





LAND ACKNOWLEDGMENT

Quinte Conservation acknowledges the Indigenous Peoples of the lands where we conduct business and find ourselves on today.

The watersheds of the Quinte region are located on the ancestral and unceded territory of the Haudenosaunee, Anishinabek, Mississauga, and Huron-Wendat, and adjacent to the Mohawks of the Bay of Quinte. We recognize and deeply appreciate their historic connection to this place, and we acknowledge our shared responsibilities and obligations to preserve and protect the land, air, and water.

We are grateful for the privilege to meet, explore, and connect on these shared lands. In the spirit of friendship, peace, and respect, we extend our thanks to all the generations that came before us.

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OUR WATERSHED IMPACT:

Message from the Board Chair and Chief Administrative Officer

A Message from Chris Malette, Board Chair

As my term as Board Chair comes to a close, I am grateful for the opportunity to have supported Quinte Conservation's vital work in protecting our watersheds and communities. Over the past year, we have navigated significant changes while remaining committed to our mission of environmental stewardship.

One of the most notable developments in 2024 was the Province's approval of *O. Reg. 41/24: Regulation of Prohibited Activities, Exemptions, and Permits* under the *Conservation Authorities Act*. This new regulation brings changes to how Conservation Authorities regulate development and protect natural resources. Quinte Conservation has worked diligently to implement these updates, ensuring continued service and support for our municipalities and residents.

Looking ahead, I have full confidence in the Authority's ability to adapt and thrive under new leadership. I would like to extend my appreciation to my fellow Board members, staff, and partners for their dedication and collaboration throughout my term.



A Message from Brad McNevin, CAO

In 2024, Quinte Conservation continued its commitment to protecting the region's watersheds and natural resources while adapting to evolving environmental and regulatory changes. This year brought both challenges and opportunities as we worked to enhance our programs and services to better serve our communities.



One of the key changes was the implementation of a new budget structure in response to provincial updates. This revised framework ensures greater transparency and accountability, clearly defining how our funding supports programs such as flood forecasting, watershed monitoring, and conservation land management. The revised budget framework distinctly categorizes programs into three key groups: Category 1 - Mandatory Programs and Services, Category 2 - Municipal Programs and Services and Category 3 - Other Programs and Services.

These categories are identified in the *Watershed-Based Resource Management Strategy*, which was developed throughout 2024 as a requirement under *O. Reg. 686/21: Mandatory Programs and Services*. The Strategy assists the Authority with the delivery of the mandatory programs and services, assesses any issues,

and identifies risks that impact the effective implementation of all programs and services under all Categories. The Strategy also highlights desirable future programs, services, and actions that will help QC meet its objectives and long-term goals.

These updates are part of an effort to foster more localized decision-making and financial responsibility. They also allow us to remain resilient and responsive while upholding our mission of environmental stewardship. As we move forward, we remain dedicated to collaboration with our partners and stakeholders to protect and enhance our watersheds' natural environment for future generations.

GREEN INVESTMENTS:

Financial Overview

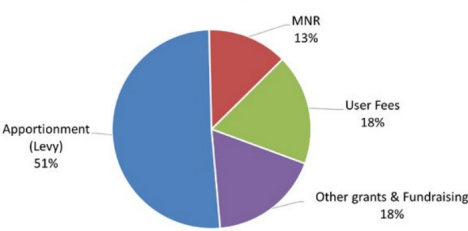
As part of the ongoing efforts to streamline funding and improve accountability, changes by the Province of Ontario have impacted the structure of program categories under Quinte Conservation's operations. In 2024, we developed our budget to coincide with the changes and invested time in updating our general ledger to reflect the current business model. The revised budget framework now distinctly categorizes programs into three key groups:

- **Category 1 - Mandated Programs & Services:** These are essential programs that Quinte Conservation is required to deliver in accordance with provincial regulations. These programs ensure the safety, sustainability, and environmental health of our community, and remain a priority for funding and operational support.

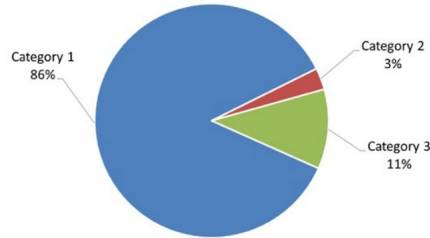
- **Category 2 - Municipal Programs & Services:** These initiatives, primarily driven by municipal partners, require collaborative planning and funding. The changes by the Province of Ontario have shifted some of the financial responsibilities, making it crucial for local municipalities to actively manage and fund these programs in alignment with their own strategic goals.

- **Category 3 - Other Programs & Services:** These programs are strategically supported by the Quinte Conservation Executive Board and our partnering organizations, with a focus on long-term community and environmental development. Changes in provincial funding models may impact the flexibility and scope of these programs, necessitating adaptive planning and potentially new revenue models to ensure continued success.

2024 Revenue: \$6,003,852.00



2024 Expenditures: \$6,003,852.00



These updates are part of an effort to foster more localized decision-making and financial responsibility. As we work to implement changes, it is essential that all stakeholders are aligned in understanding the evolving funding framework, and how it impacts Quinte Conservation's ability to fulfill its mandate.





FROM PLAN TO ACTION: Our Strategic Plan in Motion

Our Vision to 2030

Advance watershed knowledge and collective actions to strengthen our natural ecosystems.

Our Mission

To create a sustainable ecosystem where people and nature live in harmony.

Pillars

ACCELERATING ADVOCACY

- A Quinte Conservation Foundation has started to form and is still in the early stages of development.
- Staff continue to build new partnerships with local organizations through all departments, most notably through Outreach and Stewardship with Loyalist College.
- Technical staff are leading the way by collaborating with industry and academics by teaching related courses at Loyalist College.

BOOSTING WELL-BEING

- Stewardship and communications staff created a new outdoor series that provided engaging activities for participants, including yoga, forest therapy, guided hikes, kids programs, and gentle exercise classes.
- Conservation areas continued to receive upgrades and improved maintenance.
- Parking passes are available at all watershed libraries. Those interested can borrow a pass the same way you would a book.

