

# BOREAL WETLAND BEST MANAGEMENT PRACTICES WORKSHOP

*Kevin Smith,  
National Manager Boreal Program,  
January 20, 2016*



Ducks Unlimited Canada  
Conserving Canada's Wetlands

RESCUE  OUR  
WETLANDS

WATER—WILDLIFE—YOU



# Who We Are

- **Recognized leader in wetland conservation**
- **Science-based, solutions-oriented organization**
- **Registered charity - over 150,000 supporters**
- **6,200 volunteers**
- **Active in every province and territory**
- **\$75 M Annual Operating Budget**

# DUCKS UNLIMITED CANADA

## Vision

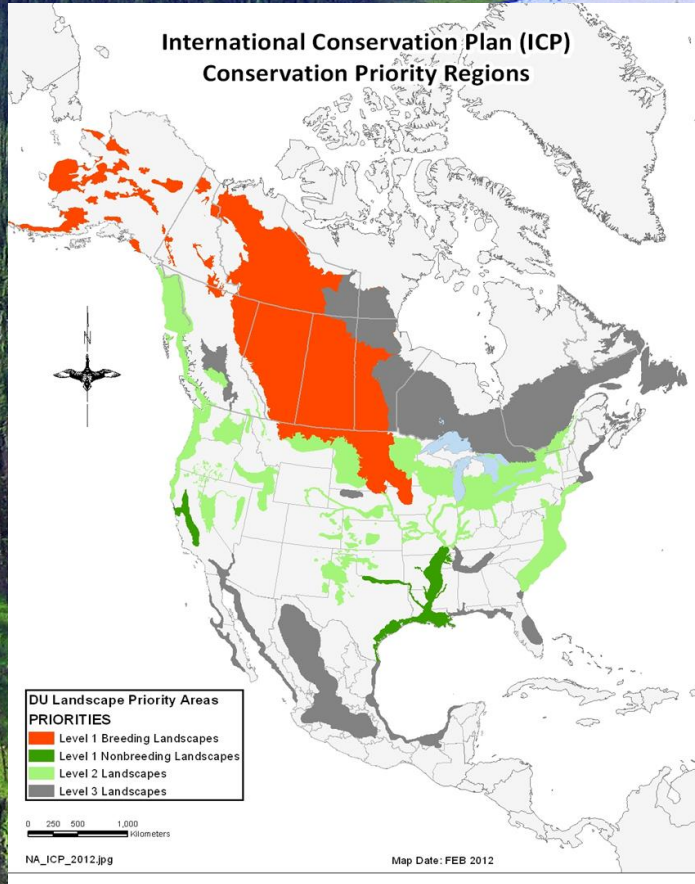
**Abundant wetlands and waterfowl – today, tomorrow, and forever**

## Mission

**Conserve, Restore and Manage Wetlands and Associated Habitats for North America's waterfowl. These habitats also benefit other wildlife and people**



# DUCKS UNLIMITED CANADA



**Two Main Priority  
Conservation Regions:**

**Canadian Prairies  
Boreal Forest**



# THE BOREAL FOREST

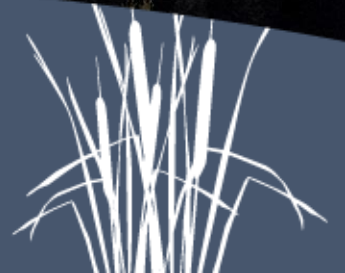
## *A GLOBAL CONSERVATION OPPORTUNITY*



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# North America's Boreal Forest

*1.5 Billion Acres*

*1.3 Billion Acres in Canada*

Northwest  
Territories

British  
Columbia

Alberta

Saskatchewan

Manitoba

Ontario

Quebec

New  
Brunswick

P.E.I.

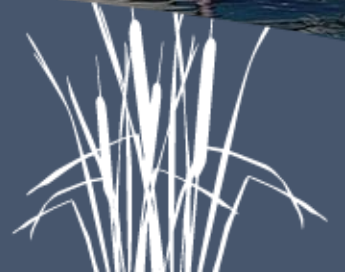
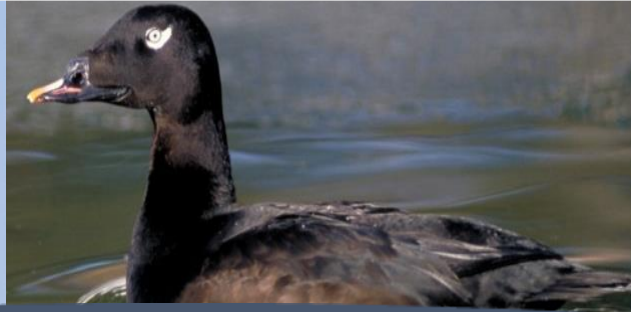
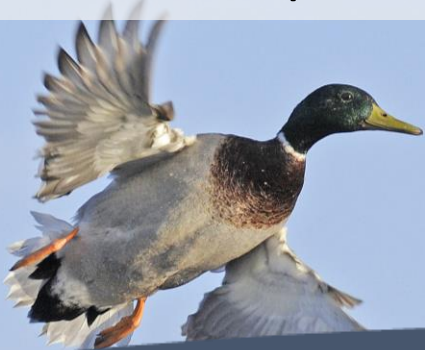
Nova  
Scotia

