



# Watershed Watch Newsletter



Welcome to the February Issue of Watershed Watch

As we move into February, we're excited to share some of the innovative work and research our team has been focusing on to support a healthy and thriving watershed. This month's issue highlights how we're leveraging drone technology to identify areas of sediment and erosion control issues on development sites, helping us to address challenges more efficiently and effectively.

We're also diving into the initial findings from an aquatic thruster pilot project aimed at aquatic plant control. This innovative project has the potential to provide new tools to balance ecosystem health and recreational access to our waterways.

Additionally, the Water Fund is now open for submissions! For more than two decades, this long-standing grant program has supported property owners across urban, rural, agricultural, and waterfront properties in our watershed. If you're looking to make environmental improvements on your property, the Water Fund might be the perfect opportunity.

As always, we want to hear from you! If there are stories, projects, or topics you'd like to see covered in future issues of Watershed Watch, we'd love to know. Please share your ideas by emailing [jchambers@kawarthaconservation.com](mailto:jchambers@kawarthaconservation.com).

Thank you for being part of the Kawartha Conservation community and for your continued commitment to the health and sustainability of our watershed.

Warm regards,  
The Kawartha Conservation Team



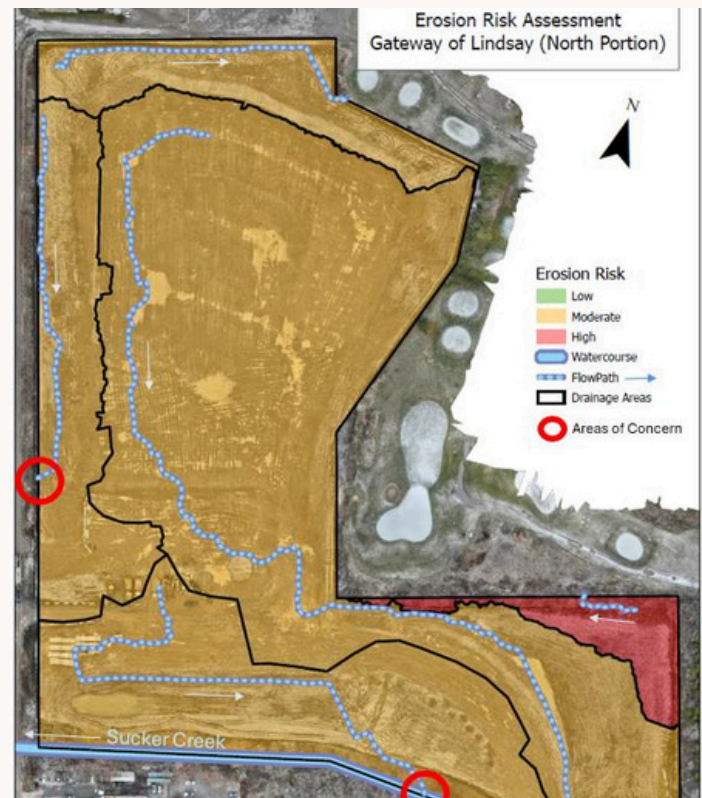
## KAWARTHA CONSERVATION USES DRONES FOR EROSION CONTROL AT GATEWAY OF LINDSAY

Kawartha Conservation has taken its first steps into using drone technology for erosion and sediment control, piloting the effort at the Gateway of Lindsay construction site in partnership with Bromont Homes. The project focuses on protecting Sucker Creek and other local water bodies from construction-related sediment runoff.

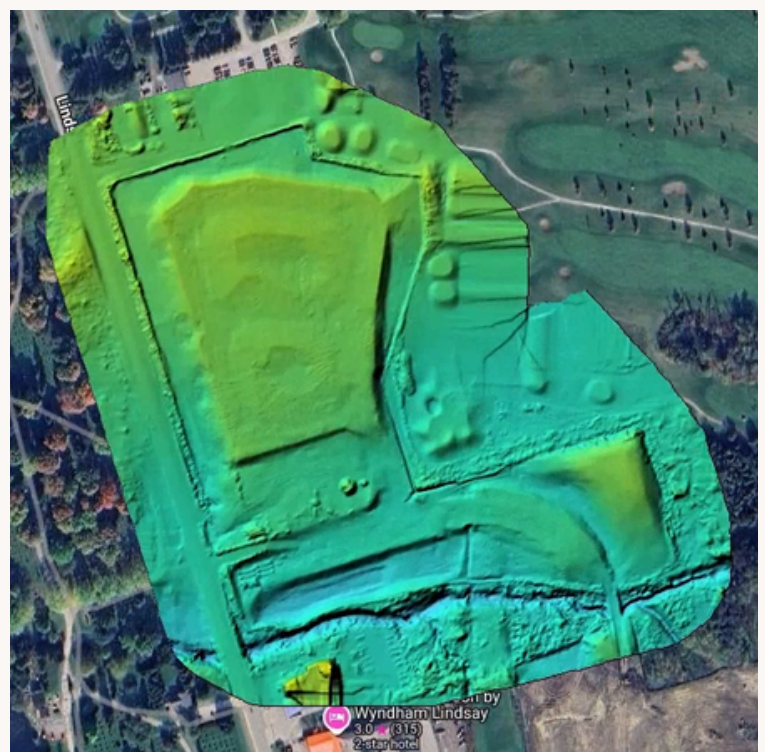
**“This is a practical way to gather the data we need to address erosion risks,” said Brett Tregunno, Aquatic Biologist with Kawartha Conservation. “By identifying areas of concern early, we can put measures in place to reduce sediment entering waterways and protect aquatic habitats.”**

