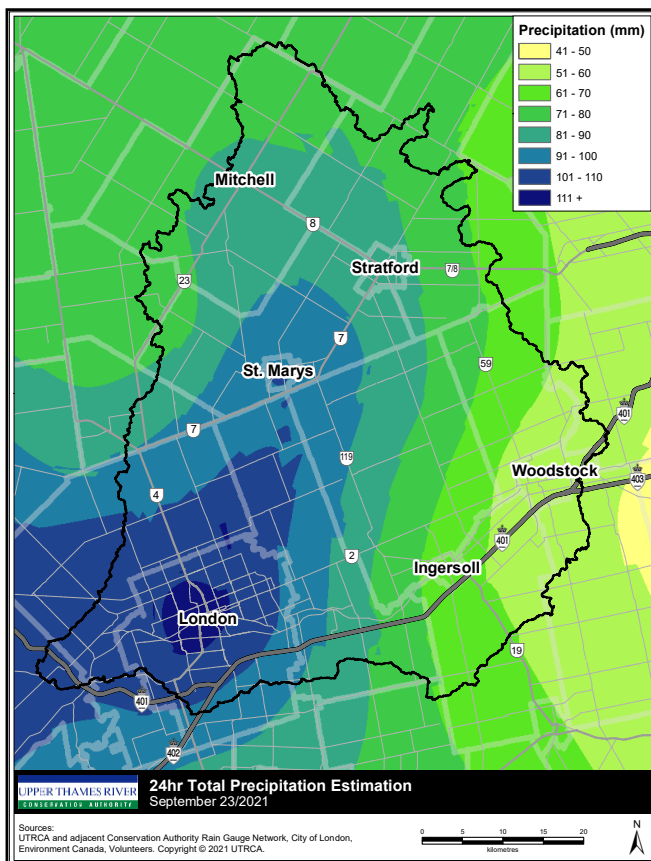




September 2021 Flood in Review

The UTRCA watershed's most significant flood event since before the pandemic occurred as a result of 50-135+ mm of rain falling over a 24 hour period on September 22-23, 2021.



With the watershed already partially saturated from 45 mm of rain earlier in the month, much of this rain was not absorbed into the ground, but rather ran off into local streams and rivers. Waterways rose to bank full levels and beyond, in harder hit areas.

The UTRCA Flood Contingency Plan was put into action with a series of flood messages going out to flood coordinators and the public, beginning on September 21. Fortunately, the **UTRCA flood control reservoirs** at Fanshawe, Pittcock, and Wildwood Conservation Areas were at seasonal levels, allowing some of the runoff to be stored to reduce downstream flooding, and then gradually released once the event had passed. These operations prevented serious flood damages from occurring.

This event was equivalent to a 1:5 to 1:10 year event, meaning there is a 10% - 20% chance of a flood near this magnitude occurring in any given year. It is worth noting that it is very rare for a flood of this magnitude to occur in the fall rather than the spring.

A flood of this magnitude results in a lot of activity for various UTRCA staff units.

Water Management

Water management staff undertake a planning cycle at least once every day, year round, to ensure that any flood potential can be identified in a timely manner. During flood conditions, this planning cycle becomes a continuous monitoring of watershed conditions and weather. Staff assess a range of criteria, including:

- precipitation and temperature forecasts, snow pack condition (if any),
- reservoir levels and discharges,
- relative saturation of watershed,
- [hydrometric \(stream gauge\) network](#) status (i.e., are the monitoring stations all working as expected).

Water management staff use this assessment to develop flood bulletins for municipal flood coordinators. Depending on the magnitude, timing, and location of flooding, multiple bulletins may be required, and staff may be in frequent contact with specific municipal flood coordinators who have vulnerable infrastructure or flooding impacts.

While the UTRCA is responsible for alerting municipal representatives, police, media, etc., the conservation authority is not responsible for notifying individual citizens; that responsibility lies with municipal flood coordinators.

Dam operations, which are normally scheduled in advance, also shift into continuous monitoring and response that involves staff from both the water management and conservation areas units. Water management field staff can be very busy with dam operations at multiple locations as well as trouble shooting at various structures and stream gauges, and rely on conservation area staff to be able to operate the dams.

With [recreational reservoirs in Stratford and Mitchell](#) at summer levels, significant efforts were also focused on operations at Mitchell and RT Orr Dams to prevent upstream flooding and ensure the safety of the dams. A power failure in Mitchell made operations even more challenging, requiring a backup gasoline motor for gate operations. It was also necessary to

dispatch staff to these dams to monitor water levels and confirm operations over night.

Once a flood event is over, a post event analysis improves the forecasting and response for future events. Staff evaluate the modeling, review the data, and look at the accuracy of the forecasts for precipitation, runoff, and watershed conditions. Understanding how an event unfolded provides valuable information for the future.

Communications

During a flood event, communications staff assist water management staff by fine tuning and issuing flood bulletins. During more significant events, communications staff will also follow up with municipal flood coordinators to confirm they received the flood bulletins.

