

... and then there were four!

The Tree Power Program concept continues to grow. In 2022, the UTRCA will partner on four different Tree Power Programs. Partners and length of participation are as follows: London Hydro (12 years), Festival Hydro (Stratford) (two years), Perth South (two years), and the Town of St. Marys (first year). The two hydro programs will take place this spring and the two municipal programs will be in the fall.



UTRCA's Karen Pugh and Emily Chandler showcase Festival Hydro Tree Power Trees in 2021

The Festival Hydro program website opens for orders on March 7, at 10 am. Festival Hydro customers can order a tree by visiting www.festivaltreepower.ca. Eight native species ranging in height from 1.5 to 2.0 metres will be available. There will be a total of 300 potted trees. Trees are priced at \$20 or \$25 each.

The London Hydro program website opens for orders on March 8, at 10 am. London Hydro

customers can order a tree by visiting www.treepowerprogram.ca. Seven native species ranging in height from 1.2 to 2.0 metres in pots, will be available. There will be a total of 600 potted trees. Trees are priced at \$20 or \$25 each.

It is expected that demand for trees through these programs will be very strong. History has shown that many species will sell out in hours. Purchasers will be able to pick up their trees in early April.

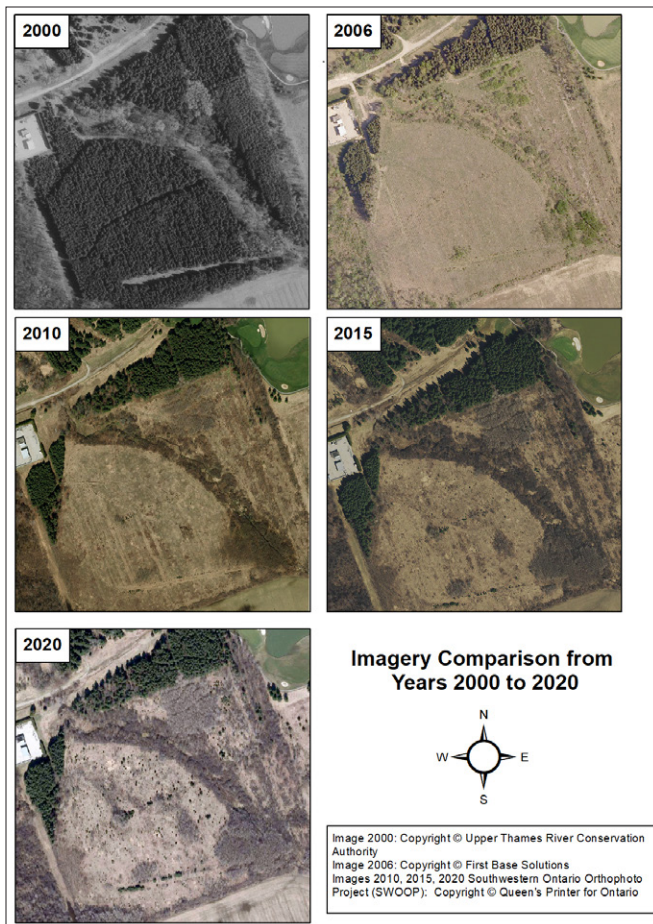
Stayed tuned this fall for further information on the Perth South and Town of St. Marys Tree Power Programs.

Contact: [John Enright](#), Forester

Picture This!

The UTRCA has received 2020 imagery (aerial photography) for the Upper Thames River watershed (see SW Ontario Orthoimagery Project article https://thamesriver.on.ca/wp-content/uploads/Publications/FYI_November-2019.pdf for more information).

Aerial photography has been the core product for viewing the UTRCA watershed landscape since the 1940s. This photography was first digitally produced and shaped to the Earth's surface (ortho-rectified) in the year 2000. This allowed staff to view and measure features on the image on a computer rather than on a printed photo. Since then, digital photography has been collected in 2006, 2010, 2015 and, most recently, 2020.



Imagery comparison of a former plantation within Fanshawe CA from 2000 to 2020.

