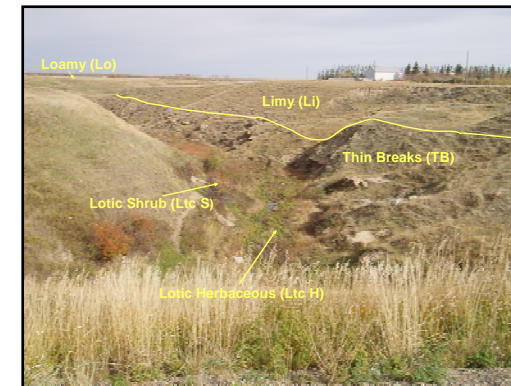
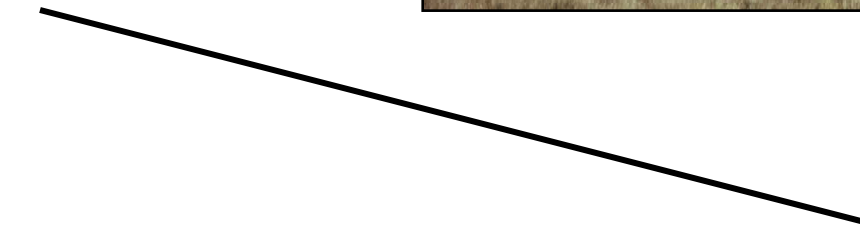
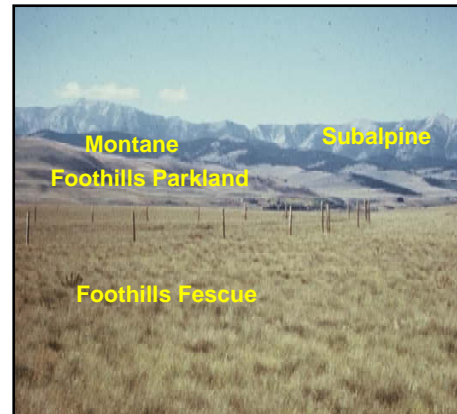
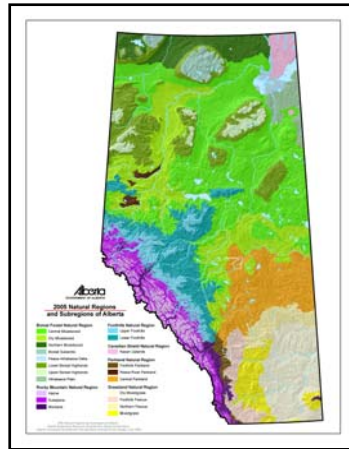


# ECOLOGICAL SITE RESTORATION RISK ANALYSIS: A STEWARDSHIP AND LAND USE PLANNING TOOL FOR PUBLIC LANDS

## PART 2: DATABASE

APRIL 2009



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## Table of Contents

<b>1</b>	<b>GRASSLAND NATURAL REGION ECOLOGICAL SITE RESTORATION RISK ANALYSIS.....</b>	<b>1</b>
1.1	Mixed Grass Natural Subregion.....	1
1.2	Dry Mixed Grass Natural Subregion .....	5
1.3	Foothills Fescue Natural Subregion.....	13
1.4	Northern Fescue Natural Subregion.....	19
<b>2</b>	<b>PARKLAND NATURAL REGION ECOLOGICAL SITE RESTORATION RISK ANALYSIS.....</b>	<b>21</b>
2.1	Central Parkland Natural Subregion .....	21
2.2	Foothills Parkland Natural Subregion.....	31
<b>3</b>	<b>FOOTHILLS NATURAL REGION ECOLOGICAL SITE RESTORATION RISK ANALYSIS.....</b>	<b>37</b>
3.1	Lower Foothills Natural Subregion .....	37
3.2	Upper Foothills Natural Subregion.....	47
<b>4</b>	<b>ROCKY MOUNTAIN NATURAL REGION ECOLOGICAL SITE RESTORATION RISK ANALYSIS.....</b>	<b>53</b>
4.1	Subalpine & Alpine Natural Subregion .....	53
4.2	Montane Natural Subregion.....	63



**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Mixed Grass Natural Subregion**

<b>Ecodistrict</b>	<b>Ecological Range Site</b>	<b>Reference Plant Community</b>	<b>Degree of Soil Disturbance</b>	<b>Revegetation Strategy</b>	<b>Restoration Risk Rating</b>	<b>Comments</b>
<b>Avoid all Lotic and Lentic site types</b>						
<b>Milk River Upland</b>	Overflow 1	MGB2 Snowberry/Kentucky Bluegrass-Tufted Hair Grass	Minimal	Natural recovery	Moderate, disturbance may increase Kentucky Bluegrass Invasion	Already disturbed site better than a natural site
			Significant	Assisted natural recovery or native seed required	Moderate, disturbance may increase Kentucky Bluegrass Invasion	
	Overflow 2	MGC2 Snowberry/Green Needle Grass-Kentucky Bluegrass	Minimal	Natural recovery	Moderate, disturbance may increase Kentucky Bluegrass Invasion	
			Significant	Assisted natural recovery or native seed required	Moderate, disturbance may increase Kentucky Bluegrass Invasion	
	Loamy 2	MGA10 Idaho Fescue-Northern Wheatgrass-Needle and Thread	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate, Idaho fescue may not recover	
	Loamy 6	MGA14 Needle and Thread-Northern Wheatgrass-June grass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate, depending on range health scores	
	Sandy 1	MGA 16 Needle and Thread-Northern Wheatgrass-Sand Grass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate	
	Blowout 2	MGA9 Silver Sagebrush/Northern Wheatgrass-June Grass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	Moderate	
	Thin Breaks 2	MGA20 Northern Wheatgrass-Needle and Thread-June grass	Minimal	Natural recovery	Moderate	
			Significant	Avoidance, site not suited to major disturbance	High	Avoid steep slopes
	Saline Lowlands 2	MGA19 Salt Grass-Western Wheatgrass-Sedge	Minimal	Natural recovery	High	Avoidance recommended, groundwater discharge, accumulation of salts
			Significant	Avoidance, site not suited to major disturbance	High	Avoidance recommended, groundwater discharge, accumulation of salts

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Mixed Grass Natural Subregion**

Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Cypress Upland</b>	Loamy 1	MGA1 Plains Rough fescue-Western Porcupine grass-Sedge	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Loamy 4	MGA30 Western PorcupineGrass-Northern Wheatgrass-June grass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate	
	Loamy 5 low elevations	MGA4 Needle and Thread-Northern Wheatgrass-June grass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate	
	Blowout 1	MGA5 Needle and Thread-Plains Rough Fescue-Western Wheat Grass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Shallow to Gravel	MGA31 Plains Rough Fescue-Northern Wheatgrass-Western Wheatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	
	Gravel	MGA7 Plains Rough Fescue-June Grass-Northern Wheatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	Avoid
	Thin Breaks 1	MGA8 Plains Rough Fescue- Plains Muhly	Minimal	Natural recovery	Moderate	
			Significant	Avoidance, site not suited to major disturbance	High	Avoid
Saline Lowlands 1	MGA6 Salt Grass-Sedge-Western Wheatgrass	Minimal	Natural recovery	High	Avoidance recommended, groundwater discharge, accumulation of salts	
		Significant	Assisted natural recovery or native seed required	High	Avoidance recommended, groundwater discharge, accumulation of salts	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Mixed Grass Natural Subregion**