Newfoundland  
and Labrador

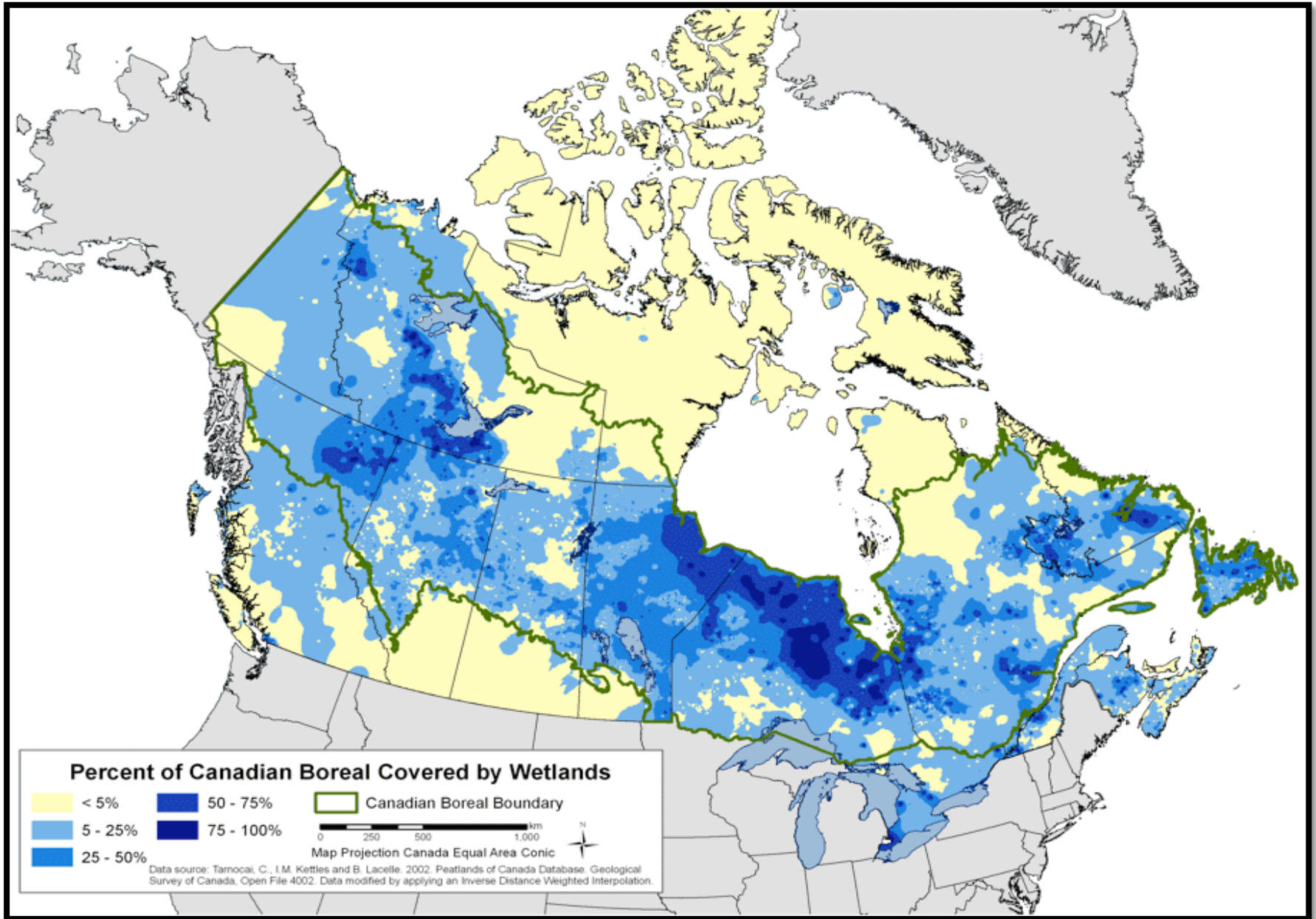
0 125 250 500 750 1,000  
km

# The Boreal Forest – Waterfowl

- 35 species
- Over 15 million breed on an annual basis
- 75% of continental waterfowl during migration or molting period
- Some species in long term decline



