

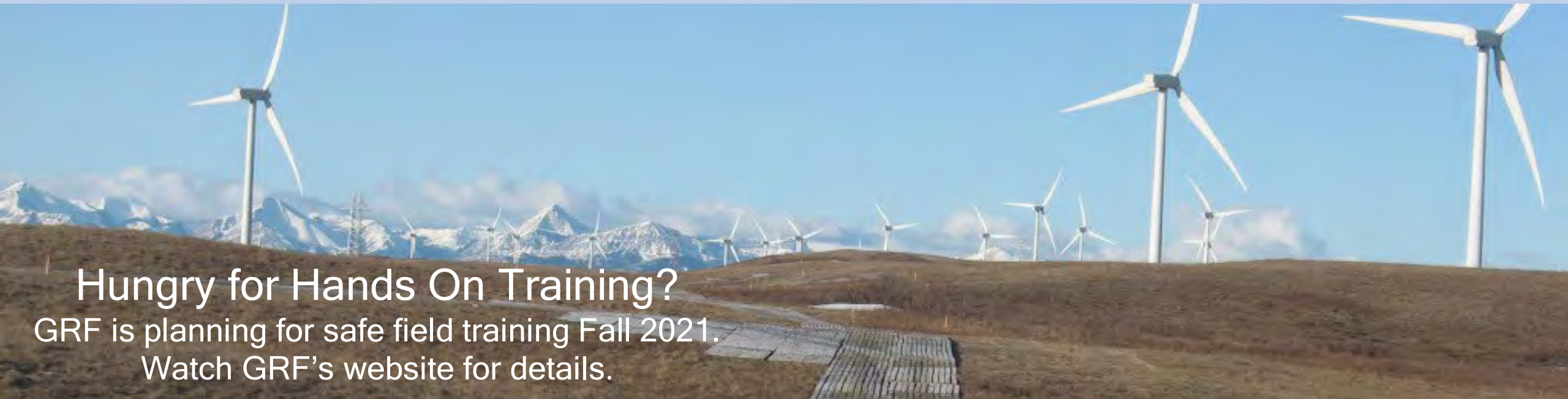


Webinar Series

Working in Native Grassland: A Primer for Project Managers and Contractors

Presenter: Marilyn Neville

Q&A Support: Tracy Kupchenko, AEP



Hungry for Hands On Training?

GRF is planning for safe field training Fall 2021.

Watch GRF's website for details.

GRF Outreach for 2021

Industry Tour – Foothills Fescue Grassland Conservation and Restoration on a Multi-Use Landscape – [July 21 - 22, 2021](#)

Training – How to Use the Range Plant Community Guides and Recovery Strategies Manuals – [September 15th, 2021](#)

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Working in Native Grassland

A primer for Project Managers and Contractors

Click on Cover
Pages and Logos
to Access the
Listed Resource
Material



Background

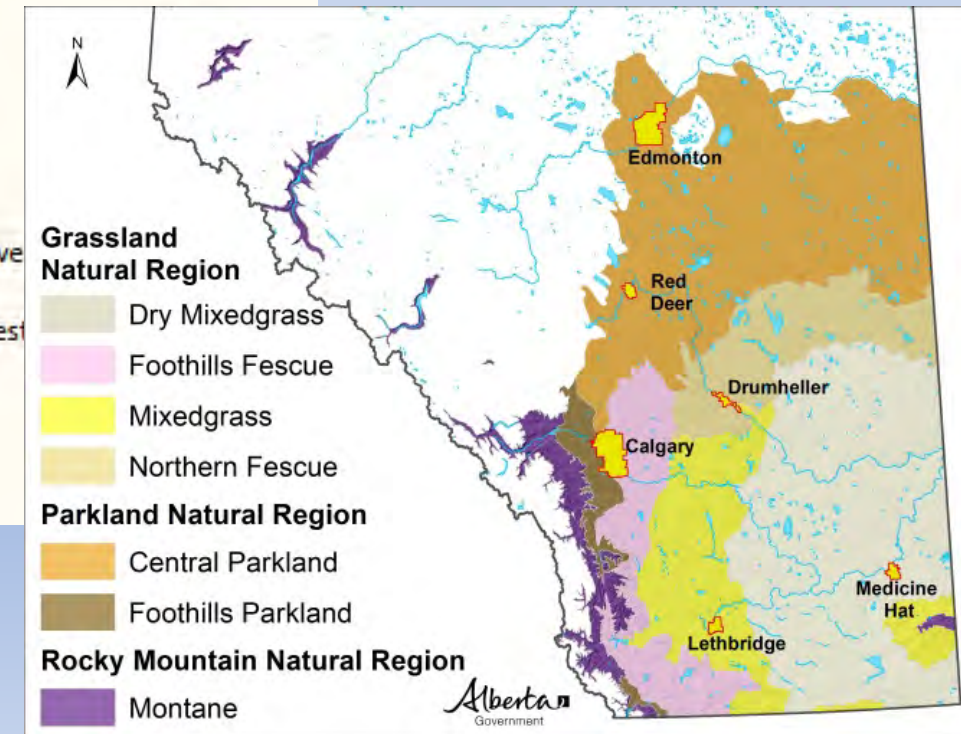
The Government of Alberta has long recognized the need to conserve native grassland ecological resources for future generations. Industrial activity, agriculture, recreation and conservation interests are often competing to use the same piece of land. Working together with these stakeholder groups, the oil and gas industry and government regulatory authorities have developed principles, guidelines and tools that reduce the footprint of industrial activity in this multiple use landscape.