Using drones equipped with real-time kinematic (RTK) modules, Kawartha Conservation’s team mapped the site in detail, collecting data on topography, soil characteristics, and drainage patterns. The information was used to develop a digital terrain model and classify areas of erosion risk.

“The drones allowed us to quickly and accurately map the site, including its drainage flow paths and erosion-prone areas,” said Warren Dodd, Network Analyst and Administrator at Kawartha Conservation. “This technology is efficient and provides data we couldn’t easily gather with traditional methods, especially for large and complex sites.”



Erosion Risk Assessment map, based on surface flow pathways.



Detailed topographic map, from processed drone elevations.

The assessments revealed that most of the site posed a moderate erosion risk, with one section classified as high risk. The team used these findings to recommend targeted erosion and sediment control measures to reduce potential impacts on Sucker Creek and the Scugog River.

“Understanding erosion risks through drone data has given us the ability to act decisively,” Tregunno added. “It’s an important tool in ensuring construction activities don’t harm our local water systems.”

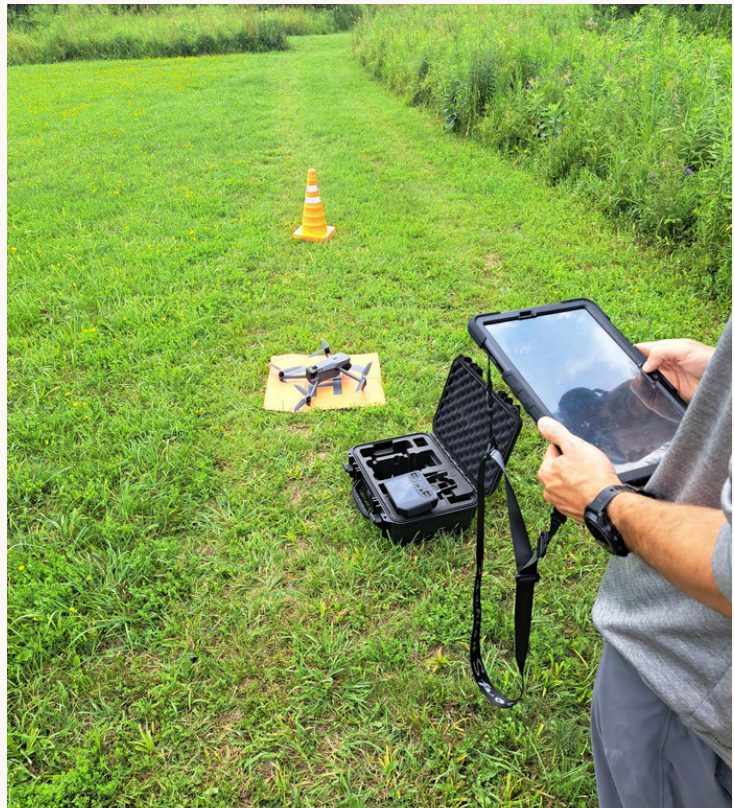
Joe Pilatzkie, Manager of Contract Administration at Valdor Engineering Inc., said the partnership not only supports environmental health but also strengthens potential protections for the development site by providing a better understanding of where issues may arise.

“Valdor is proud to collaborate with the Conservation Authority, City, and Developer to monitor watercourses and lands, ensuring development protects the surrounding environment during construction and beyond,” he said.

This project marks a significant milestone for Kawartha Conservation as it explores the use of drones to support environmental monitoring and protection. While drones are commonly used in other sectors, this initiative represents a new way for the organization to enhance its efforts in managing erosion and sedimentation in the Kawartha Lakes watershed.



Aerial drone image of site, with locations of ground control points.



Drone operation training at Ken Reid Conservation Area.

## STUDY EXPLORES EFFECTS OF AQUATIC THRUSTERS ON KAWARTHA LAKES

A new study led by Kawartha Conservation provides an initial look at how aquatic thrusters impact submerged aquatic plants in the Kawartha Lakes. Conducted by Brett Tregunno, Aquatic Biologist, and Tanner Liang, Water Quality Specialist, the research offers early insights into the environmental effects of this emerging technology.

