

ABOUT THE PROJECT

This three-year, interdisciplinary research project aims to inform both the economics and science of wetland restoration, using the Nose Creek Watershed in Rocky View County, Alberta, as an on-the-ground living laboratory.

The project will restore wetlands through the use of a market-based instrument known as a “reverse auction” that will create incentives for local landowners. Wetlands will be targeted for restoration through the use of science-based models that will evaluate each wetland for its potential contribution to the providing ecosystem services – such as flood mitigation and pollution control potential.

The results of this research will help inform the implementation of Alberta's new Wetland Policy, provide education and outreach to local landowners about wetlands, and build capacity within municipalities by providing information and tools to be used to better manage wetlands and the local and watershed scales.

PROJECT ACCOMPLISHMENTS

The Science of Wetland Restoration

The research team has developed a state-of-the-art technique to create a comprehensive and accurate wetland inventory for the study area in the Nose Creek watershed. This remotely-sensed model was tested on the ground in summer 2015 to ensure its accuracy. Fieldwork in summer 2015 also included the creation of a “chronosequence” – a sampling of previously-restored wetlands to estimate the recovery rates for important ecosystem functions (such as carbon sequestration) after a wetland has been restored.

Highlights:

- Identified properties with drained wetlands in the study area
- Created a high-resolution wetland inventory for the study area, as well as state-of-the-art scientific techniques for automating the process
- Ground-truthed the wetland inventory
- Quantified wetland functions in the study area
- Estimated the rate of recovery for wetland functions (including for water quality improvements and flood mitigation)

RESEARCH TEAM

Dr. Peter Boxall, University of Alberta
Dr. Irena Creed, Western University
Dr. Shari Clare, University of Alberta

Testing a Market-Based Instrument for Wetland Restoration

This project is testing a new market-based instrument that will pay landowners to restore wetlands on their property. Using a "reverse auction" allows landowners to determine compensation for restoring wetland sites – since they know the costs better than anyone else, they set the price. Landowner participation is essential to this project, so the research team spent the first year communicating directly with landowners in the study area.

Highlights:

- Developed advertising and communication strategy for the reverse auction
- Created website, brochures, newsletters and gained media attention
- Held public events and landowner information sessions
- Visited landowners and potential restoration sites
- Developed site-specific wetland restoration plans and discussed with landowners

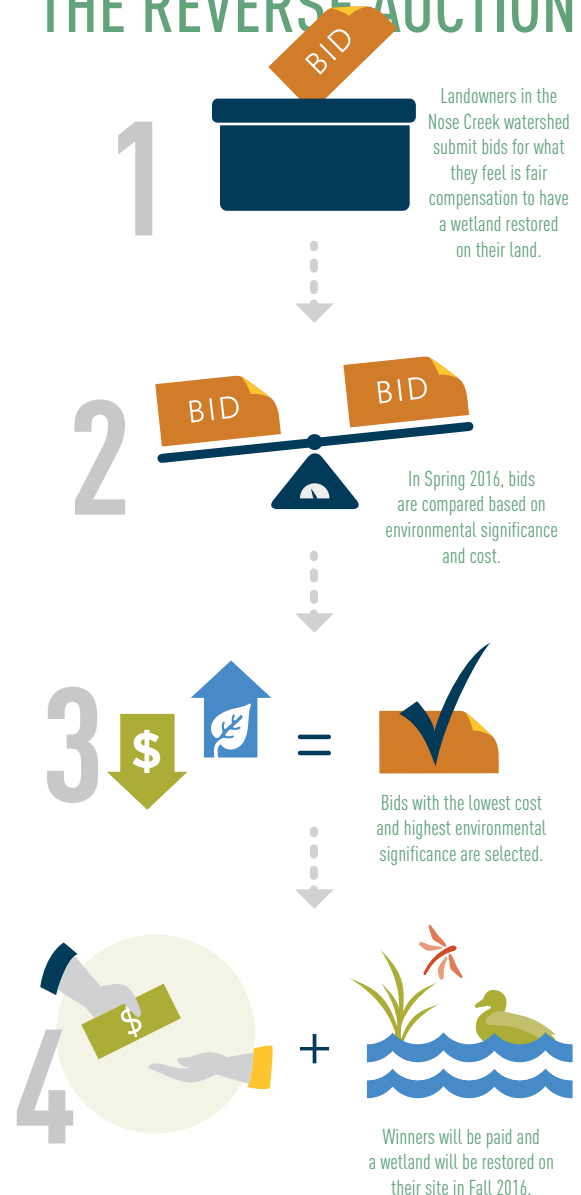
Auction In Progress

The reverse auction is currently underway. Wetlands selected in the auction will be restored in fall 2016.

Special Thanks to the Landowners of Rocky View County

This project would not be possible without the continued engagement and support of land owners from across Rocky View County. The research team wishes to extend its sincerest thanks to all those who have offered advice and interest, and who are participating in the reverse auction.

THE REVERSE AUCTION



OUR PARTNERS