ADVANCING ENVIRONMENTAL SCIENCE

- Aquatic science staff entered a one year monitoring contract with Ontario Power Generation.
- Established a new partnership with the Ontario Federation of Anglers and Hunters for Water Solider monitoring.
- Partnered with the Invasive Species Centre to bring a boat cleaning station to boat launches throughout the watershed.

STRENGTHENING BRAND RECOGNITION

- Redesigned the volunteer program to include more opportunities for support.
- Increased outreach and invitations for staff to present by 50%.

MEASURING OUR GROWTH A Year in Review

2024 was a big year for Quinte Conservation. There were changes to the regulation, as well as the reformatting of our budget. Staff were busy throughout the community with speaking engagements, information booths, public information centres, events, and special projects, while performing their daily activities such as flood forecasting and dam operations, updates to Source Water Protection, monitoring on the Bay of Quinte, working with landowners on development applications, and maintenance throughout our properties and conservation areas.

Notable points include:

- The transition of our Outreach & Stewardship program with the retirement of long-time coordinator, Maya Navrot, opening the door for Lindsay Nash to take over. Lindsay brings a wealth of knowledge and has been a valuable member of the Quinte Conservation team through her work with the Aquatic Science and Planning and Regulations departments. She has also worked with Kawartha Conservation and Ducks Unlimited Canada in a stewardship capacity.
- With the completion of the storage facility, staff now have the much needed space to store boats and equipment required for monitoring initiatives. The facility replaces the barn which was demolished in 2021 due to unsafe conditions.
- Money raised through Adopt an Acre, parking fees, and a grant from the John M. & Bernice Parrott Foundation were enough to kick off construction to replace the Hi-Lo Boardwalk at the H.R. Frink Conservation Area – completion expected for the spring of 2025.
- Two local contracting companies volunteered their skills and resources to complete two conservation area upgrades. Alair Homes completed a remarkable 650ft of boardwalk over seasonally muddy ground at Potter's Creek North Conservation Area. This project allows visitors to safely enjoy the trail all year round. Picture Perfect Landscaping completed an impressive renovation project at Potter's Creek South Conservation Area, where they re-gravelled and cleaned up the trails, replaced the rotting wood retaining walls with armour stone, and fixed the potholes in the parking lot – giving this area a much-needed boost.
- The communications department opened the Quinte Conservation Store at our office building, featuring merchandise items like tick keys, apparel, Depot Lakes Campground mugs, notecards, and more. The store is also available online.



Potter's Creek S. and Picture Perfect Landscaping



Potter's Creek N. Boardwalk with Alair Homes

BENEATH THE SURFACE:

Water Resources

2024 Spring Freshet

There was a general decrease in peak springtime flows throughout all watersheds, causing below average typical spring peak conditions of bank full. These flows are some of the lowest recorded for the Quinte Watersheds.

The Moira River was notably lower than the previous 2 years and did not reach bank full conditions. This was representative of springtime levels across the Quinte Watersheds. The Spring Freshet for the Moira River is considered the snow melt induced river peak, typically occurring in the springtime between mid-March and early May.

Contributing factors:

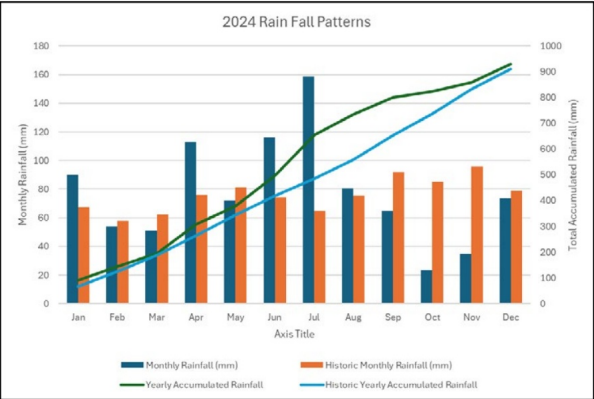
- 80% of winter precipitation was rain from November to March.
- Rain and warm temperatures depleted the snow pack much earlier in the season:
 - January – rain on snow
 - February – highs above zero most of the month
 - March – highs above zero first half of month

These conditions limited the development of the retained snow pack which induced melt in early-March. The subsequent spring freshet had 2 peaks. The first peak started with typical timing, around March 16, and driven by the snow melt. It was preceded by some incremental snow pack loss starting in mid-January, which by early-March had melted out completely, causing a very low peak flow response. Springtime rain in early-April raised already elevated river and stream flows causing the second peak to have a significant increase over the earlier March peak flow. However, this response was still well below normal springtime levels.

Lake Ontario

Lake Ontario's water levels tracked closely with the monthly long-term averages. Outflows were adjusted to maintain a balance close to normal levels for almost the entire year. By mid-September, Lake Ontario water levels were slightly below the long-term averages. Aggressive outflow management that continued well into the fall combined with low precipitation levels, led to a below average drop in the last months of the year.

Water levels in Lake Ontario are influenced by uncontrolled inflow from Lake Erie, which includes precipitation, local runoff directly into Lake Ontario, and allowable outflows.



Low Water Conditions

The overall precipitation that was received by year-end exceeded the long-term average, despite unpredictable precipitation patterns. The late-spring and summer seasons experienced significant rainfall, which caused seasonally high lake levels and river flows for much of the watershed. In particular, Horseshoe Lake experienced spring water levels well into summer, resulting in the boat launch being flooded. No dwellings were at risk of flood damages during this period. The fall season received notably below-average rainfall. However, the low precipitation was offset by the available ground and surface waters that were introduced during the wet summer. Even with reduced fall rains, no adverse effects were reported. The fall's drier conditions were beneficial for crop harvesting. Although there were months that were drier than normal, the conditions did not cross thresholds required to declare a **Low Water** status. Rains returned in December and maintained an overall balance by year end. The hydrologic systems reported that 2 multi-month dry periods were interspersed by wet months, which mitigated the overall impact.

