



## Level one range monitoring in 2007: challenges, lessons, and way forward

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# Outline

- Introduction
- Field testing
- Lessons learned
- Next steps





# ✓ Introduction

## 11 FRPA Values



### **Forage and Associated Plant Communities**

**Maintain or enhance forage quality and quantity** for livestock and wildlife while **Maintaining** healthy plant communities and biodiversity, and **Minimizing** undesirable disturbance to soils, water, and riparian areas.





# PRIORITY QUESTION

- **What are the impacts forest and range practices on:**
  - quality and quantity of forage
  - species composition and structure of the forest understorey





# Level one monitoring protocol



## Plant community description

- Dominant plant species, indicator plants, missing layers and species, litter





# Level one monitoring protocol

## ● Forage and browse use

- Stubble height and shrub use



Proper use on upland grasses



Over-used



Tending to subterranean grazing





# Level one monitoring protocol

## ● Map zones of utilization

- Map areas of heavy, moderate and heavy livestock use





## ✓ Field Testing

- **Pilot and Training in five districts**
  - The Okanagan Shuswap
  - Chilcotin Forest District
  - Nadina Forest District
  - Peace Forest District
  - Rocky Mountain Forest District





## ✓ Lessons Learned

- Staff are eager and enthusiastic
- Varying understanding and experience in Range Management
- Plant identification challenges
- Lack of knowledge of reference conditions





## ✓ Lessons Learned

- How to select plants to measure
- Approach was different from other FREP checklists
- Lack of knowledge of reference conditions
- Experienced range staff wanted more attributes included





## ✓ Lessons Learned

- Need for more training
  - Plant identification
  - Range management 101 (*for some*)
- Need to change the protocol





## ✓ Next Steps

- Use function checklists
  - Upland, streams, wetlands and lakes
- Biotic, edaphic, and hydrologic functions
- Training and field test



# Function Checklists



## Uplands Function Checklist

Range Unit: Range Agreement Holder:			Range Agreement Number:		
UTM Coordinates:			BEC Subzone:		
Name of Upland Area:					
Date:					
Hectares:			Location:		
Observers:					
Yes	No	N/A	<b>PARAMETERS</b>		
			<b>HYDROLOGIC AND SOILS</b>		
			Organic material (plant litter, standing vegetation) protects soil surface from raindrop impact and evaporative effects of sun and wind.		
			Water will easily infiltrate the soil surface (absence of physical soil crusting, capping).		
			Subsurface soil conditions support infiltration (compaction layers are uncommon).		
			Standing vegetation and plant litter detain overland water flow and trap sediment.		
			Non-stream ephemeral drainages are stable (sufficient vegetation is present to protect against downcutting).		
			<b>BIOTIC/VEGETATION</b>		
			The plant community is showing good vigour.		
			There is recruitment of desirable plant species (new seedlings).		
			The plant community reflects a fully occupied root zone.		
			Seeps, springs, and ephemeral drainages support vigorous stands of phreatophytic plants.		
			Biological breakdown of plant residues/organic material is apparent (decomposition as opposed to oxidization).		
			Biological breakdown of livestock dung is rapid.		
			A diversity of vertebrate and invertebrate life is evident		
			<b>EROSION/DEPOSITION</b>		
			Evidence of rills, gullies, pedestalling and other excessive soil movement is uncommon.		
			There is little visual evidence of pedestalling of plants or rocks. Pedestals present are sloping or rounding and accumulating litter.		

**Check one**  
**PFC** \_\_\_\_\_  
**At risk** \_\_\_\_\_  
**Non-functional** \_\_\_\_\_

**Notes:**  
**Is the desired plant community present (diversity -- species, comp., age classes, structure, form)?**  
**Soils types and textures?**





# FREP AND THE ELEVENTH COMMANDMENT

Thou shalt inherit the holy earth as a faithful steward, conserving its resources and productivity from generation to generation. Thou shalt safeguard thy fields from soil erosion, thy living waters from drying up, thy forests from desolation, and protect thy hills from overgrazing by thy herds, that thy descendants may have abundance forever. If any shall fail in this stewardship of the land, thy fruitful fields shall become sterile stony ground and wasting gullies, and thy descendants shall decrease and live in poverty or perish from off the face of the earth.

W.C. Lowdermilk  
1947





**Mwisho!**