<b>Ecodistrict</b>	<b>Ecological Range Site</b>	<b>Reference Plant Community</b>	<b>Degree of Soil Disturbance</b>	<b>Revegetation Strategy</b>	<b>Restoration Risk Rating</b>	<b>Comments</b>
<b>Avoid all Lotic and Lentic site types</b>						
<b>Lethbridge-Vulcan Majorville Plain</b>	Loamy 3	MGA21 Wheatgrass-Needle and Thread	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Low	
	Loamy 7	MGC Snowberry/Needle and Thread-Low Sedge-Northern Wheatgrass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Low	
	Sandy 2	MGA 25 Snowberry/Northern Wheatgrass-Needle and Thread	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Low	
	Sands 1 Little Bow	MGA28 Snowberry/Needle and Thread-Sand Grass-Low Sedge	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Low	
	Saline Lowlands	MGA29 Sand Grass-Foxtail Barley-Western Wheatgrass	Minimal	Natural recovery	High	Avoidance recommended, groundwater discharge, accumulation of salts
			Significant	Assisted natural recovery or native seed required	High	Avoidance recommended, groundwater discharge, accumulation of salts
<b>Blackfoot Plain</b>	Limy (Li)	Unconfirmed Plant Community	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Sandy (Sy)	MGA24 Needle and Thread-Low Sedge-Pature Sagewort	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate	
	Loamy (Lo)	MGA22 Needle and Thread grass-June Grass	Minimal	Natural recovery	Low	
			Significant	Assisted natural recovery or native seed required	Moderate	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Mixed Grass Natural Subregion**

<b>Ecodistrict</b>	<b>Ecological Range Site</b>	<b>Reference Plant Community</b>	<b>Degree of Soil Disturbance</b>	<b>Revegetation Strategy</b>	<b>Restoration Risk Rating</b>	<b>Comments</b>
<b>Avoid all Lotic and Lentic site types</b>						
<b>Standard Plain</b>	Clayey (Cy)	Unconfirmed plant community,	Minimal	Natural recovery	Moderate,highly fragmented landscape	Avoid further fragmentation of remaining native prairie
			Significant	Assisted natural recovery or native seed required	High, highly fragmented landscape	Avoid further fragmentation of remaining native prairie
	Loamy (Lo)	MGA22 Needle and Thread grass-June Grass	Minimal	Natural recovery	Moderate, highly fragmented landscape	Avoid further fragmentation of remaining native prairie
			Significant	Assisted natural recovery or native seed required	High, highly fragmented landscape	Avoid further fragmentation of remaining native prairie
<b>Sweetgrass Upland</b>	Loamy (Lo)	MGA34 Foothills Rough fescue	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	Avoid
	Limey (Li)	Unconfirmed plant community	Minimal	Natural recovery	High	Avoid if rough fescue present
			Significant	Assisted natural recovery or native seed required	High	Avoid if rough fescue present
	Blowouts (BIO)	Unconformed plant community	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Thin Breaks (TB)	MGA8 Plains Rough Fescue-Plains Muhly	Minimal	Natural recovery	High	
			Significant	Avoid	Avoid	Avoid, site not suited to major disturbance
	Shallow to gravel	MGA31 Plains Rough Fescue-Northern Wheatgrass-Western Porcupine Grass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Gravel	MGA7 Plains Rough Fescue-June grass-Northern Wheatgrass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	Avoid



**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
<b>Avoid all Lotic and Lentic site types</b>							
<b>Wildhorse Plain</b>	Blowout 6	DMGA 34 Silver Sagebrush/ Northern Wheatgrass-June Grass	Minimal soil disturbance	Natural recovery	Moderate		
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance	
	Blowout 5	DMGA39 Wheatgrass-Sandberg Bluegrass	Minimal soil disturbance	Natural recovery	Moderate		
			Significant soil disturbance	Assisted natural recovery	High		
	Loamy 3	DMGA5 Needle and Thread Northern Wheat Grass-Plains Reed Grass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Moderate		
	Overflow 2	DMGC3 Silver Sagebrush/Western Porcupine Grass-Wheatgrass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Moderate		
	Loamy 1, May include Thin breaks	DMGA9 Needle and Thread Thread-Leaved Sedge	Minimal soil disturbance	Natural recovery	Moderate, may encounter soft rock		
			Significant soil disturbance	Assisted natural recovery	Moderate to low depending on slope, and softrock		
	Sandy 2	DMGA14 Western Wheat Grass-Needle and Thread	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Moderate	Potential wind erosion - risk	
	<b>Foremost Plain</b>	Loamy 2	DMGA2 Needle and Thread Wheat Grasses	Minimal soil disturbance	Natural recovery	Low	
				Significant soil disturbance	Assisted natural recovery	Low	
Limy		DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Moderate		
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
<b>Avoid all Lotic and Lentic site types</b>							
<b>Purple Springs Plain</b>	Sandy 2	DMGA14 Western Wheat Grass-Needle and Thread	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Low		
	Sands 2	DMGA43 Needle and Thread-Low Sedge-Sand Grass	Minimal soil disturbance	Natural recovery	Low	Coarse textured soils	
			Significant soil disturbance	Assisted natural recovery	Moderate, erosion concerns	Coarse textured soils	
	Loamy 4	DMGA3 Needle and Thread JuneGrass-Blue Grama grass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Low		
	Choppy Sandhills	DMGC6 Choke Cherry/Northern Wheatgrass-June Grass	Minimal soil disturbance	Natural recovery	High	Steep slopes, coarse textured soils	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance	
	<b>Vauxhall Plain</b>	Loamy 4	DMGA3 Needle and Thread JuneGrass-Blue Grama grass	Minimal soil disturbance	Natural recovery	Low	
				Significant soil disturbance	Assisted natural recovery	Low	
Sandy 2		DMGA14 Western Wheat Grass-Needle and Thread	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Low		
Blowout 1		DMGA35 Needle and Thread-June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Bow City Plain</b>	Blowout 1	DMGA35 Needle and Thread-June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required
	Loamy 4	DMGA3 Needle and Thread JuneGrass-Blue Grama grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Low	
<b>Brooks Plain</b>	Loamy 5	DMGA12 Silver Sagebrush/Needle and Thread-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Low	
	Sands 2	DMGA43 Needle and Thread-Low Sedge-Sand Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	Erosion concerns
	Sands 1	DMGA18 Silver Sagebrush/ Needle and Thread-Blue Grama Grass-June Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	
	Blowout 6	DMGA34 Silver Sagebrush/ Northern Wheat Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance
	Clayey 1	DMGA8 Western wheatgrass,pasture sage and prickly pear	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
<b>Avoid all Lotic and Lentic site types</b>							
<b>Berry Creek Plain</b>	Blowout 1	DMGA35 Needle and Thread-June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required	
	Blowout 6	DMGA34 Silver Sagebrush/Northern Wheat Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate		
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance	
	Loamy 4	DMGA3 Needle and Thread JuneGrass-Blue Grama grass	Minimal soil disturbance	Natural recovery	Low		
			Significant soil disturbance	Assisted natural recovery	Low		
	Saline Lowlands 2	DMGA21 Silver Sagebrush/Wheatgrass-Nuttall's	Minimal soil disturbance	Natural recovery	High	Avoid	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance	
	<b>Sounding Creek Plain</b>	Blowout 2	DMGA15 Wheatgrass-Needle and Thread-June Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies
				Significant soil disturbance	Assisted natural recovery	Moderate	Special Areas Policy Applies
Blowout 6		DMGA34 Silver Sagebrush/Northern Wheat Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance; Special Areas Policy Applies	
Blowout 1		DMGA35 Needle and Thread-June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required; Special Areas Policy Applies	
Sands 2		DMGA43 Needle and Thread-Low Sedge-Sand Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Erosion concerns; Special Areas Policy Applies	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

