

HYDROLOGIC FUNCTION AND SOIL PROTECTION

Question 4.1. Is there more soil erosion than expected for this site?		
No signs of soil erosion	5	
Some signs of soil erosion at small scale (e.g. small rills or occasional hoof-shearing)	3	
Signs of soil erosion at large scale (e.g. well-defined flow patterns or frequent trailing and hoof-shearing)	1	
Obvious signs of soil erosion at large scale, with movement of soil off the site	0	
Score		
Question 4.2. Is there more bare soil than expected for this site?		
Less than 1% of area is bare soil that can be attributed to management impacts	10	
1% to 5% of area is bare soil that can be attributed to management impacts	7	
5% to 15% of area is bare soil that can be attributed to management impacts	3	
More than 15% of area is bare soil that can be attributed to management impacts	0	
Score		
Question 5. How thick is the surface organic layer (LFH)?		
Thickness similar to ungrazed areas on the same site. Not compacted.	15	
Thickness reduced by 20-30% on moist sites, 30-40% on dry sites, compared to ungrazed areas on the same site. Somewhat compacted.	10	
Thickness reduced by 30-40% on moist sites, 40-50% on dry sites, compared to ungrazed areas on the same site. Compacted.	5	
Thickness reduced by >40% on moist sites, >50% on dry sites, compared to ungrazed areas on the same site. Very compacted.	0	
Score		
(B) TOTAL SCORE FOR HYDROLOGIC FUNCTION & SOIL PROTECTION		

RANGE HEALTH SCORE

(A) Vegetation status (out of 70)

(B) Hydrologic function and soil protection (out of 30)

Overall score (out of 100)

75 – 100%	Healthy
50 – 74%	Healthy with problems
< 50%	Unhealthy

Major Decreaser Species

Decreaser herbs - forbs		page*	Decreaser herbs - grasses		page*
wild sarsaparilla	<i>Aralia nudicaulis</i>	196	awned wheat grass	<i>Agropyron trachycaulum</i>	260
showy aster	<i>Aster conspicuus</i>	183	slender wheat grass	<i>Agropyron subsecundum</i>	260
hawk's-beard	<i>Crepis</i> spp.		fringed brome grass	<i>Bromus ciliatus</i>	272
fairybells	<i>Disporum trachycarpum</i>	83	northern awnless brome	<i>Bromus pumpellianus</i>	273
fireweed	<i>Epilobium angustifolium</i>	149	marsh reed grass	<i>Calamagrostis canadensis</i>	265
cow-parsnip	<i>Heracleum lanatum</i>	153	northern reed grass	<i>Calamagrostis inexpansa</i>	264
cream-coloured vetchling	<i>Lathyrus ochroleucus</i>	141	tall sedges	<i>Carex</i> spp.	
purple peavine	<i>Lathyrus venosus</i>	140	Canada wild rye	<i>Elymus canadensis</i>	261
tall lungwort	<i>Mertensia paniculata</i>	201	hairy wild rye	<i>Elymus innovatus</i>	
spreading sweet-cicely	<i>Osmorhiza depauperata</i>	153	rough-leaved rice grass	<i>Oryzopsis asperifolia</i>	267
American vetch	<i>Vicia americana</i>	140	northern rice grass	<i>Oryzopsis pungens</i>	
			fowl blue grass	<i>Poa palustris</i>	271
			purple oat grass	<i>Schizachne purpurascens</i>	273
			Decreaser shrubs		
saskatoon	<i>Amelanchier alnifolia</i>	56	choke cherry	<i>Prunus virginiana</i>	57
red-osier dogwood	<i>Cornus stolonifera</i>	54	low bush-cranberry	<i>Viburnum edule</i>	64
pin cherry	<i>Prunus pensylvanica</i>	57	high bush-cranberry	<i>Viburnum opulus</i>	65

*page number of photo and description in Johnson et al. (1995): *Plants of the Western Boreal Forest and Aspen Parkland*