

Restoring our wetlands together

We're discovering the value of wetlands.
In more ways than one.

Alberta's Living Laboratory Project is an interdisciplinary research program that will develop new processes to assess and quantify the benefits that wetlands provide to society, such as flood protection and water quality treatment. This information will then be used to estimate the potential benefits that could be returned if formerly drained wetlands were restored. With the help of landowners, our

research team will then restore wetlands and monitor them in the years ahead to provide a broader understanding of how restored wetlands contribute to watershed function.

At the same time, this project will develop a more sophisticated understanding of the economics of wetland restoration. Our team will test an innovative market-based instrument for the selection of restoration sites,

allowing landowners to set their desired price in a competitive environment. This will ensure owners are fairly compensated, while leaving the greatest possible budget for restoration.

By helping quantify the benefits of wetlands and discovering the true cost of restoration, this project will help to inform land use decisions in Alberta for years to come.

We're having an auction. In reverse. Here's how it will work:

Step 1: Bid



Rocky View County landowners in the Nose Creek watershed will submit bids for what they feel is fair compensation to have a wetland restored on their land.

Step 2: Compare



In Spring 2016, we will compare bids based on environmental significance and cost.

Step 3: Select



Bids with the lowest cost and highest environmental significance will be selected.

Step 4: Restore



Those selected will be paid cash and a wetland will be restored on their land in Fall 2016.

Rocky View County is one big lab.

The Nose Creek watershed is a microcosm of development issues Alberta will face in the coming decades—urban areas, country residential, farms, and ranches all collide. The process of restoring wetlands in an area with so many different land uses should allow us to test the viability of our reverse auction system. Plus, with such a variety in land use,

the Nose Creek watershed has recently experienced flooding and water quality issues. In theory, the restoration of wetlands in the Nose Creek watershed should help mitigate some of these problems.

In Fall 2016, we're turning that theory into practice in an unprecedented way. We will follow newly restored wetlands

to assess their ecological and watershed function in objective, quantifiable terms. We'll also be able to test how different restoration methods influence wetland function over time. The lessons we learn during the restoration process will be applicable for future restorations across Alberta—and beyond.



Why restore wetlands? They're good for Alberta.

Water Quality Improvement

As water passes through a wetland, impurities are filtered out.

Increased Biodiversity

Wetlands provide habitat for plants, birds, mammals and fish.

Flood Reduction

Runoff water is stored in wetlands and released slowly downstream.

Recharged Groundwater

Wetlands soak up surface water and let it seep back into the ground.

Climate Moderation

Wetland plants use the carbon dioxide in the air and replace it with oxygen.

This project has a lot of partners

Alberta's Living Laboratory Project is part of an interdisciplinary research program that involves researchers from the University of Alberta and Western University. Our team includes biologists, hydrologists, economists and policy experts. We're partnering with municipalities, counties, the provincial government and non-government organizations to help fund and run this innovative project.



For more information

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