<b>Ecodistrict or Sub-ecodistrict</b>	<b>Ecological Range Site</b>	<b>Reference Plant Community</b>	<b>Industrial Disturbance</b>	<b>Revegetation Strategy</b>	<b>Restoration Risk Rating</b>	<b>Comments</b>	
<b>Avoid all Lotic and Lentic site types</b>							
<b>Sounding Creek Plain (continued from previous page)</b>	Sands 1	DMGA 18 Silver Sagebrush Needle and Thread- Blue Grama Grass- June Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Special Areas Policy Applies	
	Choppy Sandhills 1	DMGC5 Wild Rose-Needle and Thread-Sand Grass- Low Sedge	Minimal soil disturbance	Natural recovery	High	Avoid; Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance; Special Areas Policy Applies	
	Saline Lowland 2	DMGA21 Silver Sagebrush/Wheatgrass- Nuttall's	Minimal soil disturbance	Natural recovery	High	Avoid; Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance; Special Areas Policy Applies	
	Loamy 4	DMGA10 Blue Grama- Needle and Thread	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Mid-seral plant community; Special Areas Policy Applies	
	<b>Sibbald Plain</b>	Loamy 4	DMGA3 Needle and Thread June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies
				Significant soil disturbance	Assisted natural recovery	Low	Special Areas Policy Applies
Blowout 2		DMGA15 Wheatgrass- Needle and Thread-June Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Special Areas Policy Applies	
Clayey 1		DMGA8 Western Wheatgrass,Pasture Sagewort and Prickly Pear Cactus	Minimal soil disturbance	Natural recovery	Moderate	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required; Special Areas Policy Applies	
Sandy 1		DMGA13 Western Porcupine Grass-Needle and Thread-Sand Grass	Minimal soil disturbance	Natural recovery	Low	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	Low	Special Areas Policy Applies	
Limy		DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Moderate	Special Areas Policy Applies	
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface; Special Areas Policy Applies	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Oyen Plain</b>	Loamy 5	DMGA12 Silver Sagebrush/Needle and Thread-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	
	Limy	DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface
	Sandy 2	DMGA14 Western Wheat Grass-Needle and Thread	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	
<b>Acadia Valley Plain</b>	Limy, Acadia Valley	DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	High	
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface
	Clayey 1	DMGA8 Western Wheat Grass-Pasture Sagewort-Prickly Pear Cactus	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required
	Limy Travers	DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface
<b>Bindloss Plain</b>	Sandy 1	DMGA13 Western Porcupine Grass-Needle and Thread-Sand Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	
	Sands 2	DMGA43 Needle and Thread-Low Sedge-Sand Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	Erosion concerns
	Sands and Choppy Sandhills Rego Brown Chernozem (VST) Orthic Regosol (ATP)	DMGA19 Silver Sagebrush-Needle and Thread-Sand Grass	Minimal soil disturbance	Natural recovery	Moderate	Erosion concerns
			Significant soil disturbance	Assisted natural recovery	High	Erosion concerns, coarse textured soils

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Rainy Hills Upland</b>	Loamy 4	DMGA3 Needle and Thread June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Low	
	Limy	DMGA24 Silver Sagebrush/Needle and Thread-Western Wheat Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Immature and eroded soil profiles with free lime at soil surface
	Sands and Gravel Orthic Brown Chernozem (KGO)	DMGA23 Silver Sagebrush-Needle and Thread-Blue Grama Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Shallow topsoil, coarse fragments
	Blowout 6	DMGA34 Silver Sagebrush/Northern Wheat Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate	Very poor soil; erosion potential
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance
<b>Schuler Plain</b>	Loamy 4	DMGA3 Needle and Thread June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Low	
	Sandy 2	DMGA14 Western Wheat Grass-Needle and Thread	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	Erosion concerns
	Saline Lowland (SL) Saline Brown Chernozem (LLB)	DMGA20 Silver Sagebrush/Undifferentiated Wheatgrass	Minimal soil disturbance	Natural recovery	High	Avoid
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance
	Overflow 2	DMGC3 Silver Sagebrush/Western Porcupine Grass-Wheatgrass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Dry Mixed Grass Natural Subregion**

Ecodistrict or Sub-ecodistrict	Ecological Range Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Cypress Slope</b>	Loamy 4	DMGA3 Needle and Thread June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Low	
	Blowout 1	DMGA35 Needle and Thread-June Grass-Blue Grama Grass	Minimal soil disturbance	Natural recovery	Low	
			Significant soil disturbance	Assisted natural recovery	Moderate	Accurate soil handling required
<b>Ecological /Range Site by Soil or Landscape</b>	Sub-irrigated, all Gleyed, non-saline, medium to very coarse textured soils.The water table occurs near but not often above the surface of the soil. (MHN)		Minimal soil disturbance	Natural recovery	High	Avoid
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance
	Wetlands and Riparian includes all GVI Lentic and Lotic site types	All Classes	Minimal soil disturbance	Avoidance,	Avoid all Lentic and Lotic site types	
			Significant soil disturbance	Avoidance	Avoid all Lotic and Lentic site types	
	Badlands	DMGA 36 and DMGC4	Minimal soil disturbance	Natural recovery	High	Avoid
			Significant soil disturbance	Assisted natural recovery	High	Avoid, site not suited to major disturbance
	Shallow to Gravel	DMGA37 Silver Sagebrush/Needle and Thread-Blue Grama Grass-June Grass	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Assisted natural recovery	High	Shallow topsoil, coarse fragments
	Thin Breaks	DMGA22 and DMGA42	Minimal soil disturbance	Natural recovery	Moderate	
			Significant soil disturbance	Avoidance, site not suited to major disturbance	High	Avoid, site not suited to major disturbance



**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Foothills Fescue Natural Subregion**

Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Del Bonita Plateau</b>	Loamy 3	FFA1 Rough fescue-idaho fescue-western wheatgrass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Shallow to gravel	FFA10 Rough Fescue-Idaho Fescue-Sedge	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	
	Thin Breaks 2	FFC6 Creeping juniper/Northern and Western Wheatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	Avoid, site not suited to major disturbance
	Limy 1	FFA29 Northern and Western Wheatgrass-Rough Fescue	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	Immature and eroded soil profiles with free lime at soil surface
	Gravel	FFA13 Idaho Fescue- Rough Fescue-Sedge	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	
	Overflow (Ov)	FFA5 Rough Fescue -Parry Oatgrass-Kentucky Bluegrass Conditional	Minimal	Natural recovery	High,	May increase Kentucky Bluegrass
			Significant	Assisted natural recovery or native seed required	High	Competition needed to prevent increase in Kentucky Bluegrass
	Loamy 4 and Clayey	FF24 Foothills Rough fescue-Northern and Western Wheatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	Accurate soil handling is required
	Sub-irrigated	FFA15 Undifferentiated Sedge-Kentucky Bluegrass-Tufted hir Grass	Minimal	Natural recovery	High	Invasive species concerns
			Significant	Assisted natural recovery or native seed required	High	Avoid,site not suited to major disturbance

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Foothills Fescue Natural Subregion**

Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Cardston Plain</b>	Loamy 4 and Clayey	FFA24 Foothills Rough Fescue-Northern and Western Wheatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	
	Limy (Li)	FFA29 Northern and Western Wheatgrass-Rough Fescue	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Loamy 3	FFA1 Rough fescue-Idaho Fescue-Western Wheatgrass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Loamy 2	FFA2 Rough Fescue-Idaho Fescue-Sedge	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Blowouts	FFA24 Foothills Rough fescue-Northern and Western Wheatgrass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
	Thin Breaks (TB)	FFA17 Foothills Rough fescue-Parry Oat Grass-June Grass	Minimal	Natural recovery	High	
			Significant	Avoidance, site not suited to major disturbance	High	Avoid,site not suited to major disturbance
	Overflow (Ov)	FFA27 Northern and Western Wheatgrass-Green Needle Grass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	Invasive species concerns
	Sub-irrigated	FFA15 Undifferentiated Sedge-Kentucky Bluegrass-Tufted hair grass	Minimal	Natural recovery	High	Invasive species concerns
			Significant	Assisted natural recovery or native seed required	High	Avoid,site not suited to major disturbance

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Foothills Fescue Natural Subregion**

Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Willow Creek Upland</b>	Loamy 1	FFA5 Rough Fescue-Parry Oatgrass	Minimal	Natural recovery	High	Invasive species concerns
			Significant	Assisted natural recovery or native seed required	High	Avoidance recommended
	Loamy 2	FF2 Rough Fescue-Idaho Fescue-Sedge (drier)	Minimal	Natural recovery	High	Invasive species concerns
			Significant	Assisted natural recovery or native seed required	High	Avoidance recommended
	Thin Breaks (TB)	FFA17 Foothills Rough Fescue-Parry Oat Grass-June Grass (main issue is slopes)	Minimal	Natural recovery	High	Slope / Aspect are important factors
			Significant	Avoidance, site not suited to major disturbance	High	Avoid, site not suited to major disturbance
	Limy (Li)	FFA29 Northern and Western Wheatgrass-Rough Fescue	Minimal	Natural recovery	High	invasion/hard to establish cover
			Significant	Assisted natural recovery or native seed required	High	Avoidance recommended
	Shallow to gravel (SwG)	FFA9 Rough Fescue-Parry's Oatgrass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High	
	Gravel	FFA9 Rough Fescue-Parry Oat Grass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	Avoidance recommended
	Saline Lowland (SL)		Minimal	Natural recovery	High	Avoid
			Significant	Natural Recovery?	High	Avoid
	Overflow (Ov)	FFA27 Northern and Western Wheatgrass-Green Needle Grass	Minimal	Natural recovery	Moderate	Invasive species concerns
			Significant	Assisted natural recovery or native seed required	High	Invasive species concerns

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Foothills Fescue Natural Subregion**

<b>Ecodistrict</b>	<b>Ecological Range Site</b>	<b>Reference Plant Community</b>	<b>Degree of Soil Disturbance</b>	<b>Revegetation Strategy</b>	<b>Restoration Risk Rating</b>	<b>Comments</b>
<b>Avoid all Lotic and Lentic site types</b>						
<b>Buffalo Hill Upland</b>	Loamy (Lo)	FFA1 Foothills Rough Fescue-Idaho Fescue-Western Wheat Grass	Minimal	Natural recovery	High	Avoid, highly fragmented landscape
			Significant	Assisted natural recovery or native seed required	High	Avoid, highly fragmented landscape
<b>Delacour Plain</b>	Loamy (Lo1)	FFA5 Rough Fescue-Parry Oatgrass	Minimal	Natural recovery	High	Avoid, highly fragmented landscape
			Significant	Assisted natural recovery or native seed required	High	Avoid, highly fragmented landscape
	Sandy (Sy)					
	Sand and Choppy Sandhills					
	Saline Lowland (SL)					
	Blowouts (BIO)					
Shallow to gravel (SwG)						
Gravel						

**Grassland Natural Region Ecological Site Restoration Risk Analysis  
Foothills Fescue Natural Subregion**

Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Milk River Ridge</b>	Loamy 3	FFA1 Rough fescue-Idaho Fescue- Western Wheatgrass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
<b>Transitional to Mixed grass</b>	Loamy 4	FFA24 Foothills Rough Fescue- Northern and Western Wheat Grass	Minimal	Natural recovery	High	
			Significant	Assisted natural recovery or native seed required	High	
<b>Landscape</b>	Overflow	FFA27 Northern and Western Wheatgrass-Green Needle Grass	Minimal	Natural recovery	Moderate	
			Significant	Assisted natural recovery or native seed required	High, competition needed to prevent increase in Kentucky	
	Subirrigated site	FFC2 Beaked Willow/Sedge-Tufted hair grass	Minimal	Natural recovery	Moderate	
			Significant	Avoidance, site not suited to major disturbance	High	Avoid, site not suited to major disturbance
	Wetlands, includes all GVI Lentic site types			Avoidance only	Preserve ecological integrity by avoiding disturbance and provide acceptable setback distances	
				Avoidance only	Preserve ecological integrity by avoiding disturbance and provide acceptable setback distances	
	Riparian includes all GVI Lotic site types			Avoidance only	Preserve ecological integrity by avoiding disturbance and provide acceptable setback distances	
				Avoidance only	Preserve ecological integrity by avoiding disturbance and provide acceptable setback distances	



Grassland Natural Region Ecological Site Restoration Risk Analysis Northern Fescue Natural Subregion							
Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
<b>Avoid all Lotic and Lentic site types</b>							
<b>Restoration of remnant open communities will be dependent on age of stand. Old stands may revert to modified grassland. Acidification of the soil may persist. Avoidance is recommended.</b>							
	Overflow	CPC4 Western Wheatgrass/Silver Sagebrush	Minimal	avoidance			
			Significant	avoidance			
	Loamy	Plains Rough Fescue-Western Porcupine Grass	Minimal	avoidance			Very little of this plant community left
			Significant	avoidance			
	Sandy	CPA6 Upland Sedge-Western Porcupine Grass	Minimal	natural recovery	moderate		erosion risk
			Significant	assisted natural recovery	high		
	Blowout	MGA5 Needle and Thread-Plains Rough Fescue- Western Wheatgrass	Minimal	natural recovery	moderate		
			Significant	assisted natural recovery	high		
	Thin Breaks	MGA8 Plains Rough Fescue - Plains Muhly	Minimal	assisted natural recovery	moderate		erosion risk
			Significant	assisted natural recovery	high		
	Saline Lowlands	Agrostis scabra- Puccinellia nuttalliana-Deschampsia cespitosa	Minimal	natural recovery	moderate		
			Significant	avoidance			
	Shallow to Gravel	MGA2 Western Porcupine Grass- Rough Fescue	Minimal	natural recovery	moderate		
			Significant	avoidance			
	Gravel	MGA7 Plains Rough Fescue - June Grass- Northern Wheatgrass	Minimal	natural recovery	low		
			Significant	avoidance			

Grassland Natural Region Ecological Site Restoration Risk Analysis Northern Fescue Natural Subregion						
Ecodistrict	Ecological Range Site	Reference Plant Community	Degree of Soil Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
<b>Avoid all Lotic and Lentic site types</b>						
<b>Restoration of remnant open communities will be dependent on age of stand. Old stands may revert to modified grassland. Acidification of the soil may persist. Avoidance is recommended.</b>						
	Limy (Li)	Little Bluestem	Minimal	avoidance		
			Significant	avoidance		
	Clayey (Cy)	CPA1 Western Wheatgrass-Alkali Bluegrass	Minimal	assisted natural recovery	moderate	
			Significant	avoidance		
	Sands	CPA7 Sandgrass-Needle and Thread-June Grass	Minimal	natural recovery	moderate	erosion risk
			Significant	avoidance		
	Choppy Sandhills	CPA11 Needle and Thread/Fringed Sage-Little Club Moss	Minimal	natural recovery	moderate	erosion risk
			Significant	avoidance		



**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments		
Choppy Sand Hills CS	a Juniper (rapidly drained, xeric, poor)	a1 grassland	CPA9 Sandgrass-Sand Dropseed-Sedge			Minimal soil disturbance	Avoid	High			
						Significant soil disturbance	Avoid, site not suited to major disturbance				
		a2 low shrubland	CPC17 Juniper/Sedge-Sand Grass- Plains Rough Fescue				Minimal soil disturbance	Natural recovery	High		
							Significant soil disturbance	Avoidance recommended			
							Minimal soil disturbance	Natural recovery	High		
							Significant soil disturbance	Avoidance recommended			
		CPC18 Juniper/Bearberry/Sandgrass					Minimal soil disturbance	Natural recovery	High		
							Significant soil disturbance	Avoidance recommended			
		CPC19 Juniper/Little Club Moss/Needle and Thread					Minimal soil disturbance	Natural Recovery	High		
							Significant soil disturbance	Avoidance recommended			
		a3 tall shrubland	CPC2 Water Birch/Juniper					Minimal soil disturbance	Avoidance	High	selective use pipeline okay wellsite not
								Significant soil disturbance	Avoidance recommended		
								Minimal soil disturbance	Avoidance	High	selective use pipeline okay wellsite not
								Significant soil disturbance	Avoidance recommended		
a4 aspen	CPD1 Aspen/Juniper/Sedge CS and Sa		CPD2 Aspen/Kentucky Bluegrass/Sedge CS and Sa			Minimal soil disturbance	Natural recovery	High			
						Significant soil disturbance	Assisted natural recovery	High			
a5 coniferous	Cond13 Jack Pine/Bearberry					Minimal soil disturbance	Natural recovery	Moderate			
						Significant soil disturbance	Assisted natural recovery	High			

