

# LYNDE CREEK BIODIVERSITY REHABILITATION PROJECT



## PROJECT GOAL

The Lynde Creek Biodiversity Rehabilitation Project aims to protect the remaining natural habitat within and adjacent to Lynde Creek, while rehabilitating degraded habitats where local populations of wildlife will expand and flourish. This goal will be accomplished through the completion of several project components including: riparian regeneration, bank stabilization and in-stream habitat enhancement, public education, and fisheries monitoring.

## THE NEED

The Lynde Creek watershed originates on the Oak Ridges Moraine within the Greenbelt. As Lynde Creek and its connecting tributaries flow towards Lake Ontario, they move from a highly rural landscape into the urban development of Brooklyn and Whitby. Large tracts of remaining rural property to the north of Brooklyn have already been bought by development corporations, leaving many private landowners looking for ways to participate in conservation and stewardship activities on their own properties.

Increasing developmental pressure poses an immediate risk to the health and biodiversity of our



Local Volunteers helping to Plant Trees

natural environment. Urban development drastically changes our natural or rural spaces and directly causes the following issues:

- changes to watershed hydrology due to increased impervious surfaces (e.g. concrete, asphalt);

- removal of riparian vegetation and a loss of key habitat for many terrestrial and aquatic species;
- erosion of stream banks due to increased storm water flows; and
- water quality and spawning habitat degradation from increased pollutants and sediment entering the system.

It is also important to note that Lynde Creek is one of the remaining watercourses in Southern Ontario that supports the endangered redbreasted dace, a species that is very sensitive to habitat degradation caused by urbanization.

### ACCOMPLISHMENTS

In 2009, letters were sent out to landowners along the main branch of Lynde Creek explaining who Ontario Streams is, the issues affecting their watercourse, and suggestions for the initial steps that we could take to protect Lynde Creek. Several landowners responded positively.



Concrete Lined Shoreline before Restoration

Ontario Streams then conducted several stream and wetland assessments. The assessment process took an in-depth look at the characteristics of all available habitat, what species are currently present compared to what was there historically, and any factors that may have negatively impacted the watercourse and surrounding areas. The rehabilitation plan then provided recommendations on what work should be completed to most effectively improve the habitat. These project

suggestions included: re-grading and stabilizing eroding banks, planting riparian vegetation, constructing in-stream structures that enhance available fish habitat, removing garbage or harmful debris buildups, and wetland rehabilitation. Lastly, the plans were discussed with the landowners and the projects to be completed were agreed upon.

Starting in 2010, riparian planting projects were implemented with the assistance of volunteers during weekend events. Stream habitat enhancement structures were installed with help from Ontario Streams' summer staff and Ontario Stewardship Rangers to create habitat diversity and provide protection to vulnerable and eroding stream banks. Non-native invasive species were also identified and plans to control their spread have been recommended. Over the coming years, it is our intent to continue implementing the rehabilitation plans, carrying on with riparian planting activities, and contacting new landowners to allow this project to expand throughout the rest of the watershed.



Restored Shoreline

### PARTNERS

This project has received support from Environment Canada's EcoAction fund, the Ontario Ministry of Natural Resources and Forestry's Community Fisheries and Wildlife Involvement Program and Species at Risk Stewardship Fund. Durham Land Stewardship Council, Shell Environmental Fund, and Mountain Equipment Co-op's Urban Sustainability Fund. The Oak Ridges Moraine Land Trust has been a key partner,

working closely with Ontario Streams on fundraising, landowner contact, tree planting activities, and providing in-kind support.

The Central Lake Ontario Conservation Authority has provided fisheries data and other watershed reports integral to the creation of the rehabilitation plans. Enviro Tree Care, a private company, has donated cedar sweeps used in the habitat enhancement component of the project, and the MNRF's Ontario Stewardship Ranger Program has assisted in the implementation of much of the in-stream work. The landowners that have participated in this program to date have been vital in project implementation and have generously donated their time and efforts to act as environmental stewards on their properties.