

TEACHER PROFESSIONAL DEVELOPMENT PROGRAM

Watersheds & Wetlands PD

September 28th 2021 | *Edmonton*

September 29th 2021 | *Red Deer*

September 29th 2021 | *Virtual Program*

52 teachers from 19 communities joined Inside Education to enhance water education in Alberta. The program provided participants with everything they need to confidently guide students through a meaningful aquatic ecosystem study including an **Aquatic Ecosystems Tool Kit** for their school!



“I came back to my students very excited to talk wetlands and aquatics! They loved checking out the tool kit even before we got to try it out.”

***- Alexis Kolk
Jack James High School, Calgary***



Introduction

Inside Education has a long history of providing wetlands education to teachers and students, so we were thrilled to be able to enhance water education in Alberta through this unique program. Building on the success of our Energy and Forest Tool Kits, we developed a brand new [Aquatic Ecosystems Tool Kit](#) - one that would enable teachers to bring their students outdoors to explore aquatic ecosystems in their communities.

We are excited to share the outcomes and impacts from this teacher professional development program through this summary report. The demand for this program in addition to overwhelmingly positive feedback from teacher participants indicates a strong desire for quality resources that enrich student learning.

"I teach outdoor skills and experiential learning for the K-9 students at our school. I hope to be able to do some field work with the tool kit in our biweekly classes as well as organizing and running full day wetlands field trips to use the tool kit in our nearby watershed. So excited!"

*- Colleen Kiselyk
Fort Assiniboine School, Fort Assiniboine*



The Program

This program was made available to a wide range of teacher participants by hosting two consecutive sessions in Edmonton, one session in Red Deer, and an online program for teachers in rural, remote and Indigenous communities.

In addition to inviting local water and wetlands experts the program focused on exploring the themes contained in the tool kit:

- Ecosystem Assessments
- Aquatic Invertebrates
- Water Chemistry
- Aquatic Plants and Animals
- Species at Risk & Aquatic Invasive Species
- Ecosystem functions
- Water Use and Conservation

All participants, whether virtual or in-person, had their tool kits available to practice and explore in real-time with the program.



GENERAL PROGRAM OVERVIEW

Welcome
Site & Participant Introductions
Wetlands Classification
Overview of Alberta's Wetland Classification System - Ducks Unlimited
Invasive Species & Monitoring
Introduction to eDNA and qPCR monitoring of water bodies - University of Alberta
Aquatic Invertebrates
An overview of the range of critters to be discovered in Alberta's aquatic ecosystems - City of Edmonton
Exploring the Nexus
Exploration of upstream and downstream impacts on water quality - Alberta WaterPortal
Tool Kit Activities
A thorough exploration of the Aquatic Ecosystem Tool Kit - Inside Education

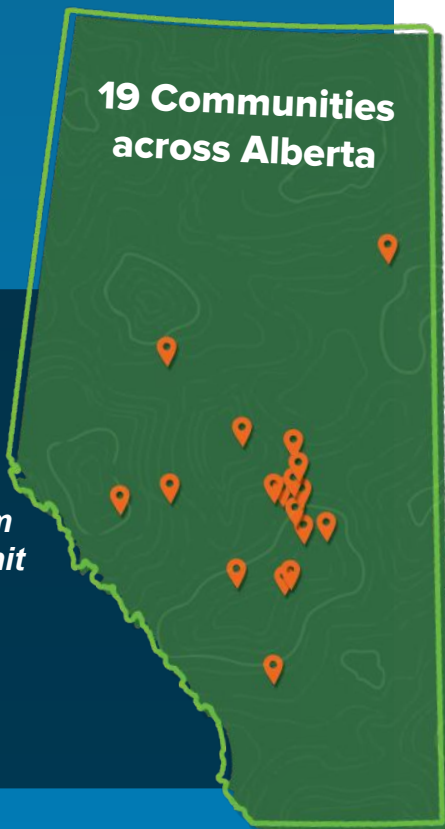
The Participants

The 2021 Watersheds and Wetlands PD attracted **50 teachers** from **41 schools** - representing the full spectrum from K-12. Participants were seeking quality resources and opportunities to enhance their abilities and comfort in bringing students to aquatic ecosystems for hands-on, experiential learning.

The program was centred around our newly created Aquatic Ecosystems Tool Kit. Exploration of the kit throughout the day sparked numerous conversations among teachers about utility in their practice. Each session was rich in collaboration and sharing of ideas and next steps.

"I will be taking my students to our community stormwater pond to explore the aquatic ecosystem for our wetland unit in the spring."