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
<b>Sands Sa</b>	<b>b Sandgrass (rapidly drained, subxeric, poor)</b>	b1 grassland	CPA7 Sandgrass-Needle and Thread-Junegrass			Minimal soil disturbance	Natural recovery	Moderate		
						Significant soil disturbance	Assisted natural recovery	Moderate		
		b2 shrubland	CPC16 Juniper/Sedge-Plains Rough Fescue			Minimal soil disturbance	Natural recovery	High	selective regarding disturbance	
						Significant soil disturbance	Avoidance recommended			
<b>Sandy Sy</b>	<b>c Needle and Thread (well drained, submesic, medium)</b>	c1 grassland	CPA33 Sheep Fescue-Needle and Thread-Junegrass Sy(CS,Sa)			Minimal soil disturbance	Natural recovery	Moderate		
						Significant soil disturbance	Assisted natural recovery	Moderate		
			CPA11 Needle and Thread/Fringed Sage-Little Club Moss Sy(Sa)			Minimal soil disturbance	Natural recovery	Moderate		
						Significant soil disturbance	Assisted natural recovery	Moderate		
		CPA6 Upland Sedge-Western Porcupine Grass Sy(Sa)	CPA8 Upland sedge – Junegrass Sy(Sa)			Minimal soil disturbance	Natural recovery	Moderate		
						Significant soil disturbance	Assisted natural recovery	Moderate		
		c2 shrubland	CPC1 Silverberry-Chokecherry/Hay Sedge Sy	CPC7 Chokecherry-Saskatoon/Smooth Brome Sy			Minimal soil disturbance	Natural recovery	Moderate	
							Significant soil disturbance	Assisted natural recovery	High	
		c3 aspen	CPD3 Aw/Snowberry-Chokecherry-Saskatoon Sy(Sa,CS, Lo)				Minimal soil disturbance	Natural recovery	Moderate	smooth brome encroachment
							Significant soil disturbance	Assisted natural recovery	High	
<b>Blowout BIO</b>	<b>g Western Wheatgrass (moderately well drained, mesic, poor)</b>	g4 grassland	CPA2 Plains Rough Fescue-Western Wheatgrass BIO(Lo)			Minimal soil disturbance	Natural recovery	High		
						Significant soil disturbance	Avoidance recommended			

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments							
Loamy Lo	j Plains Rough Fescue (well drained, mesic, rich)	j1 grassland	CPA4 Upland Sedge-Western Wheatgrass Lo(Sy, Li)			Minimal soil disturbance	Natural recovery	Moderate	potential for invasives and recover of upland sedge may be difficult							
						Significant soil disturbance	Assisted natural recovery	High								
			CPA3 Plains Rough Fescue-Upland Sedge Lo(Sa, Sy)	CPA5 Upland Sedge-Kentucky Bluegrass Lo(Sa, Sy)			Minimal soil disturbance	Avoidance		This community is too threatened to allow any disturbance						
							Significant soil disturbance	Avoidance recommended								
			CPA34 Blue Grama-Western Porcupine Grass Lo(TB)				Minimal soil disturbance	Natural recovery	Moderate							
							Significant soil disturbance	Assisted natural recovery	High							
		CPA25 Plains Rough Fescue - Western Porcupine Grass Lo	CPA26 Plains Rough Fescue-Kentucky Bluegrass Lo			Minimal soil disturbance	avoidance	High	This community is too threatened to allow any disturbance							
						Significant soil disturbance	Avoidance recommended									
		j2 Tame					CPB6 Timothy-Smooth Brome Lo	Minimal soil disturbance	Natural recovery	Moderate	CPB2-6 are heavily disturbed sites where topsoil has been tremendously impacted and will not likely produce native veg stands without serious assistance					
								Significant soil disturbance	Native seed mix required	Moderate						
												CPB4 Slender Wheatgrass-Kentucky Bluegrass Lo	Minimal soil disturbance	Natural recovery	Moderate	
													Significant soil disturbance	Native seed mix required	Moderate	
												CPB2 Creeping Red Fescue-Kentucky Bluegrass Lo	Minimal soil disturbance	Natural recovery	Moderate	
													Significant soil disturbance	Native seed mix required	Moderate	

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments	
Loamy Lo  (cont.)	j Plains Rough Fescue (well drained, mesic, rich)  (cont.)	j2 Tame  (cont.)			CPB5 Smooth Brome-Kentucky Bluegrass/Dandelion Lo	Minimal soil disturbance	Native seed mix required	Moderate		
						Significant soil disturbance	Native seed mix required	Moderate		
					CPB3 Kentucky Bluegrass-Northern Wheatgrass/Dandelion Lo	Minimal soil disturbance	Native seed mix required	Moderate		
						Significant soil disturbance	Native seed mix required	Moderate		
		j3 shrubland	CPC5 Snowberry/Silverberry/Plains Rough Fescue Lo(Sy)	CPC6 Snowberry/Silverberry-Kentucky Bluegrass Lo(Sy)		Minimal soil disturbance	Natural recovery	High		
						Significant soil disturbance	Avoidance recommended			
			CPC29 Snowberry/Plains Rough Fescue Lo	CPC30 Snowberry/Plains Rough Fescue-Kentucky Bluegrass	CPC32 Snowberry/Kentucky Bluegrass	Minimal soil disturbance	Natural recovery	High		
						Significant soil disturbance	Avoidance recommended			
			CPC31 Silverberry/Plains Rough Fescue-Prairie Sedge Lo			Minimal soil disturbance	Natural recovery	High		
						Significant soil disturbance	Avoidance recommended			
		j4 aspen	CPD14 Aspen/Beaked Hazelnut Lo and Sy			Minimal soil disturbance	Natural recovery	Moderate	j4 aspen dependent on stand age, old stands more difficult to restore	
						Significant soil disturbance	Assisted natural recovery	High		
			CPD13 Aspen/Snowberry-Rose Lo	CPD4 Aspen/Snowberry/Smooth Brome Lo			Minimal soil disturbance	Natural recovery	Moderate	
							Significant soil disturbance	Assisted natural recovery	High	
								Assisted natural recovery	High	
CPD28 Aspen/Snowberry/Awned Wheatgrass Lo				Minimal soil disturbance	Natural recovery	Moderate				
				Significant soil disturbance						

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments		
Loamy Lo (cont.)	j Plains Rough Fescue (cont.)	j5 coniferous	CPE2 White Spruce/Moss Lo(Sb, TB, SwG, Ov)			Minimal soil disturbance	Natural recovery	Moderate			
						Significant soil disturbance	Avoidance recommended				
clayey Cy	k Western Wheatgrass (well –moderately drained, subhygric, medium)	k1 grassland	CPA1 Western Wheat Grass-Alkali Bluegrass Cy and BIO			Minimal soil disturbance	Avoidance		Sites are extremely sensitive when wet.		
						Significant soil disturbance	Avoidance				
Overflow Ov	l Silver Sagebrush  (Well drained, Subhygric, medium)	l1 Silver sagebrush	CPC4 Silver Sagebrush/Western Wheatgrass Ov(BIO)			Minimal soil disturbance	Avoidance	Moderate	Sites are extremely sensitive when wet.		
						Significant soil disturbance	Avoidance recommended				
Saline Lowlands SL		m1	Cond 8 Salt Grass SL	Cond 4 Saltgrass/Silverweed SL		Minimal soil disturbance	Natural recovery	Moderate			
						Significant soil disturbance	Avoidance recommended				
		m2	CPA20 Nutall's Salt Meadow Grass SL	Cond 11 Foxtail Barley-Nutall's Salt meadow Grass			Minimal soil disturbance	Natural recovery	Moderate		
							Significant soil disturbance	Avoidance recommended			
			CPA19 Foxtail Barley SL and Lent				Minimal soil disturbance	Natural recovery	Moderate		
							Significant soil disturbance	Avoidance recommended			
							CPB1 (Smooth Brome)	Natural recovery	Moderate		
							Significant soil disturbance	Native seed mix required	Moderate		
			CPA12 (Three Square Rush)	CPA17 (Timothy)			Minimal soil disturbance	Natural recovery	High		
							Significant soil disturbance	Avoidance recommended			
					CPA18 (Foxtail Barley)			Minimal soil disturbance	Natural recovery	Moderate	
								Significant soil disturbance	Natural recovery	Moderate	

