

Appendix 1 – Condition Ranking

CONDITION RANKING

	0	1	2	3
Longitudinal Continuity	No trees	≤ 33% trees along polygon	33-67% along polygon	> 67% to complete
Proximity	Over 1km to next native patch	At a distance (under a km)	Contiguous but patchy	Contiguous and extensive
% Native vegetation (all layers)	All exotic	Mostly exotic (≤33% native)	Mixed (33%-67%)	Mostly native 67%- 100%
Riparian Canopy (as opposed to exposed bank and bars.)	Mostly bar, bank or floodrunner	Narrow, patchy (<33%) of polygon	Narrow, much of polygon	Wide, both sides - approx 40m
Tussocks in riparian zone/ fringe	Absent (0)			Present (1)
Reeds, Reeds, Bulrushes etc	Absent (0)			Present (1)
Submerged & Emergent	Absent (0)			Present (1)
Fire damage and/or Standing dead timber	>67% of polygon with some (0)	33-67% of polygon with some (1)	< 33% of polygon with some (2)	None at all (3)

Appendix 2 - Vegetation Community Descriptions

The following vegetation community descriptions are from Sharp et al. (2007). The community names used in this report and in Johnston et al. (2009) are shown in the left-hand column.

Geographical descriptors used for these communities in the ACT with elevations (ASL) are as follows:

- Tableland 500–900 m
- Montane 900–1300 m
- Subalpine 1300–1950 m
- Alpine above 1950 m (does not occur in the ACT)

Vegetation Communities

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
Grasslands			
Tableland Wet Tussock Grassland	<i>Poa labillardieri</i> Tableland Wet Tussock Grassland River Tussock Tableland Wet Tussock Grassland	<i>Poa labillardieri</i> <i>Themeda triandra</i> <i>Carex appressa</i> <i>Carex inversa</i> <i>Juncus</i> spp. <i>Haloragis heterophylla</i> <i>Hydrocotyle laxiflora</i>	Landscape position: Found in poorly drained areas and along seepage lines, drainage lines and creeks as small fringing zones subject to cold air drainage. Elevation: 525–900 m (generally below 625 m). Rainfall: 500–750 mm. Comment: River Tussock Tablelands Wet Tussock Grassland is tall, dense, closed tussock grassland that is often degraded. It occurs in the ACT as small, often degraded remnants that are part of larger grassland sites. In ACT the <i>Poa labillardieri</i> grassland is a floristic association within this community.
Fen Sedge Montane Wet Tussock Grassland / Montane Wet Tussock Grassland	<i>Carex gaudichaudiana</i> Montane Wet Tussock Grassland Fen Sedge Montane Wet Tussock Grassland	<i>Carex gaudichaudiana</i> <i>Poa sieberiana</i> <i>Poa labillardieri</i> <i>Rytidosperma nudiflora</i> <i>Empodisma minus</i> <i>Themeda triandra</i>	Landscape position: Occurs in the wetter parts of montane valleys, along creek lines where there is a high water table, and on moderately drained soils by fens and creeks. Elevation: 900–1300 m. Comment: Two associations have been identified in the Montane Wet Tussock Grassland: a) <i>Poa labillardieri</i> – <i>Carex gaudichaudiana</i> association occurs on flats of valley floors where extreme local cold creates treeless conditions and soils are usually moist, and b) <i>Poa sieberiana</i> – <i>Carex gaudichaudiana</i> association occurs in moist areas with occasional wet hollows close to fens (1290–1450 m).
Subalpine Tussock Grassland	<i>Poa costiniana</i> Subalpine Tussock Grassland Bog Snow Grass Subalpine Tussock Grassland	<i>Poa costiniana</i> <i>Rytidosperma nudiflora</i> <i>Agrostis meionectes</i> <i>Carex appressa</i> <i>Juncus australis</i> <i>Poa labillardieri</i> <i>Poa sieberiana</i> <i>Themeda triandra</i>	Landscape position: At higher elevations on level or gently undulating terrain and commonly in valleys subject to cold air drainage in upland areas of the mountainous western portion of the ACT. Also occurs in exposed subalpine and alpine areas, usually on lower slopes and drier valley floors and in headwater situations associated with bogs. Elevation: 1300–1911 m. Soil type Alpine humus soils.

