



# Wetland Management (Peace Region)

MPWA meeting

Marsha Trites-Russell, Wetland Specialist

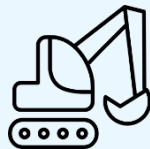
December 5, 2024

# Outline

1. Alberta Wetland Policy



2. Wetland Replacement



3. Wetland Data



# Alberta Wetland Policy



Implementation updates



# Alberta Wetland Policy

## Goal

To conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society, and economy

## Outcomes

1. Wetlands of the highest value are protected for the long-term benefit of all Albertans.
2. Wetlands and their benefits are conserved and restored in areas where losses have been high.
3. Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value.
4. Wetland management considers regional context.

Value-based policy recognizes five key values: water quality improvement, hydrological function, biodiversity and ecological health, human use & abundance.

# Wetland Definition

- Land saturated with water long enough to promote wetland or aquatic processes as indicated by the poorly drained soils, water tolerant vegetation, and various kinds of biological activity that are adapted to a wet environment.



# Wetland Classification in Alberta



Bog



Fen



Swamp

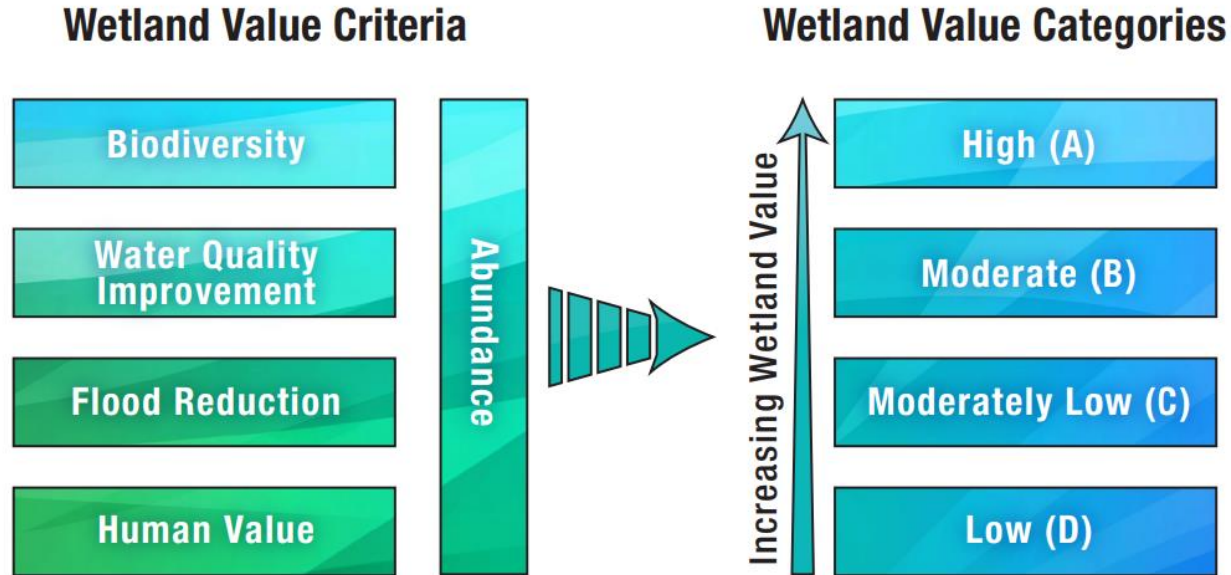


Marsh



Shallow Open Water

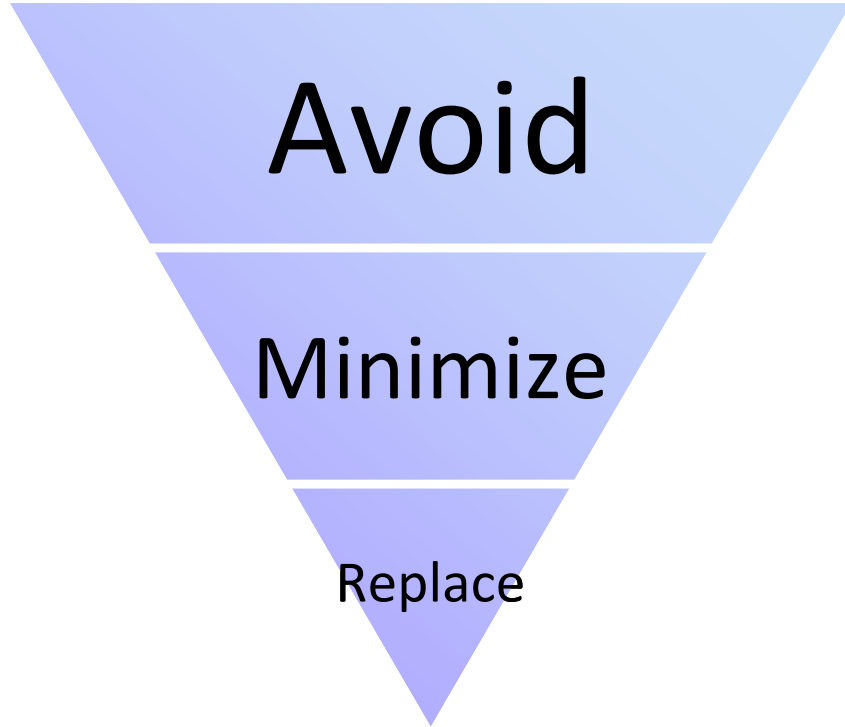
# Wetland Value – ABWRET-A





# Mitigation

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## **Avoidance**

Preferred response

## **Minimize**

When avoidance is not possible, proponents will be expected to minimize impacts on wetlands

## **Replacement**

Last resort, where avoidance or minimization are not feasible or ineffective



# Wetland Replacement

Applicants can fulfil their replacement obligations through:

1. Purchase Credits \*
2. Make a payment to the in-lieu fee program
3. Undertake permittee-responsible replacement



# Wetland Replacement

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The Wetland Replacement Matrix

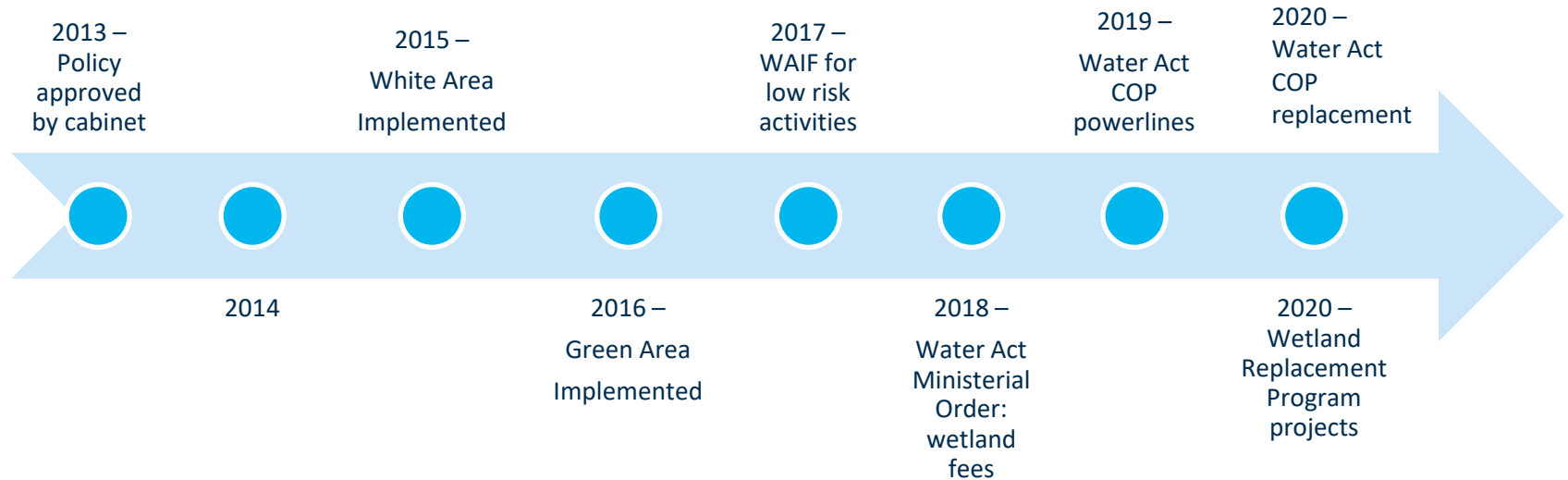
		Value of Replacement Wetland			
		D	C	B	A
Value of Lost Wetland	A	8:1	4:1	2:1	1:1
	B	4:1	2:1	1:1	0.5:1
	C	2:1	1:1	0.5:1	0.25:1
	D	1:1	0.5:1	0.25:1	0.125:1