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments			
Saline Lowlands SL  (cont.)		i3 hygic	Cond3 (Widgeon Grass)			Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
			Cond 14 Samphire Flats			Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
			Cond 1 Marsh Ragwort			Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
			CPA15 (Great Bulrush)			Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
			Subirrigated mesic		h1 grassland	Cond 2 (Spangletop)			Minimal soil disturbance	Avoidance recommended		
									Significant soil disturbance	Avoidance recommended		
						Cond 19 (Narrow Reed Grass-Wire Rush/Silverweed-Western Willow Aster)			Minimal soil disturbance	Avoidance recommended		
									Significant soil disturbance	Avoidance recommended		
CPA20 (Marsh Reed Grass)						Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
CPA13 (Awned Sedge)						Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					
CPA11 (Baltic Rush)						Minimal soil disturbance	Avoidance recommended					
						Significant soil disturbance	Avoidance recommended					

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments		
Subirrigated mesic (cont.)		h1 grassland (cont.)			CPA17 Timothy	Minimal soil disturbance	Avoidance recommended				
						Significant soil disturbance	Avoidance recommended				
Subirrigated subhygric		h2 shrubland	CPC15 (Basket willow/Rose/Snowberry/Sedge)			Minimal soil disturbance	Avoidance recommended				
						Significant soil disturbance	Avoidance recommended				
						Minimal soil disturbance	Avoidance recommended				
						Significant soil disturbance	Avoidance recommended				
		h3 Aspen-Balsam Poplar	CPC13 (Basket Willow)	CPC14 (Basket Willow/Kentucky Bluegrass)				Minimal soil disturbance	Avoidance recommended		
								Significant soil disturbance	Avoidance recommended		
								Minimal soil disturbance	Natural recovery	Moderate	
								Minimal soil disturbance	Natural recovery	Moderate	
								Minimal soil disturbance	Natural recovery	Moderate	
		Minimal soil disturbance	Natural recovery	Moderate							
						Significant soil disturbance	Avoidance recommended				
Minimal soil disturbance	Natural recovery	Moderate									
				Significant soil disturbance	Avoidance recommended						
Minimal soil disturbance	Natural recovery	Moderate									
				Significant soil disturbance	Avoidance recommended						
Minimal soil disturbance	Natural recovery	Moderate									
				Significant soil disturbance	Assisted natural recovery	High					

**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments		
subirrigated hygric (horsetail)		h4 horsetail Aspen-Balsam Poplar	CPD10 (Balsam Poplar-Aspen/ Red Osier Dogwood/Horsetail)			Minimal soil disturbance	Avoidance recommended				
						Significant soil disturbance	Avoidance recommended				
		h5 horsetail White Spruce	CPE1 (Balsam Poplar-White Spruce/Red Osier Dogwood-Rose)				Minimal soil disturbance	Natural recovery	Moderate		
							Significant soil disturbance	Avoidance recommended			
			CPE2 (White Spruce/Moss)				Minimal soil disturbance	Natural recovery	Moderate		
							Significant soil disturbance	Avoidance recommended			
			CPE3 (White Spruce/Horsetail)				Minimal soil disturbance	Natural recovery	Moderate		
							Significant soil disturbance	Avoidance recommended			
		Lotic		j1 shrubland	CPC12 (Silverberry/Narrow Reedgrass)			Minimal soil disturbance	Avoidance only		
								Significant soil disturbance	Avoidance only		
CPC8 Water birch/red osier dogwood							Minimal soil disturbance	Avoidance only			
							Significant soil disturbance	Avoidance only			
CPC9 (Yellow willow-red osier dogwood)	CPC10 (Yellow willow/kentucky bluegrass)						Minimal soil disturbance	Avoidance only			
							Significant soil disturbance	Avoidance only			
CPC11 (Sandbar willow)						Minimal soil disturbance	Avoidance only				
						Significant soil disturbance	Avoidance only				



**Parkland Natural Region Ecological Site Restoration Risk Analysis  
Central Parkland Natural Subregion**

Range Site	Ecological Site	Ecological Site Phase	Reference Range plant community	Successional plant communities	Modified Plant Communities	Degree of Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
Lentic	mesic	k1 graminoid fen	CPA14 (Beaked sedge)			Minimal soil disturbance	Avoidance only		
						Significant soil disturbance	Avoidance only		
			Mikes type Tall manna grass-Cottongrass			Minimal soil disturbance	Avoidance only		
						Significant soil disturbance	Avoidance only		
			CPA20 (Reed Canary Grass)			Minimal soil disturbance	Avoidance only		
						Significant soil disturbance	Avoidance only		
Lentic	hygric	k2 cattail marsh	CPA16 (Cattail)			Minimal soil disturbance	Avoidance only		
						Significant soil disturbance	Avoidance only		



Parkland Natural Region Ecological Site Restoration Risk Analysis Foothills Parkland Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
submesic/medium	b hairy wildrye	FPE1 Aw-Pl-Sw/Bearberry/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	Knoll top slopes lack growth
		FPA3 Bearberry/Parry oatgrass-rough fescue	Minimum Soil Disturbance	Natural recovery	Moderate-High	wind sheer extreme to keep at 'high'
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High, avoidance recommended	
		FPF2 Sw-Pl/Buffaloberry	Minimum Soil Disturbance	Natural recovery	Moderate	as FPF4
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPD1 Aw/Rose/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPF3 Sw-Pl-Aw/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	FPd1
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	FPd1
		FPE2 Sw-Aw/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	FPd1
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	FPd1
		FPF4 Fd/Needle litter	Minimum Soil Disturbance	Natural recovery - seismic	Moderate-High	slope may be issue
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required (Natural Recovery as well)	Moderate-High	slope big factor
		FPA2 Idaho fescue-Parry oatgrass-Rough fescue	Minimum Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High, avoidance recommended	

Parkland Natural Region Ecological Site Restoration Risk Analysis Foothills Parkland Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
submesic/rich	c thick black rough fescue (loamy)	FPA Rough fescue-Idaho fescue Parry oatgrass	Minimum Soil Disturbance	Natural recovery	High, avoidance recommended	
			Significant Soil Disturbance	Avoid		
mesic/medium	d pinegrass	FPD2 Aw/Rose/Pinegrass	Minimum Soil Disturbance	Natural recovery - seismic	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	high potential of invasives
		FPE3 Sw-P1-Aw/Rose/Pinegrass	Minimum Soil Disturbance	Natural recovery	Moderate	as FPD2
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPF6 Sw/Moss	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
mesic/rich	e silverberry-snowberry	FPD4 Aw-Pb/Snowberry-Saskatoon	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	invasion
		FPF5 Sw/Silverberry	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPC1 Rose-Snowberry	Minimum Soil Disturbance	Natural recovery	High	avoidance - generally on slopes, unstable due to seeps
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	avoidance - generally on slopes, unstable due to seeps
		FPE4 Sw-Aw/Rose/Marsh reedgrass	Minimum Soil Disturbance	Natural recovery	Moderate	as FPD4
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	

