



MAY ACROSS THE WATERSHED: CONNECTING PEOPLE, PLACE, AND PURPOSE

May is a month of momentum. The landscape shifts quickly as trees leaf out, shorelines awaken, wildlife becomes more active, and people begin returning to trails, gardens, and outdoor spaces across the watershed. It is also a time when the connection between people and the environment becomes especially visible, through the choices we make, the places we gather, and the work happening quietly behind the scenes to support healthy natural systems.

This spring has also brought difficult reminders of just how quickly conditions can change. Following one of the most significant flood seasons in recent years, many residents across the watershed have experienced high water, saturated ground, shoreline flooding, and rapidly shifting conditions. In this month's Watershed Watch, we take a closer look at the science and partnerships behind flood forecasting and flood plain mapping, helping communities better understand how water moves across the landscape, how risk is monitored, and why long-term planning matters. We also explore how Durham TREES is helping private landowners plant for the future, restoring forest cover and strengthening watershed health one property at a time.

May also brings opportunities to get outdoors and reconnect with nature firsthand. Spring Fling returns to Ken Reid Conservation Area for a day of community, exploration, and seasonal activities, while an upcoming turtle awareness event offers practical ways residents can help protect vulnerable species during nesting season. Together, these stories reflect a shared theme, that conservation happens in many ways, from responding to changing conditions to planting trees, protecting wildlife, and creating opportunities for people to experience the watershed more deeply.

As always, if you have questions or suggestions for future topics, send your emails to jchambers@kawarthaconservation.com.

The Kawartha Conservation Team

FROM FORECASTS TO FLOOD LINES: HOW KAWARTHA CONSERVATION TRACKS AND MAPS FLOOD RISK

In a spring marked by heavy precipitation, rapid snowmelt, and warming temperatures, flooding has become a familiar concern across parts of the Kawartha region. Rivers have surged beyond seasonal norms, shoreline areas have seen elevated water levels, and residents have watched conditions shift quickly from one week to the next. Along waterways like the Burnt and Gull Rivers, high flows moving south from the Haliburton Highlands have contributed to rising lake levels and localized flooding concerns, prompting shoreline flood warnings across parts of the Kawartha watershed.

For many residents, flooding feels straightforward - water rises, roads close, shorelines erode. But behind every flood message issued by Kawartha Conservation is a complex process built on science, monitoring, partnerships, and geography.

One of the most common misconceptions is that Kawartha Conservation operates according to municipal boundaries. It does not. Like conservation authorities across Ontario, Kawartha Conservation is organized by watershed. A watershed is the area of land where all rainfall and snowmelt drain toward a common outlet, such as a lake, river, or stream. This means responsibility for flood forecasting does not always align neatly with municipal maps.

Some rivers and lakes within the City of Kawartha Lakes fall outside Kawartha Conservation's jurisdiction. The Burnt and Gull Rivers, for example, originate north of the watershed boundary and are monitored through a broader network involving the Ontario Ministry of Natural Resources and the Trent-Severn Waterway.

“Flood forecasting is really about understanding how water moves across an entire landscape,” said Nathan Rajevski, Watershed Resources Technician at Kawartha Conservation. “We monitor local conditions continuously, but we also rely heavily on information from upstream partners because water does not stop at political boundaries.”

Flood forecasting begins long before water reaches a shoreline. Kawartha Conservation monitors weather forecasts, rainfall amounts, snowpack conditions, stream flows, lake levels, and ground saturation across the watershed. Staff analyze information from Environment and Climate Change Canada, the Ministry of Natural Resources Surface Water Monitoring Centre, and hydrometric monitoring stations throughout the region.



When conditions warrant, field staff conduct flood patrols to visually confirm changing conditions on rivers, creeks, culverts, bridges, and shoreline areas. These patrols help verify what instruments and forecasts are indicating and provide real-time observations that can support public messaging and municipal decision-making.

The information gathered is shared directly with municipal partners, emergency management officials, and agencies responsible for water operations.

In the Kawartha Lakes system, water management is closely tied to the Trent-Severn Waterway, operated by Parks Canada. Through coordinated communication, Kawartha Conservation receives updates on dam operations, reservoir conditions, and upstream inflows that can influence lake levels downstream.

Flood messages issued by Kawartha Conservation are designed to provide residents and municipalities with early notice. Depending on severity, messages may range from a Watershed Conditions Statement to a Flood Watch or Flood Warning. These updates help residents prepare for changing conditions and allow municipalities to monitor vulnerable infrastructure and respond where necessary.



