadable streams across the watershed.

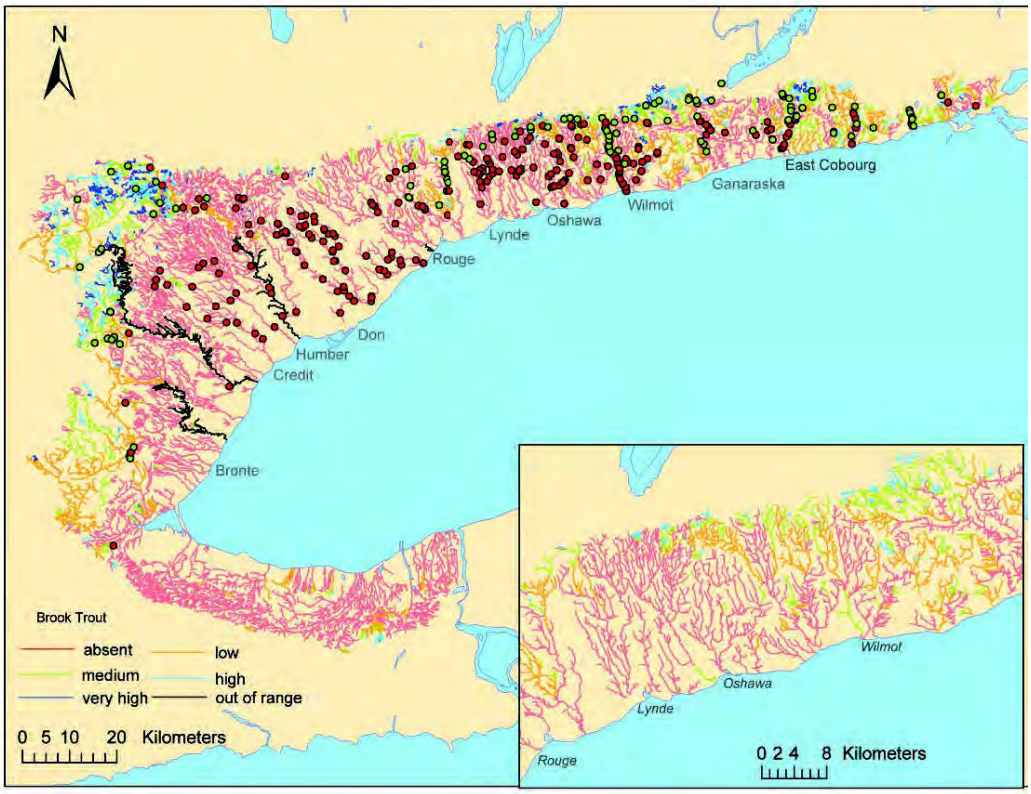


Figure 2: Geographic Distribution of Brook Trout in Lake Ontario Tributaries.

Generally, population assessments for wadable streams in Ontario are conducted using backpack electrofishing which offers the greatest scientific rigor and breadth of information, including fish community assemblage, abundance and size structure (Castaneda et al., 2020). Unfortunately, backpack electrofishing is one of the least cost-effective methods, requiring a team of trained personnel, electrofishing equipment, extensive equipment maintenance and planning in order to be successful (Castaneda et al., 2020). Although backpack electrofishing is considered the “gold standard” by many when assessing fish populations in wadable streams, alternative techniques can provide important information at considerably reduced costs, depending on the information that is proposed to be gathered. Alternative techniques can include seine netting, snorkel surveys and underwater video capture (Castaneda et al., 2020), with these methods becoming increasingly common techniques used for fisheries management across the globe.

To improve LTCs understanding of its watershed, a pilot project was generously funded by the Grassroots Conservation Fund, Ontario Federation of Anglers and Hunters (OFAH) Community Conservation Fund, ECO Canada and private donations, to shed light on the current status of many of the creeks and streams throughout our watershed. The main objective of the project was to use underwater video to determine the presence of Brook Trout across as many locations as possible, with the collection of habitat information, water quality and stream characterisation information an important secondary function of the project. We chose a "shotgun" approach, attempting to sample a high number of sites (110 sites across 11 subwatersheds), with the understanding that the Trent River subwatershed would not be sampleable and does not have the appropriate habitat for Brook Trout. Most of these locations have never been assessed by LTC staff, if at all, making it not only an important project for LTCs knowledge of the watershed from a Brook Trout monitoring aspect, but also for general watershed knowledge. With the knowledge gathered from this pilot project, LTC can utilize the data collected to implement stewardship activities, educate the public on important habitat across the watershed and bring a different perspective to many of the often-overlooked small streams where Brook Trout can still be found.

Methods

LTC Staff first completed preliminary site selection based on a desktop assessment of the watershed using ArcGIS Pro, utilizing existing aerial imagery, historical information from monitoring sites and anecdotal information. Final site selection was then completed in the field, using real-time temperature data, flow characteristics and ability to access the site from the road allowance or with land-owner permission. In general, sites which were deemed non-viable included those that did not meet our criteria for depth, water clarity, water temperature, flow or landowner permission.

At each monitoring site, numerous habitat parameters were recorded, including those important for Brook Trout specifically, as well as overall habitat quality and photos of each camera placement location (**Table 1**). A digital field data collection survey was trialled for the project, utilizing a rugged tablet and a custom created survey in ESRI Survey123, allowing us to integrate the data directly within the Esri suite of products, making for a more cohesive dataset.

Underwater video was collected based on the report and discussions LTC Staff had with retired Algonquin Park Biologist Norm Quinn, who shared his ongoing work collected in the Ganaraska Watershed using underwater cameras to determine the distribution of Salmonids. Using his work and the research by Dr. Castañeda (2020), we created a standardized methodology of deploying three GoPro Hero 12 cameras at each sampling site (anywhere from 5- 20m in stream length), generally deploying them in separate pools or locations we determined to have a high-probability of containing Brook Trout. We deployed each camera for 30 minutes @ 2.7k resolution, 120fps on a custom-made metal mount that also housed a dive light, preventing the cameras from moving in the flow **(Figure 3).** By using the live view feature of GoPro cameras, coupled with a DIY underwater antenna to transmit the signal to the tablet (**Figure 4**), we were

able to position the cameras in a concise manner to allow for best results of the footage obtained.

Table 1: Data collected at each site

Parameter	Method/ Equipment	Comments
Coordinates	Samsung Galaxy Active Tab4 Pro onboard GPS	UTM, Easting and Northing, Accuracy typically +/- 5m
Air Temperature	Fishpond Riverkeeper Digital Thermometer	
Water Temperature		
Dissolved Oxygen	Hanna Instruments Waterproof Portable Dissolved Oxygen and BOD Meter-HI98193	
Turbidity	LaMotte 2020e Turbidity Meter	Equipment issues prevented all sites from having data collected
Conductivity	Hanna Instruments Combo pH/ Conductivity Tester- HI98129	
pH		
1st Dominant Substrate / 2nd Dominant Substrate	Classifications based on the Ontario Stream Assessment Protocol (OSAP)	
Water velocity	Global Water FP101 Flow Probe	Equipment issues prevented all sites from having data collected
Substrate Heterogenicity	Classifications based on the Ontario Stream Assessment Protocol (OSAP)	
Presence of Brook Trout Habitat	Visual inspection of in stream and surrounding habitat	The presence of undercut banks, fallen trees, overhead shade and/or boulders
Camera 1/2/3 location (pool/ riffle)	Samsung Galaxy Active Tab4 Pro onboard GPS	UTM, Easting and Northing, Accuracy typically +/- 5m
Adjacent land-use type	Classifications based on the Ontario Stream Assessment Protocol (OSAP)	
Riparian vegetation	Classifications based on the Ontario Stream Assessment Protocol (OSAP)	
Presence of stream alterations	Visual inspection of in stream and surrounding habitat	Determination of stream habitat and potential for restoration efforts in the future
Invasive species information	Visual inspection of in stream and surrounding habitat	Presence, amount, potentially hazardous species were all denoted for potential future restoration projects.
Presence of impact to site	Visual inspection of in stream and surrounding habitat	Beaver dams, erosion, culverts and many other impacts could reduce the quality of habitat

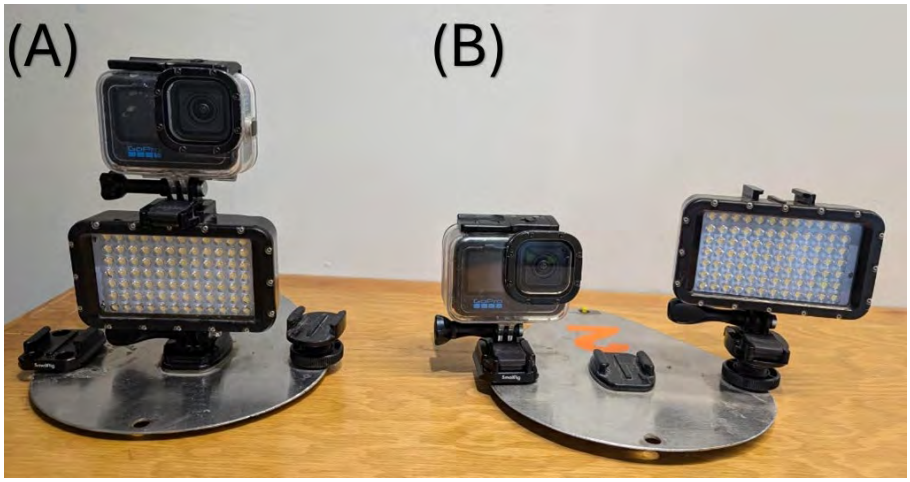


Figure 3: GoPro HERO 12 Cameras with stainless steel mount and Suptig 84-LED lights. Different camera mount set ups denoted A and B depending on requirements.

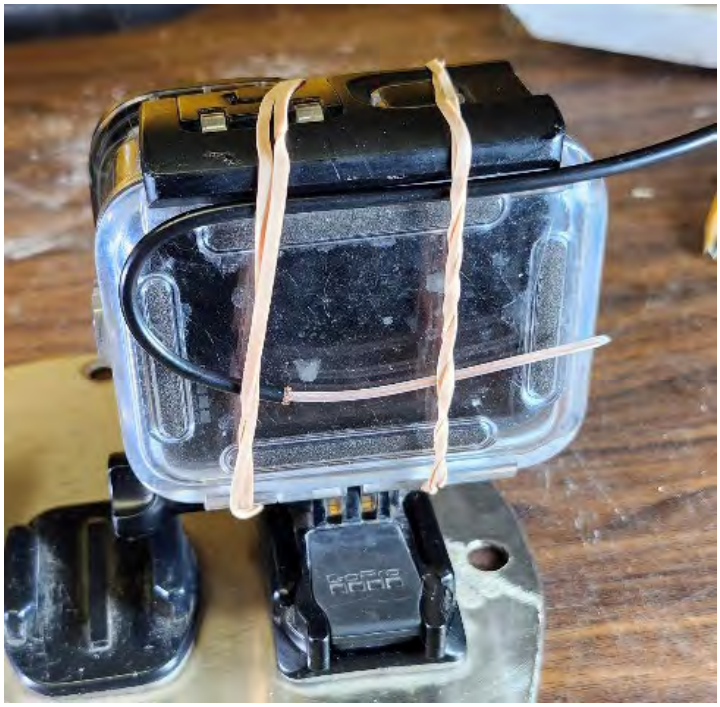


Figure 4: DIY Bluetooth antenna shown for underwater live view.

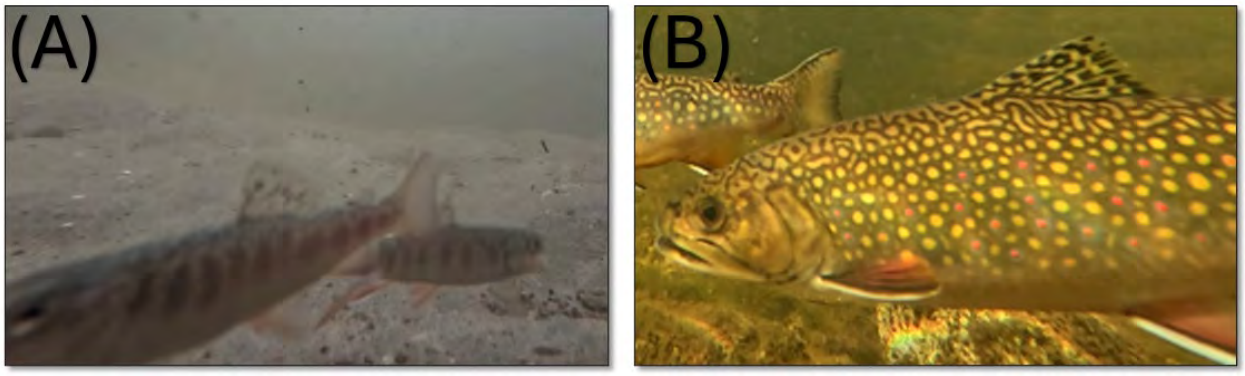


Figure 5: Photograph of Brook Trout juvenile (A) and Brook Trout with Adult Markings (B).

Results

Overall

One hundred and four sites within 11 subwatersheds were assessed for sampling viability, with 81 of them sampled between July 18, 2025 and October 21, 2025 (**see Table 2 and Figure 6).** With the goal of sampling 110 sites across 11 subwatersheds, it became clear once field work commenced that some watersheds would be better suited to sampling, such as Cold Creek, while others did not have the appropriate habitat suited for Brook Trout or sampling conditions, such as those within the Bay of Quinte Tributaries. Specifics were not collected for non-viable sampling sites, but many of those sites were not sampled due to low visibility, preventing underwater video capture. Brook Trout were present at 40 of the 81 sites sampled, showing the success of using underwater video capture to determine the presence of Brook Trout across the LTC watershed.

Table 2. Sampling Summary and Brook Trout Presence.

Subwatershed	Sites Assessed for Viability	# Sites Sampled	Brook Trout Presence	Percentage of Sites with Brook Trout Detection (%)
Lake Iroquois Plains Tributaries	10	10	7/10	70
Mayhew Creek	8	8	0/8	0
Barnum House/Shelter Valley	10	10	6/10	60
Salt Creek	8	8	7/8	87.5
Cold Creek	12	10	5/10	50
Trout Creek	8	2	0/2	0
Percy Creek/Burnley Creek	9	9	7/9	87.5
Rice Lake Tributaries	10	10	6/10	60
Bay of Quinte Tributaries	13	4	0/4	0
Rawdon Creek	8	8	2/8	25
Squires Creek	8	2	0/2	0
Total	**104**	**81**	**40/81**	**49%**