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\*Ratios are expressed as hectares of wetland

# Wetland Policy Implementation Timeline

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# Wetland Replacement



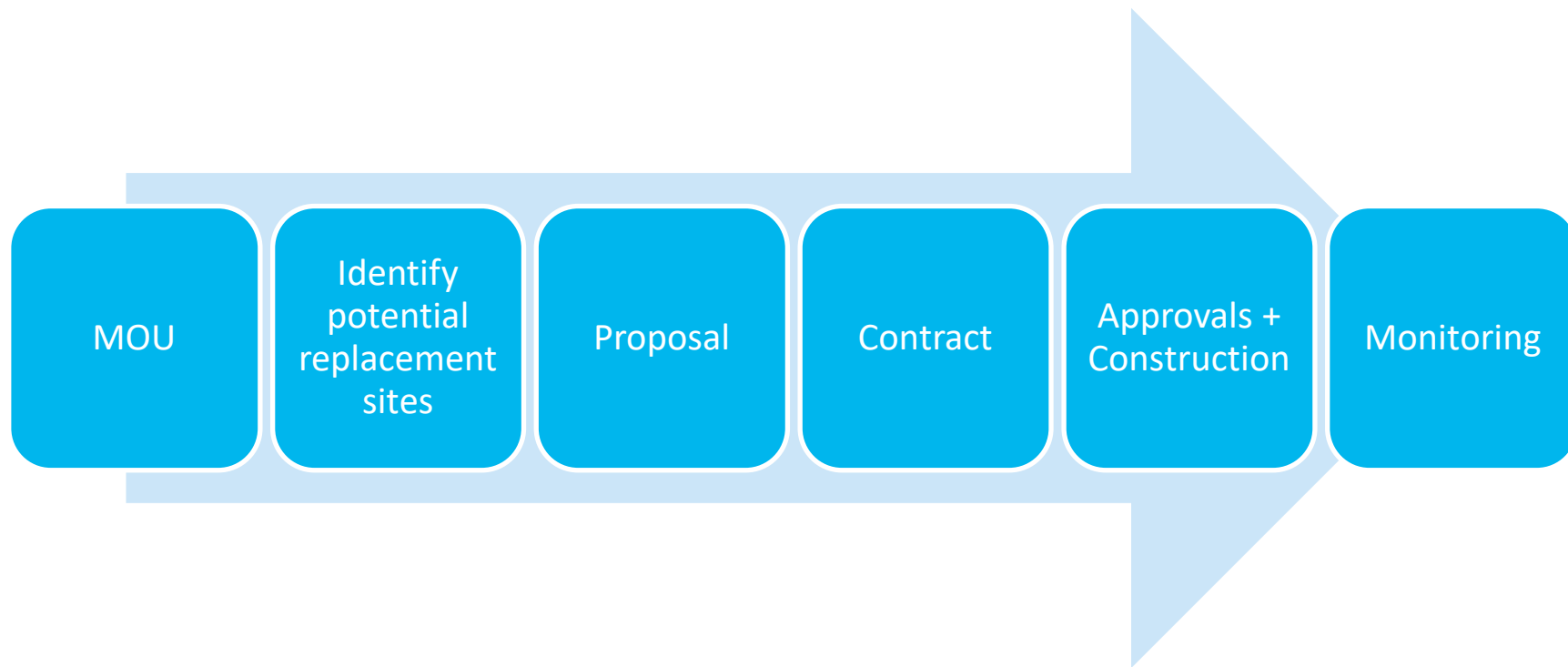


# Wetland Replacement Program

Wetlands are a vital part of Alberta's ecological landscape and necessary for a sustainable economy and healthy communities.