Other typical tasks for communications staff during a flood event include:

- Media releases and interviews,
- Responding to calls made to the Watershed Conservation Centre,
- Maintaining and monitoring UTRCA website and social media channels,
- Visiting various flood prone locations across the watershed to take photos, videos, and drone footage.

People assume that water management and communications staff are heavily involved during a flood event - and they are, of course - but many other UTRCA staff also have important roles, depending on the magnitude and timing of the flood event.

UTRCA regulations staff may contact specific permit holders who are undertaking activities near a waterway, to ensure they are aware of the potential for flooding. Staff will also photograph areas known to be vulnerable to flooding problems, and may assist with recording high water marks. In a major flood event, staff from across the UTRCA may be called on to assist with the high water mark recording.

Conservation Areas

Conservation Areas Unit staff at Fanshawe (FCA), Pittcock (PCA), and Wildwood (WCA) Conservation Areas performed dam operations throughout the week. This work involves operating dam gates, as directed by water management staff, at all hours of the day and night.



The canoe and kayak rentals at Fanshawe CA.

Staff were in regular communications with water management staff about anticipated reservoir water levels and impacts on park operations, as these flood control reservoirs filled to reduce flood impacts downstream. The CA Unit staff have an excellent understanding of reservoir benchmarks for triggering action within their parks.



Flooded roadway in the Fanshawe CA campground.



Fanshawe CA staff pull a trailer to safety.

In the campgrounds, FCA and PCA closed overnight campsites that had not been reserved to create additional storage space if structures or trailers needed to be moved out of flood areas, and all seasonal campers in flood prone areas were put on standby. In total, trailers were removed from 18 seasonal campsites at FCA, beginning early on September 22. While campers are responsible for moving their own belongings, staff did assist with pulling a few trailers using the conservation area's tractor.

Overnight campsites were also affected at FCA. Four sites were relocated to higher ground, and approximately 30 reservations for overnight campsites within the flood area were called and given the option of either moving to higher ground, or changing or cancelling their reservation (at no charge).

The WCA campground does not experience flooding like the other two, thanks in part to the recent investment in new culverts and campsites being located well above reservoir flood levels.

Staff also initiated calls to affected clubs and organizations, including the sailing/yacht/rowing clubs, pioneer village, and safety village.

At WCA, staff called more than 50 wet dock boat owners whose boats had filled with rainwater, and even pumped water out of several boats to prevent them from sinking. Seasonal dock holders were notified that the boat launch was inaccessible, and staff offered to assist those who were unable to load their boat onto a trailer without the launch dock.

Other activities included securing or removing park boats, docks, and picnic tables; closing trails; and setting up barricades to block access to high risk areas.

As the reservoirs gradually receded after the event, staff were busy clearing debris; repairing

culverts and eroded banks; and reopening launches and docks.

Of course, while all of this activity was going on, park staff were still running the campgrounds, maintaining safe and clean facilities, working on the 2022 budget, and dealing with a myriad of other day to day tasks.

- [Video: Queen Street Bridge, St. Marys](#)
- [Video \(drone\): Forks of the Thames, London](#)

Contact: [Mark Helsten](#), Senior Water Resources Engineer, or [Eleanor Heagy](#), Communications Specialist

Demonstration Farm Field Day, November 3

The Conservation Services Unit is hosting a free [field day](#) on November 3 at the UTRCA Demonstration Farm near Thorndale. The 58 acre farm is intended to demonstrate agricultural best

management practices (BMPs) and showcase how they can improve soil health, water quality, and productivity. The goal is to provide examples of a suite of BMPs that landowners can use on their own farm.

Contact: [Brad Glasman](#), Manager, Conservation Services

Conservation Field Day

Wednesday, November 3rd, 2021 - 10 am to 2 pm
16169 Thorndale Road, at the corner of Prospect Hill Road (about 2 km west of Thorndale)

Featuring

- Controlled Drainage
- Structural Erosion Control
- Blind Inlet
- Cover Crop Trial
- Forestry Experts
- Industry Displays

This project was undertaken with the financial support of:

Climate Change Tree Trial Produces First Seed Crop

In 2021, the Oxford County Bur Oak Climate Change Trial, located at the Salford Waste Management Facility, produced its first seed crop. This is remarkable, considering the site was planted only 11 years ago with 25 cm tall, one year old seedlings.



Tennessee bur oak acorns ready for picking.

The trial is a partnership between the Forest Gene Conservation Association, Oxford County, and UTRCA. It consists of bur oak trees from local sources, as well as from Pennsylvania and Tennessee. It is testing the theory that as our climate continues to warm, trees from more southern locales will perform better than our local trees, as they are better adapted to a warmer climate.

On September 30, UTRCA forestry staff collected approximately 100 litres of bur oak acorns from the Tennessee and Pennsylvania trees, with most coming from the Tennessee trees. The



Exceptionally large Tennessee bur oak acorns hand picked on September 30, 2021.



Brenda Gallagher hand picks Tennessee bur oak acorns.

Pennsylvania trees had dropped their seed, which staff collected from the ground. The Tennessee trees held their seed longer, so that was hand picked from the trees. This makes



Two trays of Tennessee and a part tray of Pennsylvania bur oak acorns set out to dry.

sense as the Tennessee trees are programmed to grow longer into the fall. The local bur oak trees produced no seed in 2021.

