

Fletcher's Creek Rehabilitation Initiative



Project Goal

Fletcher's Creek is a tributary of the Credit River, running through the City of Brampton. In recent times, its health and integrity have been a concern for the City of Brampton and Credit Valley Conservation (CVC) due to increasing pressure from urbanization. CVC found that fish health in this stream was extremely poor. This was a major concern, as Fletcher's Creek supports populations of the provincially endangered Redside Dace. From 2014-2016, actions were taken to restore the creek's headwaters by enhancing habitat in the hopes that stream conditions would improve and Redside Dace populations would rebound.

The Need

The Redside Dace is a sensitive minnow that was once widespread in the Greater Toronto Area (GTA). However, existing populations of this minnow are in decline due to rapid urban development. Issues that negatively affect Redside Dace such as a loss of stream-side

(riparian) vegetation, increased water temperatures, increased erosion and sedimentation, and the introduction of invasive species are all problems that arise alongside increased urbanization.

The Fletcher's Creek Rehabilitation Initiative began in partnership with the City of Brampton under the belief that effective education and collaboration can create healthy streams and strong communities. The overall goals for this project are as follows:

- Restore natural habitat for Redside Dace.
- Apply flood-protection technologies that emphasize the restoration of a healthy ecosystem.
- Reforest and re-vegetate Fletcher's Creek valley to control seasonal flooding and debris flow.
- Create educational programs that teach students the importance of a healthy stream.

- Foster efforts to monitor and improve water quality in Fletcher's Creek, while also controlling pollution from dumping and storm drains.
- Coordinate community-based clean-ups and plantings along Fletcher's Creek.



Garbage Collected from Fletcher's Creek.



Rehabilitation sites on Fletcher's Creek from 2014-2016.

Accomplishments

Ontario Streams has worked to enhance the natural heritage and habitat for Redside Dace in the City of Brampton since 2009. A three-year rehabilitation work plan focused on Fletcher's Creek was initiated in 2014 to improve in-stream habitat and to monitor the success of past restoration activities. To date, rehabilitation and maintenance work has addressed the East Branch, the West Branch, the Centre Headwater, and the Centre Branch of Fletcher's Creek (see map above).

The projects completed included a variety of monitoring and rehabilitation components as follows:

- A total of 8km of stream was rehabilitated, including the completion of bank stabilization and aquatic habitat enhancement projects.
- 433m of in-stream habitat installed and stream bank stabilized; 31 structures were installed in total.

- 8.19ha of total area alongside Fletcher's Creek cleared of garbage and debris; a total of 109 bags of garbage and 20 recycling bags were filled during these clean-up events. Garbage removal both improves the streams aesthetics as well as its ability to flow naturally, as large blockages (e.g. shopping carts, tires) can often impede stream flow.
- 30 in-stream debris blockages and hazardous trees removed from the site to restore the natural flow of the stream.
- Several species of invasive plants were mechanically controlled through cutting and herbicide applications (Phragmites and Common Buckthorn). The removal of invasive species allows native and more diverse vegetation to re-establish in these areas.
- Over 2,000 native shrubs have been planted alongside Fletcher's Creek. These riparian zone shrubs will provide much needed food and cover for Redside Dace and other aquatic species. Most of these planting events have been supported by volunteers, totalling over 1,800 hours spent giving back to the community.
- Regular monitoring of Fletcher's Creek in 2015-2016 allowed Ontario Streams to modify previous designs to construct more effective in-stream structures. Some structures withstand storm water flooding better than others and with active monitoring, decisions can be made to best select these structures.

In addition to in-stream restoration work, Ontario Streams also focused extensively on its public outreach program for Fletcher's Creek.



CYC Crew Installing Sweeps at Erosion Site to Stabilize Bank in 2015.

This project involved collaborations with a variety of groups including: CVC's Conservation Youth Corps (CYC), the Ontario Ministry of Natural Resources and Forestry's (MNR) Youth Stewardship Rangers. By implementing a project that works with a whole host of different community members, Ontario Streams aimed to enhance natural heritage along Fletcher's Creek, while engaging with communities in a meaningful way. This will contribute towards a long-term reduction in negative human impacts on this watercourse by developing a sense of stewardship within the community.



Bank Stabilized by Sweeps installed in 2015.

Partners

The Fletcher's Creek Rehabilitation Initiative received significant financial support from the City of Brampton.

Ontario Streams has worked with many community groups who have volunteered their time towards these critical rehabilitation and monitoring. We would like to thank the Peel Environmental Youth Alliance (PEYA) and Peel District School Board, St. Lucy Catholic School, Edenbrook Hill Public School, St. Angela Merici Catholic School, St. Ursula Elementary School, Homestead Public School, Cheyne Public School, Rowntree Public School, Walmart Bank, University of Toronto, and Canon Canada for their hard work.

Additional support for our Redside Dace projects has been provided by Environment and Climate Change Canada's Habitat Stewardship Program, and Ontario Ministry of Natural Resources and Forestry's Species at Risk Program.

For more information on Redside Dace, [click here](#).