Kawartha Conservation staff on flood patrol across the region.

But forecasting is only one part of the story.

Long before a flood event occurs, Kawartha Conservation works with municipalities to understand where floodwaters are most likely to travel through flood plain mapping.

Flood plain mapping is the process of identifying areas where water naturally spreads during significant flood events. Using elevation data, rainfall and snowmelt information, hydraulic modeling, bridge and culvert data, and stream characteristics, technicians create detailed models showing how water behaves under different conditions.

These maps become essential planning tools.

“Flood plain mapping allows us to understand where water wants to go during a major flood event,” said Galen Yerex, Floodplain GIS/Mapping Technician at Kawartha Conservation. “The goal is not just to map risk, but to provide communities with information they can use to make informed decisions about land use, infrastructure, and future development.”

Flood plains are not arbitrary lines on a map. They reflect the natural movement of water across a landscape.

In areas where development has already occurred near rivers, lakes, or low-lying lands, flood mapping can help property owners understand their level of exposure and support informed decisions around flood preparedness and mitigation.

For municipalities, mapping becomes a critical planning resource.

Detailed flood plain studies support land use planning, emergency management, infrastructure design, and permitting decisions. They also help ensure future growth considers the long-term realities of flooding and changing weather patterns.

“Flood forecasting and flood plain mapping are closely connected,” said Kristie McCabe, Director of Planning and Development Services at Kawartha Conservation. “Forecasting helps us respond to immediate conditions, while mapping helps us understand long-term risk. Together, they support safer communities and more informed planning.”

Recent work has included updated flood plain mapping studies across multiple waterways, including sections of the Burnt River. These studies incorporate modern elevation data, updated hydrologic analysis, and refined modelling techniques that improve understanding of flood behaviour.

As extreme weather events become more frequent and precipitation patterns shift, both forecasting and mapping continue to evolve.

Flooding cannot always be prevented. Water will continue to follow gravity, move through watersheds, and respond to weather conditions far beyond a single municipality. But through monitoring, forecasting, mapping, and partnerships, Kawartha Conservation helps communities better understand those risks and prepare for them.

The work often happens quietly, behind the scenes, long before floodwaters reach a shoreline or road crossing. Yet in moments of high water, it becomes one of the most important services a watershed organization can provide.

Information about flood forecasting, warning messages, and flood plain mapping studies is available through Kawartha Conservation.



Flooding at Austin Sawmill Heritage Park in Kinmount



Kinmount dam

GROWING FORESTS ACROSS PRIVATE LANDS IN DURHAM

Across Durham Region, much of the landscape is shaped not by public land, but by the decisions made on private properties. Fields, woodlots, stream edges, and open spaces all play a role in the health of the watershed. Through Durham TREES, Kawartha Conservation is working with landowners to help shape that landscape, one planting at a time.

The program is a subsidized tree planting initiative available to private landowners in Durham Region. Delivered in partnership with Durham Region and five conservation authorities, it provides both financial support and technical expertise to help landowners establish and expand forest cover. More than 500,000 trees have already been planted through the program, reflecting a steady, long-term investment in the region's natural systems.

For landowners within Kawartha Conservation's jurisdiction in Durham Region, the process begins with a site assessment and planting plan. Properties must have enough suitable space to plant at least 100 trees, and projects are tailored to the land itself. Some focus on creating new forested areas, while others expand existing woodlots, establish windbreaks, restore open land, or stabilize areas along wetlands and streams.

Central to the program is the use of native tree species. Rather than a one-size-fits-all approach, species are selected based on site conditions, including soil type and moisture levels, as well as the long-term goals for the property. Trees are grown through a process that begins with seed collection and continues through nursery production before being planted on site. This careful matching of species to place helps support survival and long-term growth.

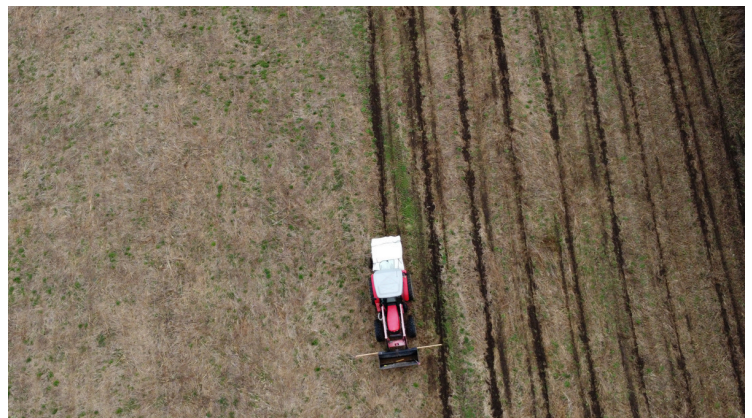
"Through Durham TREES, we're able to work directly with landowners to plan and plant the right trees in the right places," said Hunter Girdler, Forestry and Landowner Services Technician with Kawartha Conservation. "By matching native species to site conditions and providing support throughout the process, the program helps ensure these plantings are successful and continue to grow for decades."

