

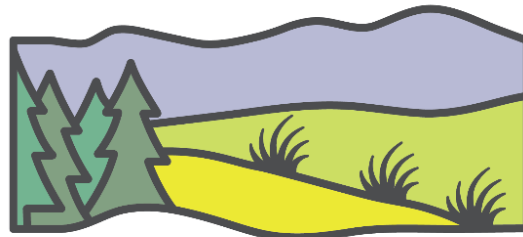
# Grassland Restoration Forum Recovery Strategies for Industrial Development in the Dry Mixedgrass

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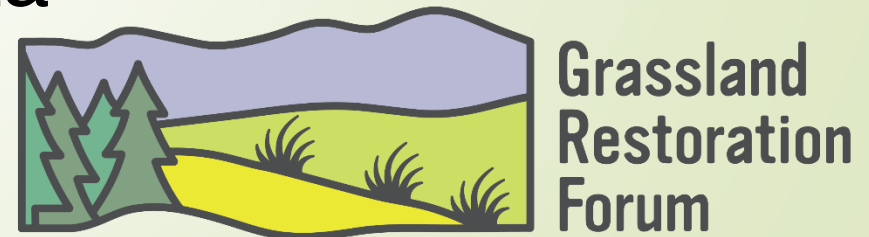
Grassland  
Restoration  
Forum



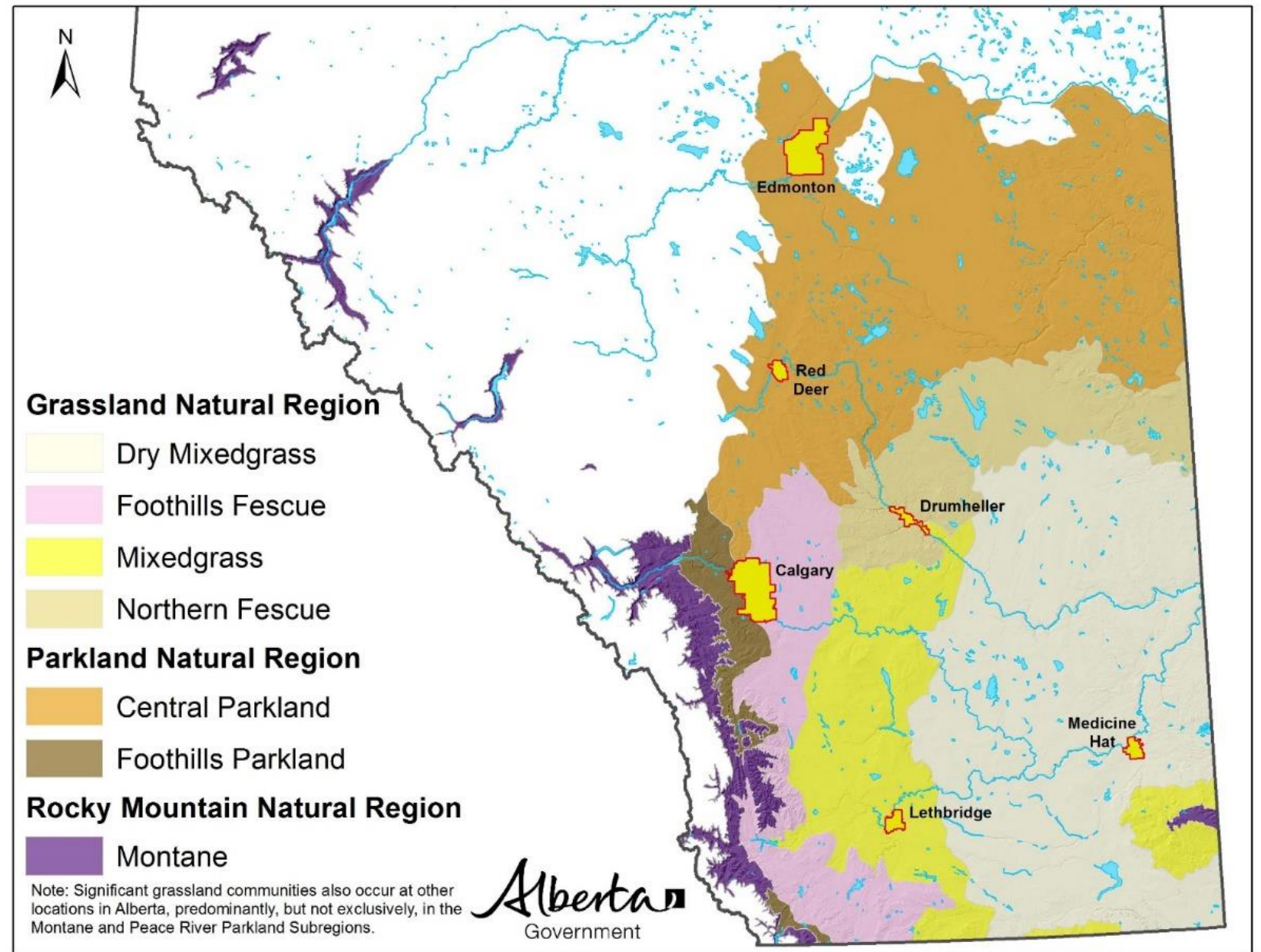
Alberta Upstream  
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# Grassland Restoration Forum

