

How to use the function checklists

The checklists should be reviewed in advance of field work and any necessary file or historic information should be gathered and recorded at that time. Generally, you should get a feel of the area by walking a stream reach or traversing an upland area before filling in the checklists or forms; this will help to gain a broader perspective which otherwise may be lost if you become too concerned with making notes. Look for relic areas or areas where livestock use has been light in order to determine site potential

Use the field checklists in assessing for proper functioning condition (PFC) at the reconnaissance level. To qualify as functioning properly, riparian (including the feature) and upland areas must satisfy the general conditions outlined in Section 6 of this guide, and the answers to the majority of statements in the checklists must be “Yes”.

An area is “at risk” when functioning at some level, but a combination of attributes makes it vulnerable. A score of “at risk” may trigger some follow-up action (e.g. more detailed monitoring or a change in management) or, if an upward trend emerges, may verify that the management prescription is working..

An area is “non-functional” when the criteria in Section 6 are not met and degradation is occurring.

The following table can be used to score the area being assessed. Pay particular attention to categories which give borderline answers as these indicate trend, and may serve as either early warnings or indicators of recovery in damaged systems.

% of Yes answers	Rating
Yes $\geq$ 80%	PFC
61-79%	Slightly at risk
41-60%	Moderately at risk
20- 40%	Highly at risk
Yes < 20%	Non-functional

Lakes, Ponds and Wetlands Riparian Function Checklist

Range Unit:			Range Agreement Holder:		
			Range Agreement Number:		
UTM Coordinates:			BEC Subzone:		
Name of Riparian-Wetland Area:					
Date:			Segment ID:		
Classification of Lake or Pond:					
Type of Wetland (< 2m depth): Marsh (beaver ponded; fresh water; saline; closed basin); Swamp; Bog; Fen; Shrub-carr					
Observers:					
Yes	No	N/A			
Hydrologic					
			Water levels have remained unchanged over time (willow fringe or willow skeletons).		
Biotic/Vegetation					
			The plant community is showing good vigour and maintenance of riparian soil moisture characteristics.		
			Diversity and structure of the riparian and emergent vegetation has been maintained.		
			The plant community is adequate to filter sediments and pollutants.		
			Occurrences of trampling, rubbing or browsing are uncommon.		
			Adequate vegetation cover is present to protect banks.		
			A diversity of vertebrate and invertebrate life is evident.		
			The riparian plant community is an adequate source of large woody debris, both now and for the foreseeable future.		
Erosion/Deposition					
			Bank shearing, soil compaction, and bare ground are uncommon.		
			Soil erosion and deposition in the wetland and riparian area are within natural levels.		
			Hummocks are rounded and completely vegetated.		
Nutrient Inputs and Water Quality					
			Nutrient levels are normal (there is a lack of algae mats and organism die-offs and there is a good aquatic species diversity).		
			Inputs of fine organic matter are appropriate (leaves, small branches and twigs).		

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?

Are the riparian soils subjected to prolonged saturation and anaerobic conditions?

Is this wetland part of a beaver controlled riparian system?

Streams Riparian Function Checklist

Range Unit:		Range Agreement Holder:	
		Range Agreement Number:	
UTM Coordinates:		BEC Subzone:	
Name of Stream:			
Date:	Segment/Reach ID:	Gradient of Segment: Low, Medium or High	
Stream type: Perennial, Intermittent or Ephemeral / Continuous or Interrupted			
Observers:			
Yes	No	N/A	Parameters
			Channel Structure, Function and Diversity
			Channel characteristics (rocks, large woody debris) and associated floodplain (access to overflow areas) are adequate to dissipate energy.
			Channel & banks are relatively stable.
			Lateral movement is associated with natural sinuosity.
			The segment is vertically stable.
			Erosion, deposition and movement of bed materials are normal for this reach.
			Bank shearing, soil compaction, and bare ground are uncommon
			Sinuosity, width/depth ratio, gradient, pool/riffle ratio, and other aspects of channel geometry are in balance with the landscape setting (e.g., land form, geology).
			Inputs of organic debris from adjacent riparian area and subsequent incorporation into the channel are normal for area.
			Banks are undercut.
			Riffle bed materials and gravels are free of sediment. Fish spawning and use of rock undersides by insects and other invertebrates are possible.
			Flow Regime
			Flow rates and timing remain unchanged over time (i.e. perennial to intermittent or ephemeral; continuous to interrupted)
			Biotic Community
			Roots of trees, shrubs, and grasses extend into the stream. Root masses are capable of withstanding high streamflow events and allowing formation of overhanging banks.
			The plant community exhibits high vigour and indicates maintenance of riparian soil moisture characteristics.
			Occurrences of trampling, rubbing or browsing are uncommon.
			Riparian plant communities are an adequate source of replacement woody debris, both now and in the foreseeable future.
			A diversity of vertebrate and invertebrate life is evident.
			Nutrient Inputs and Water Quality
			Nutrient levels are normal (there is a lack of algae mats and organism die-offs and there is a good aquatic organism diversity) .
			Inputs of fine organic matter are appropriate (leaves, small branches and twigs).

Check one

PFC ____

At risk ____

Non-functional ____

Notes:

Is the desired plant community present (diversity – species, comp., age classes, structure, form)?

Does the substrate make this stream susceptible to either vertical or lateral erosion?

Soils types and textures?

Are the riparian soils subjected to prolonged saturation and anaerobic conditions?

Is the stream beaver controlled?

Is the stream effluent or influent?

Have land uses altered the dynamics of the system?

Uplands Function Checklist

Range Unit:			Range Agreement Holder:
			Range Agreement Number:
UTM Coordinates:			BEC Subzone:
Name of Upland Area:			
Date:			Location:
Hectares:			
Observers:			
Yes	No	N/A	Parameters
			Hydrologic and Soils
			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).
			Biotic/Vegetation
			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.
			Erosion/Deposition
			Evidence of rills, gullies, pedestaling and other excessive soil movement is uncommon.
			There is little visual evidence of pedestaling 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?