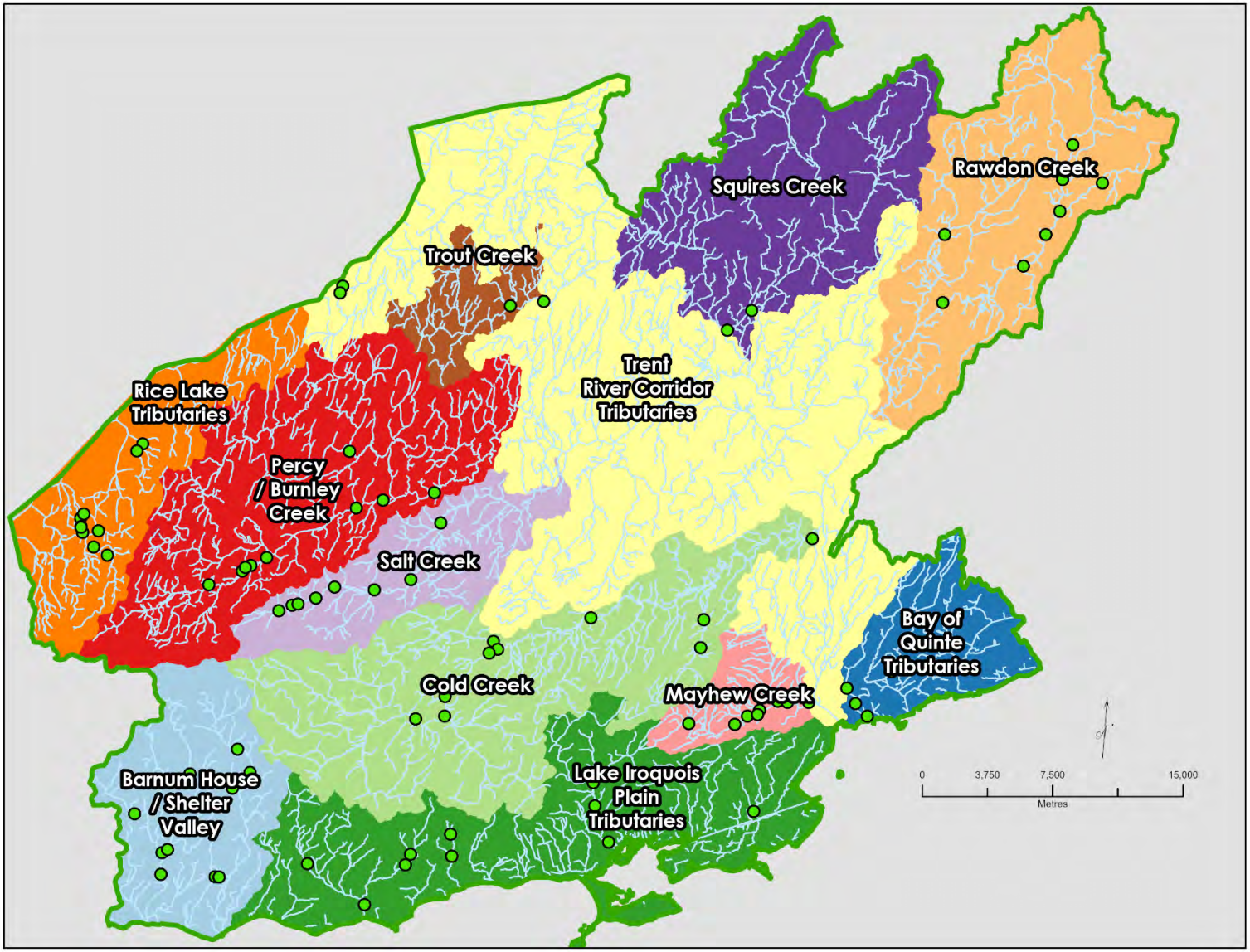


Figure 6: Brook Trout monitoring sites sampled in 2024 by subwatershed

Results by Subwatershed

Bay of Quinte Tributaries

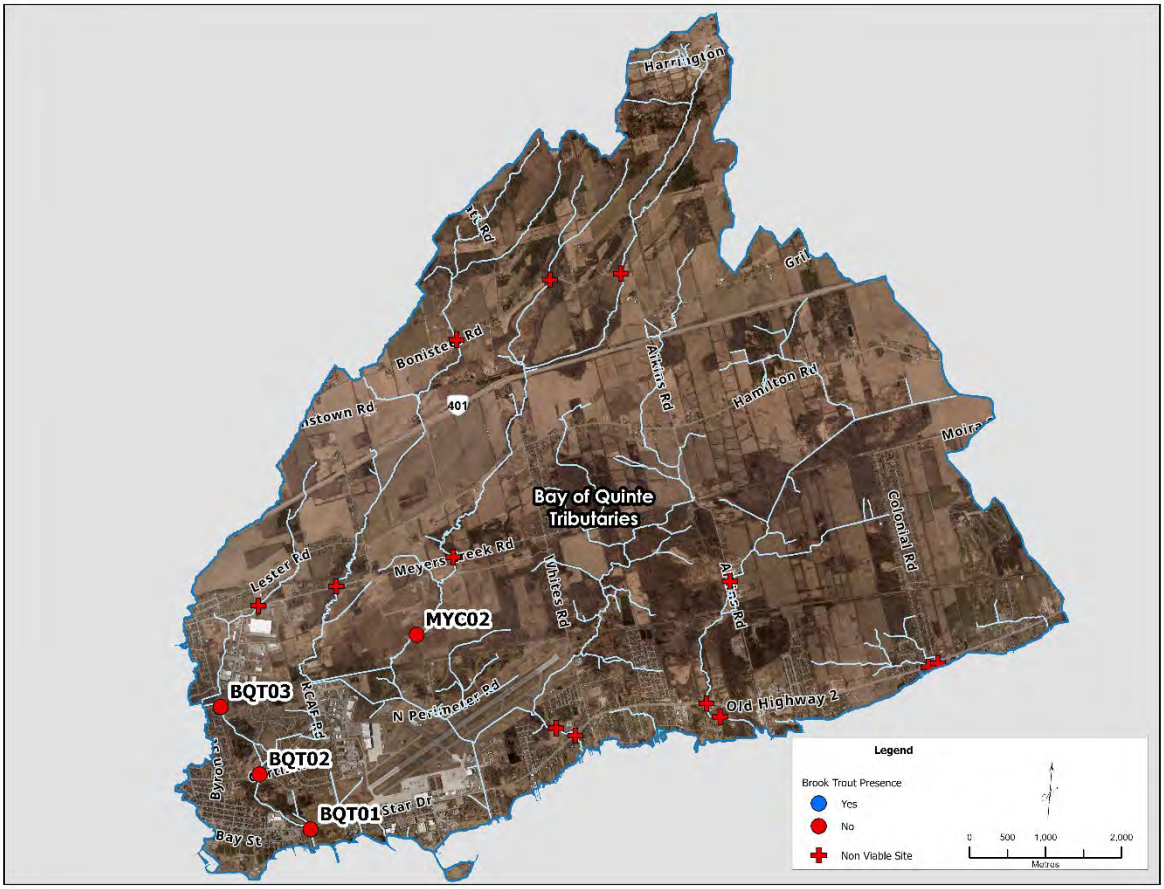


Figure 7: Bay of Quinte Tributaries subwatershed

The Bay of Quinte Tributaries subwatershed **(Figure 7)** is one of the most urbanised subwatersheds in the LTC watershed, encompassing the majority of Trenton and Canadian Forces Base Trenton covering a large area at the southern end of the subwatershed. Overall, 4 sites were surveyed of the 13 potential sites identified, with the remainder deemed non-viable due to stagnation, limited depth or reduced water clarity. Anecdotally, reduced water clarity was observed along the north-eastern sections of Meyer's Creek, which may be attributed to surface runoff from an upstream quarry based on the dense, cloudy white particles observed in the water.

No Brook Trout were observed at any of the sites and it is believed that the habitat characteristics of this subwatershed are not conducive to Brook Trout populations, making it not surprising that we did not observe them. Across the subwatershed, the average water temperature was the 2nd highest (20.25 degrees C), the average conductivity was the highest (872.75us/cm) and the average turbidity for those with consistent sampling was also the highest

(3.53 NTU) across the subwatersheds assessed. Future work to determine the presence of Brook Trout would most likely exclude this subwatershed to better utilize resources, but due to the nature of this pilot project, it was important to evaluate the habitat present in this area. It was also of note that several warm water fish species, including many juvenile Northern Pike, were observed in the video captured.

Table 3: Bay of Quinte Tributaries Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout ?
BQT01	22.6	89.5	7.71	4.54	879	7.8	16	No
BQT02	20.7	84	7.47	3.24	919	8.1	19	No
BQT03	20.5	90	8.02	3.54	956	8.0	20	No
MYC02	17.2	87	8.4	2.8	737	7.7	47	No
Subwatershed Average	**20.25**	**87.625**	**7.9**	**3.53**	**872.75**	**7.9**		

Lake Iroquois Plain Tributaries

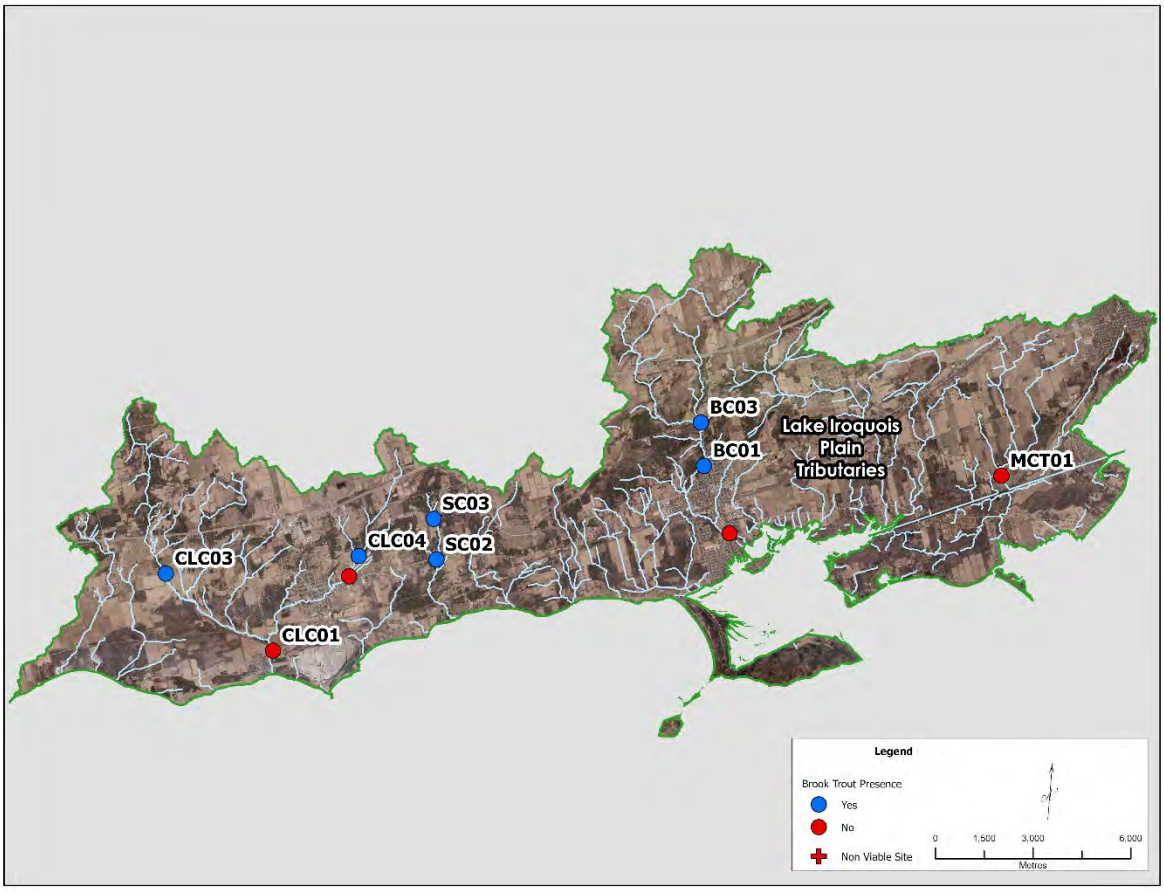


Figure 8: Lake Iroquois Plain Tributaries subwatershed

The Lake Iroquois Plain Tributaries subwatershed spans along much of the Lake Ontario shoreline within the LTC watershed, covering the area from Trenton to Lakeport **(Figure 8)**. It contains multiple distinct systems, including Colborne Creek, Salem Creek, Butler Creek and an unnamed watercourse that drains into the north side of the Murray Canal. All sites within this subwatershed, except MCT01, were found to have temperatures known to favour Brook Trout populations, with the subwatershed average of 16.96 degrees C. Brook Trout were found to be present in the headwaters of these systems **(Figure 8),** which tended to be have forested riparian cover and multiple in-stream habitat types. It is important to note that the most downstream sites closest to Lake Ontario did have many juvenile Rainbow Trout identified in the underwater video, which suggests potential competition for limited habitat with the local Brook Trout populations. Rainbow Trout are known to be more resilient to reductions in water and habitat quality than native Brook Trout while occupying the same ecological niche (Meyers et al., 2014; TRCA, 2017), which also may indicate additional stressors to Brook Trout in the lower reaches of the watercourses that were not captured by this pilot project.

Table 4: Lake Iroquois Plain Tributaries Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Presence
BC01	16.8	95.8	9.65	560	8.4	62	Yes
BC02	16.7	97.8	9.51	610	8.37	56	No
BC03	17.4	100.8	9.59	590	8.35	44	Yes
CLC01	20.7	110	9.63	-	-	43	No
CLC02	14.1	98.6	10.1	-	-	38	No
CLC03	20.5	87.7	7.77	-	-	35	Yes
CLC04	13.7	98.9	10.19	-	-	35	Yes
MCT01	19.3	101.3	9.78	-	-	28	No
SC02	15.8	97.4	9.7	492	8.4	34	Yes
SC03	14.6	95.5	9.61	505	8.3	34	Yes
Subwatershed Average	**16.96**	**98.38**	**9.553**	**551.4**	**8.364**		

Barnum House /Shelter Valley Creek

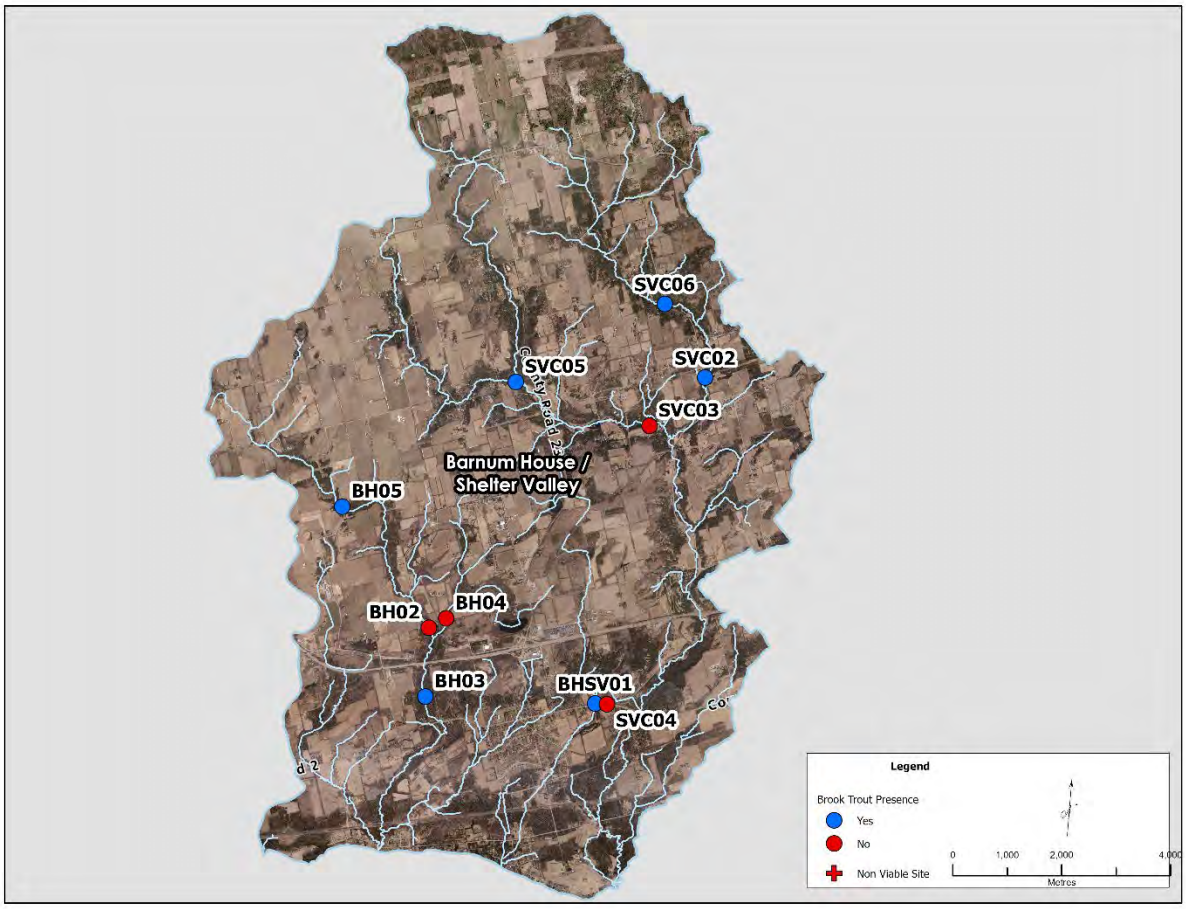


Figure 9: Barnum House /Shelter Valley Creek subwatershed

The Barnum House/Shelter Valley subwatershed is the most westerly subwatershed within the LTC watershed that drains into Lake Ontario and the first referenced that is directly influenced by the Oak Ridges Moraine **(Figure 9)**. Brook Trout were present in the headwaters of at least 3 cold-water (<18 degrees C) watercourses, while Rainbow Trout were found throughout all sites. This is a similar trend to the Lake Iroquois Plains Tributaries subwatershed, suggesting that there are potentially similar patterns of competition between the 2 species and/ or limitations to dispersal for Rainbow Trout at the headwater sites. Rainbow Trout populations within the lower reaches of the Barnum House/Shelter Valley subwatershed are likely receiving population inputs from stocked populations from Lake Ontario. Observations of numerous Rainbow Trout and Chinook Salmon juvenile at the furthest downstream locations of Shelter Valley Creek, without the presence of Brook Trout, suggests this may be supported.

With respect to the headwater sections, several sites were observed to host numerous Brook Trout and Rainbow Trout of mixed ages, particularly SVC02, which was a wide, deep locaiton downstream from a beaver dam that supported an abundance of both species,

including Rainbow Trout of mixed ages, which suggests these may be self sustaining river resident populations in Shelter Valley Creek **(Figure 10)**.