Project managers and contractors must understand where they are working, the applicable regulatory authority and the operating conditions that apply for the proposed activity. [Principles for Minimizing Surface Disturbance in Native Grassland, Principles, Guidelines and Tools for all Industrial Activity in Native Grassland in the Prairie and Parkland Landscapes of Alberta \(AEP 2016\)](#), provides the background and direction for industry.

What does "Minimizing Surface Disturbance in Native Grassland " imply?

The overarching principle is to:

- Avoid native grassland;
- If avoidance is not possible, then reduce the area of impact to the soils, native communities, wildlife and water resources; and
- Develop practical activity-specific methods that will allow for the eventual rest of disturbed native plant communities.





Working in Native Grassland

A primer for Project Managers and Contractors



For the Primer go to:

grasslandrestorationforum.ca Information portal

- Target audience: Project Managers and Contractors
- Useful for landowners
- Easily accessible
- Useful for inclusion in bid documents
- Pre-job meetings with Contractors

The screenshot displays the 'Working in Native Grassland' primer page from the Grassland Restoration Forum. The page header includes the forum's logo, contact information (P.O. Box 1297, Pincher Creek, Alberta, T0K 1W0), and the website URL (<https://grasslandrestorationforum.ca/>). The main title is 'Working in Native Grassland: A primer for Project Managers and Contractors'. The page is divided into sections: 'Background' explaining the need to conserve native grassland resources, 'What does "Minimizing Surface Disturbance in Native Grassland" imply?' with a list of principles (avoidance, reduction of impact, and restoration), and 'Why is project location important?' which refers to a map of Alberta's natural regions. The map highlights the 'Dry Mixedgrass' natural subregion. Two small images illustrate 'Dry Mixedgrass Natural Subregion (Gramineae Services)' and 'Reduced disturbance wells on native Grasslands (Chinas, J)'. The page number 'Page 1 of 4' is visible at the bottom right.



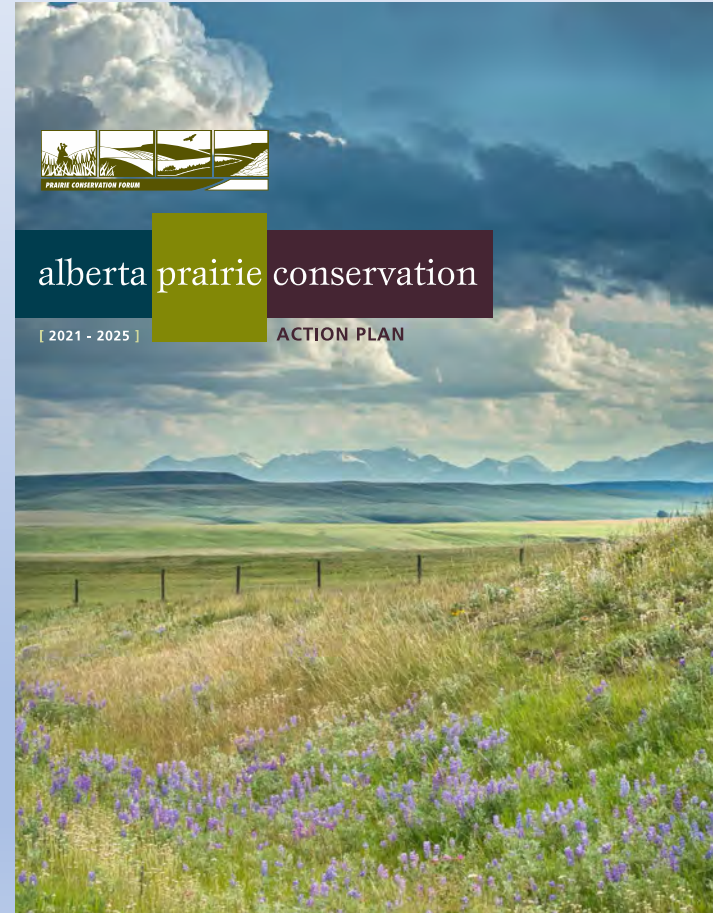
A Primer for Project Managers and Contractors