Aquatic thrusters, or bubblers - mechanical devices that create turbulent water - are used by waterfront property owners to manage aquatic vegetation in small nearshore areas. The study, conducted during the summer of 2021, examined thrusters deployed in Balsam Lake, Sturgeon Lake, and Lake Scugog. Operating nightly for 12 hours over 40 days, the thrusters significantly reduced plant surface area by 65%, floating cover by 70%, and plant biomass by up to 95%. However, water quality parameters, including dissolved oxygen and turbidity, remained unchanged during the study period. Chemical parameters of water quality were not looked at as part of the study.

**“This research gives us a baseline understanding of how aquatic thrusters affect plant communities, but the broader implications for lake health and ecosystem stability need further exploration,” explained Tregunno.**

“As lake and river specialists, it’s our responsibility to examine how technologies like these interact with the physical, chemical, and biological aspects of our lakes,” Liang added. “This study highlights the importance of integrating emerging tools with sustainable practices.”



Aquatic thrusters used to manage shoreline vegetation.

Nancy Aspden, Director of Integrated Watershed Management at Kawartha Conservation, emphasized the importance of this research in the context of increasing lake use and population growth.

“This study is just one aspect of how Kawartha Conservation is working to better understand and manage nearshore zones,” Aspden said. “With the Kawartha Lakes serving as a hub for recreation, tourism, and residential growth, we need to ensure that technologies like aquatic thrusters are used responsibly and with the environment in mind.”

Aspden added that Kawartha Conservation’s role is to balance environmental health with community needs. “This project reflects our commitment to supporting science-based decision-making while protecting the ecological integrity of our lakes,” she said.

The study provides a foundation for further investigation into the long-term impacts of aquatic thrusters, including their effects on fish habitats, sediment movement, water quality, and overall ecosystem health. As Kawartha Conservation continues its work in watershed management, research like this contributes to sustainable solutions for one of the region’s most important and valued natural resources.



Before the use of aquatic thruster.



After the use of aquatic thruster.

## WATER FUND: FUNDING AND SUPPORT AVAILABLE TO HELP PROTECT THE KAWARTHA LAKES

For nearly two decades, the Water Fund has been a cornerstone of environmental stewardship within the Kawartha Conservation watershed, empowering landowners and community organizations to make meaningful contributions to the health of local ecosystems. Through financial support, technical guidance, and shared expertise, the Water Fund has become a vital tool in protecting water quality and promoting sustainable practices across the region.

“The Water Fund enables individuals and groups to take direct action to enhance their properties and projects in ways that benefit the environment,” said Danielle Marcoux-Hunter, Landowner and Community Specialist at Kawartha Conservation. “The results are long-lasting improvements that contribute to the overall health of our watershed.”

Since 2007, the Water Fund has provided over \$770,000 in funding to support 490 landowner-led projects. These efforts have included tree planting, shoreline naturalization, erosion control, agricultural Best Management Practices, and much more. The impact is visible across the watershed in cleaner water, healthier habitats, and thriving natural landscapes.

The addition of the Kawartha Community Water Fund in 2019 has further expanded this legacy, granting an additional \$80,000 to support projects initiated by not-for-profit community organizations. From restoring natural shorelines to improving stormwater management, these initiatives underscore the importance of community-led environmental efforts.

“These projects are about more than just improving individual properties,” Marcoux-Hunter explained. “They help create a ripple effect of positive change, enhancing biodiversity, reducing pollution, and fostering a more resilient ecosystem.”



Stewardship staff conducting site visits to potential Water Fund properties during open application period.

For many participants, the Water Fund has been a gateway to achieving ambitious environmental goals. Whether it's decommissioning an unused well to protect groundwater or planting native vegetation to prevent shoreline erosion, the fund has enabled countless residents and organizations to take on projects that might otherwise have been out of reach.

The importance of these efforts cannot be overstated. With growing pressures on water resources from development, climate change, and population growth, programs like the Water Fund play a critical role in maintaining the health of the watershed for future generations.

**“Every project supported by the Water Fund contributes to a collective effort to protect and preserve our natural environment,” said Marcoux-Hunter. “It’s inspiring to see the impact that individuals and organizations can have when they work together toward a shared goal.”**

Applications for funding are open annually, and eligibility is based on the potential of projects to positively impact water quality or ecosystem health. To learn more about the program or to apply, visit [kawarthaconservation.com/waterfund](http://kawarthaconservation.com/waterfund) or contact Danielle Marcoux-Hunter at 705-328-2271 ext. 242.

Through the Water Fund, Kawartha Conservation is fostering a culture of environmental stewardship and ensuring the region's natural beauty and ecological health are safeguarded for generations to come.



Water management project.



Livestock exclusion fencing project.

*For more information on how Kawartha Conservation can help.*  
Conservation Lands: [conservationareas@kawarthaconservation.com](mailto:conservationareas@kawarthaconservation.com)  
General info: [geninfo@kawarthaconservation.com](mailto:geninfo@kawarthaconservation.com)  
Permitting: [permits@kawarthaconservation.com](mailto:permits@kawarthaconservation.com)  
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