UTRCA staff use the imagery to view what is on the landscape to assist them in reviewing planning and regulations requests, measuring land cover change, planning conservation services projects, and answering many other day to day questions. Other information, referred to as map layers or features, are placed over the imagery to identify:

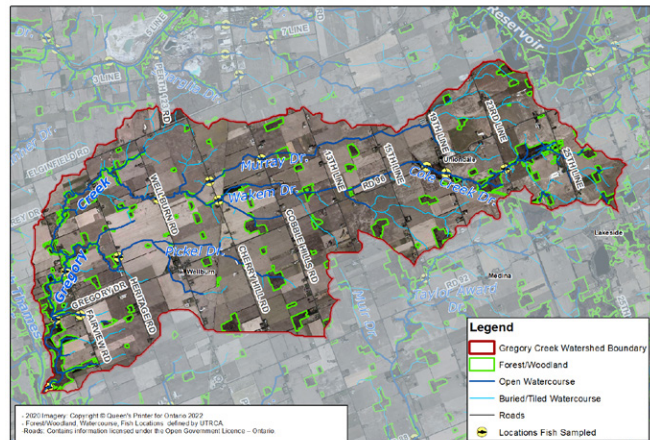
- points (objects or known locations such as hydro poles or sampling locations),
- lines (linear features such as watercourses or roads), and
- polygons (features that have an area such as woodlands or UTRCA regulation areas).

The map below shows these layers.

Geographical Information Systems (GIS) staff has the task of updating these mapping layers. Staff visually inspects the imagery and compares it to previously mapped features to:

- check if features still exist,
- define features that have lost or gained area, and
- ensure the location of features has not changed.

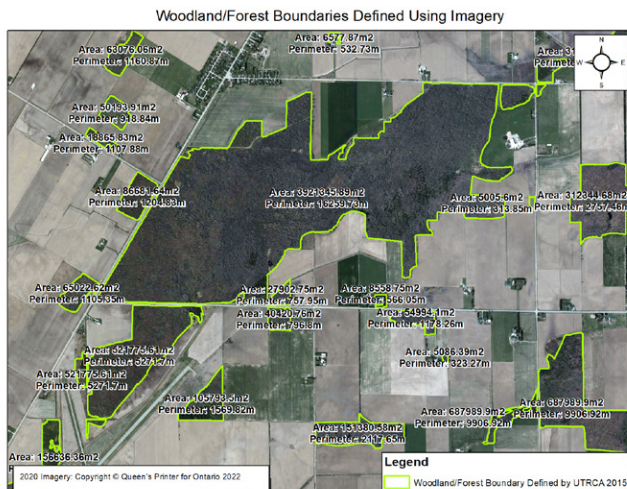
GIS Layers Over Aerial Photography



Mapping and updating watercourse locations is a critical task. Watercourse locations change slightly over time due to erosion and natural processes. As well, watercourses (drains) can be newly created, altered, or closed over. The UTRCA develops hazard mapping that identifies the location of hazard areas to support the regulation made under the Conservation Authorities Act Regulation (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, Ontario Regulation 157/06). This mapping is an important communication tool to illustrate areas affected by flood hazards, erosion hazards, wetlands, and the area of interference surrounding wetlands.

Woodlands (forests), meadows, thickets, wetlands, and water make up the mapped natural heritage features. Changes to these features are recorded, such as new tree planting sites and woodlands that have succeeded from thickets. Fallow fields that have naturally transitioned to meadows are also recorded. These successional changes are very dynamic. Gains in one natural feature are often at the expense of another. Conversion (clearcutting) of natural features to crops or urban land uses is also measured and recorded.

Maintaining the mapped features in a GIS allows information about the feature to be stored by its shape and size. Each feature's area and length are recorded, allowing it to be compared to historical data. Other information about the feature can also be recorded (e.g., name or type of feature).