- Krista Shandro
Dr. Lila Fahlman
School, Edmonton



- Tammy Wildemann** | A. Blair McPherson | Edmonton
- Angie Royer** | A. Blair McPherson | Edmonton
- Rebecca Kuzek** | Brightview | Edmonton
- Kristine Gagnon** | Calgary French & International School | Calgary
- Siobhan Oudith** | Christ the King High School | Leduc
- Robynn Moody** | Christina Gordon Public School | Fort McMurray
- Christina Reid** | Connections for Learning | Stony Plain
- Cynthia Roberts** | Connections for Learning | Stony Plain
- Krista Shandro** | Dr. Lila Fahlman | Edmonton
- Sheri Reed** | Ecole Mctavish | Fort McMurray
- Nicole Kelley** | École Mountain View | Hinton
- Renelle Simard Tremblay** | École Mountain View | Hinton
- Amanda Hodgins** | Ecole Westhaven School | Edson
- Colleen Kiselyk** | Fort Assiniboine School | Fort Assiniboine
- Ellen Polegato** | Fort McMurray Christian School | Fort McMurray
- Samantha Ur** | Four Winds Public School | Edmonton
- Lindsay Barrett** | G.H. Dawe School | Red Deer
- Kyle Fotty** | Gerard Redmond Community Catholic School | Hinton
- Shelley Leslie** | Iron Ridge Intermediate Campus | Blackfalds
- Alexis Kolk** | Jack James High School | Calgary
- Marie Jahner** | Joseph M Demko School | St Albert
- Aaron Wong** | Joseph M Demko School | St Albert
- Stephanie Krebs** | Kim Hung | Edmonton
- Alyssa Belanger** | Lesser Slave Watershed Council | High Prairie
- Dean Townsend** | Lochearn | Rocky Mountain House
- Neil Korotash** | Morinville Community High School | Morinville
- Paylig Oltadjian** | Muriel Martin School | St. Albert
- Mellisa Larouche** | Namao | Sturgeon County
- Crystal Engels** | Northmount Elementary School | Edmonton
- Debbie Petiot** | Our Lady of Mount Pleasant | Camrose
- Trenly Calhoon** | Our Lady of Mount Pleasant | Camrose
- Barbara Shepherd** | Pacer Success Centre | Edson
- Suzanne Quinton** | Parkdale School | Wetaskiwin
- Kandel Vick** | Parkland Composite High School | Edson
- Samantha Bunes** | Parkland Composite High School | Edson
- Christina Cleland** | Patricia Heights Elementary | Edmonton
- Brenda Cleland** | Patricia Heights Elementary | Edmonton
- Richelle Desjarlais** | Patricia Heights Elementary |
- Mark Vander Laan** | Rocky Christian School | Rocky Mountain House
- Sara Strydorst** | Spruce Grove Composite High School | Spruce Grove
- Julie Bedi** | St Gabriel Education Centre |
- Lada Karpova** | St. Francis of Assisi Middle School | Red Deer
- Jessica Matus** | St. Francis of Assisi Middle School | Red Deer
- Jonathan Mauro** | St. Francis of Assisi Middle School | Red Deer
- Linda Zazula** | St. Martin de Porres | Red Deer
- Daniel Forshner** | Thelma Chalifoux | Edmonton
- Lacey Johnson** | Vanier Community Catholic School | Edson
- Brianne Setzer** | Vanier Community Catholic School | Edson
- Karishma Singh** | Westmount Junior High School | Edmonton
- Vicki Dawe** | Westwood Community High School | Fort McMurray

Program Partners and Special Guests

Inside Education is grateful for our guest experts who were able to join us both in-person and virtually to enhance the day for teacher participants.

In addition, we'd like to thank and acknowledge our program sponsors. This opportunity was in high demand, and because of their generosity, we were able to provide all teachers who registered with an Aquatic Ecosystems Tool Kit at no cost, in addition to providing a substitute teacher subsidy so they could attend the program.

A SPECIAL THANKS TO THE FANTASTIC EXPERT SPEAKERS AND HOSTS, THEIR COMMITMENT TO ADVANCING ENVIRONMENT AND NATURAL RESOURCES EDUCATION IS GREATLY APPRECIATED.

- Alix Hettinga | Alberta WaterPortal Society
- Ceilidh Welch | University of Alberta
- Leanne Mingo | Ducks Unlimited
- Peter Daly | City of Edmonton



Image description: Entomologist Peter Daly shares a crayfish for our virtual participants



"I really enjoyed this PD session. I went from knowing very little about running an aquatic ecosystem field study to feeling much more competent in my abilities to run this type of field trip! Thank you so much for all of your hard work coordinating this PD session!"