- Why are native grasslands important
- Why is project location important?
- What Regulatory Agencies apply?
- Background history
- What does “Minimizing Surface Disturbance in Native Grassland “ mean?
- Best Management Practices
- Reclamation and Recovery Strategies



Why are Native Grasslands Important

- Productive soils and Agriculture
- Water storage
- Nutrient cycling
- Carbon sequestration
- Habitat for Wildlife and Species at Risk
- Rich in biodiversity
- Valued human experience
- [Http://www.albertapcf.org](http://www.albertapcf.org)

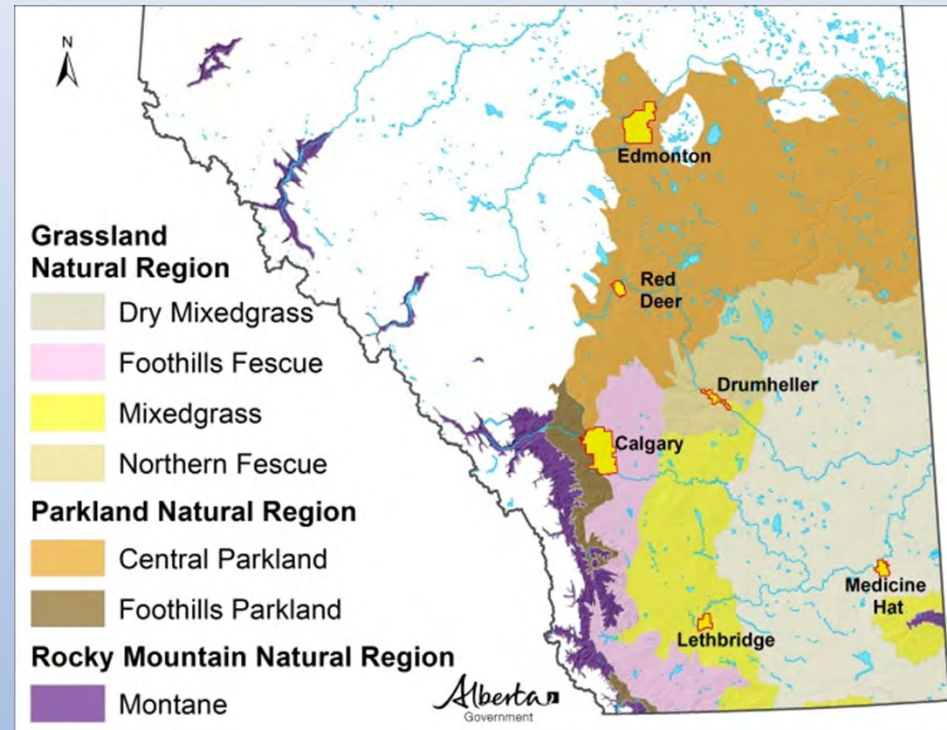




Multiple Use Landscape Co-operation through Respect



Why is project location important?



The Recovery Strategies for Industrial Development in Native Grassland series and the Range Plant Communities Guides provide detail.