Parkland Natural Region Ecological Site Restoration Risk Analysis Foothills Parkland Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
subhygric/rich	f red osier dogwood	FPF7 Sw/Red osier dogwood	Minimum Soil Disturbance	Natural recovery	High	starting to move toward wetter
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPE5 Sw-Pb/Cow parsnip	Minimum Soil Disturbance	Natural recovery	Moderate	as FPD8
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPC6 Bebb willow/Snowberry/Cow parsnip	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPD8 Aw/Cow parsnip	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	Invasive non-native species concerns
		FPD9 Pb/Willow/Tall manna grass	Minimum Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPC4 Bebb willow-Rose-Snowberry	Minimum Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Assisted natural recovery or native seed mix required	High	
		FPC7 Sandbar willow	Minimum Soil Disturbance	Avoidance only		Riparian
			Significant Soil Disturbance	Avoidance only		
		FPA12 Kentucky bluegrass-wire rush-Tufted hairgrass	Minimum Soil Disturbance	Avoidance only		Avoid all GVI Lentic and Lotic site type
			Significant Soil Disturbance	Avoidance only		Riparian

Parkland Natural Region Ecological Site Restoration Risk Analysis Foothills Parkland Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
hygric/rich	g horsetail	FPF8 Sw/Horsetail	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPD10 Pb-Aw/Horsetail	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPC9 Bebb willow/Horsetail/Awned sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
subhydryc/rich	h fen	FPC10 Basket willow	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPC11 Basket willow/Awned (Water) sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPC13 Flat lv'd willow/Water (beaked) sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPC14 Yellow willow/Water sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPA5 Northern reedgrass	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		

Parkland Natural Region Ecological Site Restoration Risk Analysis Foothills Parkland Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
subhydric/rich  (cont.)	h fen  (cont.)	FPA6 Woolly sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPA7 Sedge meadows	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		FPA11 Bulrush	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		





Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
Xeric/poor	a1 shrubby grassland	b1 Bearberry-juniper/sedge	Minimum soil disturbance	Natural reecovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance		
subxeric/poor	b bearberry/lichen	B2 Bearberry/Parry oatgrass	Minimun Soil Disturbance	Natural recovery	High	subject to erosion and poor climate
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance		
		H1 balsam poplar-white spruce/chokeberry-bearberry	Minimun Soil Disturbance	Avoidance, riparian zone		riparian
			Significant Soil Disturbance	Avoidance, riparian zone		
submesic/medium	c hairy wild rye	J1 Lodgepole pine/bearberry/hairy wildrye	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		J2 Lodgepole pine/bog cranberry/hairy wildrye	Minimun Soil Disturbance	Natural recovery	Low	concern is slope stability
			Significant Soil Disturbance	Natural recovery	Moderate	
		E1 Aspen/blueberry	Minimun Soil Disturbance	Natural recovery	Low	concern is slope stability
			Significant Soil Disturbance	Natural recovery	Moderate	
		E2 Aspen/bearberry/fringed brome	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		H2 Aspen-white spruce/buffaloberry-bearberry	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		J3 White spruce/buffaloberry-bearberry	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Assisted natural recovery	Moderate	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
submesic/medium  (cont.)	c hairy wild rye  (cont.)	C1 Rose-Blueberry/Schrebers moss	Minimun Soil Disturbance	Natural recovery	Low	treat as Aspen
			Significant Soil Disturbance	Natural recovery	Moderate	
		B3 California oatgrass/bearberry	Minimun Soil Disturbance	Natural recovery	High	steep slope grasslands
			Significant Soil Disturbance	Avoidance recommended	High	
		A7 Hairy wildrye/clover	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
mesic/poor	d Labrador tea-mesic	J4 Lodgepole pine - Black spruce/Labrador tea/Feathermoss	Minimun Soil Disturbance	Natural recovery	High	re-forestation issues
			Significant Soil Disturbance	Avoidance recommended	High	
		J5 Lodgepole pine-Black Spruce/feathermoss	Minimun Soil Disturbance	Natural recovery	High	re-forestation issues
			Significant Soil Disturbance	Avoidance recommended	High	
		J6 Lodgepole pine/Labrador tea-bog cranberry	Minimun Soil Disturbance	Natural recovery	High	re-forestation issues
			Significant Soil Disturbance	Avoidance recommended	High	
		J7 Lodgepole pine/Labrador tea-bearberry	Minimun Soil Disturbance	Natural recovery	High	re-forestation issues
			Significant Soil Disturbance	Avoidance recommended	High	
		H3 Pl-Sw-Aw/Labrador tea/feathermoss	Minimun Soil Disturbance	Natural recovery	High	re-forestation issues
			Significant Soil Disturbance	Avoidance recommended	High	

Foothills Natural Region Ecological Site Restoration Risk Analysis Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
mesic/medium	e low-bush cranberry	J8 Lodgepole pine/green alder	Minimum Soil Disturbance	Natural recovery	Low	agronomics invasive species weeds
			Significant Soil Disturbance	Natural recovery	Moderate	
		J9 Lodgepole pine/fireweed	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Natural recovery	Moderate	
		E10 Aspen/White meadowsweet	Minimum Soil Disturbance	Natural recovery	Low	grazing multiple use issues
			Significant Soil Disturbance	Natural recovery	Moderate	
		E11 Aspen/beaked hazelnut/wild sarsparilla	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Natural recovery	Moderate	
		E3 Aspen/Buffalo berry	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Natural recovery	Moderate	
		E4 Aspen/Saskatoon	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Natural recovery	Moderate	
		E5 Aspen/Alder	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Natural recovery	Moderate	
		E6 Aspen/alder/marsh reedgrass/hairy wildrye	Minimum Soil Disturbance	Natural recovery	Low	site specific issues will arise
			Significant Soil Disturbance	Avoidance recommended	High	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
mesic/medium  (cont.)	e low-bush cranberry  (cont.)	E7 Aspen/rose-low bush cranberry/tall forbs	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	
		E8 Aspen/rose-twinflower	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	
		E9 Aspen/snowberry	Minimum Soil Disturbance	Avoidance, riparian zone		
			Significant Soil Disturbance	Avoidance, riparian zone		
		H10 Lodgepole pine-white spruce-aspen/rose/hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	
		H11 aspen-lodgepole pine-white spruce/snowberry	Minimum Soil Disturbance	Avoidance, riparian zone		
			Significant Soil Disturbance	Avoidance, riparian zone		
		H4 Aspen-white spruce/buffaloberry	Minimum Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Low	
		H5 aspen/lodgepole pine/buffalo berry	Minimum Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Low	
		H6 Aspen-lodgepole pine/alder	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance		
		H7 Aspen-Balsam poplar-white spruce/alder	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
mesic/medium  (cont.)	e low-bush cranberry  (cont.)	H8 Lodgepole pine-aspen/forb/marsh reedgrass	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		H9 Aspen-White spruce/rose/forb	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		J10 Lodgepole pine-white spruce/Twinflower/moss	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		J11 White spruce/buffalo berry	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	High	
		J12 White spruce/moss	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		C2 Snowberry-Saskatoon	Minimun Soil Disturbance	Avoidance, riparian zone		
			Significant Soil Disturbance	Avoidance, riparian zone		
		C3 Hazelnut/wild sarsaparilla	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	
		D3 Green alder/creeping red fescue/clover	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Assisted natural recovery	Moderate	
		A16 Timothy-Creeping red fescue/clover	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Seed mix required	Moderate	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
subhygric/rich	f bracted honeysuckle	E12 Aspen/bracted honeysuckle	Minimun Soil Disturbance	Natural recovery	Moderate	all similar for Aspens
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		E13 Aspen/thimbleberry	Minimun Soil Disturbance	Natural recovery	Moderate	wetter (riparian) then avoid
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		E14 Aspen/oak fern	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		E15 Aspen/willow	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F1 Aw-Bw-Pb/bracted honeysuckle/oak fern	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F10 Aspen-balsam poplar/red-osier dogwood	Minimun Soil Disturbance	Avoidance, riparian zone		
			Significant Soil Disturbance	Avoidance, riparian zone		
		F11 Aspen-balsam poplar/cow parsnip	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Natural recovery	Moderate	
		F12 Balsam poplar-aspen/devils club	Minimun Soil Disturbance	Avoidance, site not suited to disturbance	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
subhygric/rich  (cont.)	f bracted honeysuckle  (cont.)	F2 Balsam poplar-aspen/beaked hazelnut	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F3 Aspen-balsam poplar/marsh reed grass	Minimun Soil Disturbance	Natural recovery	Low	
			Significant Soil Disturbance	Natural recovery	Moderate	
		F4 Aw-Pb-Bw/rose/marsh reed grass	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F5 Balsam poplar/snowberry	Minimun Soil Disturbance	Avoidance, site not suited to disturbance	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F6 Aspen-Balsam poplar/green alder/marsh reed grass	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F7 Aspen-balsam poplar/alder-bracted honeysuckle	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F8 Aspen-white birch/alder-bracted honeysuckle	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F9 Aspen-balsam poplar/river alder	Minimun Soil Disturbance	Avoidance, site not suited to disturbance		
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance		