# The Boreal Forest – Wetlands





# Boreal Wetland Values

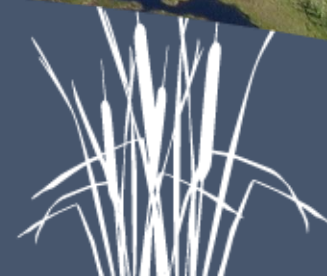
## health and wealth benefits

### Ecosystem Services

- Water storage and flood control
- Filters to improve water quality
- Biodiversity values (plants, fish and wildlife)
- Carbon Storage
  - climate change mitigation
- Places to recreate and pursue traditional activities

### Market Goods

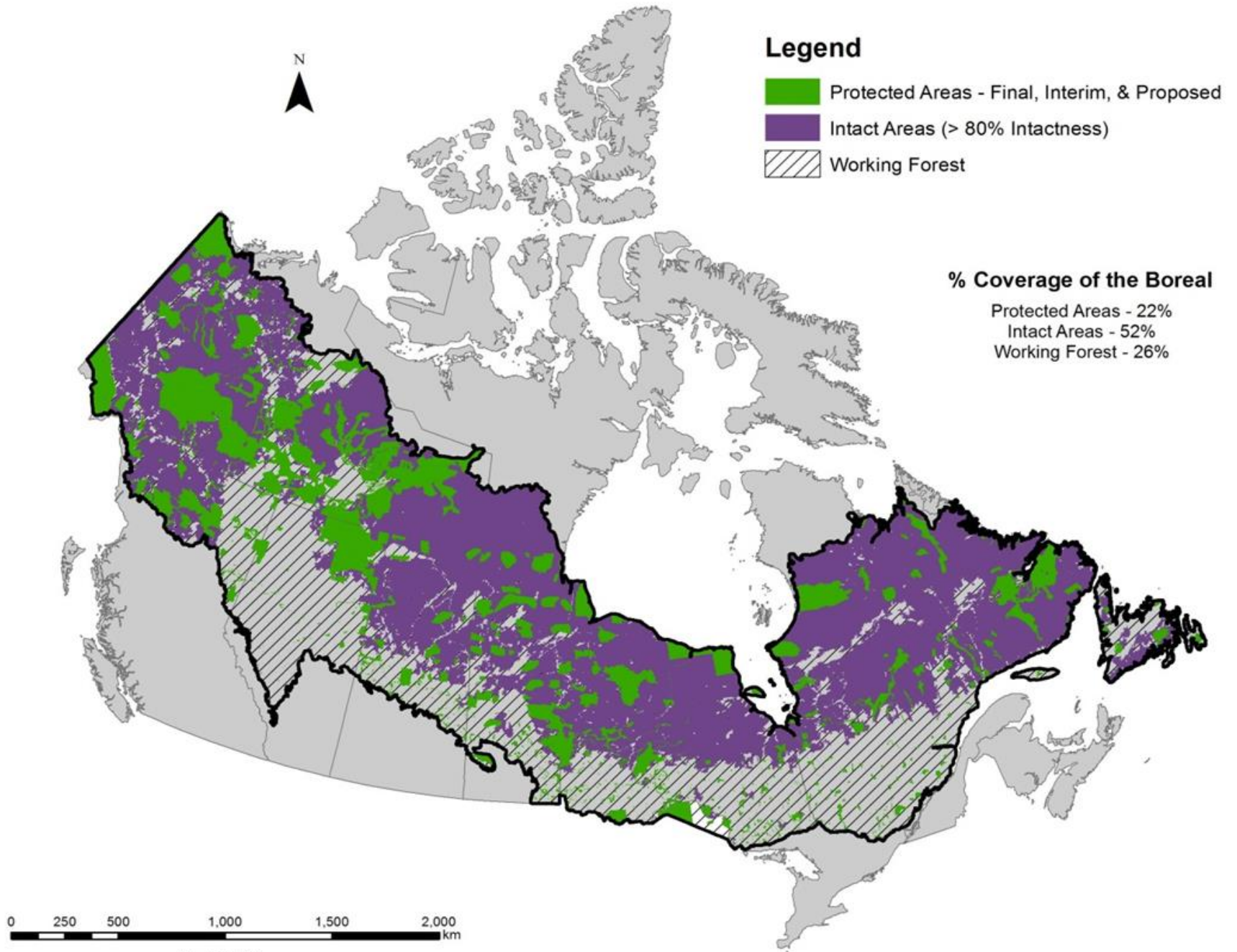
- Timber for various forest products
- Biomass for electrical generation
- Horticulture Peat
- Fish Nursery
- Wild fur



# Concerns about Boreal Forest Wetlands

- Limited awareness of boreal wetlands, their extent, function and values
- Increased industrial development – wetland loss, potential impact on function, cumulative effects
- Expanding agriculture (conversion of forest cover and wetland drainage)
- Uncertain impacts of climate change