Risk Analysis and Potential For Restoration

- Potential for invasion by weeds and non-native agronomic forage species
- Species that are known to be difficult to restore following industrial disturbance : **rough fescue grasslands**
- Suitable native seed supply
- Erosion concerns
- Unrealistic expectations





Parkland Natural Region

Foothills Parkland

Central Parkland





Grassland Natural Region

Dry mixedgrass,

Northern Fescue





Grassland Natural Region

Foothills Fescue

Mixedgrass





Rocky Mountain Natural Region Montane Natural Sub Region





What Regulatory Authorities Apply

- Alberta Energy Regulator “One Stop”
- Alberta Utilities Commission
- Special Areas Board
- Indian Oil and Gas
- Canadian Forces Base Suffield
- Canadian Energy Regulator

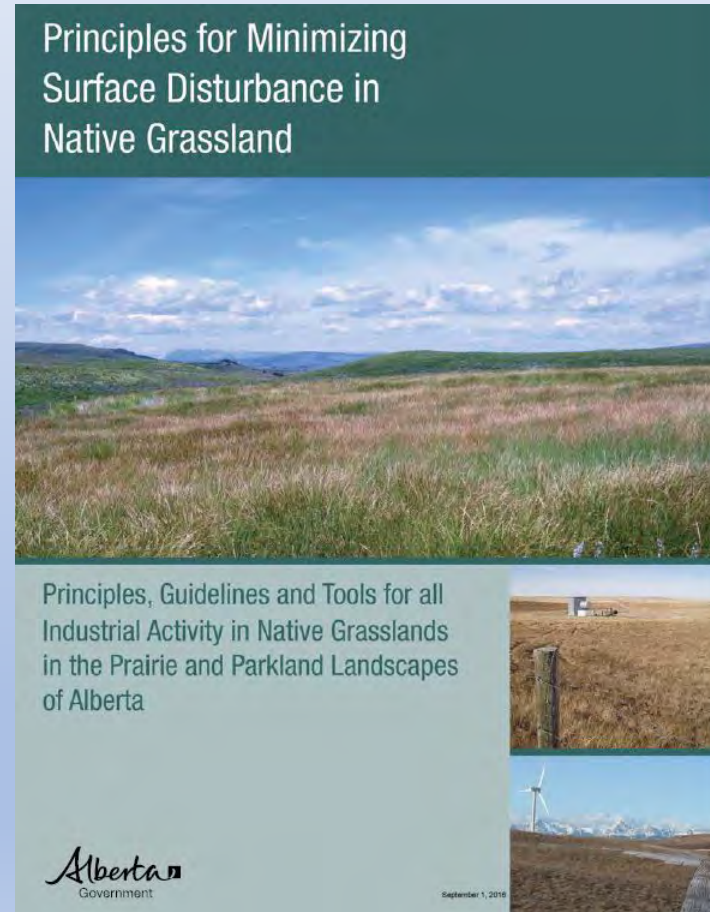


Background History

- Rapid development, soil handling, agronomic species for reclamation
- Prairie Conservation Forum Action Plan 1989
- Problem Introduced Forages: Special Areas policy
- ERCB IL-92-12 and IL 96-9 Guidelines for Minimizing Disturbance in Native Prairie
- IL 2002-1 Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas, Prairie Oil and Gas: A Lighter Footprint
- 2010 Reclamation Criteria
- AER adopted 2002-1 as Manual 007

Most Recently Revised Principles and Guidelines

- Includes all industrial activity
- Renewable Energy Projects
- Energy Transmission Lines
- Transportation Infrastructure
- Recreational Facilities





What does “Minimizing Surface Disturbance” imply?

- Avoid native grassland
- If avoidance is not possible reduce the area of impact
- Planning for eventual restoration of disturbed native plant communities within the project footprint