Foothills Natural Region Ecological Site Restoration Risk Analysis									
Lower Foothills Natural Subregion									
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments			
subhygric/rich  (cont.)	f bracted honeysuckle  (cont.)	H12 Aw-Sw-Pb/bracted honeysuckle	Minimum Soil Disturbance	Natural recovery	Moderate				
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High				
		J13 Engelmann spruce-Lodgepole pine/cow parsnip	Minimum Soil Disturbance	Natural recovery	Moderate		site factors (slope) may increase risk		
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High				
		J14 White spruce/Willow-bracted honeysuckle	Minimum Soil Disturbance	Natural recovery	Moderate		site factors (slope) may increase risk		
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High				
		J15 White spruce/alder	Minimum Soil Disturbance	Natural recovery	Moderate		site factors (slope) may increase risk		
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High				
		C4 Willow-bog birch/graceful sedge	Minimum Soil Disturbance	Avoidance, riparian zone					
			Significant Soil Disturbance	Avoidance, riparian zone					
		A20 Reed canary grass-meadow foxtail/Clover <i>not referenced</i>	Minimum Soil Disturbance	Assisted natural recovery	Moderate		Looks like: "this will be a manipulated C4"		
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance					
		subhygric/very rich	g meadow	C5 Willow/slender wheat grass-fringed brome grass	Minimum Soil Disturbance		Natural recovery	High	g meadow all similar - large disturbance access requirements promote fragmentation
					Significant Soil Disturbance		Avoidance recommended	High	
C6 Willow/marsh reed grass	Minimum Soil Disturbance			Natural recovery	High				
	Significant Soil Disturbance			Avoidance recommended	High				



Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
subhygric/very rich  (cont.)	g meadow  (cont.)	B4 Cow parsnip/Veiny meadow rue	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance recommended	High	
		B5 Tufted hair grass-slender wheatgrass/veiny meadow rue	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance recommended	High	
		B6 Sedge/veiny meadow rue	Minimun Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance	Avoidance recommended	High	
subhygric/poor	h Labrador tea	J16 Black spruce-lodgepole pine/Moss	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
hygric/rich	i horsetail	E16 Aspen/rose/horsetail	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		F13 Balsam poplar/willow/horsetail	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		J17 White spruce/horsetail/moss	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		C7 Alder/marsh reed grass	Minimun Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	

Foothills Natural Region Ecological Site Restoration Risk Analysis						
Lower Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
hygric/rich  (cont.)	i horsetail  (cont.)	C8 Willow/horsetail	Minimum Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
		C9 Willow-alder/fern	Minimum Soil Disturbance	Avoidance, riparian zone		
			Significant Soil Disturbance	Avoidance, riparian zone		
hygric/medium	j Labrador tea/horsetail	J18 Black spruce/labrador tea/horsetail/moss	Minimum Soil Disturbance	Natural recovery	High	
			Significant Soil Disturbance	Avoidance, site not suited to major disturbance	High	
subhydric/poor	k bog	J19 Black spruce/labrador tea-bog cranberry/cloudberry	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
subhydric/medium	l poor fen	J20 Black spruce-Larch/sedge/moss	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
subhydric/rich	m rich fen	J21 Tamarack or Larch/bog birch/sedge/moss	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		C10 Willow-bog birch/water sedge	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		B7 Marsh reed grass slough	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		
		B8 Wet sedge meadow	Minimum Soil Disturbance	Avoidance only		
			Significant Soil Disturbance	Avoidance only		

Foothills Natural Region Ecological Site Restoration Risk Analysis Upper Foothills Natural Subregion						
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments
Xeric /poor	a grassland	UFA10 Bearberry/Slender wheatgrass	Minimum Soil Disturbance	Natural Recovery	High	
			Significant Soil Disturbance		Avoidance	
subxeric/poor	b bearberry/lichen	UFA9 Junegrass-Sedge/Sage	Minimum Soil Disturbance	Natural Recovery	High	subject to erosion; poor climate
			Significant Soil Disturbance		Avoidance	
		UFE11 Pl/Bearberry/Hairy wildrye	Minimum Soil Disturbance	Natural Recovery	High	
			Significant Soil Disturbance		Avoidance	
submesic/medium	c hairy wildrye	UFD1 Aw/Rose/Bearberry	Minimum Soil Disturbance	Natural Recovery	Moderate	concern is slope stability in all aspen communities
			Significant Soil Disturbance		High	
		UFD3 Aw/Rose/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance		High	
		UFD4 Aw/Buffaloberry/Hairy wildrye	Minimum Soil Disturbance	Natural recovery	Moderate	
			Significant Soil Disturbance		High	
		UFE8 Sw/Bearberry	Minimum Soil Disturbance	Natural Recovery	Moderate	all conifer PCs
			Significant Soil Disturbance		Avoidance	
		UFE9 Sw/Juniper-Buffaloberry	Minimum Soil Disturbance	Natural Recovery	Moderate	all conifer PCs
			Significant Soil Disturbance		Avoidance	
		UFD2 Pb-Sw/Willow/Yellow mountain avens	Minimum Soil Disturbance		Avoidance	riparian
			Significant Soil Disturbance		Avoidance	
		UFA15 Hairy wildrye-Sedge	Minimum Soil Disturbance	Natural Recovery	High	subject to erosion; poor climate
			Significant Soil Disturbance		Avoidance	

Foothills Natural Region Ecological Site Restoration Risk Analysis Upper Foothills Natural Subregion								
Moisture/Nutrient Regime	Ecological Site	Reference Plant Community	Industrial Disturbance	Revegetation Strategy	Restoration Risk Rating	Comments		
mesic/poor	d Labrador tea- mesic		Minimum Soil Disturbance	Natural Recovery	Moderate	critical elk winter range. Poor regen. Potential for forest		
			Significant Soil Disturbance		Avoidance			
mesic/medium	e tall bilberry/arnica	UFE2 PI-Sw/Bunchberry	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		UFE4 PI/Marsh reedgrass	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		UFE1 PI/Bog cranberry	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		UFD7 Aw-PI/Bunchberry	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		UFE12 Sw/Alder	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		UFE10 Sw/Moss	Minimum Soil Disturbance	Natural Recovery	Low	increase risk at site level with variable slope/moisture		
			Significant Soil Disturbance	Assisted Natural Recovery	Moderate			
		mesic/rich	ff fescue-california oatgrass grassland	UFA5 Rough fescue-Tufted hairgrass	Minimum Soil Disturbance	Avoidance recommended	High	FF fescue, Rough fescue restoration issue
					Significant Soil Disturbance	Avoidance recommended	High	
UFA6 Rough fescue-Hairy wildrye	Minimum Soil Disturbance			Avoidance recommended	High			
	Significant Soil Disturbance			Avoidance recommended	High			























