Rainfall in December brought the total annual rainfall up to the average range, as well as a full recovery of stream flows and groundwater, just ahead of the ground freezing.

Ice Management Plan and Infrastructure Operational Plans

The *Ontario Regulation 686/21: Mandatory Programs and Services* (the Regulation) under the *Conservation Authorities Act* (the Act) was updated under Section 4 - ice management, and Section 5 - conservation authority owned or managed infrastructure that provides flood mitigation, low flow augmentation or erosion control. Under the Regulation, conservation authorities were required to develop and implement an ice management plan and an infrastructure operational plan, prior to December 31, 2024. Unlike other documents required by the Regulation, there was no requirement for public consultation or to have them publicly available.

Ice Management Plan

The Ice Management Plan synthesizes the numerous studies into a single plan which documents the nature and history of ice issues, the legislated conservation authority ice management programs and services, the roles and responsibilities of Quinte Conservation and other agencies, preventative measures, mitigation measures, monitoring program, and warning program. Although much of this information has been previously documented, this project has resulted in a single comprehensive guide to Quinte Conservation's ice management program. The document will be a living document, continuously updated to include any missing ice studies from our archive.

Infrastructure Operational Plan

Quinte Conservation has already implemented operating plans and any changes to these plans would require approval under the Act.

- Moira River Dam Operation and Flood Forecast Study – Dam Operation Manual (1991, Ecos Garatech Associates Ltd.)
- Napanee Region Conservation Authority – Dam Operations Manual (1994, Napanee Region Conservation Authority)
- Prince Edward Region – Dam Operations Guide (2003, Quinte Conservation)
- Skootamatta Lake Dams – Operation, Maintenance, Surveillance & Safety Manual (2018, exp)

Some errors and limitations have been identified within the existing plans, including changes to stop log sizes and materials, or conflicting elevation data among Quinte Conservation's many documents for a given structure. Limitations include insufficient, non-existent, or conflicting information on how to operate during extreme high or low water supply. These errors and limitations are being recorded to ensure they are addressed by independent engineering consultants during the 10-year review of each structure.



Water Management Structures

There are 40 water management structures (dams and weirs) that are owned, operated, and maintained by Quinte Conservation. Major maintenance on these structures is often supported through the Water and Erosion Control Structure Infrastructure (WECI) grant program, funded by the Ontario Ministry of Natural Resources (MNR). Each dam has one or more purpose, including flood management, raising low water levels, recreation, water supply, habitat creation, historic, and hydro power production.



40 Water Management Structures



4 DSR



Completed:
3 x Floodplain Mapping
1 x Flood Hazard Mapping



Salmon and Napanee River Crossing Survey

Over the course of 2024, staff completed 4 Dam Safety Reviews (DSR) for the following dams, as per MNR guidelines. A Public Safety Assessment was also completed.

Upper Arden Dam

The DSR designated a **Very High Hazard Potential Classification (HPC)** due to the potential for loss of life and economic damages if the dam were to fail. The review found it to have a deficient safety factor for dam stability and recommended a study and design for the installation of rock anchors. Additionally, the study recommended the installation of a safety boom and a monitoring program to ensure public safety concerns are adequately addressed.

Middle Arden Dam

Through a DSR and a Public Safety Assessment, it was designated as a **High HPC** for loss of life if the dam were to fail due to earthquake load. The dam was found to be structurally stable; however, there was a comment to fill any depressions, as well as to place rip-rap on the upstream slope to reduce erosion. In addition, the report recommends a topographic survey and geotechnical assessment on the northern embankment. With respect to public safety, the study recommended the installation of a safety boom and a monitoring program to ensure observed concerns are addressed.

Lower Arden Dam

The DSR designated a **Moderate HPC** due to the proximity of residential buildings downstream; although no incremental loss of life is expected as a result of the structure. The dam was found to have a deficient factor of safety for dam stability and recommended a study and design to install rock anchors. The study recommended a monitoring program to ensure observed safety concerns are addressed.

Consecon Dam

The DSR designated a **High HPC** for loss of life if the design earthquake load were to occur. The dam was found to be structurally stable. The DSR recommended multiple concrete repairs, most important of them is the seepage under the dam. With respect to public safety, the study recommended a safety boom and updated signage.

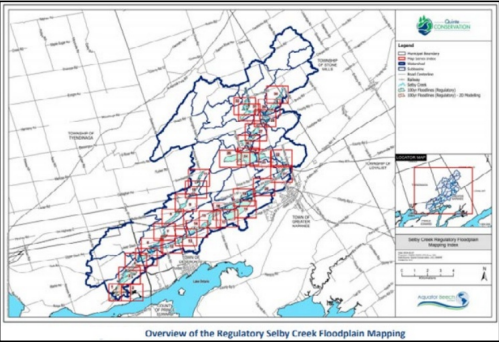


Floodplain Mapping

Over the course of the year, staff worked with consultants to complete three floodplain mapping projects and one flood hazard mapping project. Public Information Centres (PIC) were held for each project at a venue close to the project site. The public had the opportunity to meet with project leads, ask questions, and provide feedback. The regulatory maps and associated reports for each project can be found at QuinteConservation.ca/reports and can be requested through the Quinte Conservation office.

Selby Creek Floodplain Mapping

The project established updated regulatory floodplain mapping for key reaches along Selby Creek and its tributaries, through detailed hydrologic and hydraulic modelling, and analyses of any flood hazards. No formal comments from the public were received.



Napanee River Upper Lakes Floodplain Mapping

The project established updated regulatory floodplain mapping for the major lakes known as the upper lakes of the Napanee River; this includes Potspoon Lake, White Lake, St. Andrew Lakes, Cole Lake, Thirty Island Lake, Thirteen Island Lake, Fourteen Island Lake, Little John Lake, Sigsworth Lake, Hambly Lake, Van Luven Lake, Howes Lake, and Verona Lake.