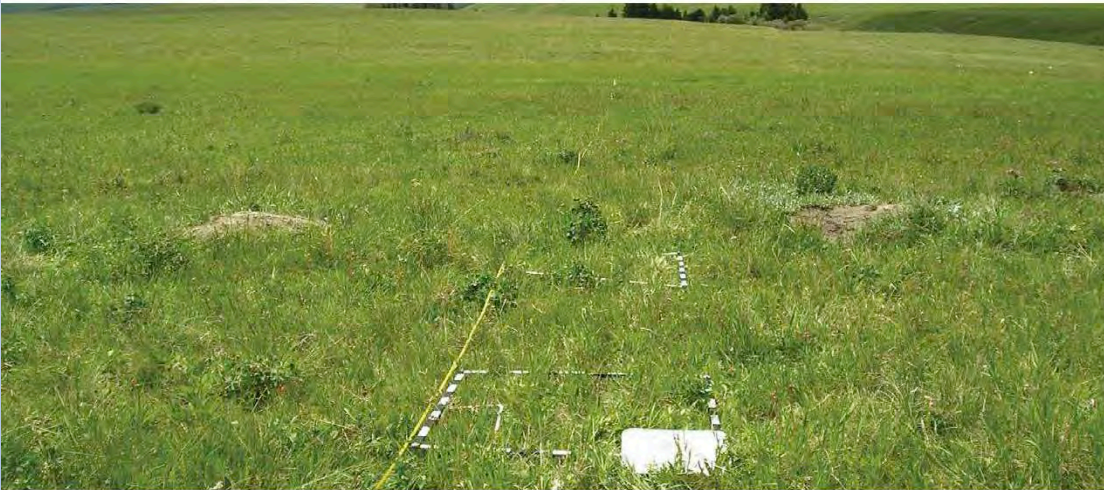
Landscape Analysis Tool

LAT is a web-enabled geospatial tool that allows applicants to plan activities on public land. LAT enables:

- Virtual siting of proposed project activities at a landscape scale.
- Master Schedule of Standards and Conditions
- Temporary Field Authorizations

- **Landscape Analysis Users Guide**

Conservation Assessments in Native Grasslands



Strategic Siting and Pre-Disturbance Site Assessment Methodology
for Industrial Activities in Native Grasslands

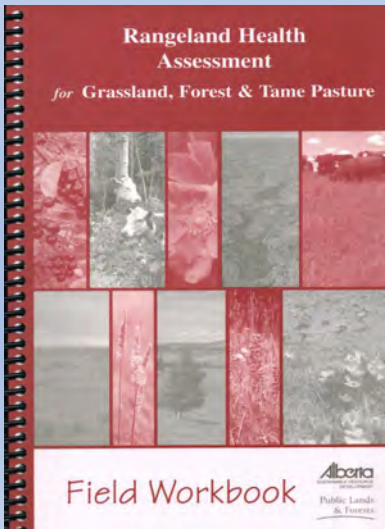
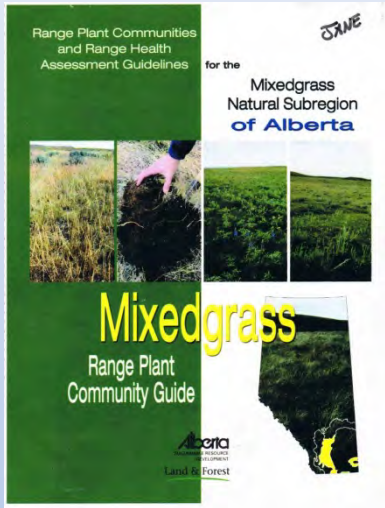
Alberta

Specific methods for

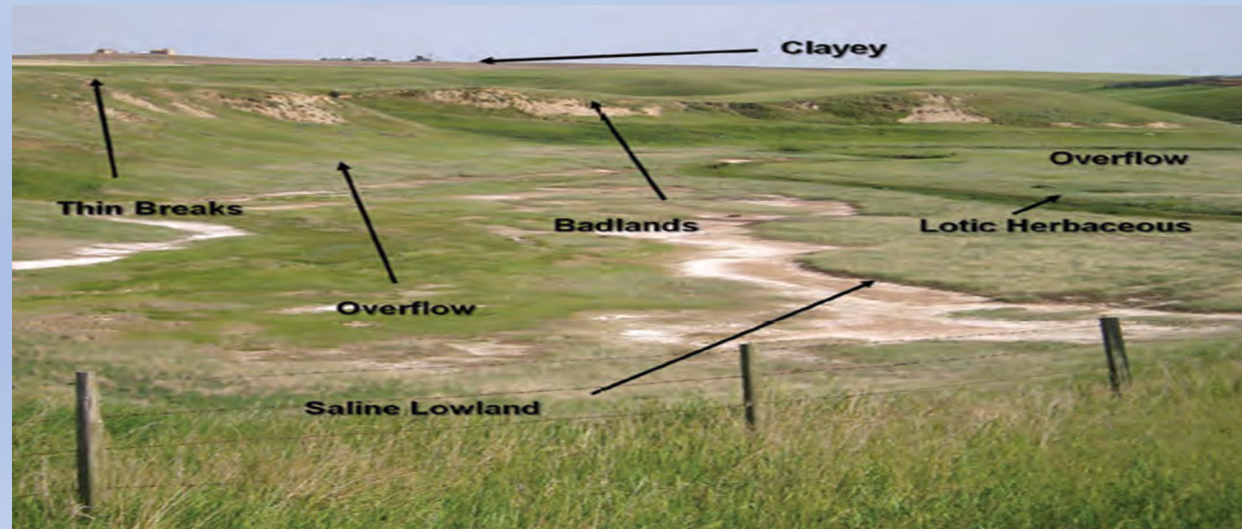
- Strategic Siting Assessments (SSA)
- Pre-disturbance Site Assessments (PDSA)
- Early engagement of experienced professional assistance