# Boreal Forest Program

## Initiated in 1997

- public land conservation focus on habitat retention
- partnership driven (industry, government, foundations, First Nations, academia, conservation organizations)
- support a balance of sustainable land management practices that conserve wetlands and the protection of habitat through established protected areas programs



## ***OUR GOAL:***

**To conserve 1 billion acres in the boreal forest**

- 500 million acres protected
- 500 million acres sustainable development

*Ducks Unlimited Canada is focused on 660 million acres of habitat most important to waterfowl*



# DU Canada Activities

## Wetland Mapping

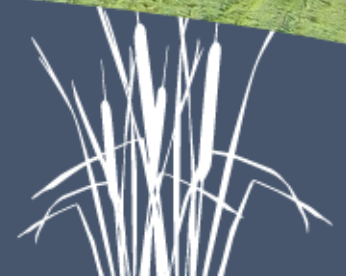
- enhanced wetland classification
- by mid 2015 ~ 85 % of Boreal Plains Ecozone mapped

## Waterfowl Distribution Mapping

- Waterfowl surveys
- identification of where ducks are most abundant

## Research (collaborative)

- wetland hydrology and modelling
- local and landscape-level effects of forest management on wetland birds relative to natural disturbance
- understanding individual and cumulative effects of disturbance on water birds
- ecological goods and services (e.g. carbon)



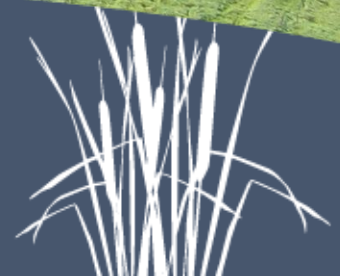
# DU Canada Activities

## Conservation tools development

- wetland groupings that infer water movement
- wetland connectivity tool
- preliminary carbon stores mapping
- mapping wetland vertebrate biodiversity (AB)

## Policy Initiatives/Programs

- support policies that conserve wetlands (e.g. AB Wetland Policy)
- engagement in programs that protect wetlands (protected areas programs)



# DU Canada Activities

## Best Management Practices Program

- dedicated program that focuses on BMPs related to water, wetlands and waterfowl habitat
- objective is to identify/develop recommended BMPs with and for use by industry to minimize impact
- BMP examples: Forest Road Wetland Crossings, Waterfowl Incidental take

## Partnership Approach

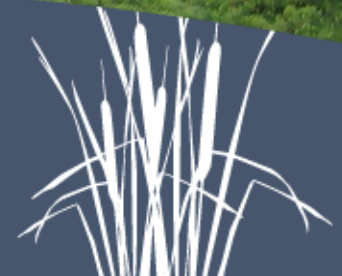
- collaboration with multiple partners to help develop the various products, share knowledge and influence land use





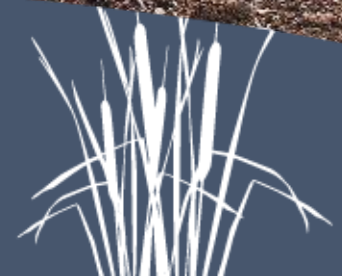
# Now is the Time to Focus on Boreal Wetland Conservation

- Increasing understanding of the value of wetlands, potential impacts of development and the need for conservation
- Increasing recognition by government and industry to conserve wetland biodiversity and ecosystem services (link to social license)
- Policies that help protect Water and Wetlands are emerging across Canada (e.g. AB Wetland Policy)



# Development and Sharing of BMPs

- Time to collaborate in developing, sharing, evaluating and distributing BMPs that avoid and minimize impact on wetlands
- Our vision - a user friendly system that facilitates the exchange of knowledge and BMPs available for use by industry and government
- It is our hope that this workshop will help facilitate knowledge exchange, sharing of existing BMPs and provide guidance for the development of such a system – an “Information Management and Exchange System”



# Closing

- Based on attendance it is obvious there is an interest in wetlands and the need for tools to conserve them
- It is our desire that the next two days will be fun, informative and help move us forward to enhanced boreal wetland conservation.
- Thank you for joining us I look forward to being a part of these important discussions



# Thank You

## External Advisory Committee

- Margaret Donnelly - Alberta Pacific Forest Industries Inc.
- Thorsten Hebben - Alberta Environment and Parks
- Doug Kulba - Alberta Environment and Parks
- Shanon Leggo - ATCO Electric Ltd.
- Margaret Marra - Shell Canada Ltd.
- Pat Marriott - Alberta Energy Regulator
- Doug Turner - Saskatchewan Ministry of Environment

## Organizers

- Bev Gingras - Event Lead
- Kylie McLeod - Planning Lead
- Leanne Mingo – Registration Coordinator
- Darrell Kovacz – Logistics Coordinator
- Julienne Morissette - Evaluation Coordinator
- Mark Kornder: Pecha Kucha Coordinator
- Jules Lebeouf - Facilitator