Consecon Floodplain Mapping

The project updated the regulatory floodplain for Consecon Lake and Creek from Melville Road, upstream of Consecon Lake, to the mouth of Consecon Creek at Wellers Bay. The study included the collection of topographic data, site inspections, hydrologic assessments, hydraulic modeling and analyses, and mapping of the Regulatory Floodplain. Public input was taken into consideration for the preparation of the final version of the floodplain maps.

Flood Hazard Mapping

Salmon River Upper Lakes Flood Hazard Mapping

The project updated the regulatory floodplain for the Salmon River Upper Lakes Watershed, from Kennebec Lake to the outlet of Crotch Lake. The study included the collection of topographic data through site inspection and surveying, hydrologic assessments, hydraulic modeling and analyses, and mapping of the Regulatory Floodplain. Following the discussions at the PIC, along with flood photos used to calibrate the model, the maps were updated with a new downstream boundary condition. The final floodplain maps were posted for public comment for 30 days starting on May 13. During that time there were several questions from residents, the most common being the purpose of the mapping, the clarity of the drawings and how this will affect their ability to perform work on their property. All questions have been responded to and addressed.

River Crossing Survey

Salmon and Napanee River Crossing Survey

This project surveyed all crossings (bridges, and culverts) and in-line structures (dams, and weirs), as well as the overbank areas adjacent to the structures. Since the modelling and mapping were completed in the 1970s, many structures have undergone changes, which could affect the floodplain. Structure drawings, tables of detailed elevation information, and photos were prepared. The structure geometry can be used directly in the hydraulic floodplain mapping models to be completed as a subsequent project. A full floodplain mapping project was not started due to the geographic scale and funding timelines.

DRINKING WATER WISE: Achievements in Source Protection

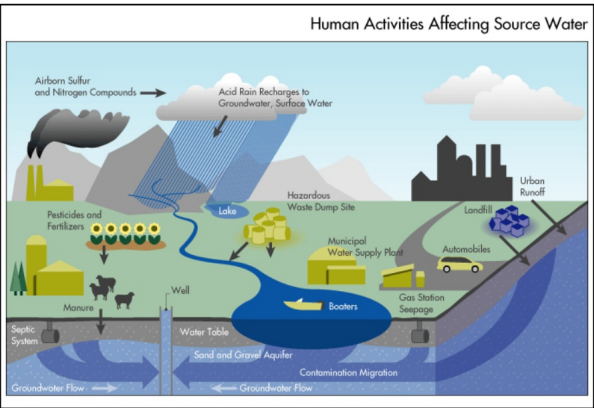
The *Clean Water Act* was enacted in 2006 to protect sources of drinking water from overuse and contamination. Known as the Quinte Source Protection Authority, Quinte Conservation provides technical and administrative support to the Quinte Source Protection Committee (SPC), who monitor the progress of policy implementation, while also making improvements to enhance the effectiveness of the policies, such as including newly developed areas.

Section 36 Amendments

Policies in the *Source Protection Plan* help manage threats to drinking water sources near municipal wells and intakes. Amendments were required to alter existing policies to improve implementation and adapt to the new Ministry of the Environment, Conservation and Parks (MECP) technical rules. The Quinte SPC has completed and submitted the required amendments to the *Quinte Source Protection Plan and Assessment Report* under the *Clean Water Act, 2006*. The completed documents were submitted to MECP in March and the SPC is awaiting comments and approval from the Ministry.

Source Protection Committee Changes

SPC Chair Max Christie resigned from his position in March after leading the Quinte SPC for 17 years. Quinte Conservation is thankful for all of Chair Christie's contributions to source water protection efforts in the Quinte area and across Ontario. Quinte SPC member Terry Kennedy was nominated to be the Interim Chair for a 6-month period to allow time for the Ministry to appoint a new Chair. Due to ongoing commitments with Section 36 amendments delaying the process, the committee was reduced to 12-members as requested by the MECP in 2017.



Part IV of the Clean Water Act, 2006 (Risk Management Services)

Municipalities are provided tools and resources for enforcement to regulate activities that are significant threats due to their potential to pollute drinking water sources. Risk Management Officials are either hired or delegated by a municipality and are responsible for reviewing building and planning applications in vulnerable areas. Once there is confirmation that no new threats will be created, the Risk Management Official issues a Section 59 clearance notice. If a proposed land use has the potential to be a significant drinking water threat, the Risk Management Official will ensure the activity is not prohibited before negotiating a risk management plan with the landowner.

Watershed municipalities have delegated Quinte Conservation as their Risk Management Official due to our qualified staff and the in-house expertise related to the Source Water Protection Program. 46 clearance notices were issued in 2024, stating no new drinking water threats will be created with proposed development, thus the application can proceed from the municipality's end. In addition, 2 risk management plans were successfully negotiated, and 8 inspections of prohibited or managed activities were successfully completed.

Source Water Protection Education and Outreach

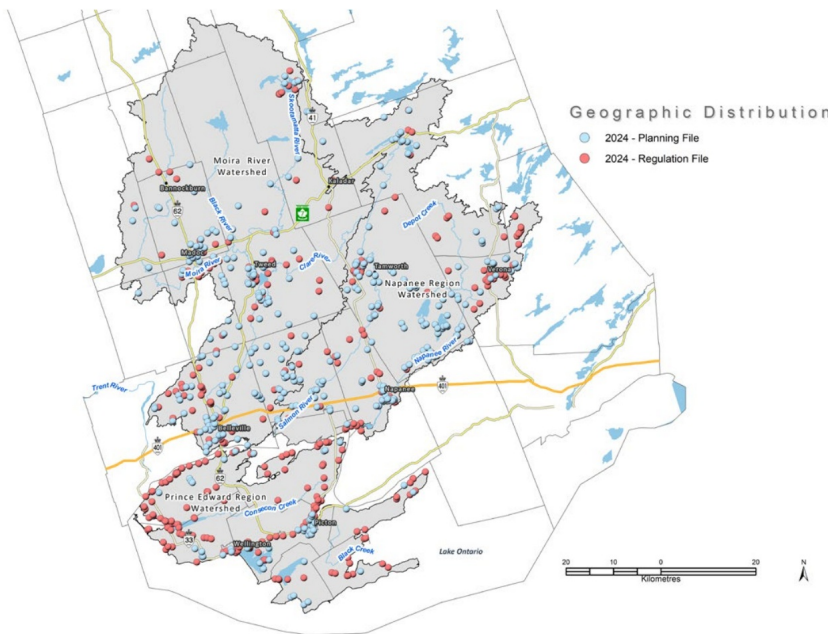
Quinte Conservation is responsible for education and outreach, as directed by all member municipalities. To fulfill Policy G-1 in the Quinte Source Protection Plan, staff partnered with Cataraqui, Lower Trent, and Rideau Valley Conservation Authorities to develop and host free Drinking Water Wise webinars. This series includes a brief presentation about source water protection, and a guest speaker who is an expert in the field of the webinar topic (i.e. real estate, human health, testing and treatment, groundwater, wells, etc.). Throughout the 9 events, there were over 1,100 registrations and over 1,400 views on Youtube, where each webinar is posted.