- ❖ **Vision:** Native grasslands and their ecological functions are conserved and *successfully* restored by *informed* stakeholders and practitioners within a multiple use landscape
- ❖ **Mission:** To provide a forum for information sharing and education to promote and support conservation and *effective* restoration of native grassland ecosystems in Alberta



# Area served by Grassland Restoration Forum





## Home on the Range... *where the deer and the antelope play*

- **Grasslands**, grazing lands, native prairie, savannah, range, pastoral lands, semi-arid steppe, rangeland(s)
- Forage, browsing, management, ecology, ecosystem services, recreation, hydrology
- Wildlife, livestock, plants, soils, landscapes, riparian areas, wetlands
- Public/Crown Lands, Private Lands, forested areas, grassland areas, farming, ranching, grazing
- Rangelands are multidisciplinary and diverse
  - Can be looked at from many approaches or under various lenses



Native Grasslands are  
Old Growth Ecosystems



# Strategic Siting

- AGRASID soil mapping
- Grassland Vegetation Inventory
- Topographic maps



**LAND**



# Minimize Surface Disturbance



# Strategies to Accommodate Operations







# Recovery Strategies - Dry Mixedgrass

## **Natural Recovery**

- Potential for natural infill
- Range health of surrounding grassland
- Conserve soils
- Replace soils in the same year