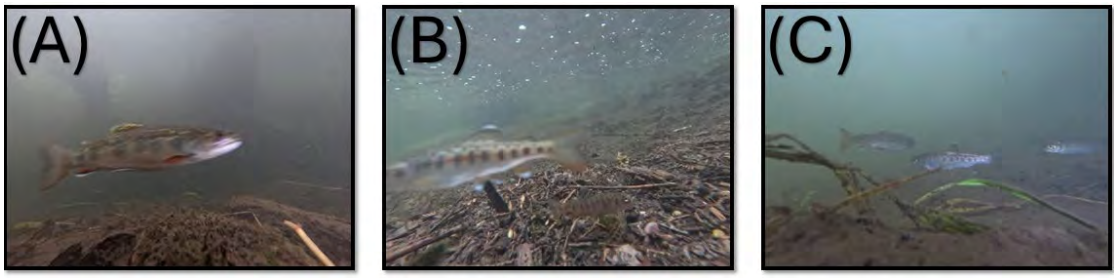


Figure 10: Screen captures of Brook and Rainbow Trout from video taken in the headwaters of the Barnum House/Shelter Valley subwatershed (A-B). (A) Photograph of an adult Brook Trout at SVC02. (B) Photograph of Brook and Rainbow Trout juvenile at SVC05. (C) Rainbow Trout Juveniles at SV

Table 5. Barnum House /Shelter Valley Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Conductivity (us/cm)	pH	Average site depth (cm)	Riparian Vegetative	Brook Trout Presence
BH02	16	102.9	9.91	-	-	38	Forest	No
BH03	18.6	99	9.11	473	8.21	58	Forest	Yes
BH04	17.8	101.3	9.41	-	-	22	Forest	No
BH05	16.3	86	8.3	588	8.11	38	Forest	Yes
BHSV01	16.8	87.7	8.44	-	-	23	Forest	Yes
SVC02	13.5	84.4	8.62	446	8.17	72	Scrubland	Yes
SVC03	20.8	101.8	8.9	-	-	64	Forest	No
SVC04	20.4	103.9	9.47	-	-	32	Forest	No
SVC05	16.3	93.7	8.98	475	8.12	38	Forest	Yes
SVC06	15.2	85	8.37	453	7.97	39	Forest	Yes
Subwatershed Average	**17.2**	**94.6**	**9.0**	**487**	**8.1**	**42**		

Mayhew Creek

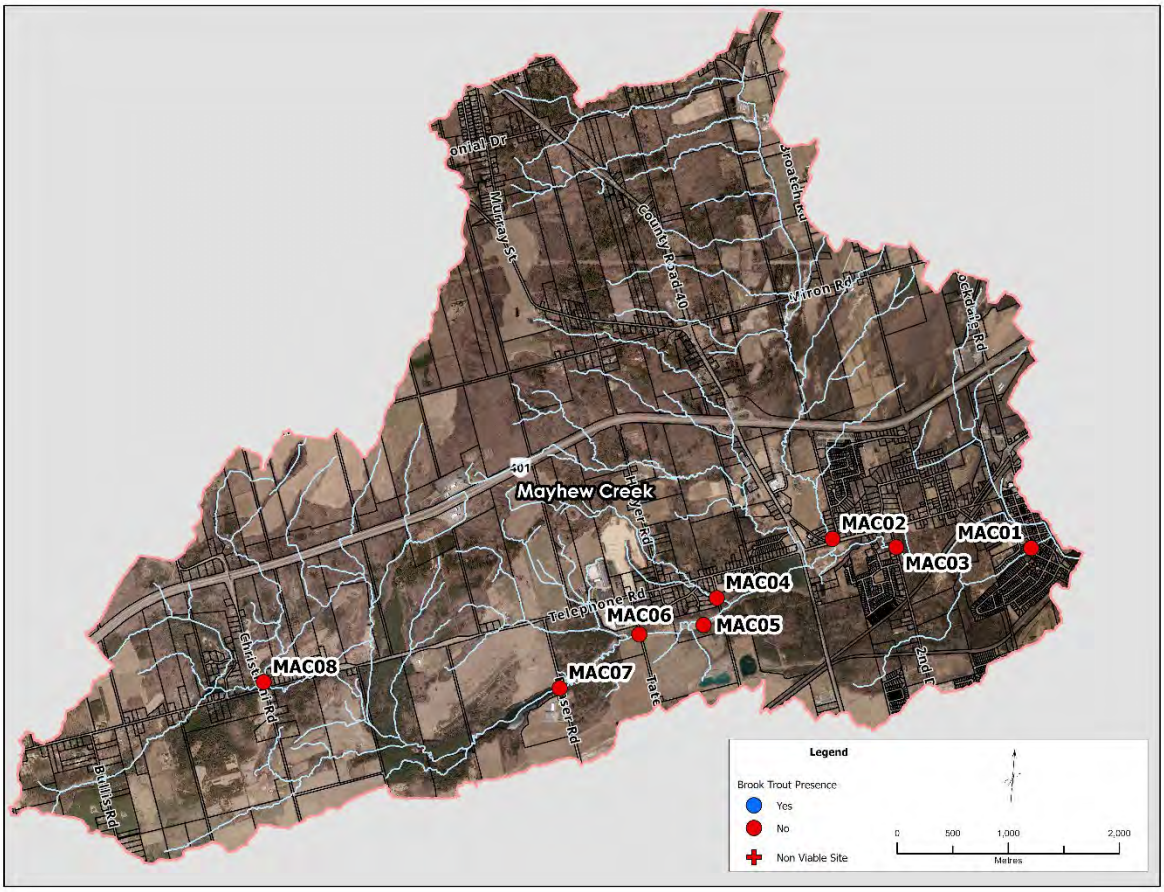


Figure 11: Mayhew Creek subwatershed

The Mayhew Creek subwatershed is the smallest subwatershed within the LTC watershed, situated north of Trenton and flowing east into the Trent River **(Figure 11)**. A total of 8 sites were sampled, with no Brook Trout observed at any of the sampling locations. The average water temperature was the highest out of any of the subwatersheds assessed (22.38 degrees C), likely one of the main tributers to the lack of Brook Trout presence. The one site that did have a cold-water temperature classification, MAC04, was one of the few sites sampled that was not on the main branch, leading us to believe that is receiving groundwater inputs from the nearby drumlin to the north**.** Elevated water temperatures of Mayhew Creek are likely due to the extensive alteration of Mayhew Creek flow regimes from the construction of 3 large mill ponds along its length. Mill ponds are known to substantially alter riverine habitats by creating reservoirs of stagnant water, fragmenting habitat and increasing water temperatures. Another noteworthy observation regarding land-use and the riparian vegetative community of the Mayhew Creek subwatershed is only 2 out of 8 sites had a forested riparian vegetation community. Although this could be related to the availability of accessible sampling locations, increased water temperatures generally are linked to a lack of riparian cover, causing increased water temperatures within the watercourse through solar heating, reducing the important

habitat that many native trout and other fish species rely on. It is also of note that there appeared to be a reduced amount of in stream habitat features (undercut banks, fallen trees, overhead shade and/or boulders) denoted from the qualitative portion of the habitat assessment surveys.

Table 6: Mayhew Creek water quality measurements

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Presence
MAC01	23.3	94.3	8.21	465	8.15	38	No
MAC02	20.5	91.4	8.16	-	-	41	No
MAC03	25.2	95	7.98	475	7.96	65	No
MAC04	17.5	91	8.66	662	8.2	17	No
MAC05	22.57	90	7.78	540	7.96	45	No
MAC06	22.4	84.4	7.28	473	7.88	41	No
MAC07	24.3	85	7.06	445	7.71	35	No
MAC08	23.3	82.1	7.18	-	-	21	No
Subwatershed Average	**22.3**	**89.1**	**7.78**	**510**	**7.97**		

Cold Creek

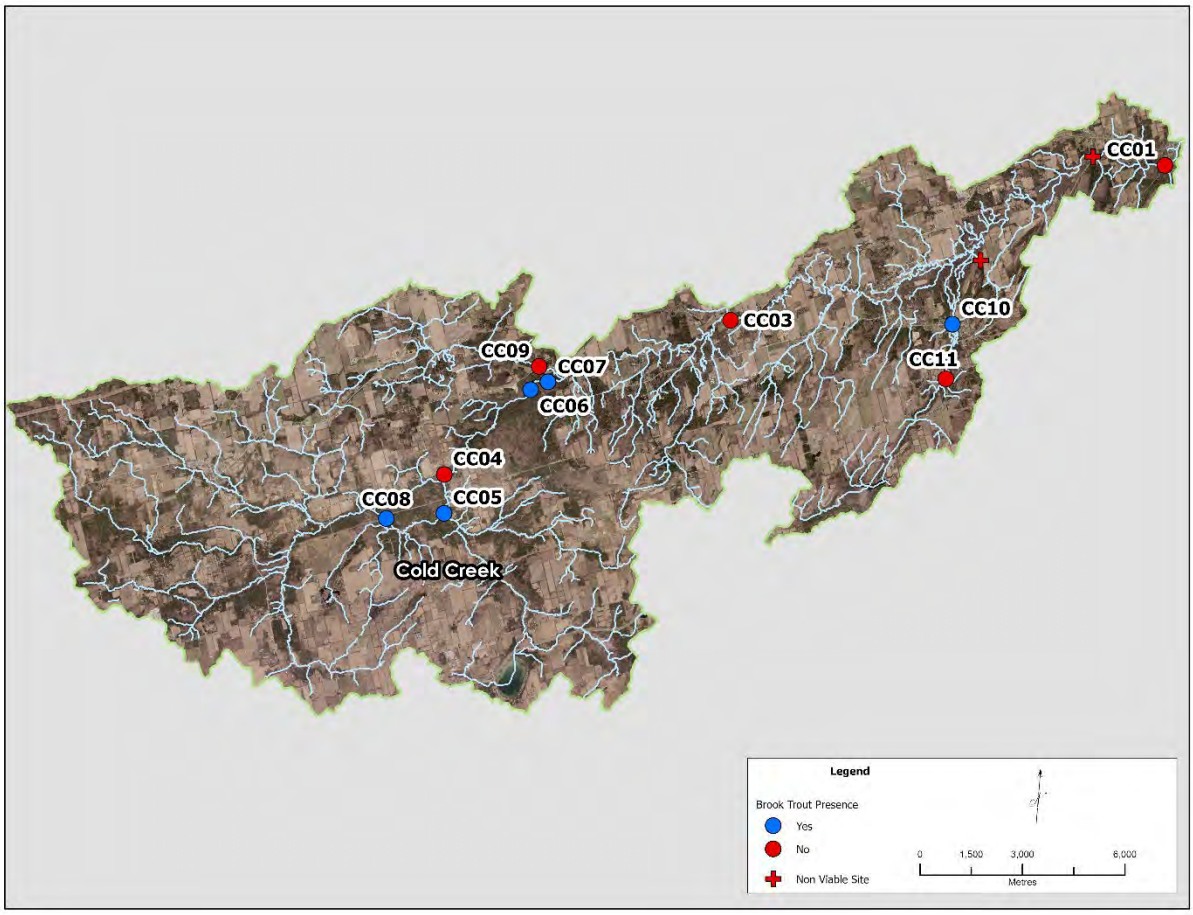


Figure 12: Cold Creek subwatershed

Cold Creek is the 2nd largest watercourse within the LTC watershed, only behind the Trent River itself and the largest system assessed within this project. Cold Creek has a longstanding history of fly fishing for Brook and Brown Trout, being stocked by the Ministry of Natural Resources (MNR) with Brook Trout until 1993 with an offline, Brook Trout hatchery still operating in Codrington. Also within the Cold Creek subwatershed is the Goodrich Loomis Conservation Area, a 441 acre property acquired in 1975 by LTC and serves to protect 2.5 km of pristine, cold-water stream habitat along Cold Creek and Little Cold Creek. Directly downstream of the property is the home waters of the Cold Creek Fly Fishers, a group of like-minded conservation fly fishers that actively participate in conservation and restoration activities along the 2km stretch of Cold Creek that they utilize and manage for local landowners. LTC has a longstanding relationship with Cold Creek Fly Fishers via a mutual interest of maintaining healthy trout populations and conservation efforts within Cold Creek.

A total of 10 sites were sampled within the Cold Creek subwatershed, primarily within the mid to upper reaches of the creek. Much of the downstream sections of Cold Creek have been altered with extensive agricultural land use, erosion, sedimentation and mill ponds which made

assessing these sites lower priority. Additional barriers to sampling occurred when multiple landowners refused access to their property within the lower reaches of the watercourse, making these areas inaccessible for sampling. CC03 and CC01 were found to have relatively poor habitat quality for Brook Trout considering there was extensive evidence of sedimentation and erosion with poor riparian buffers and no overhead shade or instream structures other than boulders. The morphology of the creek was widened and shallower having a faster flow regime than upstream portions making it unfavorable for Brook Trout which require some cover from high flow velocities for conserving energy.

A total of 3 sites were sampled within the Goodrich Loomis Conservation Area, CC09 within Little Cold Creek and CC06 and CC07 within the main branch of Cold Creek in a section with deep pools and showed signs of active angler use. Unfortunately, no Brook Trout were present at CC09, an unexpected finding considering the water and habitat quality were good. Initial tests completed along Little Cold Creek captured many Brook Trout, showing a main downfall of utilizing underwater video capture, the fact that it is very location and timing specific. Adult Brook Trout and Brown Trout (2 adults and 2 juveniles) were observed at both CC06 and CC07 within the main channel of Cold Creek, a positive finding within the LTC property. The presence of Brown Trout of mixed ages suggests they may have a self-sustaining population in Cold Creek, as we are not aware of any stocking which has occurred in the last several decades.

Table 7: Cold Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Presence
CC01	15.2	116	11.61	3.12	-	-	55	No
CC03	15.6	103	10.35	1.61	467	8.23	67	No
CC04	17.2	113	10.85	1.72	471	8.37	80	No
CC05	14.9	103	10.44	1.36	-	-	51	Yes
CC06	9.4	105	11.73	1.35	464	-	85	Yes
CC07	10	103	11.41	0.95	462	-	1	Yes
CC08	8.9	81	9.14	1.18	471	-	60	Yes
CC09	12.3	93	9.78	1.28	492	7.98	50	No
CC10	10.7	98	10.23	1.41	-	-	79	Yes
CC11	13.2	98	10.2	0.83	486	8.04	55	No
Subwatershed Average	**12.74**	**101.3**	**10.57**	**1.48**	**473**	**8.15**	**58**	

Salt Creek

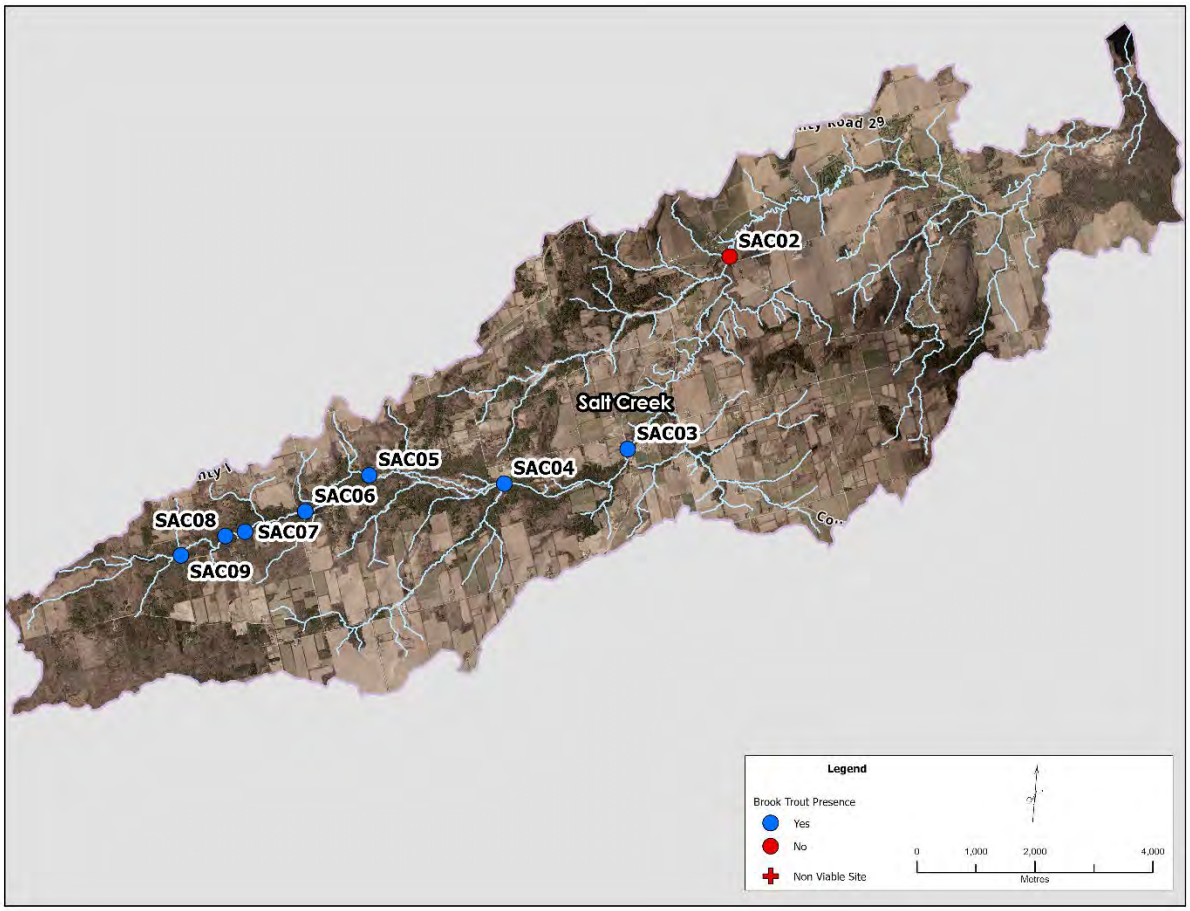


Figure 13: Salt Creek subwatershed.