The Drinking Water Protection Radio Contest ran again with over 200 student participants. Each year, this contest gains more interest through local school boards (Algonquin Lakeshore Catholic District School Board and the Hastings Prince Edward District School Board) as students learn about what it means to protect our sources of drinking water. Students are asked to create a 30-second radio ad based on the information they learn through a video on 'sources of drinking water and what you can do to protect it'. The winning team gets to record their ad in the 91X studio at Loyalist College, where it runs for several weeks. The winning student(s) class receives a free field trip to the Gerry O'Connor Water Treatment Plant in Belleville where they receive a tour and pizza lunch, donated by Westside Pizza, and a Water Rangers Education Tool Kit for their class, provided by Let's Talk Science at Loyalist College.



ROOTED IN RISK MANAGEMENT:
Changes to the Act for Planning and Regulations

Quinte Conservation's Planning and Regulations (P&R) staff review development proposals daily through both the *Planning Act* and the *Conservation Authorities Act* (the Act) to ensure both the preservation of wetlands and watercourses, and public safety and protection from natural hazards. Through one-on-one pre-consultations, staff assisted 144 residents through the permitting process. Only one permit was denied, which resulted in a hearing before the Executive Board.



In addition, staff responded to over 50 complaints and concerns from the public about active development on sites with natural hazards that may, or may not, have been granted a permit. Without the help from a dedicated Enforcement Officer, staff were required to proceed with 28 investigations. Violations can be complex and time consuming, therefore, staff work with landowners to educate them about rules and setbacks so that voluntary compliance can be achieved. In some instances where compliance is not possible or the offence is serious, charges can be laid against a landowner which will then result with a case in Provincial Court. In 2024 staff successfully pursued 2 charges in court, with offenders being fined.

In April, the Province officially updated the *Conservation Authorities Act* with O.Reg. 41/24 *Prohibited Activities, Exemptions and Permits*, which replaced *Regulation of Development, Interference with Wetland and Alterations to Shorelines and Watercourses*. O. Reg. 41/24 ensures that development activities across all Conservation Authorities (CAs) is consistent in consultation, application submission, and review requirements. Several changes were introduced, including a list of exemptions for projects that no longer require a permit. The most notable of this list being for non-habitable structures less than 15m², provided they are not placed in a wetland or watercourse.

The updates to the Act now includes several sections that had been waiting for Provincial proclamation since 2017, and new "tests" by which to consider an application for development. Through this update, the tests that allowed CAs to protect natural shorelines and important ecological buffers has been removed.

The responsibility for these significant areas now falls to local municipalities who may have to amend their zoning by-laws to ensure these features continue to be protected. However, the updates added several new tests which further protect the health and safety of the public and regulate development that could damage property during a natural hazard. These changes, along with updates to various review and enforcement provisions, ensure CAs continue to be leaders and experts on natural hazards.

The fundamental goal of protecting people and property from natural hazards remains unchanged and staff have revised existing policies to reflect the legislative updates and have incorporated new initiatives to ensure this goal continues to be met. QC remains ahead of the curve and issues permits well within the Provincial standard of 30-90 days, with an average processing time of 12 days. More information is available online at quinteconservation.ca/permits



BEFORE YOU BUILD...
CONTACT OUR OFFICE.

Your project may require a permit.