Mapping these types of changes through aerial photography assists UTRCA staff in measuring and monitoring the health of the subwatersheds and watershed as a whole. The UTRCA Watershed Report Cards (<https://thamesriver.on.ca/watershed-health/watershed-report-cards/>) report on changes in watershed health indicators every five years. Much of the information in the report cards is based on data derived from the imagery and stored in the GIS. The upcoming 2022 watershed report cards will be based on data from the 2015 imagery.

Contact: **Terry Chapman**, GIS Specialist

Incorporating Green Infrastructure into Municipal Drainage Systems

UTRCA staff have been working with partners to **incorporate Green Infrastructure into municipal drainage systems**, in a project in the Township of Lucan Biddulph.

The Blake municipal drain was constructed in 1982 and drains approximately 305 hectares (755 acres) of rolling farmland. The drain outlets into Medway Creek near Elginfield, north of London.

Recent upgrades to the drain included the incorporation of erosion control features, with

the construction of more than 25 water and sediment control basins along the drain. These structures utilize the natural environment and engineered systems to manage water. The small earthen dams hold water on the land for up to 24 hours, releasing it slowly through surface and blind inlets into the tile drainage system.

The Blake municipal drain project is an example of Green Infrastructure being used in a rural context to address rising concerns about water quantity on farmland. It is also a great example of area landowners taking a proactive, watershed approach and sharing project costs and responsibilities to improve the ecosystem.

The UTRCA's partners on this project include St. Clair Conservation Authority, Dietrich Commodities Ltd, Spriet Associates Engineers and Architects, A.G. Hayter Contracting Ltd, and the Township of Lucan Biddulph.

Contact: **Brad Glasman**, Manager, Integrated Watershed Management

Shared Waters Approach: Update [The Thames River \(Deshkan Ziiibi\) Shared Waters Approach to Water Quantity and Quality \(December 2019\)](#)

describes the status of issues/state of the environment in the Thames River watershed, with a focus on water quantity and quality. The document outlines a series of recommendations to address information gaps, monitoring needs, opportunities to engage and outreach, and implementation of various solutions for water quality and quantity through best practices, technology solutions, and alternative approaches by the various stakeholders.

The Shared Waters Approach (SWA) was completed by the Thames River Clear Water Revival (TRCWR) in 2019. This long-term, collaborative initiative is committed to a healthy and vital Thames River, which will ultimately benefit Lake St. Clair and Lake Erie. The TRCWR brings together Indigenous peoples, all levels of government, conservation authorities, and the local community to achieve this common goal.



The SWA contains significant input from four of the eight distinct First Nations whose traditional territory overlaps the Thames River watershed. The document highlights the positive participation and sharing of traditional ecological knowledge within this framework, and the valued participation of the First Nations in implementation.

The Upper Thames River and Lower Thames Valley Conservation Authorities regard the SWA as the foundation for the watershed management strategy each CA is developing, in accordance with the new Conservation Authorities Act regulations.

With the completion of the SWA, work is now underway to develop an engagement, communication, and implementation strategy for the document's recommendations, as well as to broaden participation in the delivery of the recommendations. Each partner in the TRCWR Steering Committee is responsible for ensuring the strategy includes activities that will achieve their SWA recommendations.

The TRCWR is establishing working groups to focus on recommendations related to municipalities, agriculture, First Nations, and natural heritage. These working groups will contribute to the overall SWA implementation plan by identifying and tracking actions

that have already been undertaken to meet each partner's recommendations, as well as identifying what actions still need to be undertaken and developing an implementation plan for these actions. The working groups will also work towards community support for the SWA that will help each partner in the delivery of their actions and recommendations.

Contact: [Tara Tchir](#), Project Manager, or [Eleanor Heagy](#), Communications Specialist

On the Board Agenda

The next Board of Directors meeting will be held virtually on March 22, 2022. The following items are on the draft agenda:

- Species at Risk Stewardship Program Funding Concern Response Letter from Minister, Environment, Conservation and Parks
- By-Law Amendments
- Pesticide Application Policy
- Section 28 Report
- 2021 Health and Safety Summary

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Contact: [Michelle Viglianti](#), Administrative Assistant