

More than jargon

WHY DO WE TALK ABOUT “NATURAL INFRASTRUCTURE” IN CONSERVATION TODAY?

You may have come across the term, natural infrastructure, that’s being used to talk about conservation these days. It’s a way to capture the value of natural ecosystems as equivalent to the infrastructure that communities build for protection and prosperity — things like transportation infrastructure, communications infrastructure, or stormwater management infrastructure.

We’ve also heard the term used a bit differently, such as *green infrastructure* or *natural green infrastructure*—even *nature-based infrastructure*. As one of our staff recently said: “Terminology around this area is a bit of a head-scratcher!”

Although these terms may seem like a bunch of jargon, we think they’re good news for wetlands.

Speaking each other’s language

We know that healthy landscapes with wetlands, forests, grasslands and waterways are essential for birds and other wildlife. We also know that the functions of a healthy landscape are essential to the places where people live.

The Insurance Bureau of Canada has defined natural infrastructure as “a strategically planned and managed network of natural lands, such as forests, wetlands and other open spaces,

which conserves or enhances ecosystem values and functions and provides associated benefits to human populations.”

Sounds like we’re on the same page, doesn’t it? The jargon can sometimes make you scratch your head but we agree on the concepts: conserve, restore and naturalize when necessary.

Placing a high value on nature and its solutions

We constantly seek to articulate our mission in ways that will resonate with decision makers who are in a position to help us restore (and protect) habitat on the landscape at a larger scale than our on-the-ground restoration program can do.

DUC has long advocated for public investment in wetland restoration as part of the landscape’s natural infrastructure. Using large-scale restoration to build landscape resilience can be a powerful and cost-effective complement to costly water-management infrastructure, such as dams, culverts, stormwater ponds and water treatment plants.

We know that wetlands can help reduce capital and operating costs, and extend the lifecycle of built infrastructure while continuing to provide food and shelter for wildlife including birds and species of conservation concern.



Tangible results

Wetland restoration in lake country

City of Kawartha Lakes

Kathleen Cooper wanted to see more wildlife on her 100-acre farm. She didn’t have to wait long. The pond was constructed in 2019, adding new breeding habitat for ducks and geese to the already rich mix of wetlands, waterways and forests on the landscape northwest of Lindsay—a mosaic connected to protected wetland habitat south of Balsam Lake.

What this little pond can do:

- ⊕ Make space for waterfowl and other wildlife, including declining species such as turtles
- ⊕ Improve water quality by filtering sediment in surface-water runoff
- ⊕ Capture excess nutrients and sequester carbon
- ⊕ Help restore resiliency to the landscape to reduce flooding and flood-damage costs
- ⊕ Create jobs for local contractors hired for construction, monitoring and other work



Above: “An old straight line drainage ditch was replaced and, in less than a year, water flow has forked into two lines of natural drainage into the pond, the edges are fully vegetated and lots of frogs, small fish and aquatic plants have moved in, awaiting the ducks next spring.” – landowner Kathleen Cooper.

This restoration was supported in part by the Eastern Habitat Joint Venture, an international partnership that provides matching grants for wetland conservation projects for migratory birds in Eastern Canada, and the Species at Risk Partnerships on Agricultural Lands.



Proof of concept

Avian arrivals at a new wetland near Napanee | Lennox & Addington County

A heron with a knack for selfies has been keeping the outdoor cameras busy beside a new wetland in Eastern Ontario.

The recently constructed habitat is at the Lennox Generating Station north of Lake Ontario near Napanee, a priority region for waterfowl conservation. So, we weren't surprised when birds and other wildlife appeared on the trailcam feed — but we were definitely delighted.

The wetland gets a boost from adjacent newly planted trees and nearly six acres (2.4 hectares) of new grassland habitat, explained Mike Williams. "The cameras are rewarding because they demonstrate how quickly wildlife find new habitat on the landscape."

Mike is the Ontario head of DUC's consulting service, Conservation Solutions, which provides science-based restoration to offset loss of wetland, aquatic and upland habitats. Mike worked with TC Energy, Ontario Power Generation (OPG) and Cataraqui Region Conservation Authority to carry out the project on the grounds of the natural gas-fired facility.

The design of the wetland harnesses natural processes and vegetation to create robust habitat that will shelter wildlife and withstand harsh environmental conditions. Birds and other wildlife are attracted by the varying water depths and adjacent mounded terrain for shelter. Other

features help keep the habitat resilient, such as a silt trap to stop sediment in surface runoff from entering the wetland and a spillway overflow for high water.

Healthy landscapes with wetlands, grasslands and forests support waterfowl and other birds. But these habitats do even more work on the landscape, supporting clean water, reducing the impacts of flooding and helping to sequester carbon.

OPG, the owner and operator of the Lennox Generating Station, is collaborating with TC Energy to expand its existing wetland habitat. The wetland and native tree plantings were financed by TC Energy and OPG supported additional grassland habitat at the site.



Caught on a trailcam, a handsome heron steals the show at the new wetland.

"The cameras are rewarding because they demonstrate how quickly wildlife find new habitat on the landscape."

— MIKE WILLIAMS