Tools to Identify Grassland Site Potential

Specific Skill sets are required for risk analysis



- GVI Mapping
- Range Plant Community Guides
- Rangeland Health Assessment Field Workbook



Cradle to the Grave Approach

- Initial exploration and development activity required to access the resource.
- Production Phase, **budget for maintenance!**
- Interim reclamation to reduce the footprint of disturbance
- Decommissioning, abandonment and **reclamation certification!**





Best Management Practices

- Dry and /or frozen ground conditions
- Timing to comply with wildlife timing constraints
- Project specific environmental training for all workers
- All equipment must be cleaned prior to entering the site
- Site specific soil conservation plans





Fire Control Plan

- Grass fires are a potential risk even during winter months
- Ensure there is a well thought out plan,
- The equipment necessary and in good repair
- Workers are trained





Practical Minimal Disturbance Practices

- Use existing access
- Minimal disturbance soil handling
- Organize equipment and vehicles efficiently
- Topsoil and spoil storage on unstripped sod
- Ploughed in flow lines or interconnect lines
- Combine access with flow lines or interconnect lines

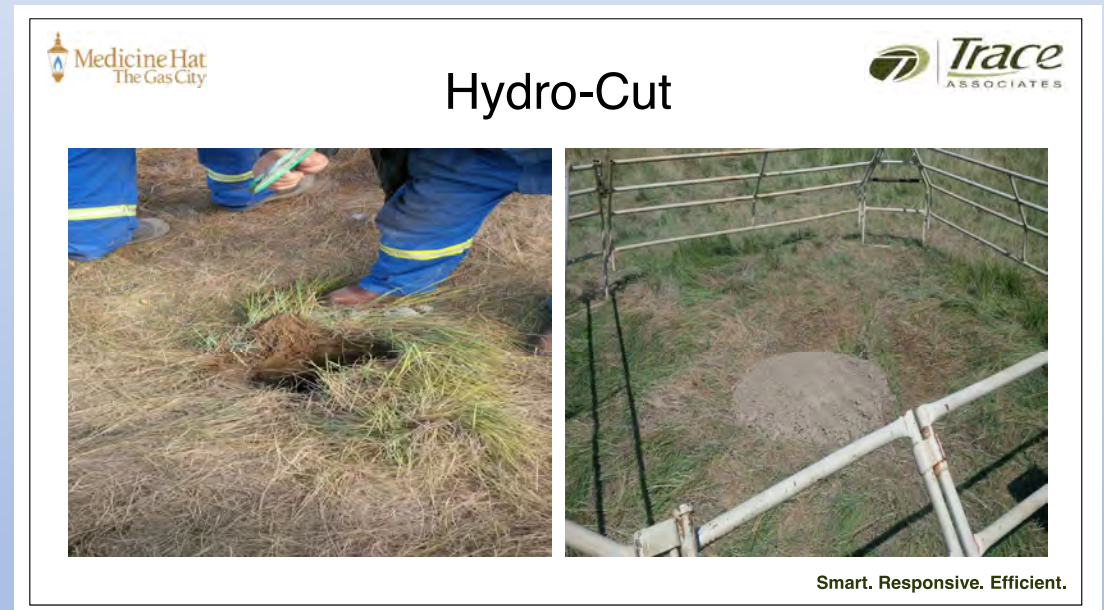




Contingency Planning for Adverse Conditions

Decommissioning and Abandonment

- Use respect! Contact land owner/ lease holder
- Use existing access
- Pre-disturbance site assessment
- Native Prairie Protocol
- Minimal disturbance cut and cap
- **Think reclamation certification
!!!!**





