

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.

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: | | |
| UTM Coordinates: | | | BEC Subzone: | | |
| Name of Riparian-Wetland Area: | | | | | |
| Date: | | | Segment ID: | | |
| Classification of Lake or Pond (> 2m depth) : or Class and type of Wetland (< 2m depth): | | | | | |
| Observers: | | | | | |
| Yes | No | N/A | | | |
| | | | Hydrology | | |
| | | | Riparian soil moisture characteristics are maintained. | | |
| | | | Water levels have remained unchanged over time (willow fringe or willow skeletons). | | |
| | | | Biotic/Vegetation | | |
| | | | Diversity and structure of the riparian and emergent vegetation has been maintained. | | |
| | | | The plant community is adequate to filter sediments and pollutants. | | |
| | | | Soils/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. | | |
| | | | Shoreline characteristics (vegetation, rocks, woody debris) are adequate to dissipate wave and wind event energies | | |
| | | | Nutrient Inputs and Water Quality | | |
| | | | Inputs of fine organic matter for the detritus food chain are appropriate. | | |
| | | | Nutrient inputs are normal (there is a lack of algae mats). | | |
| | | | Vertebrate and invertebrate life indicate good water quality. | | |

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|---|
| Check one PFC ____ Slightly at risk ____ Moderately at risk ____ Highly at risk ____ Non-functional ____ |
|---|

Notes:

Describe the current plant community:

Describe the desired plant community if different than the above:

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

Is this wetland part of a beaver controlled riparian system?

Have land uses beyond the control of the range user altered the dynamics of the system?

Streams Riparian Function Checklist

| | | | | | |
|---|-------------------|-------------|--|--|--|
| Range Unit: | | | Range Agreement Holder: | | |
| UTM Coordinates: | | | BEC Subzone: | | |
| Name of Stream: | | | Classification: | | |
| 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. | | |
| | | | Lateral movement is associated with natural sinuosity. | | |
| | | | Erosion, deposition, embeddedness, and movement of bed materials are normal for this reach. | | |
| | | | Aspects of channel geometry are in balance with the landscape position | | |
| | | | Inputs of large organic debris and incorporation into the channel are normal for the area. | | |
| | | | Banks are undercut (meandering or riffle-pool streams) | | |
| | | | Riffle bed materials and gravels are free of sediment. Fish spawning and use of rock undersides by insects and other invertebrates are possible. | | |
| | | | Boulders in streambed are moss covered (Step-pool streams) | | |
| | | | Biotic Community | | |
| | | | Roots of trees, shrubs, and graminoids extend into the stream. Root masses are capable of withstanding high streamflow events and allowing formation of overhanging banks. | | |
| | | | There is recruitment of riparian tree and shrub species that will contribute to replacement woody debris in the foreseeable future. | | |
| | | | Riparian habitat and structure has been maintained. | | |
| | | | Hydrology/Soils | | |
| | | | Riparian soil moisture characteristics are maintained. | | |
| | | | Bank shearing, soil compaction, and bare ground are uncommon | | |
| | | | Nutrient Inputs and Water Quality | | |
| | | | Vertebrate and invertebrate life indicate good water quality | | |
| | | | Nutrient inputs are normal (there is a lack of algae mats). | | |
| | | | Inputs of fine organic matter for the detritus food chain are appropriate. | | |

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|---|
| Check one PFC ____ Slightly at risk ____ Moderately at risk ____ Highly at risk ____ Non-functional ____ |
|---|

Notes:

Describe the current plant community:

Describe the desired plant community if different than the above:

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?

Have land uses beyond the control of the range user altered the dynamics of the system?

Uplands Function Checklist

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|----------------------|-----------|-------------------------|--|
| Range Unit: | | Range Agreement Holder: | |
| UTM Coordinates: | | BEC Subzone: | |
| Name of Upland Area: | | | |
| Date: | | Location: | |
| Hectares: | | | |
| Observers: | | | |
| Yes | No | N/A | Parameters |
| | | | Hydrology and Soils |
| | | | Organic material 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). |
| | | | Vegetation and plant litter detain overland water flow. |
| | | | Biotic/Vegetation |
| | | | The plant community is showing good vigour (including recruitment of decreasers) |
| | | | The plant community reflects a fully occupied root zone. |
| | | | A diversity of habitat structure for vertebrate and invertebrate life is evident. |
| | | | Erosion/Deposition |
| | | | Evidence of rills, gullies, pedestaling and other excessive soil movement is uncommon. |
| | | | Mineral cycle |
| | | | Plant cover and litter create a micro-site environment conducive to biological breakdown. |
| | | | Biological soils crusts and nitrogen fixing forbs and shrubs are present as in the reference condition |

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| <p>Check one</p> <p>PFC ____</p> <p>Slightly at risk ____</p> <p>Moderately at risk ____</p> <p>Highly at risk ____</p> <p>Non-functional ____</p> |
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Notes:

Describe the current plant community:

Describe the desired plant community if different than the above:

Do springs and seeps support phreatophytic plants?

Have land uses beyond the control of the range user altered the dynamics of the system?