The Salt Creek subwatershed originates with its headwaters within the Oak Ridges Moraine on its west end, draining into the Trent River **(Figure 12).** The Salt Creek subwatershed was found to be one of the most pristine, cold-water subwatersheds in the LTC watershed, with 7 out of 8 sites assessed having Brook Trout and 6 out of 8 sites having Brook Trout of mixed ages detected at multiple cameras per site. Observations from the habitat survey and aerial photography suggest Salt Creek remains relatively naturalized, with residential land-use making up every site surveyed and much of Salt Creek being protected by intact, riparian vegetation. The water quality parameters assessed lead us to believe that the overall water quality is quite good, with average water temperature being the lowest of any subwatershed assessed, average turbidity under 1 NTU and the lowest average conductivity (Table 8). Watercourse substrates within Salt Creek were also likely the best, with consistent qualitative measures of gravel, sand and boulders found at each site. Some habitat degradation was found at only 1 site surveyed, the furthest downstream site, SAC02, with evidence of sedimentation and erosion present. There does not appear to be substantial barriers to fish passage past the retention ponds at sites SAC 07 and SAC08. Anecdotally, when discussing the project with several landowners adjacent to the headwaters, many were passionate about Brook Trout conservation and have installed fencing

and signs to keep anglers from accessing known Brook Trout populations within their properties.

Table 8: Salt Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Presence
SAC02	14.6	100	10.06	0.68	503	8.22	61	No
SAC03	12.8	98	10.26	1.23	483	8.15	48	Yes
SAC04		87.9	9.01	1.42	440	7.85	58	Yes
SAC05	11.15	89	9.46	0.76	445	8.1	98	Yes
SAC06	11.4	90	9.7	0.49	429	8.01	61	Yes
SAC07	12.8	92	9.52	1.14	393	7.75	28	Yes
SAC08	11.5	89	9.53	1.08	407	8.02	60	Yes
SAC09	13.3	75	7.77	0.86	378	7.64	32	Yes
Average	**12.5**	**90**	**9.41**	**0.96**	**434**	**7.97**	**55**	

Percy Creek/ Burnley Creek

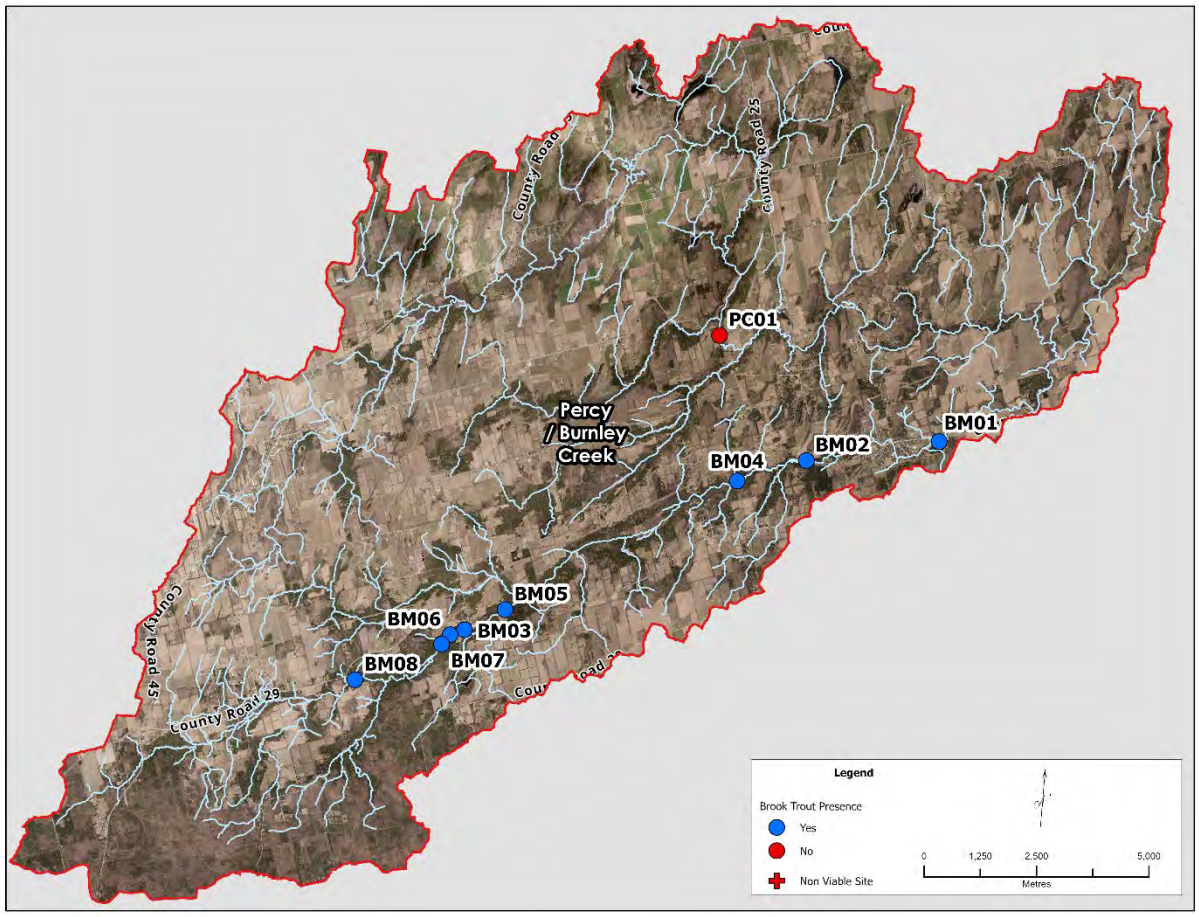


Figure 14: Percy/ Burnley Creek subwatershed

Similarly to the Salt Creek subwatershed, the Percy/ Burnley Creek subwatershed is classified as a cold-water system, with its headwaters originating within the Oak Ridges Moraine, draining east to the Trent River **(Figure 14).** A total of 9 sites were assessed in the subwatershed, specifically 8 within the main branch of Burnley Creek and 1 within Percy Creek. Similar to Salt Creek, average water temperatures were cool, average turbidity was below 1 NTU and average water conductivity was low (Table 9). These water quality values are all good indicators of high-quality habitat for Brook Trout, which was confirmed through the presence of large numbers of juvenile and adult Brook Trout present at the majority of the sites, with BM04 having an estimated 15-20 large adults. Multiple Brook Trout of mixed ages were observed at BM03, located at the Burnley Creek Natural Habitat Area, which has several kilometers of undisturbed, cold-stream habitat. Both BM06 and BM07 were located on the LTC property, where Brook Trout of mixed ages were present, with an abundance of habitat structures including overhead shade, fallen trees, pools and gravel-sand substrates for spawning. Burnley Creek is another healthy cold-water habitat which has relatively undeveloped headwaters and a LTC property helping to protect a key section of Brook Trout habitat.

Percy Creek is the northern branch of Burnley Creek and unfortunately was only sampled at a single location, where was only surveyed along 1 section at the base of a weir where no Brook Trout were found. It should be noted that the temperature at this location was still a cold stream classification (Table 9) in August, which suggests upstream portions of Percy Creek are likely to be cold-water habitat suitable for Brook Trout.

Table 9: Percy/ Burnley Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout ?
BC01	12	124.5	13.29	0.95	457	8.39	37	Yes
BM02	16.8	95.9	9.21	1.12	461	8.3	41	Yes
BM03	16.3	94.6	9.34	0.61	420	8.25	14	Yes
BM04	15.7	103	10.01	0.46	-	-	89	Yes
BM05	15.8	100	10.22	0.66	430	8.31	27	Yes
BM06	13.6	91	9.25	0.24	-	-	51	Yes
BM07	12.7	91	9.5	0.69	-	-	52	Yes
BM08	20.3	102.4	9.12	2.54	480	8.15	57	Yes
PC01	18.5	100	9.22	-	512	8.39	80	No
Subwatershed Average	**15.7**	**100**	**9.91**	**0.91**	**460**	**8.30**	**49**	

Rice Lake Tributaries

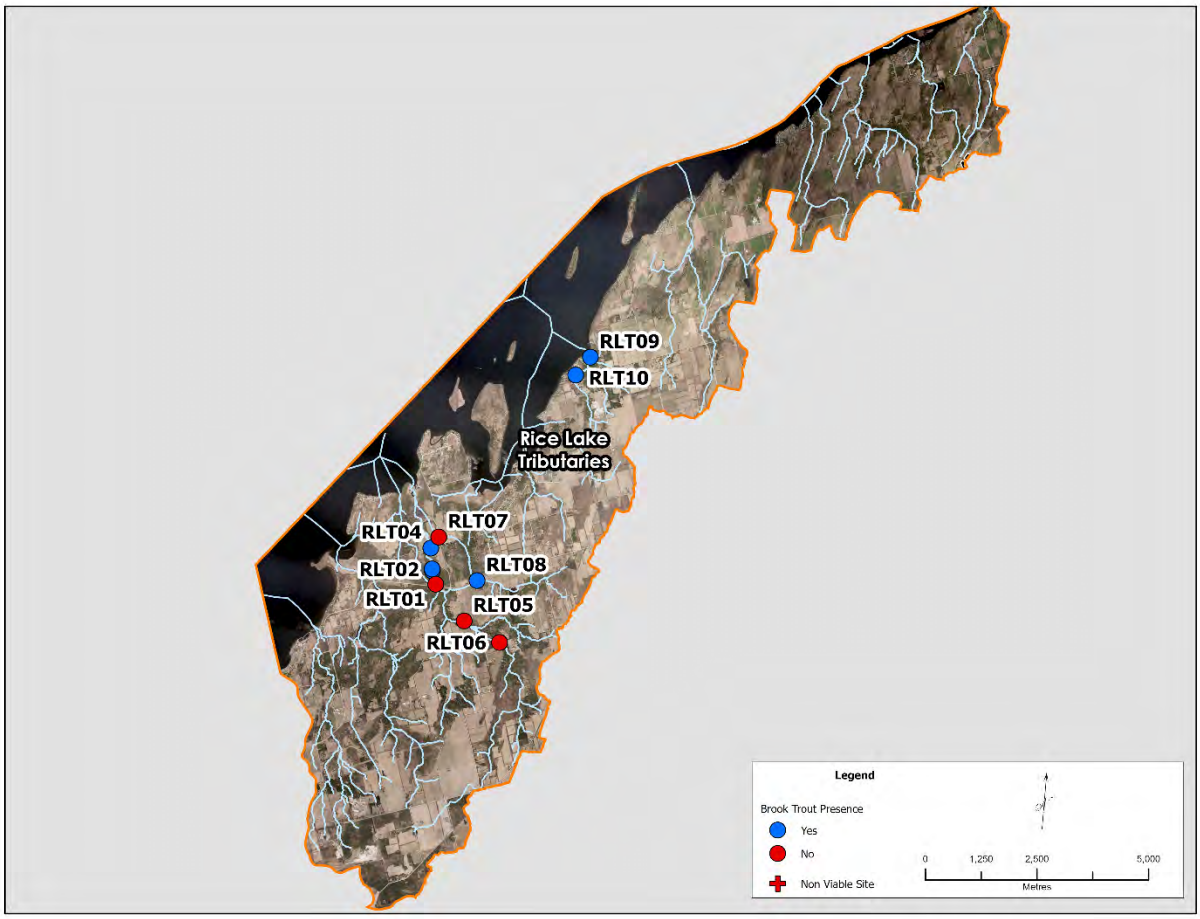


Figure 15: Rice Lake Tributaries subwatershed

The Rice Lake Tributaries subwatershed runs along the southern shoreline of Rice Lake, with a large portion of its headwaters originating within the Oak Ridges Moraine **(Figure 15)**. Rice Lake is an online lake within the Trent-Severn Waterway system, as part of the Trent River, which has several sections of glacial deposits along its perimeter which are anecdotally spring-fed, cold-creeks which support Brook Trout. A total of 10 sites were assessed within the subwatershed, distributed between 2 unnamed creeks, with most of the sampling focusing on a known cold-water stream that is currently sampled by LTC for water quality, benthic invertebrates and water temperature. Brook Trout were present at only 4 of the 8 sites within this section of creek, although there was ample habitat, cool water temperatures and all the sites appeared to be relatively undisturbed. The lack of Brook Trout may be based on the relatively small size of this system, which may limit occurrence of Brook Trout further upstream where the watercourse depth and width were quite small. It is also of note that the frequency of Brook Trout detection increased with the distance from the headwaters, with the furthest downstream site having multiple Brook Trout of mixed ages. Brook Trout were also present in the smaller eastern branch of the unnamed creek (RLT08), although a perched culvert at this location could prevent their

movement further upstream to additional habitat. Juvenile and adult Brook Trout were present at both RLT09 and RLT10, even with the small size of this tributary and its proximity to Rice Lake.

Table 10: rice Lake Tributaries Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Present
RLT01-1	13.4	89.7	9.16	1.37	493	8.25	45	No
RLT02	14.1	94	9.5	1.56	484	8.24	44	Yes
RLT03	13.3	94	9.7	0.59	459	8.36	42	Yes
RLT04	14	91	9.17	0.84	477	8.2	49	Yes
RLT05	16.1	94.9	9.19	-	462	8.32	28	No
RLT06	16.1	73.6	7.05	-	448	8.16	31	No
RLT07	16.4	84.9	8.11	1.22	467	8.1	18	No
RLT08	18.9	86	7.8	-	427	8.03	66	Yes
RLT09	13.2	95	9.54	-	550	8.19	22	Yes
RLT10	13.1	84.5	8.77	3.26	470	8.14	45	Yes
Subwatershed Average	**14.9**	**88.8**	**8.8**	**1.5**	**473.7**	**8.2**	**39.0**	

Trout Creek

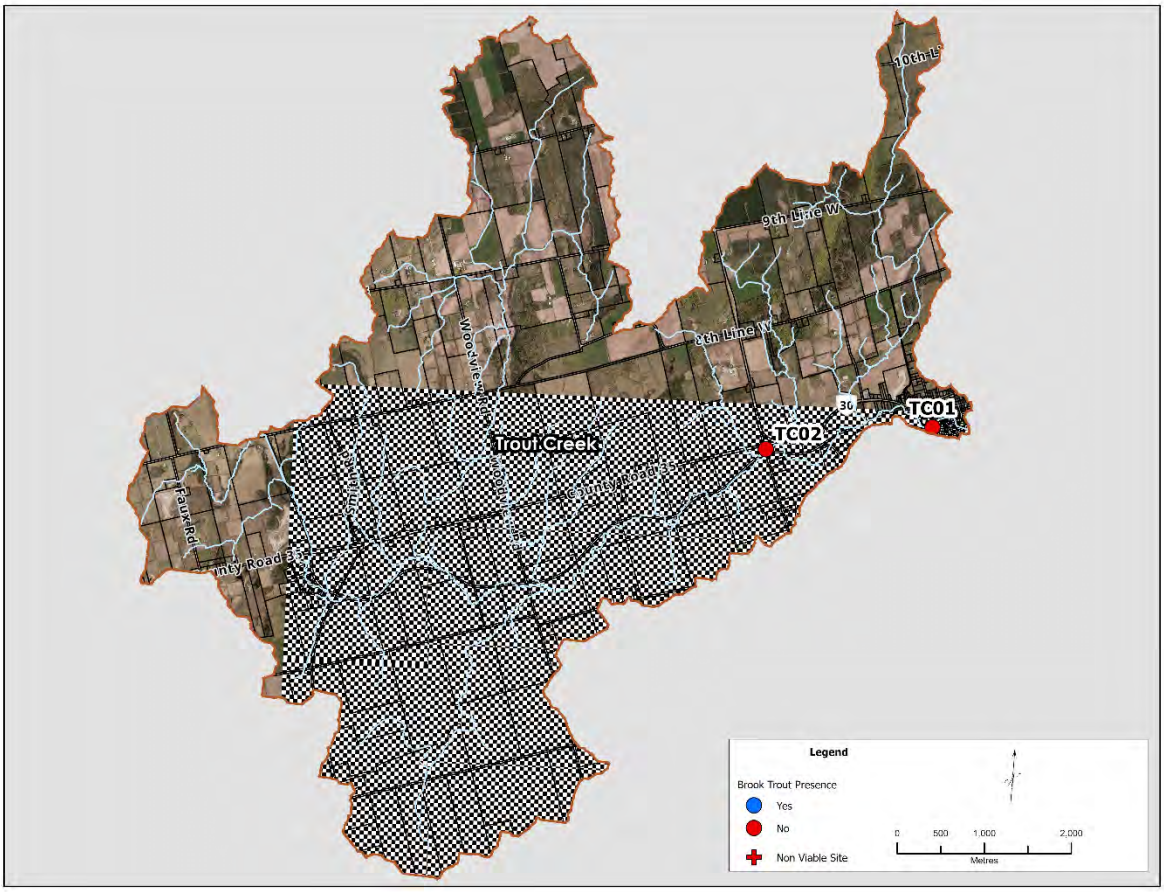


Figure 16: Trout Creek subwatershed

The Trout Creek subwatershed is the second smallest subwatershed by area in the LTC watershed, which is reflected in the only 2 sites that were viable for this project, with multiple other attempted sampling locations in the creek either too turbid for good camera footage, too stagnant or both (Figure 16). Habitat conditions potentially poor, with little to no riparian buffers and signs of erosion and sedimentation at the sites assessed. This subwatershed is dominated by agricultural lands, which can be known to increase the sediment entering the watercourse and the lack of vegetative buffers can also lead to increased water temperatures, although water temperatures were low when sampling occurred, which may be related to October sampling. Multiple attempts to find viable sampling locations were tried, with no viable sites being identified other than TC01 and TC02, making the watershed unlikely to support Brook Trout populations, despite the name.