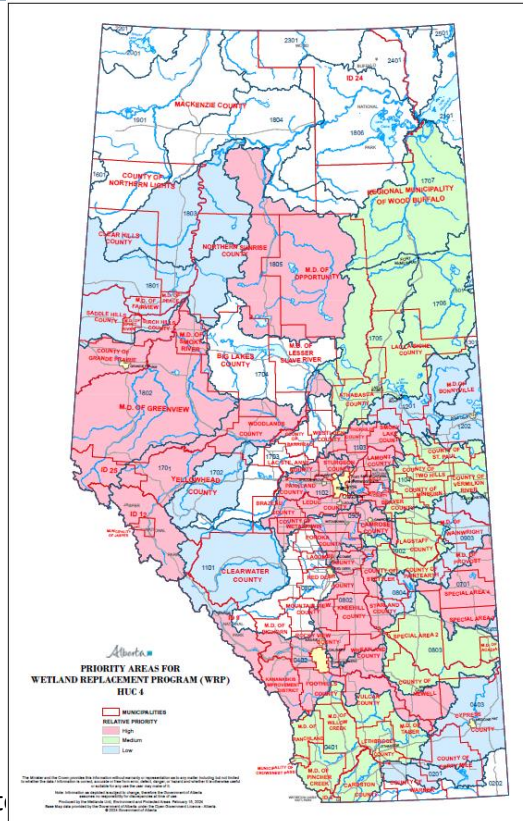
The Wetland Replacement Program aims to re-establish wetlands in partnership with Albertans by providing resources for collaborative replacement projects across the province.

# Program Elements





# Wetland Replacement Program



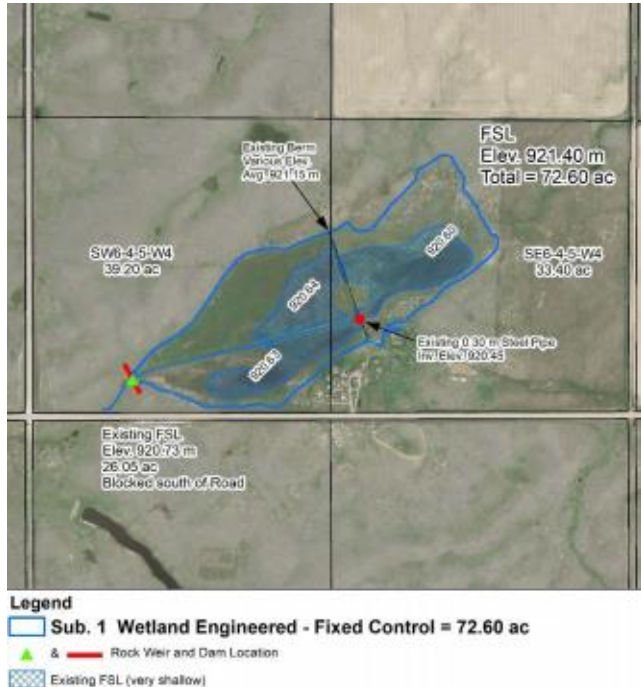
Priority Areas focused on areas where wetlands have been lost – watershed scale to address AWP policy outcomes

- Outcome 2: Wetland and their benefits are conserved and restored in areas where losses have been high
- Outcome 3: Wetlands are managed by avoiding and minimizing negative impacts, and, where necessary, **replacing** lost wetland value



# Wetland Replacement Program

Plugging drainage ditches in marshes



Removing fill from fens



## Restoration

Returning natural or historical area and functions to a former or degraded wetland

# Wetland Replacement Program

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## Construction

Creating a wetland at a location that was historically upland or a non-wetland area