Two Track Gravelled Access Reclamation

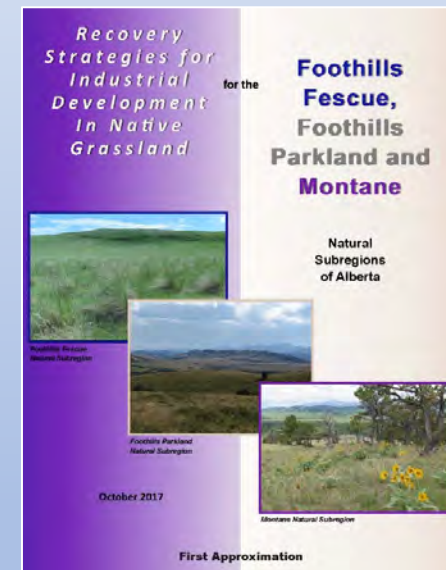
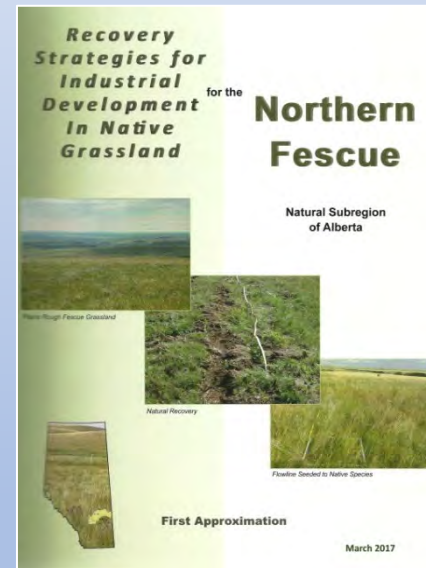
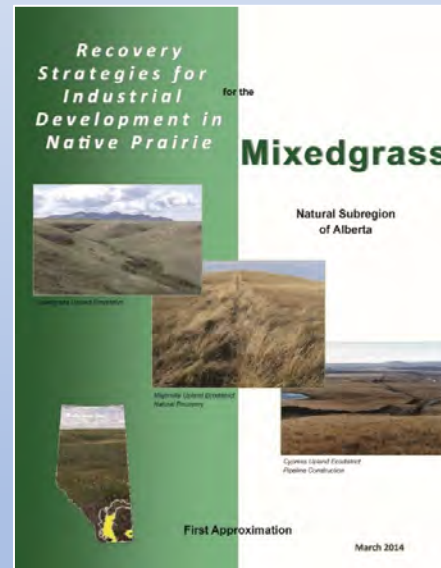
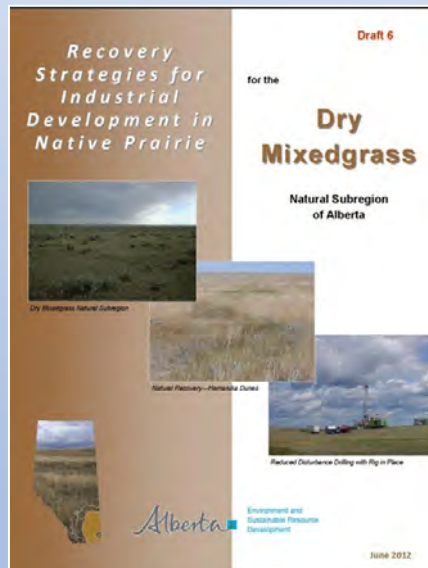
- Plan ahead!!!!
- Communication is important!!!!
- Contact local Public Lands officer
- Private land: assess recovery of two track access with the landowner. Obtain permission to leave in place.

Informationrequest@aer.ca





Recovery Strategies Manuals





Native Plant Community Succession





Recovery Strategies Manuals



- Plan to reduce disturbance
- Are suitable plant materials available?
- Select a recovery strategy
- Implementation
- Adaptive management
- Seed mixes for target recovering plant communities



Plan for Adaptive Management

Plan to monitor and manage the reclamation for the first 3-5 growing seasons

Reclaimed sites that are not monitored or managed can quickly deteriorate, resulting in costly mitigation





Matting



Grassland Restoration Forum



Grass seeder



Native hay



Wild-harvesting seed



Native seedlings



Recovery Strategies Manuals offer a suite of recovery options for each Natural Subregion

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