Table 11: Trout Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout Presence
TC01	10.1	100	11.18	2.04	568	8.0	61	No
TC02	11.8	99	10.68	1.44	567	7.9	55	No
Subwatershed Average	**11.0**	**99.5**	**10.9**	**1.7**	**567**	**8.0**	**58**	

Squires Creek

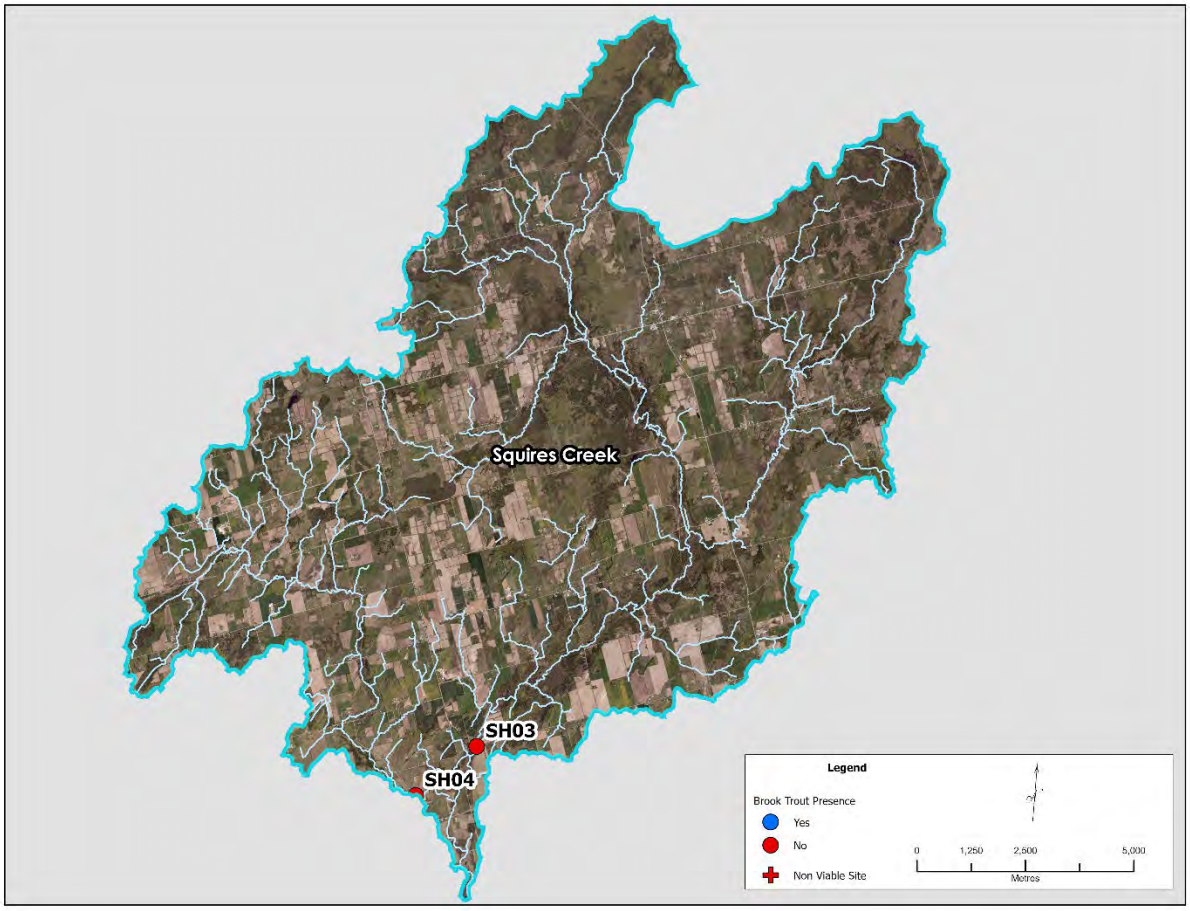


Figure 17: Squires Creek subwatershed

The Squires Creek subwatershed is a low-gradient, cool- warm water system draining southwest into the Trent River (Figure 17). It should be noted that the geology of Squires Creek and Rawdon Creek are different from the other subwatersheds in the LTC watershed, being a relatively flat, low-lying region which have a combination of low-gradient creeks and interspersed wetlands. Historical information on Squires Creek is unclear whether Brook Trout

previously have been found in this system. With the topography in mind, 2 sites were sampled, with an additional 6 determined to be not viable for sampling in the field due to high turbidity, low flow and/ or too deep for wading. No Brook Trout were observed in either of the sites that were sampled. SH01 was a shallow, warm creek which had limited riparian cover and garbage along the banks. SH02 was a forested, deep site with low flow and limited water clarity throughout the water column. The dissolved oxygen at SH02 was below the requirements for Brook Trout, making it clear that this is not a suitable habitat for this species (Tabel 12).

Table 12: Squires Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Riparian Vegetative Community	Brook Trout Presence
SH03	17.7	59	5.63	2.38	470	7.81	99	Forest	No
SH04	16.4	87	8.43	1.06	532	8.03	57	Cultivated	No
Subwatershed Average	**17.1**	**73**	**7.0**	**1.7**	**501**	**7.9**	**7**		

Rawdon Creek

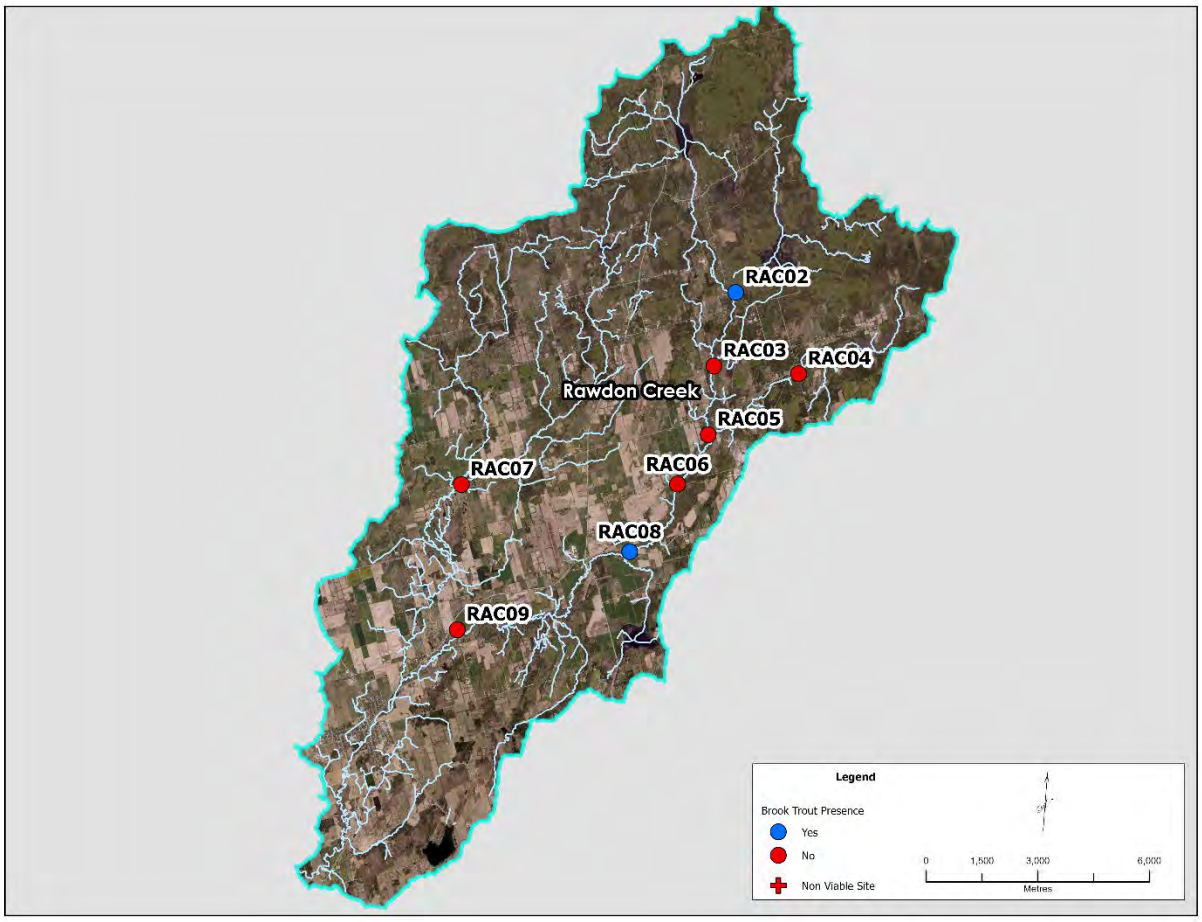


Figure 18: Rawdon Creek subwatershed

The Rawdon Creek subwatershed is similar to the Squires Creek subwatershed, with low gradients and several large wetlands which span the length of the creek (Figure 18). A total of 8 sites were assessed, with Brook Trout juveniles present at 2 sites along the main branch of Rawdon Creek (Table 13). One of the more surprising finds was the presence of juvenile Brook Trout at Douglas Springs Conservation Area, which contains a natural spring at the headwaters of Rawdon Creek. The water temperature at the spring was 17.9 degrees C and had turbidity under 0.5 NTU, both indicative of its proximity to the spring itself and can be well suited habitat for Brook Trout, although the dissolved oxygen levels were quite low. Due to the proximity to the spring, the large boulders causing a barrier from the main channel to the spring location, it was thought that no fish would be present, but 2 juvenile Brook Trout were present in this small branch.

Table 13: Rawdon Creek Field Data

Site Code	Water Temperature (°C)	DO % Saturation	DO (mg/L)	Turbidity (NTU)	Conductivity (us/cm)	pH	Average site depth (cm)	Brook Trout ?
RAC02	17.9	63	6.01	0.48	456	7.17	28	Yes
RAC03	19	61	5.81	1.11	443	7.54	100	No
RAC04	22	72	6.13	2.31	477	7.61	36	No
RAC05	19.6	89	8.11	1.22	475	7.86	35	No
RAC06	21.1	90.3	7.94	1.16	544	8.24	62	No
RAC07	20.3	128.4	11.56	3.45	493	8.1	76	No
RAC08	17.1	90	8.57	2.12	482	7.92	45	Yes
RAC09	18.1	89	8.38	3.2	540	8.17	45	No
Subwatershed Average	**19.4**	**85**	**7.81**	**1.88**	**489**	**7.83**	**53**	

Conclusion and Future Work

Our findings suggest that there is a strong Brook Trout population within the LTC watershed, in comparison to other regions of Southern Ontario where Brook Trout are largely extirpated (Stanfield et al., 2006; TRCA, 2017). With the findings of this pilot study unknown at the outset due to a lack of both local knowledge, lack of scientific data collected within the area and using an innovative technique to assess Brook Trout presence, this pilot study has solidified that the LTC watershed is an important habitat for the preservation of Ontario's Brook Trout populations. The data collected within this project also allowed us to better characterise areas of each subwatershed that have not been assessed in recent years, if at all, but LTC staff due to resource limitations.

With the pilot project completed in 2024 focusing on gathering key information about many locations and refining the methodology, future work could be completed to better understand areas of interest and improve our understanding of the LTC watershed as a whole. Additional sampling should be conducted in locations of known Brook Trout populations, such as within the Percy/ Burnley Creek subwatershed, to better understand age structures, sizes of populations and the overall spread of Brook Trout throughout the watershed. There were limitations on project resources that limited the number of sites, sampling locations and ability to focus on key areas, which could be improved by starting the project earlier in the field season (due to funding timelines, sampling did not start until July), as well as getting additional access to sites from landowners. With limited time to wait to be contacted by landowners for permission, most of the sampling that occurred in 2024 was completed using public access from the municipal road allowance. Many subwatersheds simply do not align well with road crossings, having large sections of watercourses run parallel to the road, preventing public access, limiting our ability to extensively sample these areas.

With the modest investment from external sources to complete the pilot project, LTC now has positioned itself to have the equipment and knowledge to effectively complete

underwater video capture for fish monitoring in the future. A comprehensive aquatic monitoring program can only be effective if it can use a wholistic approach and using indicator species, such as Brook Trout, to better understand the current health of our watershed would improve upon the existing monitoring programs that LTC completes annually. Incorporation of underwater video capture into the LTC annual monitoring programs would greatly improve the value that LTC can provide to its municipal partners.

References

Adams, P., James, C., Speas, C. December 2008. Brook Trout (Salvelinus fontinalis) Species and Conservation Assessment. US Forest Service. Article available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5199816.pdf

Castañeda, R., O. Weyl and N. Mandrak (2020). "Using occupancy models to assess the effectiveness of underwater cameras to detect rare stream fishes." Aquatic Conservation: Marine and Freshwater Ecosystems 30.

Stanfield, L. W., S. F. Gibson and J. A. Borwick (2006). Using a landscape approach to identify the distribution and density patterns of salmonids in Lake Ontario tributaries. American Fisheries Society Symposium, American Fisheries Society.

Stewart E. October 2023. Can Ontario's Brook Trout Cope with Climate Change? Watersheds Canada Webinar. https://www.youtube.com/watch?v=aTpXVtJYBVs.

Stewart, E. M. C., V. R. Frasca, C. C. Wilson and G. D. Raby (2023). "Short-term acclimation dynamics in a coldwater fish." Journal of Thermal Biology 112: 103482.

Stewart, E. 2017. Ontario Ministry of Natural Resources. SOSMART FALL Meeting. Platform Presentation at the SOSMART Fall 2017 Meeting. The Conservation and Management of Brook Trout: Past, Present and Future. https://trca.ca/app/uploads/2018/07/3-Wood-Brook-Trout-in-Ontario.pdf

Fost, B.A. and Ferreri C.P. pH preference and avoidance responses of adult brook trout Salvelinus fontinalis and brown trout Salmo trutta. J Fish Biol. 2015;86(3):952-966. doi:10.1111/jfb.12610

Haxton, T., H. Ball and K. Armstrong (2020). "Expert opinion on the status and stressors of brook trout, Salvelinus fontinalis, in Ontario." Fisheries Management and Ecology 27(2): 111-122.

Hudy, M. (1985). Rainbow Trout and Brook Trout Mortality from High Voltage AC Electrofishing in a Controlled Environment. North American Journal of Fisheries Management, 5, 475–479. https://doi.org/10.1577/1548-8659(1985)5<475:RTABTM>2.0.CO;2

Meehan, W.R. and T.C. Bjornn. 1991. Salmonid Distribution and Life Histories: Brook trout. In Meehan 1991. pp 78-79.

Myers, Bonnie. J.E.; Dolloff, C. Andrew; Rypel, Andrew L. 2014. Rainbow trout versus brook trout biomass and production under varied climate regimes in small southern Appalachian streams. IN: Carline, R.F., and C. LoSapio, editors. Proceedings: Looking back and moving forward. Bozeman, MT. Wild Trout XI Symposium: 127-135 9p.

Toronto Region Conservation Authority. December 2017. Brook Trout on the Decline: What Can we Do? https://trca.ca/news/brook-trout-decline/.

LOWER TRENT CONSERVATION

LOWER TRENT CONSERVATION
BROOK TROUT MONITORING INITIATIVE

Watershed Health Assessment and Brook Trout Monitoring Pilot Project 2024

Presentation to the Lower Trent Conservation Board of Directors
April 10, 2025
Massimo Narini, Watershed Services Specialist

Brook Trout *(Salvelinus fontinalis)*

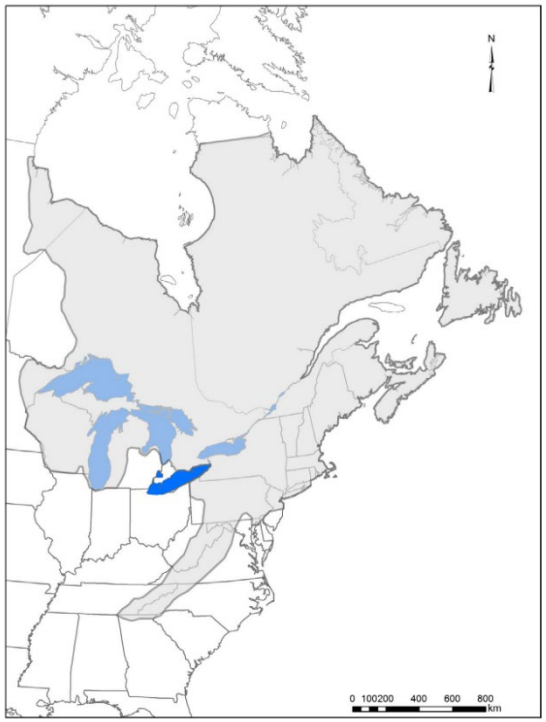


Figure 1. Native Distribution of Brook Trout[1].