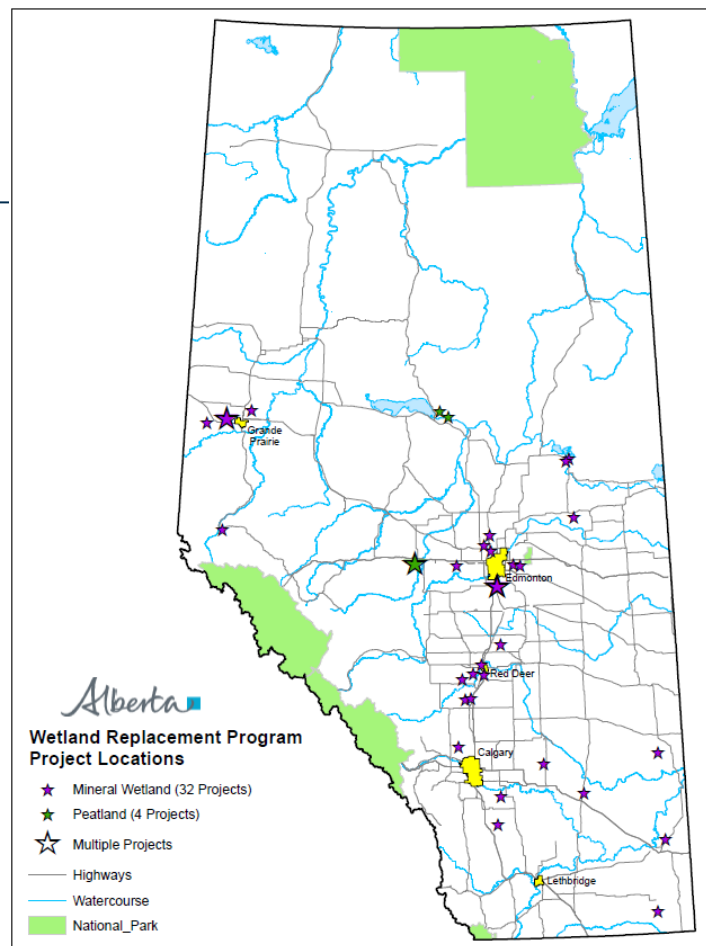


# Replacement Projects

7 projects in 2020  
7 project in 2021  
16 projects in 2022  
6 projects in 2023