# Recovery Strategies - Dry Mixedgrass

## Assisted Natural Recovery

- Cover crops
- Native hay
- Soil amendments





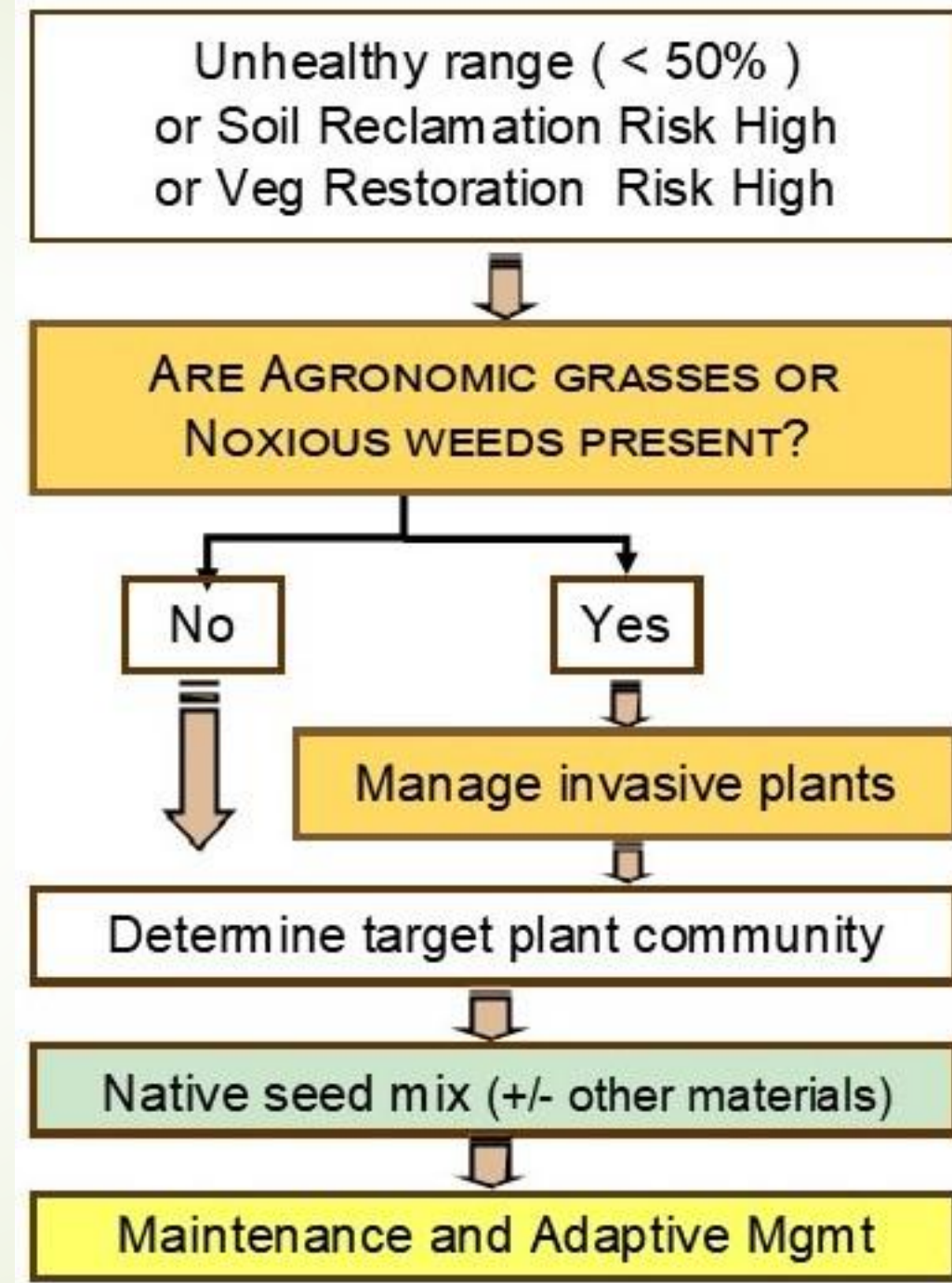
# Recovery Strategies - Dry Mixedgrass

## **Native Seed Mixes**

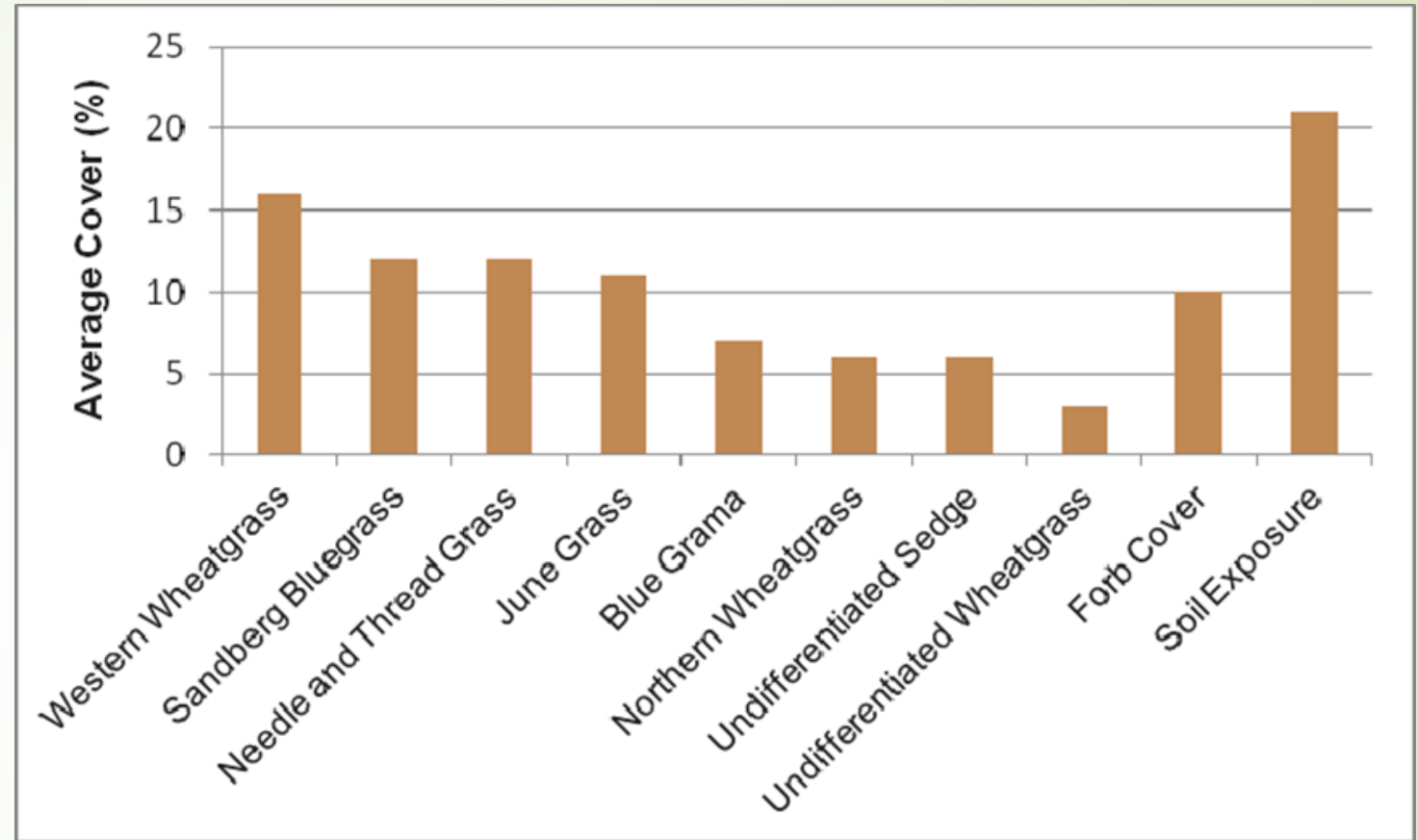
- Design mixes for the range site and the target recovering plant community
- Cultivars and varieties
- Wild harvested seed