- A member of the Salmonid Family native to North America
- Popular game fish among anglers and important part of Ontario's aquatic biodiversity
- Require cold (10°C - 18°C preferred, 24°C max survival) clean water with gravel substrate for spawning
- Often used as a "cold-water indicator species" due to requirements of cold water temperatures

1. Haxton T, Ball H, Armstrong K. Expert opinion on the status and stressors of brook trout, *Salvelinus fontinalis*, in Ontario. *Fish Manag Ecol*. 2020; 27: 111–122. https://doi.org/10.1111/fme.12376

Brook Trout in Southern Ontario

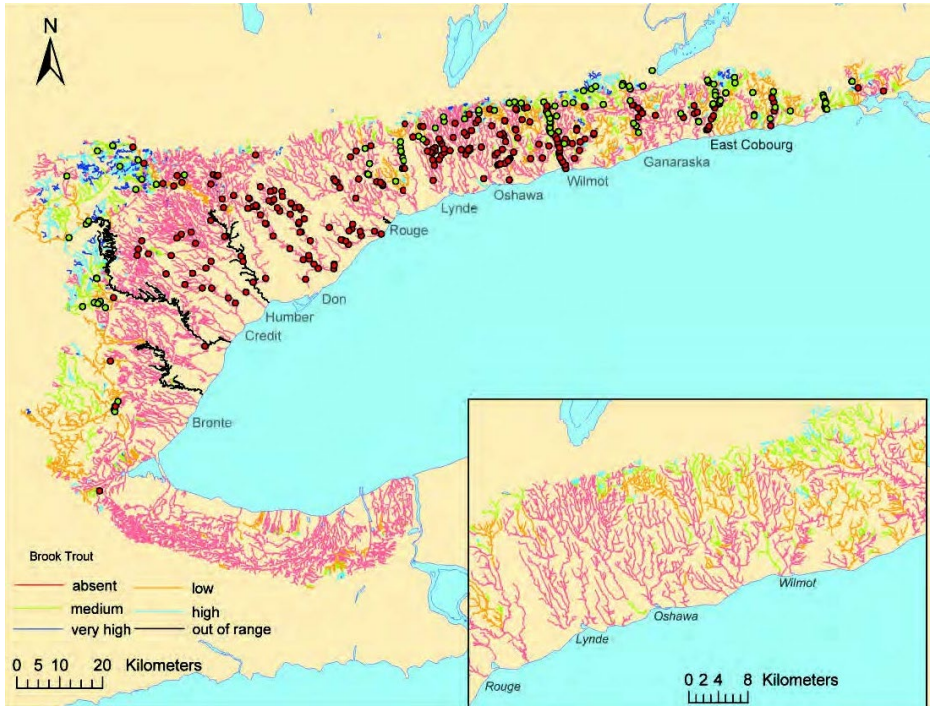


Figure 2. Predicted Distribution and Density of Brook Trout in the Tributaries of Lake Ontario[2].

- Historical presence of Brook Trout has declined by over 75% in Southern Ontario[2]
- Declines thought to be attributed to:
  - Increased urbanization
  - Reduced water quality
  - Increased sedimentation
  - Fragmentation of habitat due to in-stream barriers

2. Stanfield, L.W., S.F. Gibson and J.A. Borwick. 2006. Using a landscape approach to identify the distribution and density patterns of salmonids in Lake Ontario tributaries. In: Landscape influences on stream habitats and biological assemblages, American Fisheries Society, Madison, WI. 48: 601-621. https://doi.org/10.47886/9781888569766.ch29

Finding Brook Trout

Figure 3. Juvenile Brook Trout

- Monitoring of Brook Trout populations in Southern Ontario is a challenge due to the vast scale and resources required
- Several techniques are typically used in wadable streams, with backpack electrofishing being the typical gear type for sampling
- Several alternatives are also available including snorkel surveys and underwater video capture [2]

3. Castañeda RA, Weyl OLF, Mandrak NE. Using occupancy models to assess the effectiveness of underwater cameras to detect rare stream fishes. Aquatic Conserv: Mar Freshw Ecosyst. 2020; 30: 565–576. https://doi.org/10.1002/aqc.3254

Lower Trent Conservation Watershed

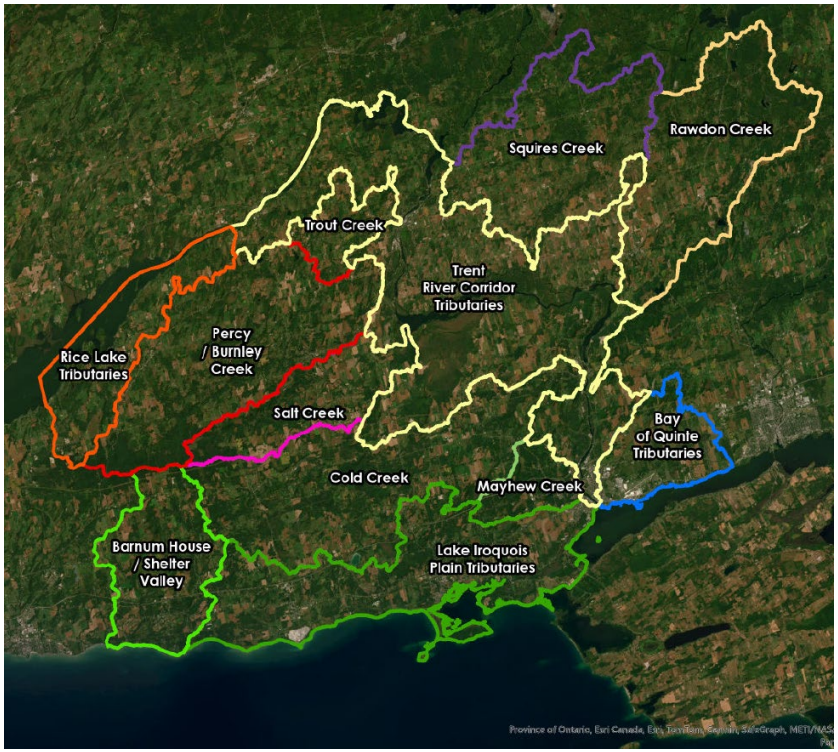


Figure 4/5. Lower Trent Conservation Watershed in relation to Cornwall and subwatersheds

- LTC has not collected fisheries data in 20+ years, limited individual accounts across other databases (ex. FWIS)
- Anecdotal evidence that small populations may exist, but unsure of location and extent
- Known cold-water systems within the watershed
- Connected to the Oak Ridges Moraine
  - Source of cold groundwater fed streams

Watershed Health Assessment and Brook Trout Monitoring Pilot Project: Goals

Pilot Project

- Assess 110 sites across 11 subwatersheds for presence of Brook Trout
- Determine if underwater video can be used to find the presence of Brook Trout
- Gather habitat information to create a database of existing conditions

Concept to Reality: Underwater Camera Setup

- GoPro HERO12 Black
- Up to 5.3K resolution @ 60fps (as advertised), waterproof
- Wanted:
  - High resolution & frame rate(4k 120fps?
  - Large field of view
  - Cost effective
  - 30-minute run-time
  - Repeatability/ longevity
- What about in the real world?
  - Overheating, inflated file size, water leaking issues, computing power for editing

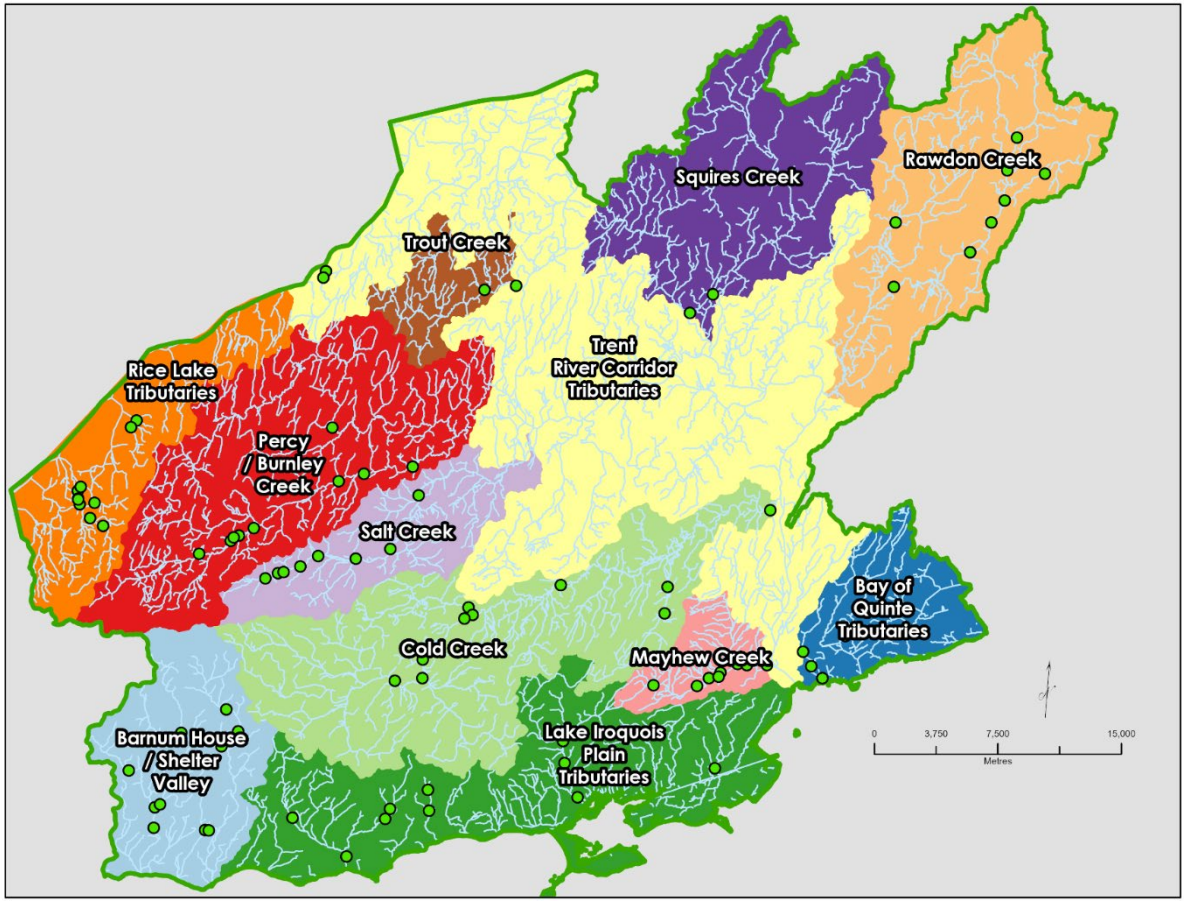
Habitat Characterization

Parameter
Air Temperature
Water Temperature
Dissolved Oxygen
Turbidity
Conductivity
pH
Dominant Substrate
Water velocity
Substrate Heterogenicity
Presence of Brook Trout Habitat
Camera locations (pool/ riffle)
Adjacent land-use type
Riparian vegetation
Presence of stream alterations
Invasive species information
Presence of impact to site

- Limit the amount of data collected to only essential information
- Known parameters that can give us a general understanding of the current habitat status
- Limit the complexity of the data
- Limit the amount of complex equipment required to collect data
  - With limited resources for the project, complex sampling equipment or processes would not fit within the scope of the project.
- Gather key information that could be used for stewardship activities

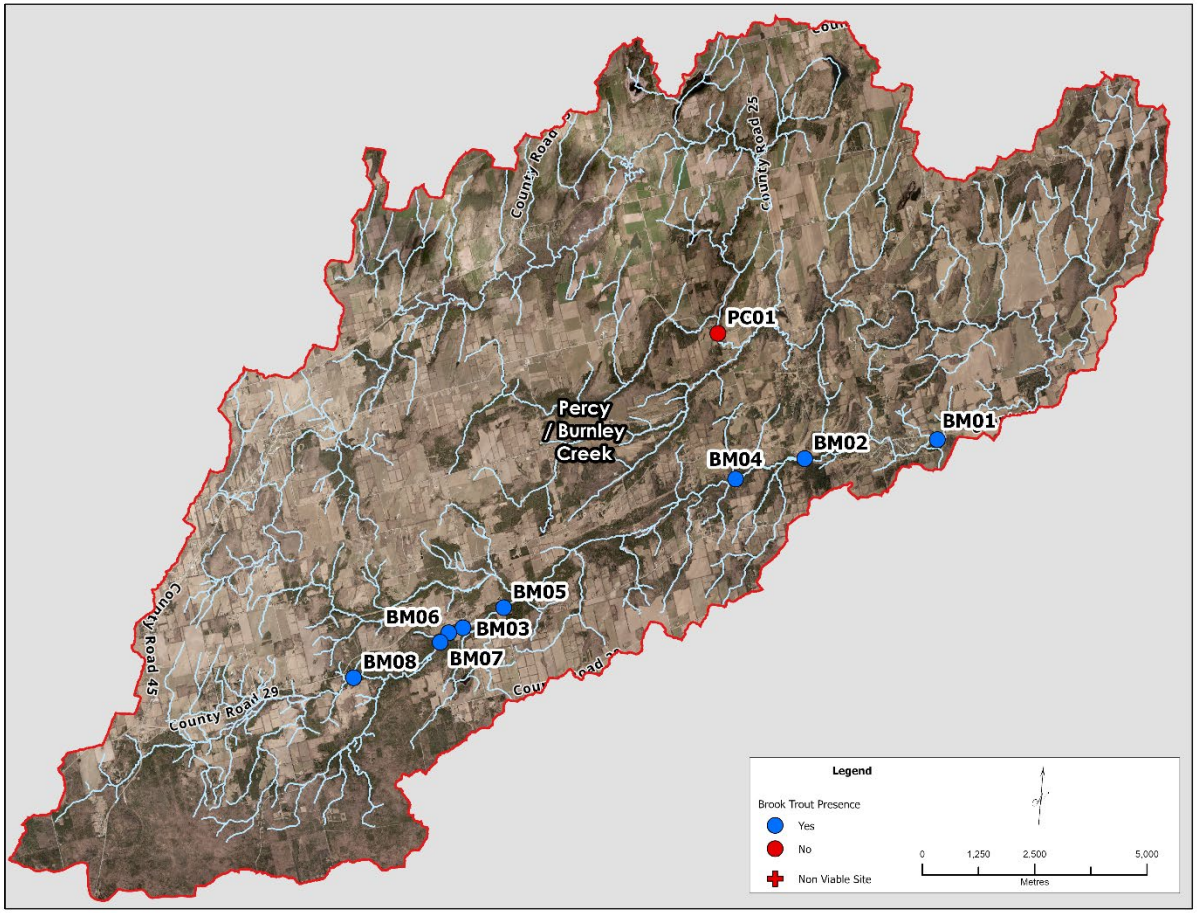
Results: Extensive Brook Trout Presence

- Able to assess 104 sites in 2024
- Some non-viable sites due to:
  - Landowner access
  - Water depth (too deep or shallow)
  - Low flow
  - High turbidity
- Underwater video capture offered high frequency detection of Brook Trout
  - 40/81 sites (49%)



Results: Important subwatersheds

- Some subwatersheds proved to be highly populated with Brook Trout
  - Percy/ Burnley Creek
  - Cold Creek
  - Rice Lake Tributaries
  - Lake Iroquois Plain Tributaries
- Good overall habitat conditions
- Good water quality



Future Work

- Sample additional locations to determine presence of Brook Trout
- Use of existing video data to identify other fish species
- Citizen science program for video analysis
- Incorporate this into annual monitoring programs
- Underwater Remote Operated Vehicle (ROV)

Acknowledgements

OFAH Ontario Federation of Anglers & Hunters

eco canada

Grassroots Conservation Fund

LOWER TRENT CONSERVATION

Special thanks to Norman Quinn (retired Algonquin Park Biologist)

LOWER TRENT CONSERVATION

STAFF REPORT

Date: March 31, 2025
To: Board of Directors
Re: Conservation Lands Update for the period January 1 to March 31, 2025
Prepared by: Chris McLeod, Conservation Lands Supervisor

PROPOSED RESOLUTION:
THAT the Conservation Lands Update for the period January 1 – March 31, 2025 be received as information.

MAINTENANCE/ACTIVITES:
The following list of maintenance and activities are items beyond the regular vehicle, building and property maintenance (mowing grass, clearing back brush on trails, garbage collection, cleaning, painting, drinking water sampling and system management at Goodrich-Loomis Centre and main office).