- Siobhan Oudith
Christ the King High School, Leduc



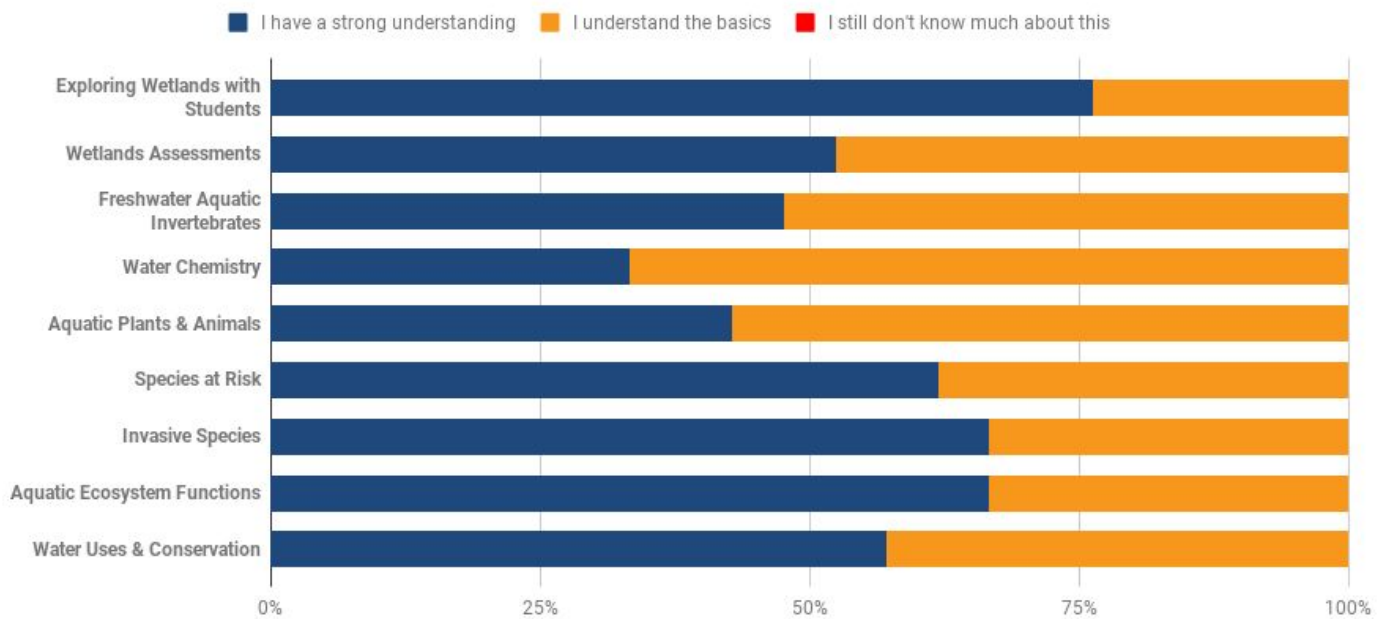
TD Friends of the Environment Foundation



Program Impact and Feedback

The follow-up survey results indicate that it was an exceptional learning experience that will translate into meaningful classroom impact. Inside Education estimates that over **6500 students** at more than **260 classes** per year will benefit from the experience as teachers infuse their learning into their practice and share the Aquatic Ecosystems Tool Kit with colleagues. Survey respondents unanimously agreed that the PD program was: enjoyable, educational, balanced, worthwhile, and inspiring. A high-value, high-quality PD that will make a difference in their approach to water-related topics for years to come.

After participating in the PD program, please rate your understanding of the following major themes



95%

After participating in the program, 95% of survey respondents have increased confidence guiding their students through an aquatic study in a local water body



“Inside Education PD is very practical, with a high in-class value. Presenters are very knowledgeable and have useful experience tips to share.”

- Vicki Dawe

Westwood Community High School, Fort McMurray

Summary and Futures

Inside Education is pleased by the outcomes of the 2021 Watersheds and Wetlands PD program and we received an overwhelmingly positive response from participants. We expect demand for water programs and resources to grow as teachers share their knowledge, ideas, and experience with their colleagues from across Alberta.

The ultimate goal of the Watersheds & Wetlands PD Program was to allow teachers to enrich environmental and natural resource education, improve their content knowledge and increase confidence in teaching these topics. Judging by the feedback received after the programs, by providing a hands-on PD program and access to content experts in the field, this goal was achieved.



100%
After participating in the program, 100% of survey respondents would recommend Inside Education to their colleagues



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