# Select and Implement a Restoration Strategy

- Conduct Range Health Assessment
- Ecological Site Restoration Risk Assessment
  - Soil reclamation risk
  - Vegetation restoration risk



# Target Recovering Plant Communities



Blowout and Clayey Range Sites



# Functions of Species in a Seed Mix

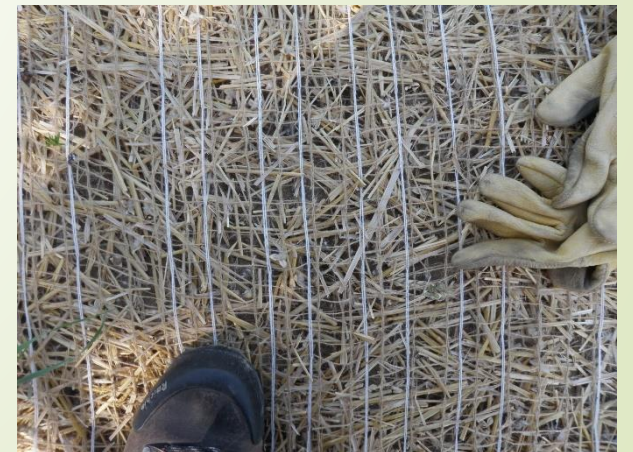
- ❖ Adapted to soil physical and chemical properties
- ❖ Establish cover quickly to reduce erosion potential
- ❖ Drivers of succession toward desired composition
- ❖ Species present in the late seral community
- ❖ Variety of heights and rooting structures
- ❖ Different growth strategies (e.g., cool and warm season grasses)

# Native Seed Challenges

- ❖ Lack of source-identified seed
- ❖ Lack of native seed with local genetic origins
- ❖ Risk of introducing new invasive species
- ❖ Lack of support for local producers
- ❖ Access difficult for wild harvesting



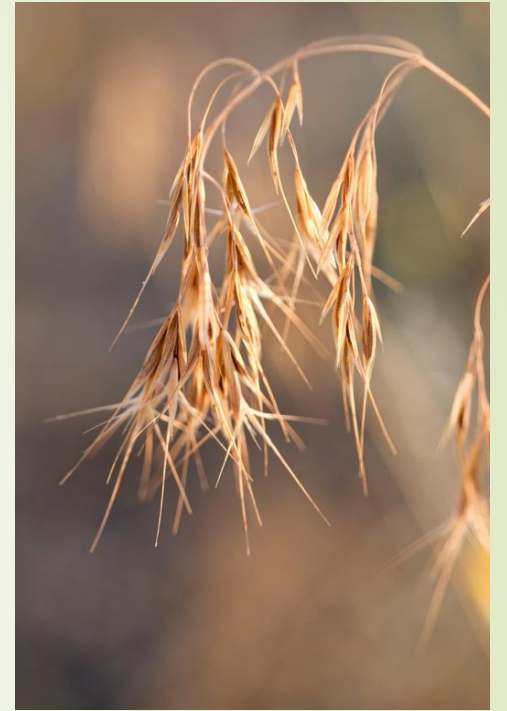
# Implementing the Recovery Strategy





# Adaptive Management

- ❖ Regular monitoring to assess potential issues
- ❖ Controlling invasive weeds and agronomic grasses
- ❖ Working with grazers
- ❖ Temporary fencing



# GRF Outreach for 2023

- ❖ GRF Fall Information Session – Claresholm, AB  
– November 16, 2023
- ❖ Southern Alberta Native Seed Collaborative Workshop  
– November 17, 2023 - Claresholm
- ❖ [grasslandrestorationforum.ca](https://grasslandrestorationforum.ca)



# Project Sponsors:

- ❖ Alberta Ecotrust
- ❖ Alberta Conservation Association
- ❖ Alberta Environment and Parks – Rangeland Sustainability Grant
- ❖ Alberta Upstream Petroleum Research Fund
- ❖ GRF Technical Advisory Committee
- ❖ Henry S. Varley Fund for Rural Life
- ❖ Samuel Hanen Society for Resource Conservation
- ❖ Southwest Alberta Sustainable Community Initiative



Recovery Strategies for Industrial Development in Native Grassland



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Thank you  
Questions?