During the Winter of 2025:

- Cleaned and maintained kiosks
- Removed garbage from conservation areas
- Maintained trail systems and removed downed trees (where needed)
- Monitored icy and hazardous trail conditions – Bleasdell Boulder CA closed due to trail washout during week of March 17th. Sager Conservation Area closed for winter season due to no winter maintenance of parking lot or property.
- Interacted with Conservation Lands visitors and responded to inquiries, complaints, and requests from members of the public and neighbours of Conservation Areas
- Coordinated maintenance of fleet vehicles inspections over the winter
- Facilitated the plowing of parking lots at Seymour CA and performed plowing at workshop
- Finished annual winter maintenance on all field equipment and painted and installed additional protective armour on the John Deere Gator, scrapped and re-painted both utility trailers, box grader and bushhog attachments for the tractor in preparation for field season
- All fire extinguishers underwent annual inspections and maintenance at the Goodrich-Loomis Conservation Centre, the Administration office, and the Wall St. workshop
- Winter storm clean up of trails

SPECIAL PROJECTS & PROGRAM IMPROVEMENTS:

- Assisted in the coordination and implementation of the Farewell to Frost event held during the March Break at the Goodrich-Loomis Conservation Area
- Installation of an additional handrail on North bridge at Bleasdell Boulder CA to help with walking during snow and icy conditions
- IT staff created a cellphone application linked to GPS for LTC's volunteer Trail Stewardship reporting program
- Began the recruitment process and verbal commitments for two Conservation Lands Field Assistants

SPECIAL EVENT PROPERTY RENTALS:

LTC-owned properties and facilities are able to be rented for special activities (weddings, celebration of life, fun run events, large family picnics, Cadet training). The number of special event rental occurrences during this review period:

- Goodrich-Loomis = 6

Note: This list does not include regular occurring rentals such as youth groups or day camps or LTC hosted events.

HAZARD TREE REMOVAL:

As per LTC's Hazard Tree Removal Policy, we inspect, document, and remove hazard trees in various LTC-owned properties. All trees (unless otherwise stated) were removed by LTC staff.

- Many trees were down across the trails and were cut and cleared away

Contractor Trees: Proctor Park: 36 trees
Trenton Escarpment NHA: 3 trees overhanging a neighbouring house

CONSERVATION LANDS VANDALISM:

- The gate at Seymour Conservation Area was closed over the winter months between the main parking lot and the quarry as high amounts of vandalism and garbage dumping was occurring in the lower parking lot. For safety reasons this may become an annual occurrence
- Sager Conservation Area was closed over the winter months as there was no winter maintenance scheduled and no regular day camp use
- Aside from some isolated garbage dumping, vandalism and misuse of the properties has been low during the winter months

CONSERVATION LANDS ENFORCEMENT:

No Section 29 tickets were issued during this period; however, increased phone calls were received for dogs off leash at Conservation Areas when staff were not present.

LOWER TRENT CONSERVATION

STAFF REPORT

Date: April 1, 2025
To: Board of Directors
Re: Summary of Education and Outreach Activities January 1 - March 31, 2025
Prepared by: Anne Anderson, Manager of Community Outreach and Special Projects; Nicholas Reynolds, Environmental Education Technician and Corinne Ross, Communications Specialist

PROPOSED RESOLUTION:

THAT the Summary of Education and Outreach Activities for the period of January 1 - March 31, 2025 be received as information.

RECENT EDUCATION & OUTREACH EVENTS

Date	Event	Approximate Attendance
January 6	**Special Event:** Campbellford Public Library DWSP Safe Road Salt Workshop - Nicholas Reynolds	2
January 13	**Special Event:** Quinte West Public Library DWSP Safe Road Salt Workshop - Nicholas Reynolds	2
January 20	**Youth Education:** Quinte West Sparks and Embers - Nicholas Reynolds	27
January 21	**Special Event:** Brighton Public Library DWSP Safe Road Salt Workshop - Nicholas Reynolds	2
February 4	**Special Event:** Centerton Branch Public Library DWSP Safe Road Salt Workshop - Nicholas Reynolds	5
February 10	**Outreach:** Stirling Rawdon Municipal staff Drinking Water Source Protection information session - -Marcus Rice, Anne Anderosn, Nicholas Reynolds	5
February 24	Youth Education: Quinte West Sparks and Embers - Nicholas Reynolds	26
February 26	**Outreach:** Cramahe Municipal staff Drinking Water Source Protection information session - -Marcus Rice, Anne Anderosn, Nicholas Reynolds	6
March 4	**Special Event:** BQRAP Marsh Monitoring Webinar - Sarah Midlane-Jones, Anne Anderson	15
March 10	**Youth Education:** CFB Trenton Day Camp - Nicholas Reynolds	21
March 11	**Special Event:** Madoc Public Library Drop in SWAP/Flood Safety - Nicholas Reynolds	6

March 12	**Special Event:** Centerton Branch Public Library Drop in AR Sandbox - Nicholas Reynolds	3
March 14	**Special Event:** Farewell Frost – Goodrich-Loomis - Nicholas Reynolds, Chris McLeod, John Mahoney, Marcus Rice, Trent Bos, Chitra Gowda, Anne Anderson	45
March 26	**Outreach:** Brighton Municipal staff Drinking Water Source Protection information session - -Marcus Rice, Anne Anderosn, Nicholas Reynolds	3
March 28	**Youth Education:** East Northumberland Secondary School - Nicholas Reynolds	35

UPCOMING EVENTS

April 1	Madoc Sparks and Embers- Madoc Public Library
April 4-6	Quinte Home and Cottage Show
April 15	Percy Centennial School – in class programs
May 14-15	Tri-County Children's Water Festival
June 11	Quinte West – Native Plant presentation
June 14	Brighton Horticultural Society Garden Party
April – June	In class programming
April/May TBD	Native Plant Sale (seedlings)
June TBD	Native Plant Sale (wildflower kits, saplings)

Agenda Item #16.

LOWER TRENT CONSERVATION

STAFF REPORT

Date: April 1, 2025
To: Board of Directors
Re: Risk Management Official Activity Pursuant to Part IV of the *Clean Water Act* - Period of January 1 – April 1, 2025
Prepared by: Marcus Rice, Risk Management Official
Anne Anderson, Risk Management Official

RECOMMENDATION:

THAT the Risk Management Official Activity Report pursuant to Part IV of the *Clean Water Act* for the period of January 1 to April 1, 2025, be received as information.

This report summarizes work completed by the Risk Management Official (RMO) to implement Part IV policies in the Trent Source Protection Plan for the review period **January 1st to April 1st**.

THREAT VERIFICATION

The following table details the overall work done in the watershed by the RMO to date to address verified significant drinking water threats (SDWT) requiring RMO review.

Location	**Number of "Part IV"* threats as per RMO/I Database (2014)**	**Additional SDWT identified**	**Number of "Part IV" threats determined to be not present or occurring****	**Number of threats managed with an RMP**	**Total number of Active RMPs**	**Number of "Part IV" threats requiring further follow-up**
Stirling	109	26	94	41	18	0
Warkworth	31	0	30	1	1	0
Hastings	29	4	25	8	5	0
Campbellford	73	9	67	15	11	0
Brighton	1	3	4	0	0	0
Colborne	1	7	7	1	1	0
Grafton	0	0	0	0	0	0
Total threats	244	49	227	66	36	0
	SDWT=Significant Drinking Water Threat RMP= Risk Management Plan					

*Part IV threats are those activities to be addressed through the Risk Management Plans, Prohibition, or Restricted Land Use provisions of the *Clean Water Act*.

** “Threats not present or occurring” are activities that do not meet threat circumstances or threats that were assumed but are not actually occurring.

SITE VISITS

The following site visits were completed during the review period.

Location	Property Identifier	Purpose	Date
Campbellford	11, 1010, 1013	Meeting to discuss Drinking Water Source Protection Training	Jan 24th
Stirling	1603	Threat Verification – Change in Ownership	Jan 24th
Stirling	1562, 1577	Attempted RMP Inspection	Jan 24th
Stirling	1581	Threat Verification – Nutrient Management Plan	Feb 11th
Stirling	1603	Threat Verification – Change in Ownership	Feb 19th
Stirling	1603	Threat Verification – Discuss Activities	Feb 25th
Stirling	1562, 1577	RMP Inspection - Follow Up	Feb 25th
Stirling	1562, 1577	RMP Inspection - Follow Up	March 5th
Stirling	1562, 1577	RMP Inspection – Attempted Follow Up	March 13th
Colborne	6906	Reported Spill – Meeting to discuss incident	March 24th

RISK MANAGEMENT PLANS (RMP)

The following table details Risk Management Plans established for the review period.

Location	RMP #	Activity	Date Established
Stirling	RMP-25-001	Storage of Fuel	March 13th

AMENDED RISK MANAGEMENT PLANS (RMP)

No Risk Management Plans were amended during the reporting period.

NOTICES

The following table details Notices issued for the review period.

Type of Notice*	Notice #	Location	Threat Subcategory
s. 59(2)(a)	N-25-901	Colborne	Re-zoning
s. 59(2)(a)	N-25-902	Stirling	Building Permit
s. 59(2)(a)	N-25-903	Campbellford	Building Permit
s. 59(2)(a)	N-25-904	Stirling	Building Permit
s. 59(2)(a)	N-25-905	Stirling	Building Permit

*Types of Notices
58(6) - Risk Management Official's Notice of Agreement on a Risk Management Plan
58(13) - Risk Management Official's Notice of Agreement on an Amendment to Risk Management Plan
59(2)(a)-Restricted Land Use Notice: neither section 57(Prohibition) nor section 58 (Risk Management Plans) applies.
S.59(2)(b) Restricted Land Use Notice: RMP Required

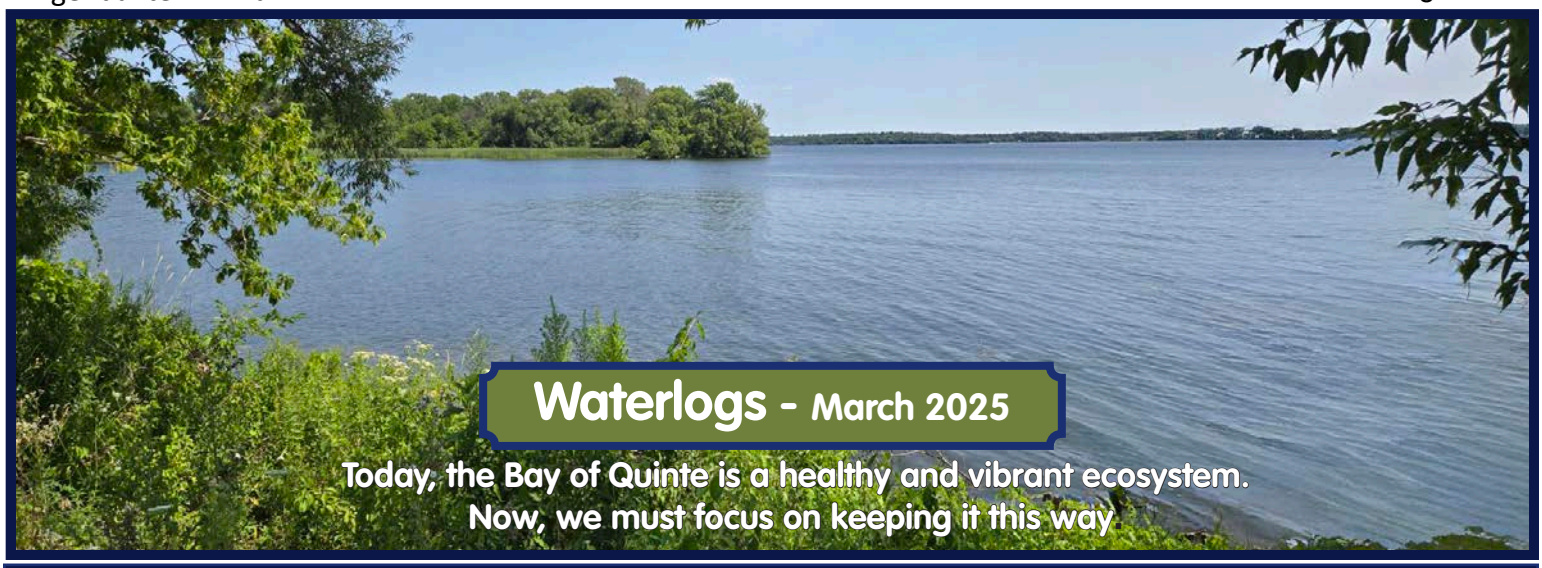
INSPECTIONS

The following table details Risk Management Inspections which occurred during the review period.

Location	RMP #	Purpose or Activity	Inspection Date
Campbellford	N/A	Exemption Letter Inspection (Road Salt)	Jan 24th
Campbellford	N/A	Exemption Letter Inspection (Road Salt)	Jan 24th
Campbellford	N/A	Exemption Letter Inspection (Road Salt)	Jan 24th
Campbellford	N/A	Exemption Letter Inspection (Road Salt)	Jan 24th
Stirling	RMP-16-002	Risk Management Plan Compliance (s. 58)	Feb 19th
Campbellford	RMP-24-001	Risk Management Plan Compliance (s. 58)	Feb 26th
Stirling	RMP-23-001	Risk Management Plan Compliance (s. 58)	March 6th
Stirling	RMP-21-003	Risk Management Plan Compliance (s. 58)	March 11th

<u>Types of Inspections</u>

Risk Management Plans Compliance (Section 58)
Prohibition (Section 57)
Exemption Letter



ANNUAL REPORT 2024

It has been an interesting year. We have accomplished so much, we completed our community fish consumption survey, our stewardship programs had record numbers, the phosphorus management plan details about monitoring, implementation, and financing are falling in to place, fish consumption targets and data are getting finalized, and progress was made on completing the assessment reports for another 2 environmental challenges. We are definitely moving closer and closer to the ultimate goal of removing the Bay from the Areas of Concern list.

BQRAP Annual Report 2024

STORMWATER MANAGEMENT!

What is stormwater management?

It's about controlling and monitoring the rainwater and snow melt (stormwater runoff) that flows through our communities, to prevent pollution and flooding.
It's a key part of keeping our waterways clean and our communities safe.

As stormwater runoff runs across any hard surface it picks up harmful substances such as road salt, fertilizer, pesticides, sediment, motor oil, litter, and pet and yard waste. Thinks about all the hard surfaces in your community like, parking lots, driveways, sidewalks, roads, patios, etc. that's lots of hard surfaces which translates into a lot of runoff.

So where does it all go and how is it dealt with. There are a couple of options, some good, some not so good. A lot of stormwater simply runs into the nearest body of water, untreated, not so good. This can harm fish habitat, cause erosion problems and add contaminants to the water body.

Better options are stormwater management facilities, which have a simple purpose: they gather stormwater runoff. Through a combination of landscape and structural features, stormwater management facilities slow and filter this runoff improving the water quality before it drains into a waterbody.

You can help improve stormwater quality by: picking up pet waste, washing your car on the lawn, using zero P fertilizer and sweeping any excess off hard surfaces, getting a rain barrel, cleaning up the sand and salt left after the winter, and not dumping anything down the storm sewer you don't want to drink.

As well, you can build your own stormwater management facility, it's called a rain garden. Rain gardens are designed to collect the runoff from your yard and slowly filter it back in to the ground. This will decrease the volume of contaminated stormwater leaving your property, helping to improve water quality in the Bay of Quinte.

Rain Gardens are easy to build. Watch our Greening Your Grounds video to learn how and check out the $750. grant we offer to residents of Trenton, Belleville, Napanee, Deseronto and Picton to build a rain garden.

Video and Grant

WE DO ALL THE HEAVY LIFTING

Excess phosphorous from rural and urban sources has a direct impact on water quality in the Bay of Quinte. The **Healthy Soils Check Up Program** helps farmers improve water quality and save money by providing:

1. Free agronomic soil testing with analysis being done by an OMAFA accredited soil lab.

2. Detailed field maps showing contours (slopes) and areas within the field that are more prone to erosion.

This program will help you keep nutrients and soil where you want them – in your fields, improving crop yields.

Knowing your baseline nutrient levels and implementing the 4 R's (right source/product, right rate, right time, and right place) of fertilizer application will minimize nutrient transport from fields and maximize crop uptake and utilization.

The field maps will identify key erosion sites to help you adopt Best Management Practices (BMPs) to keep soil on your fields and out of local waterways.