57 Legal Inquires



466 Site Visits



341 Permit Applications Received

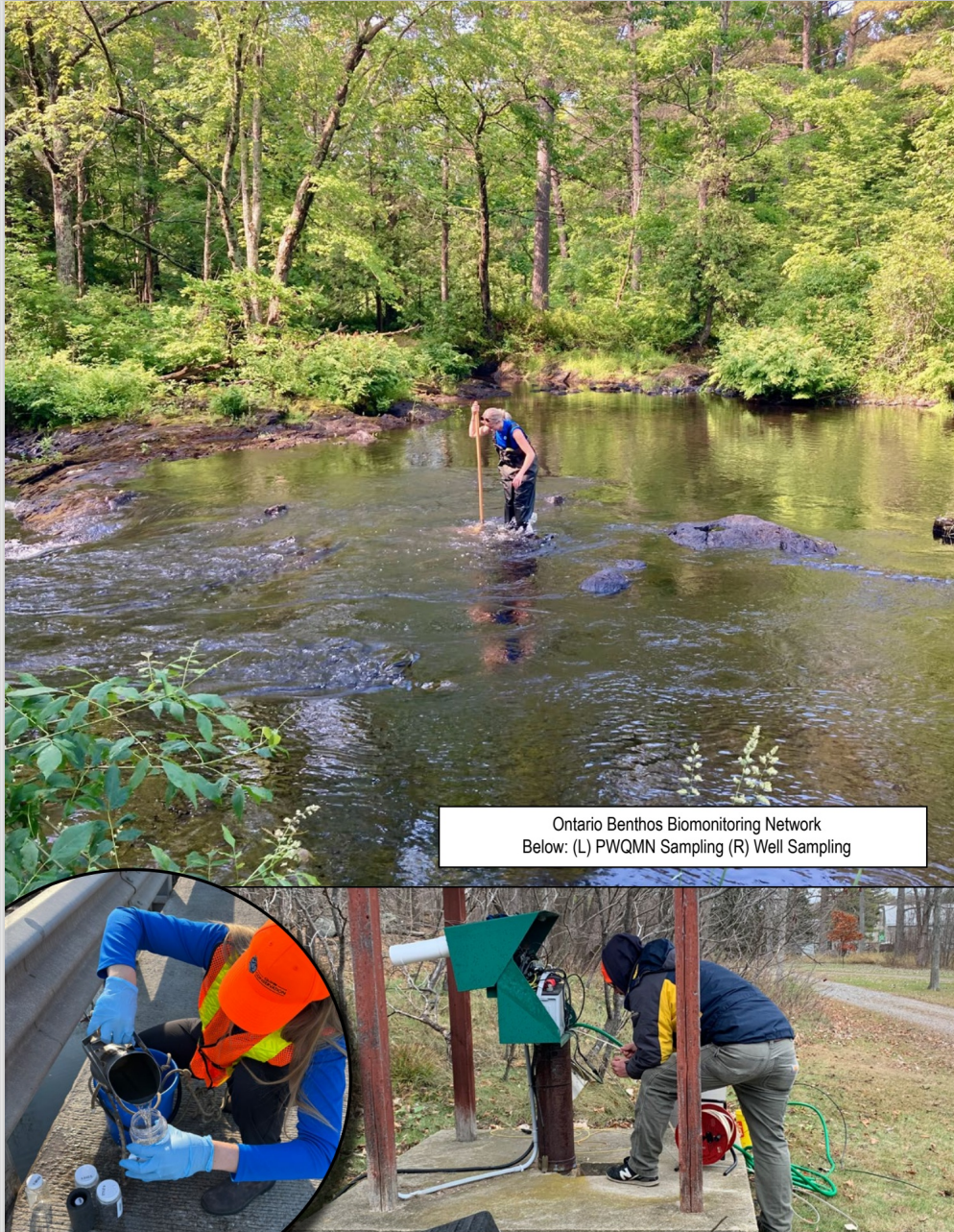


286 Permits Issued



28 Violations Investigated





Ontario Benthos Biomonitoring Network
Below: (L) PWQMN Sampling (R) Well Sampling

EXPLORING THE DEPTHS: Advancement in Aquatic Science Programs and Research

Watershed Monitoring

Staff collect scientific data to assess the ecological health of the Quinte Watershed, track trends, and alert potential issues. This information is critical to produce our Watershed Report Card, which is a summary on the state of forest and wetland conditions, and surface water and groundwater resources.

Benthos (Benthic Macroinvertebrates)

The Ontario Benthos Biomonitoring Network (OBBN) is a provincial network used to monitor the quality of the watershed's rivers, streams, and wetlands. The data gathered supports the identification of stream conditions and by tracking these sites long-term, we can later determine the conditions of various watersheds and sub-watersheds, as well as detect changes in the water quality. Through 48 sampling sites, 15,755 benthic invertebrates were collected and identified.

Surface Water

Through the Provincial Water Quality Monitoring Network (PWQMN), staff sample surface water monthly, between April and October, from 28 monitoring sites across the Watershed.

Groundwater

Wells are tested on a rotational basis for metals, nutrients, and general chemistry, with some also requiring testing for pesticides and bromides. This information assesses aquifer status and improves our knowledge of groundwater studies. The network also provides an early warning system for changes in water levels caused by climate conditions or human activities, and information on regional trends in groundwater quality. Through the Provincial Groundwater Monitoring Network (PGMN), staff performed maintenance at 28 wells and collected water quality samples and water level data at 18 of those sites.

Baseflow

Staff sampled 9 sites from 30 sub-watershed areas in 2024. Initially, data was collected to help establish baseline conditions and to improve understanding of the watershed's conditions in respect to the water budget. The need arose from estimates of groundwater recharge. However, this data may also be used in assessing areas for fisheries and in interpreting water quality data.

Snow Sampling

89 snow depth surveys were taken from 15 sites throughout the watershed to aid in precipitation estimations and flood forecasting.



15,755 Benthic
Invertebrates
Identified



28 Surface Water
Monitoring Sites



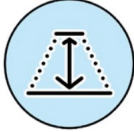
18 Groundwater
Quality Sites
Monitored



9 Baseflow Sites
Sampled



28 Wells Maintained



89 Snow Depth
Surveys



Bay of Quinte Monitoring

Quinte Conservation partners with a variety of different agencies on projects that benefit the overall health of the Bay of Quinte and its coastal wetlands through monitoring and restoration efforts.

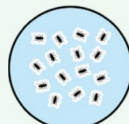
Coastal Wetlands

Our staff have been participating in the Bay of Quinte Coastal Wetland Monitoring Program for 17 years and through this, we have learned so much about the Bay's water quality, invasive species, and effects from climate change.

Without these monitoring programs, the Bay of Quinte is at risk, with any new damage going unnoticed until it's too late or expensive to repair. Through stewardship and restoration activities with the (BQRAP), this region's approximately 4,367 hectares of coastal wetlands score higher in Index Biotic Integrity (IBI) than any others in the Great Lakes.



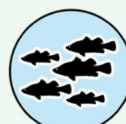
15 Coastal Wetlands Monitored



45 Macro Invertebrate Stations



36 Submerged Aquatic Vegetation Species Identified



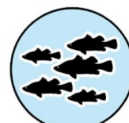
22 Fish Species Identified

Ontario Power Generation (OPG): Big Island Restoration

Quinte Conservation and OPG remain committed to the Big Island Wetland Effectiveness Monitoring Program through restoration measures in improving fish habitat and productivity, water quality, and biodiversity. In 2024, fieldwork consisted of fish community surveys, perimeter/vegetation encroachment surveys, and aquatic vegetation mapping. Fish communities were assessed using boat electrofishing and larval fish tow methods with the intention to monitor multiple life stages of fish.