The benefits of these plantings extend beyond individual properties. Trees help clean the air, reduce erosion, and protect water quality, while providing habitat for pollinators and wildlife. They also contribute to broader climate resilience, helping to address pressures such as drought and flooding. For landowners, the results are also tangible, offering increased privacy, reduced maintenance, and lower energy costs through shade and shelter. In some cases, properties may also qualify for tax reductions through the Managed Forest Tax Incentive Program.

Participation begins with a simple step. Landowners can use the program's mapping tool to identify their local conservation authority and submit an inquiry. From there, a Tree Planting Expert follows up to guide the process.

In a region where most of the land is privately owned, programs like Durham TREES reflect a practical approach to conservation. By working directly with landowners and supporting decisions on the ground, Kawartha Conservation is helping to build a more connected, resilient landscape, one that will continue to grow and evolve for generations.

To learn more about Durham TREES and to see if you qualify, visit: www.durhamtrees.org.



Machine planting site completed through Durham TREES program.

SPRING FLING OFFERS A DAY OUTDOORS AT KEN REID CONSERVATION AREA

Spring returns to Ken Reid Conservation Area on Saturday, May 9, as the Kawartha Conservation Foundation hosts Spring Fling from 10 a.m. to 2 p.m. This community event offers a chance to spend time outdoors, enjoy the changing season, and experience the conservation area in a relaxed and welcoming setting. Admission is by donation, with activities designed to encourage visitors of all ages to explore, connect, and enjoy nature close to home.

Throughout the day, guests can take part in a scavenger hunt, storybook walk, lawn games, crafts, and the popular opportunity to feed chickadees by hand. A guided wildflower walk departing from the Field Centre will highlight early spring blooms and the role native plants play in local ecosystems. Visitors can also explore the Talking Forest Trail, an interactive self-guided experience that blends storytelling and nature along a 2.22-kilometre route.

Spring Fling is presented by the Kawartha Conservation Foundation, a volunteer-led charitable organization that supports environmental education, community events, trail improvements, and projects that help strengthen connections between people and the natural environment. Funds raised through Foundation events and donations help support programs that encourage stewardship and improve access to nature across the watershed.



Why I joined the Kawartha Conservation Foundation

I joined the Kawartha Conservation Foundation because I've always been passionate about nature and wanted to get more involved in my new community.

After moving to the area a year ago, I've really come to appreciate the natural beauty here and the importance of protecting it.

I'm interested in exploring conservation ideas on my own property like planting trees and possibly creating wetlands and I see this as a great way to learn, connect with others, and give back.

Aishwarya Kumar



LEARN HOW TO PROTECT LOCAL TURTLES AT KEN REID CONSERVATION AREA

As warmer weather returns and more people head outdoors, spring is also an important time for local turtle species as they begin moving toward nesting areas and crossing roads more frequently. On Saturday, May 16, Kawartha Conservation will host Preparing for Summer: Protecting Our Turtles, an educational afternoon focused on helping residents better understand and support turtles during one of their most vulnerable seasons. The event takes place from 1 to 3 p.m. at the Ken Reid Conservation Area Field Centre.

Participants will learn about the challenges turtles face across the watershed, including habitat loss, road mortality, and nesting pressures. The session will include practical information on how to identify turtle species, safely assist turtles encountered on roads, and create more turtle-friendly spaces at home and along shorelines. Families and nature enthusiasts are invited to take part in this approachable and informative event designed to encourage stewardship and awareness.

This program is supported by the Kawartha Conservation Foundation, a volunteer-led charitable organization that helps fund environmental education, community programming, conservation projects, and public engagement opportunities across the watershed. Through events like this, the Foundation helps connect residents with the natural systems that support local biodiversity and healthy ecosystems. To learn more and register for this free family event, visit the Events Calendar at www.kawarthaconservation.com.



Turtle nest box installation at Ken Reid with students from a local school.

For more information on how Kawartha Conservation can help.
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