To participate in the Healthy Soils Check Up, contact:

Sarah Midlane-Jones
Bay of Quinte Remedial Action Plan
Lower Trent Conservation,
P: 613-394-3915 ext. 214
E: smidlanejones@bqrap.ca

Bay of Quinte Remedial Action Plan
Healthy Bay • Healthy Community

BQRAP 2024 Annual Report

BQRAP 2024 Annual Report

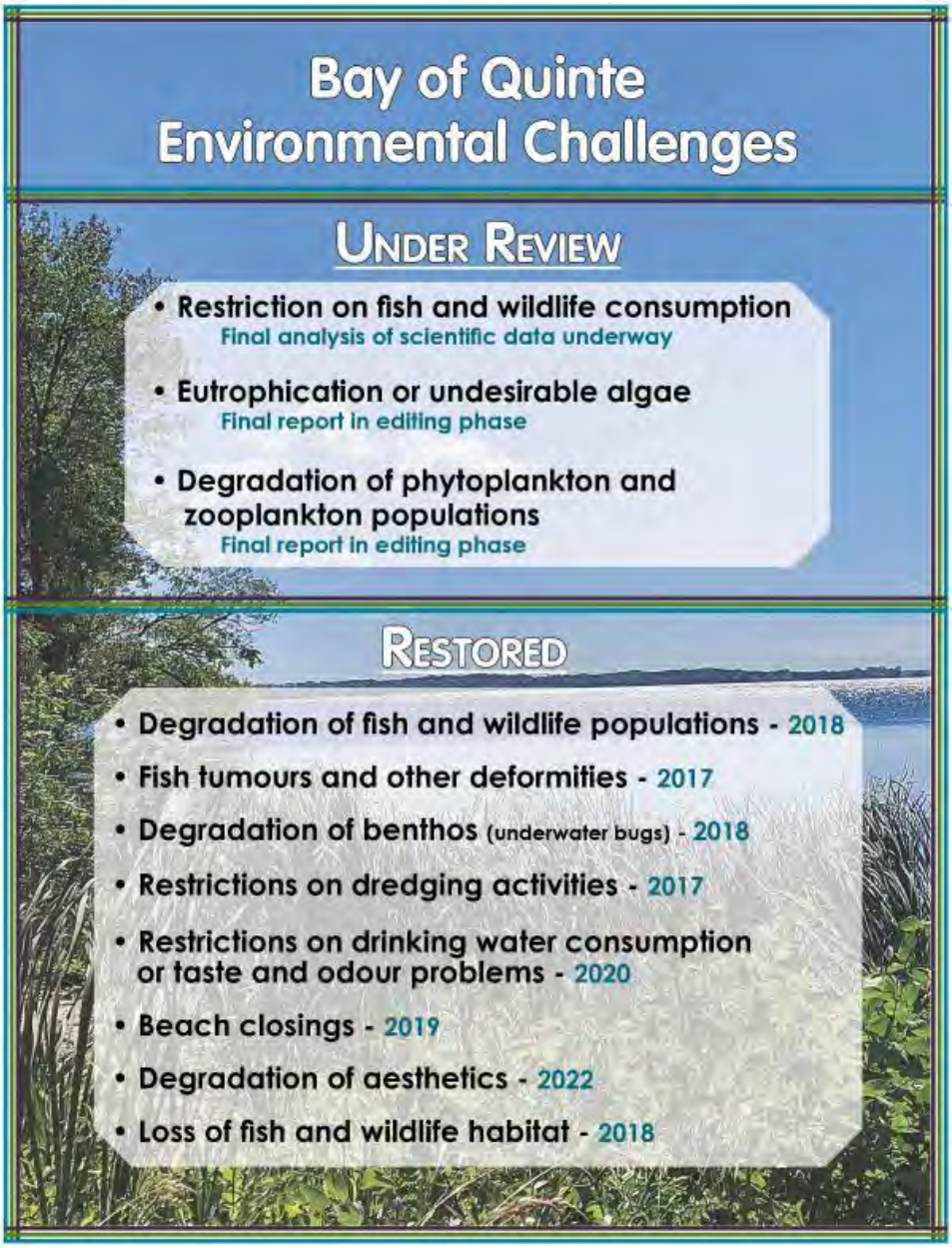
"Water is the driving force of all nature." – Leonardo da Vinci

Sarah MJ

March 17, 2025

Canadian Great Lakes Areas of Concern

The Bay of Quinte was designated an Area of Concern in 1985. Since, that time a great deal of work has gone into rehabilitating the bay. Over the past 40 years, the Bay of Quinte Remedial Action Plan (RAP) partners have worked hard to restore the Bay of Quinte's water quality. Scientists have spent decades monitoring, researching, and analyzing all aspects of the Bay's unique ecosystems. Today, the bay is a healthy and vibrant waterbody, full of
biodiversity and the crowning jewel of the area. It brings in millions of tourist dollars. Is one of the main attractions for people moving to the area; because of the unique landscape and lifestyle it provides with: trails,conservation areas, fishing, boating, kayaking, bird watching, the list goes on.



The Remedial Action Plan (RAP) is close to meeting all the criteria and targets that were outlined when it was developed. It's important to understand that achieving the criteria and targets set out in the RAP doesn't mean the work on the bay's water quality is finished. There will be added pressures from population increases, urban and rural development, climate change, and new invasive species. The area is growing, new developments are adding more impervious surfaces increasing stormwater runoff and additional volume to sewage treatment plants. Waterfront living is more popular than ever these days, impacting shorelines and wetlands; climate change - will affect water quantity and quality, and there will be new invasive

species - think water soldier. So, what happens next?

Over the next several years the RAP process will be complete. There needs to be a long-term vision for maintaining water quality in the bay, reducing harmful algae blooms and keeping the fishery sustainable.

Phosphorus Management Plan

A **Phosphorus Management Plan** is being developed. It addresses the additional reductions in phosphorus levels needed to combat the expansive growth this area is going to experience over the coming decades. Areas of focus are sewage treatment plants, urban storm water, and agriculture.

The plan will need community support and political will to drive it forward. Water quality in the bay is a responsibility everyone

shares. If you live in the Quinte Region, the bay impacts your life in some way. Whether you get your municipal drinking water from it, you enjoy taking the family for a walk along the bay shore, you spend your summer boating, you're an avid fisherman, or you enjoy sitting on your deck watching the tranquil bay scenery.

One way to ensure the bay's water quality is maintained, is to voice your ideas, concerns, opinions, and questions to your local politicians, - municipal, provincial, and federal about the importance of long-term protection of the bay's water quality. It is through grassroots support and action that change happens.

Stewardship Programs

Rural Stewardship Program

What a great year for the Rural Stewardship Program.

• Soil Testing - 15 Applicants resulting in 83 fields tested totalling 863 acres tested

• Cover Crop – 33 Applicants resulting in 2331 acres of cover crops

• Waterways Plantings – 2 projects

• Livestock Fencing – 2 projects

• Alternate Watering – 2 projects

• Septic– 4 projects

• Water Quality Improvement- 1 wetland creation

Rural Stewardship Program

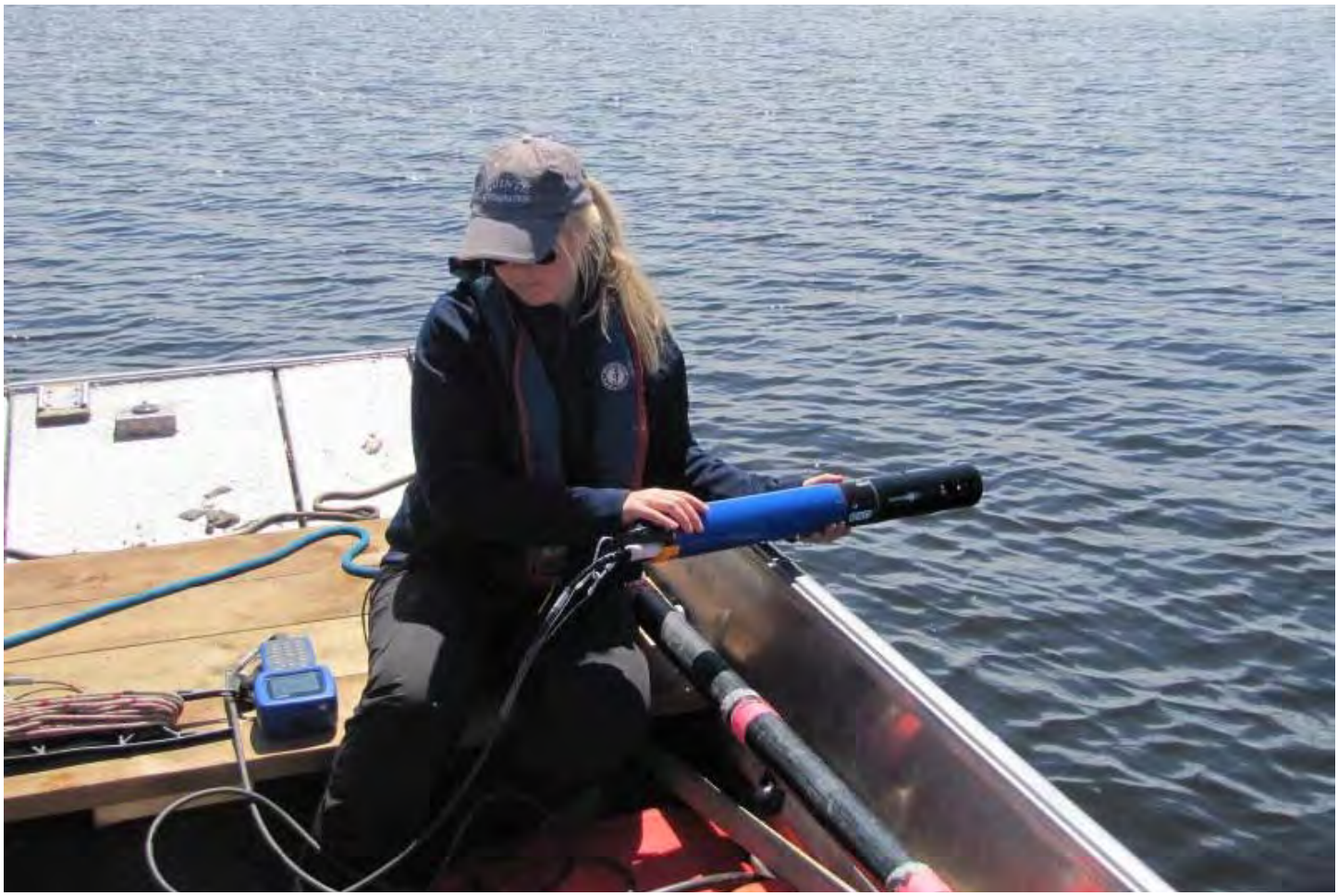
Urban Stewardship Program

Healthy Soils Program

Septic Program

A Living Lab

The Bay of Quinte has been a living laboratory for the past 40+ years. It has one of the largest data sets in the Great Lakes system.



Water Quality Monitoring

The Bay of Quinte Long-Term Monitoring Program implemented by Quinte
Conservation, monitors nine sites around the Bay for phosphorus levels,
water chemistry, and algae species and their concentrations.

Fisheries Monitoring

Ministry of Natural Resources (MNR) ensures Bay of Quinte fish populations remain healthy by monitoring fish species diversity and abundance throughout the bay.

Coastal Wetlands Monitoring

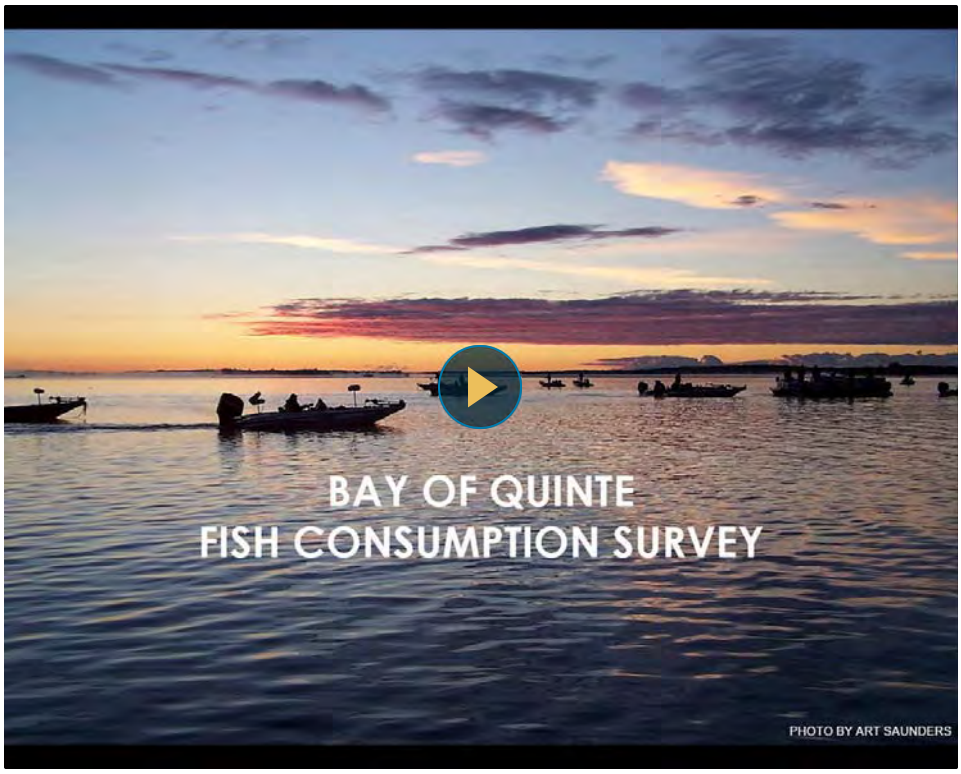
BQRAP staff and Quinte Conservation monitor 15 coastal wetlands for: water quality, underwater bugs, fish and wildlife, and vegetation.

University of Toronto

U of T continues to implement research and modelling projects to reduce phosphorus runoff into Napanee River, Wilton Creek, and Hay Bay.

Working with the Community

Bay of Quinte Fish Consumption Survey



The Bay of Quinte Remedial Action Plan conducted a Fish Consumption Survey to collect data on what people catch and eat from the Bay of Quinte.

The environmental challenge that addresses fish consumption in the bay is in the
final phases of data assessment. Part of the assessment is to gather public consumption
preferences.

In the past 30 plus years, there have been significant improvement to water quality and reductions in industrial contamination in the Bay of Quinte. Today, area residents and visitors can enjoy catching and eating fish from the Bay of Quinte.

Survey Says.... The top 3 species to catch were Walleye, Perch, and Largemouth Bass. The favourite fish to eat was Walleye.

Marsh Monitoring

Every year, the Bay of Quinte Remedial Action Plan (BQRAP) needs volunteer citizen scientists to survey local marshes to collect data on wetland birds and frogs. The survey information helps track long-term trends in species diversity, and abundance. An information session is hosted by Quinte area naturalist and columnist Terry Sprague. He explains how people can become involved in surveying local inland and coastal marshes through the FrogWatch Ontario and Marsh Monitoring programs.

Hastings County Plowing Match and Farm Show

Plowing Match 2024

Another great year at the Plowing Match. This event gives us the opportunity to connect with the agricultural community.

Water Soldier

It's spreading!

In 2021, water soldier was discovered in the bay. Unfortunately, during the 2022 and 2023 summer monitoring seasons, it was discovered the spread of water soldier was more extensive than first thought.
A herbicide application was used to try and reduce populations.

In 2024, more populations of water soldier were found throughout the bay. Treatment options included hand pulling for smaller populations and a herbicide was applied to several larger populations along the bay's North shore. However, it's an ongoing management issue. The problem is who is going to pay for this ongoing management, as it comes with associated costs.

Restoration Council

The Bay of Quinte Remedial Action Plan is working towards a healthier
Bay of Quinte ecosystem. Work to clean up the Bay of Quinte, which was
identified in 1985 as an “Area of Concern” by the International Joint
Commission under the Great Lakes Water Quality Agreement, is directed by
the Bay of Quinte Restoration Council.

This Council includes:

- Lower Trent Conservation
- Quinte Conservation
- Canada Water Agency
- Ontario Ministry of the Environment, Conservation and Parks
- Ontario Ministry of Natural Resources
- Fisheries and Oceans Canada
- Ontario Ministry of Agriculture, Food and Agribusiness
- Mohawks of the Bay of Quinte
- Municipal representatives
- Public representatives
- CFB Trenton

Staff

Anne Anderson - Manager, Community Outreach and Special Projects, Lower Trent Conservation
anne.anderson@ltc.on.ca 613-394-3915 ext 219

Shan Mugalingam, PhD, P.Eng. - BQRAP Technical Specialist, Lower Trent Conservation shan.mugalingam@ltc.on.ca 613-394-3915 ext 213

Sarah Midlane-Jones - BQRAP Communications, Lower Trent Conservation smidlanejones@bqrap.ca 613-394-3915 ext 214

Kaitlin Maurer- Environmental Technician, Quinte Conservation kmaurer@quinteconservation.ca 613-968-3434 ext 107

Jason Jobin - BQRAP Environmental Technician, Lower Trent Conservation jason.jobin@ltc.on.ca 613-394-3915 ext 225 - until November 2024

Agenda Item #18.

CAO REPORT

Date: April 1, 2025
To: Board of Directors
Prepared by: Rhonda Bateman, Chief Administrative Officer

PROVINCIAL GOVERNMENT

In a news release, the province announced the list of ministers and their portfolios. At the bottom of the news release was a statement indicating that CAs will now be reporting to the Minister of the Environment, Conservation and Parks. To date, we have not received any further correspondence in regard to this change in reporting ministries.

Congratulatory letters were sent to our three local MPPs on their re-election.

MUNICIPAL

Invoices have been sent to our municipal partners for our annual funding. Most of the payments have been received to date.

STAFFING

The anticipated start date for our summer staff is May 5th.

CONSERVATION ONTARIO

There was a General Managers/CAO meeting held on Monday March 24th to discuss the post-election government and discuss the new ministers and any existing relationships with the ministers. The new Minister of the Environment, Conservation and Parks is Todd McCarthy from Durham Region.

The Annual General Meeting of Conservation Ontario is scheduled for Monday April 14 in Richmond Hill.

EASTERN REGION CAs

The Eastern Region CAs are having both a general managers/CAO meeting and a planning and regulations meeting on April 11th at the Cataraqui Conservation Authority. It is a good opportunity for both groups to share experiences and work with their regional counterparts to discuss emerging issues, share experiences and best management practices.