Provided over \$16.4 million in funding

Total of approximately 441 hectares of  
wetland replaced

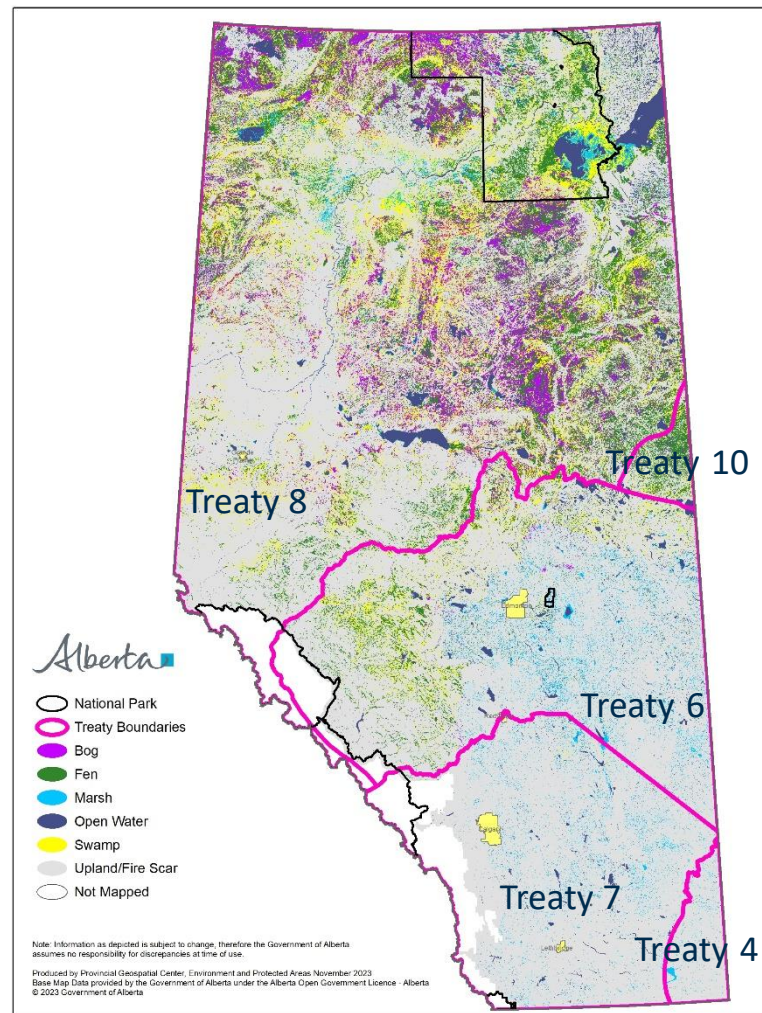


# Wetland Data



# Alberta Merged Wetland Inventory

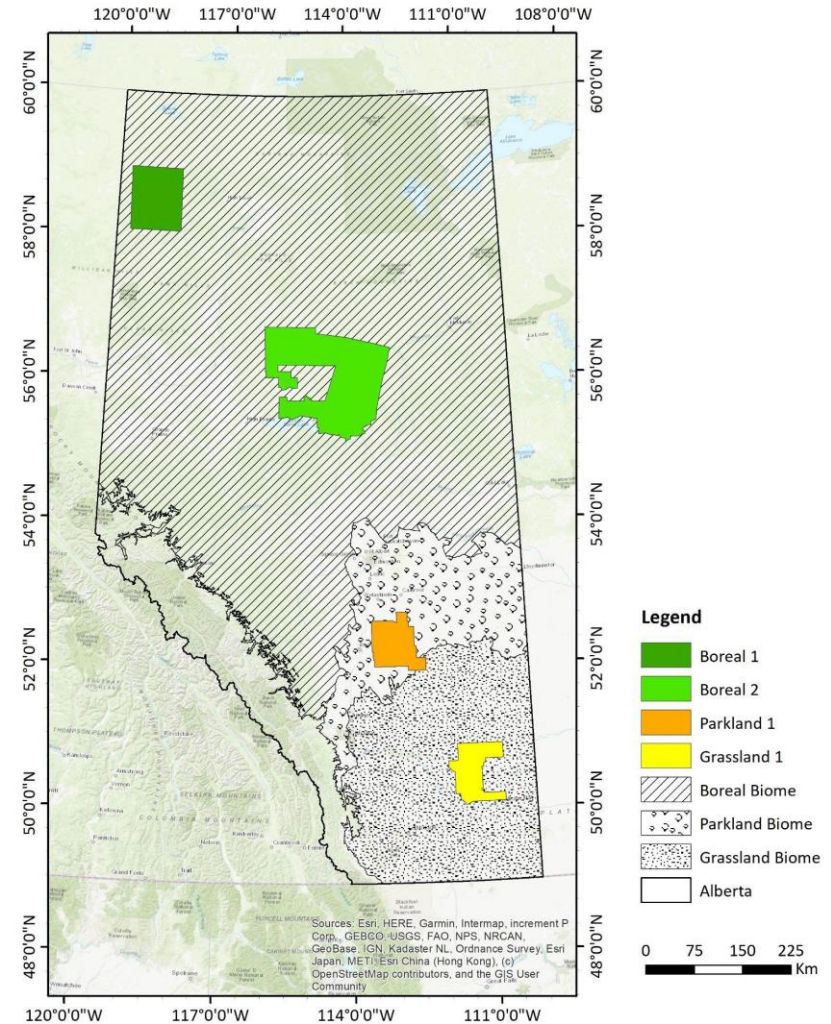
- Provincial coverage (except for mountain parks)
- Similar to what is in State of Watershed Report (except for addition of WBNP)
- Compilation of various inventories with variable quality, has validation data to support





# Inventory Pilot Project

- Collaboration with Ducks Unlimited and ABMI
- Tested machine and deep learning models with remote data inputs
- EPA in process of making outputs available as Open Data
- EPA determining strategy for new provincial inventory



# Thank-you

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