The main difference between the acorns was the size: the Pennsylvania acorns were similar in size to local acorns, while the Tennessee acorns were two to three times larger.

The seed has been shipped to Kayanase, a local tree and seed nursery located at Ohsweken on the Six Nations of the Grand River. Here, they will be greenhouse grown to one year old plug seedlings. Assuming germination is good, it is hoped that some of this stock will come back to the UTRCA for an experimental planting in the spring of 2023.

Contact: [John Enright](#), Forester



Virtual Woodstock Memorial Forest Dedication Service

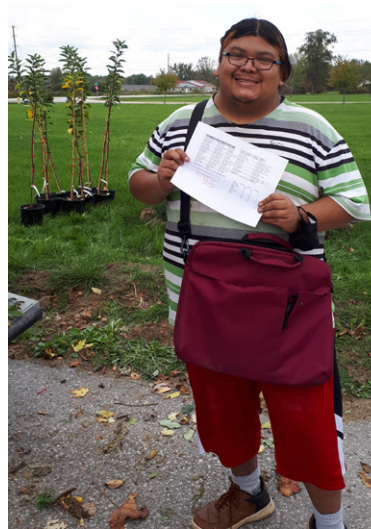
For the second year in a row, UTRCA board member Mark Schadenburg and Brock and Visser Funeral Home staff participated in a virtual dedication service for the Woodstock Memorial Forest. A ceremonial tree was planted at Pittock Conservation Area, accompanied by the traditional piper. The service was pre-recorded and will be made available on [Brock and Visser's website](#).

More than 7000 memorial trees have been planted since the program began in 1994. The permanent site is located on the west side of

County Road 4, and south of Pittock Reservoir. The trees are now visible from the road, and there is also an adjacent walking trail.

Contact: [Karen Pugh](#), Resource Specialist

Oneida Nation Tree Planting



Thanks to the TD Friends of the Environment Foundation, Oneida Nation of the Thames received 150 new trees on October 13. Species included apple, pear, sugar maple, red maple, white cedar, white pine, and pin cherry.

Above: Brandon Doxtator, Environment and Consultation Coordinator for Oneida Nation of the Thames, coordinated the tree distribution.

Below: A community member with some of the cedar and pine trees to be planted.



The UTRCA has enjoyed a partnership with Oneida Nation for several years now in helping to establish more tree cover for shade, air filtration, erosion control, and food sources.

Contact: [Karen Pugh](#), Resource Specialist

Carroll Park Tree Planting

Columbia Employees & Home Hardware

Employees from Columbia Sportswear Company partnered with Dave Kirk from the London East Home Hardware store, the UTRCA, and City of London Parks to establish new trees in Carroll Park. Native trees and shrubs were planted in areas that will now be allowed to naturalize. Parts of the park are often too wet for mowing. The trees will add diversity, shade, habitat, sources of food for birds, and reduce City of London mowing.

Thanks go to Tree Canada for coordinating funding for this project.



Rotary Club

On the evening of October 6, several members of the Rotary Club London South volunteered their time to plant native trees and shrubs in the south end of Carroll Park, Summerside subdivision. This planting had been delayed a year due to the pandemic restrictions. The Rotary Club donated funds in the spring of 2021 but members were unable to plant the trees.

The open air event, coupled with double vaccinated volunteers, was a boost for the environment as well as for everyone's morale. Additional funding from TD Friends of the Environment Foundation enabled more stock to be planted.



Contact: [Karen Pugh](#), Resource Specialist

Woodchip Biofilter Manual

UTRCA staff have created a guide document for the creation of woodchip biofilters. This best management practice is a less commonly used practice in Ontario that is highly effective at reducing nitrogen in drainage water.

Carbon in the woodchips is used as a food source by microbes, enabling them to convert nitrate in the water to nitrogen gas, which is then released into the atmosphere. This natural biological process is called denitrification.



Staff install a woodchip biofilter.

This project was funded in part by the Ontario Ministry of Agriculture, Food and Rural Affairs, in partnership with the University of Waterloo.

Information on woodchip biofilters and other management practices can be found on the [Farmland Best Management Practices](#) section of the UTRCA website.

Contact: [Tatianna Lozier](#), Agricultural Soil and Water Quality Specialist

On the Agenda

The next UTRCA Board of Directors meeting will be held virtually on October 26, 2021. The following items are on the draft agenda:

- 2022 Draft Budget Approval
- Provincial Offences Act Designations
- Updates to Hearing Guidelines for Conducting Hearings Pursuant to Section 28 of the Conservation Authorities Act
- UTRCA COVID-19 Interim Vaccination Policy
- Frivolous and Vexatious Complaints and Requests Policy
- Administration and Enforcement - Section 28 Status Report
- Conservation Authorities Act Phase 1 Regulations - Update
- 2022 Rental House Rates

Please visit the “Board Agendas & Minutes” page at www.thamesriver.on.ca for agendas, reports, audio/video links and recordings, and minutes.

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