3,990 Fish Species Caught



22 Fish Species Represented



19 Submerged Aquatic Vegetation Species Identified

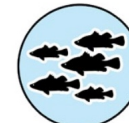


Ducks Unlimited Canada: Howe Island Habitat Enhancement

Staff completed the contract for the fish habitat enhancement project with Ducks Unlimited Canada for post-construction fisheries monitoring. The Durham Coastal Wetland Monitoring Protocol for sampling methodology was followed and staff performed boat electrofishing for one week each summer, over the course of 3 consecutive years.



1,130 Fish Species Captured



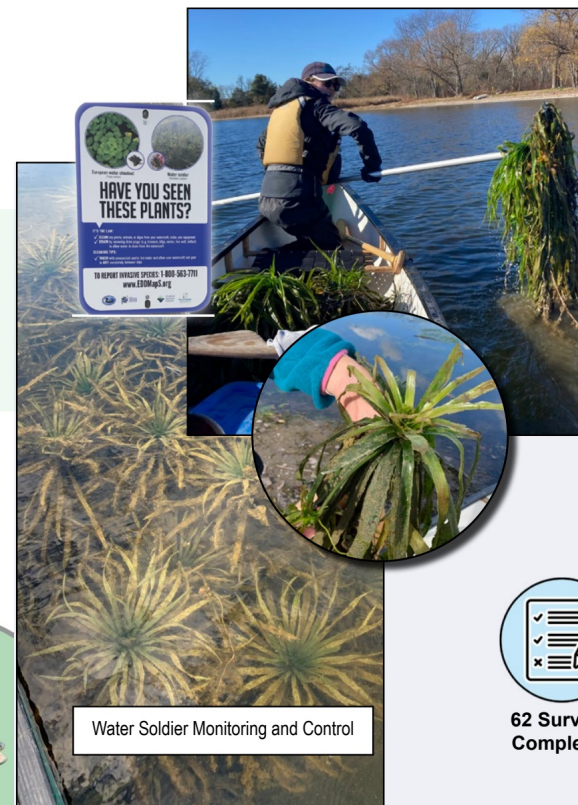
16 Fish Species Represented



1 Fish Species at Risk identified

Water Soldier Monitoring

Since the initial discovery of Water Soldier in 2021, an inter-agency Technical Working Group was established to help coordinate research, monitoring, control, and prevention strategies in the Bay of Quinte for this invasive plant.



Water Soldier Monitoring and Control



30 Areas Surveyed



63 Populations Managed



144 eDNA Samples



2,200 Grid-map Point Intercepts



62 Surveys Completed



19 Information Booths



22.27 Hectares Treated

INNOVATING WATERSHED MAPPING:
Geographic Information Systems Technology and Solutions

RTK GNSS Equipment

Staff used RTK GNSS equipment to collect highly accurate elevation data at over 60 benchmark locations across the watershed. Such data is crucial in supporting dam operations, hydrological modelling, field surveys, and hazard mapping. This work was made possible through a partnership with Eos Positioning Systems Inc., which provides RTK equipment rental to Quinte Conservation in exchange for hosting a base station at Vanderwater Conservation Area.

Eastern Ontario LiDAR Acquisition Project (EOLAP)

Early in the year, Quinte Conservation finalized the compilation of its watershed-wide, highly-accurate, bare-earth, digital terrain model using data from the Eastern Ontario LiDAR Acquisition Project (EOLAP) — a collaboration among municipal, federal, and Conservation Authority partners — and the Belleville/Quinte LiDAR project, commissioned by the Province of Ontario and Natural Resources Canada. With the completion of these initiatives, staff has been able to replace aging topographic data and fill missing coverage voids to support infrastructure projects, local development, natural hazard modeling, floodplain modernization studies, and emergency preparedness.

South-Central Ontario Orthophotography (SCOOP)

In May, Quinte Conservation took final delivery of the South-Central Ontario Orthophotography (SCOOP) 2023 imagery acquisition within the watershed. SCOOP 2023 is part of the provincial 5-year strategy to collect high resolution leaf-off imagery within settled areas across Ontario, and is coordinated by Geospatial Ontario with funding contributions from Conservation Authorities, provincial, public, and private sector organizations. Quinte Conservation leverages orthophotography as a foundational data set within its GIS systems for planning and regulations purposes, as well as environmental land use management and general reference.



Benchmark Surveying

LESSONS FROM THE LAND:
Forest Goals and Achievements

Vanderwater Pond

In 2023, Quinte Conservation partnered with Ducks Unlimited Canada on a wildlife habitat restoration project at Vanderwater Conservation Area. This project started due to an earthen berm blowing out on the pond. After allowing the water to drain on its own over the course of a year, restoration was able to start in the fall of 2024. This project will create a thriving wetland with a structurally diverse habitat containing a variety of native plant and wildlife species.



Carbon Offset

Anew Climate, LLC and Quinte Conservation announced the issuance of the first ever forest carbon credits by ACR Improved Forest Management (IFM) on Canadian Forestlands methodology. This forest-carbon project (ACR680) covers more than 10,000 hectares of mixed hardwood forestland in southern Ontario. With the carbon revenues generated from this forestry project, Quinte Conservation intends to extend our stewardship programs to other properties within the watershed that otherwise may be developed or managed for timber revenue.

PLANTING SEEDS OF CHANGE: Community Engagement and Communication

Communications

In 2024, Quinte Conservation's Communications team supported a variety of initiatives and events aimed at engaging the public, fostering partnerships, and promoting environmental stewardship. Through media releases, social media, advertising, and event coordination, the Communications department played a vital role in advancing Quinte Conservation's mission and strengthening its connection with the community.

Adopt An Acre

The 2024 event raised just over \$5,500, adopting out 183 acres. The funds will be used to support the rebuilding of both wetland lookout platforms at Beaver Meadow Conservation Area.

Public Information Centres (PICs)

The Communications department supported Water Resources in hosting four PICs for the Selby Creek, Napanee River Upper Lakes, Consecon Lake and Creek, and Salmon River Upper Lakes floodplain mapping studies. These sessions informed residents about updated floodplain maps reflecting four decades of changes.

Tree Planting Initiatives

Communications supported Outreach and Stewardship with community tree planting events, including the "Break-A-Stick, Plant-A-Tree" in partnership with the Belleville Senators, and a planting at Riverside East in Belleville, sponsored by Coors Seltzer. Combined efforts resulted in the planting of thousands of trees and shrubs.

Invasive Species Awareness

Featuring resources and insights from experts, QC held a Bay of Quinte Invasive Species Information Session to educate the public on invasive species: Water Soldier and Grass Carp.

Watershed-Based Resource Management Strategy

Supported the development and promotion of this comprehensive strategy to align with provincial guidelines, outlining future objectives and priorities for the health of the Quinte watershed.

Big Island Wetland Monitoring

As part of this initiative through Aquatic Sciences, Communications updated photo documentation from 2015 and 2019, ensuring the 2024 report included current imagery to showcase the progress and success of the restoration work.

Drinking Water Wise Webinars

Led communications efforts for the Drinking Water Source Protection team's Drinking Water Wise Webinars, which promoted topics such as groundwater, harmful algal blooms, climate change impacts, and drinking water safety.

Social Media

Through detailed and strategic social media campaigns, staff increased QC's social media audience by 4% compared to 2023. The 'following' across all accounts reached 13,914 by the end of the year.



19 Media Releases



19 Events



124 E-newsletters



1,194 Social Media Posts



NURTURING NATURE:
Resourceful Stewardship Initiatives, Education, and Engagement



**32 Active
Volunteers**



**20,099 Native
Species Plantings**



**87 Events,
Lectures,
School Programs**



**Over 4,730
Participants
Reached**



**113 Boat Cleaning
Station Uses**

Stewardship and Outreach

Quinte Conservation's Outreach and Stewardship Technician moved on from the position in December of 2023 and the Outreach and Stewardship Coordinator moved on from their position in February 2024. The new Outreach and Stewardship Coordinator was brought on in February 2024, therefore making it a busy year of learning. Two students were added to the Stewardship team for the summer months.

Planting Programs

There were 5 public sites throughout the watershed that were planted with native species.

Riverside Park East - Through partnership with Molson Coors and the Belleville Senators and their 'Break a Stick, Plant a Tree' campaign, Community volunteers and Watersheds Canada helped plant 2,000 potted trees and shrubs and 1,000 wildflowers.

QC's Longwell Property - The Napanee Valley Scouts assisted with planting 1,200 native bare-root trees.

Price Conservation Area - This location was devastated by the tornado that hit the area in 2023. With sponsorship from Watersheds Canada through an EcoAction grant, Staff and community volunteers performed restoration efforts by planting 1,000 trees, shrubs, and wildflowers.

Demorestville Park - Staff assisted the Quinte Field Naturalists with this restoration project where over 30 large caliper trees were planted.

Beaver Meadow Conservation Area - Grade 9 science students from Picton, ON assisted with the development and implementation of two main projects including the planting of 174 native species, needed to block off unauthorized trails, and laying gravel on the trails in areas that needed maintenance.

Little Forest Napanee - Soil preparation for planting project in 2025. In partnership with the Lennox and Addington Stewardship Council and help from local high school students.

Events and Outreach

Staff attend community events and presentations to share information about QC's programs and services. These community events provide an excellent opportunity for staff to promote the organization, answer inquiries, and help connect residents to our expert staff and other organizations.

Discovery Day at Vanderwater Conservation Area - Over 200 individuals participated in this free event that featured nature-based activities with a focus on outdoor education, important plant and animal life, and the history of the conservation area. Special guests from FalconEd, the Paddling Puppeteer, and Sciencsational Ssssnakes!! participated with demonstrations and shows. The Madoc Lions Club generously volunteered to host a BBQ for guests.

Volunteer Information Session - Due to an increase in the request for volunteer opportunities, staff held an information session to discuss the different programs that are looking for volunteer support.

Woodland Wellness - This new initiative incorporated a series of free outdoor events that focused on connecting with nature and improving well being. Events included:

- Walking in the Woods - Guided Hikes
- Poses at Potter's - Outdoor Yoga
- Rooted in Relaxation - Forest Therapy
- Forest Flow - Music and Gentle Movement
- Tranquil Treks - Mindful Walking Experience
- Whimsical Wilderness Games - Outdoor Games for Children.

These events were made possible by a team of dedicated supporters, volunteers, and students from Loyalist College's Recreation, Sports, and Leisure program. A total of 25 Woodland Wellness events took place between September and December and included over 420 participants.

Community Trees - This event is made possible through partnership with watershed municipalities, and volunteer service groups. 11 municipalities participated in 2024, hosting free tree-giveaways for their residents. Landowners were also given the option to purchase through a pre-sale in quantities of 100. Any left over trees from the pre-sale were made available through a flash sale at Potter's Creek South Conservation Area on a first come, first serve basis.

Education

QC delivers a variety of educational programs to local youth throughout the year. They can be offered in class or outdoors at the following conservation areas: H.R. Frink, Potter's Creek South, Vanderwater, and Macaulay Mountain. These programs are available to private and public schools, community groups, camps, and libraries.

New Initiatives

Through partnership with the Invasive Species Centre, Quinte Conservation obtained a CD3 Waterless Boat Cleaning Station that was made available through rental to municipalities and associations. The CD3 moved to different boat launches every few weeks between July 29 and October 15. It was delivered to 9 locations where it was used for 113 cleaning sessions. This initiative was important in raising awareness about the aquatic invasive species in our waterways, while providing boaters with the necessary resources and tools to help stop the spread and contribute to the overall health of our lakes and rivers.



1) Lindsay Nash speaking at the Belleville Public Library for a pollinator seminar. 2) Phragmites removal at Beaver Lake. 3) Woodland Wellness - Walking in the Woods. 4) CD3 Waterless Boat Cleaning Station. 5) Community Trees flash sale. 6) Price Conservation Area restoration. 7) Woodland Wellness - Poses at Potter's. 8) Little Forests Napanee soil prep.



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