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
Forbland – Sedgeland – Mossland Complex			
Montane and Subalpine Fens	<i>Carex gaudichaudiana</i> Montane and Subalpine Fen Fen Sedge Montane and Subalpine Fen	<i>Carex gaudichaudiana</i> <i>Juncus breviculmis</i> <i>Ranunculus rivularis</i> <i>Asperula gunni</i> <i>Restio australis</i> <i>Neopaxia australasica</i>	Landscape position: Fens in the ACT are local occurrences on almost level, broad valley flats of permanently wet soils with impeded drainage. They occur on the wettest sites where water remains for extended periods, with some open water. Elevation: 900–1911 m. Soil type: Peaty soils that are moderately acidic or neutral in pH. Comment: Ground water is moving, but not in channels. Water floods out infrequently. Mineral matter is often present, giving higher nutrition. Fens may colonise pond areas with bogs.
Sphagnum Montane and Subalpine Bog	<i>Sphagnum cristatum</i> Montane and Subalpine Bog Sphagnum Montane and Subalpine Bog	<i>Sphagnum cristatum</i> <i>Empodisma minor</i> <i>Epacris paludosa</i> <i>Richea continentis</i> <i>Restio australis</i>	Landscape position: Common in the high mountains of the ACT at the heads of streams and along valley floors. Elevation: 1050–1911 m. Soil type: More acidic soils than in fens. Rainfall: Greater than 850 mm. Temperature: mean annual temperatures are below 12°C. Comment: Sphagnum bog is associated with more variable regimes of inundation than fens. Where Sphagnum grows prolifically it forms many layers of spongy substrate (capable of retaining large amounts of moisture), which decomposes slowly into peat.
Wetland Complex			
Tableland Aquatic and Fringing Vegetation Complex	Tableland Wetlands	<i>Phragmites australis</i> <i>Carex appressa</i> <i>Juncus australis</i> <i>Typha</i> spp. <i>Isolepis fluitans</i> <i>Cyperus</i> spp. <i>Marselia species</i> <i>Azolla filiculoides</i>	Landscape position: In still water including ephemeral or permanent pools, ponds or dams, and in flowing water in a range of landscape positions. Elevation: 500 – 900 m Comment: This is not a single community, but a complex of species assemblages which may either be stable or vary with seasonal conditions. These assemblages include fringing, floating and submerged vegetation. Duration of inundation, depth of water, nature of the bottom or bank substrate, temperature and chemical composition influence the range of species present in an area.

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
Tableland Aquatic and Fringing Vegetation Complex	Montane and Subalpine Wetlands	Vallisneria spiralis Schoenoplectus validus Eleocharis species	Landscape position: In still water including ephemeral or permanent pools, ponds or dams, and in flowing water in a range of landscape positions. Elevation: 900 m – 1950 m Comment: This is not a single community, but a complex of species assemblages which may either be stable or vary with seasonal conditions. These assemblages include fringing, floating and submerged vegetation. Duration of inundation, depth of water, nature of the bottom or bank substrate, temperature and chemical composition influence the range of species present in an area.
Shrubland – Heathland Complex			
River Bottlebrush – Burgan Tableland Riparian Shrubland Burgan Derived Tableland Shrubland Tableland Shrubland	<i>Kunzea ericoides</i> Tableland Shrubland Burgan Tableland Shrubland	<i>Kunzea ericoides</i> <i>Callistemon sieberi</i> <i>Bursaria lasiophylla</i> <i>Pomaderris angustifolia</i> <i>Cryptandra propinqua</i> <i>Dodonaea viscosa</i> <i>Acacia rubida</i> <i>Acacia dealbata</i> <i>Leptospermum obovatum</i> <i>Acacia mearnsii</i> <i>Bursaria spinosa</i>	Landscape position: Occurs in a range of positions in the landscape. Often along riparian banks and rocky outcrops or as disclimax communities. Elevation: 525–900 m. Comments: <i>Kunzea ericoides</i> Shrubland is commonly found in two situations along river banks and gravel beds adjoining rapidly flowing water where it may be regarded as a flood disclimax community and as an early coloniser and stabiliser of river banks, and on previously cleared ground on higher slopes where it may form a monoculture. Other Tableland Shrubland communities are not well surveyed or described.
Woodlands			
Yellow Box – Blakely’s Red Gum Tableland Grassy Woodland	<i>Eucalyptus melliodora</i> – <i>Eucalyptus blakelyi</i> Tableland Grassy Woodland Yellow Box – Blakely’s Red Gum Tableland Grassy Woodland	<i>Eucalyptus melliodora</i> <i>Eucalyptus blakelyi</i> <i>Eucalyptus bridgesiana</i> <i>Eucalyptus mannifera</i>	Landscape position: On the middle and lower slopes of hills and in gently undulating topography that is less susceptible to cold air drainage. Elevation: 600–900 m. Soil type: On deep colluvial soils on lower slopes and hilly to undulating terrain with loamy soils of moderate fertility. Rainfall: 400–800 mm. Comment: Changes in distribution of the dominants is influenced by soil and drainage conditions rather than slight changes in aspect.

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
			This community occurs throughout the central Southern Tablelands.
Snow Gum – Candle Bark Tableland Woodland	<i>Eucalyptus pauciflora</i> – <i>Eucalyptus rubida</i> Tableland Woodland Snow Gum – Candle Bark Tableland Woodland	<i>Eucalyptus pauciflora</i> <i>Eucalyptus rubida</i> <i>Eucalyptus dives</i> <i>Daviesia mimosoides</i> <i>Acacia dealbata</i> <i>Poa sieberiana</i>	Landscape position: In frost hollow valleys fringing natural grasslands. Elevation: 550–800 m. Soil type: On moderately deep fertile soils derived from colluvium in central and southern parts of Southern Tablelands and on shallow sedimentary soils in broad valleys from south of Moss Vale to the Monaro. Rainfall: 500–750 mm. Comment: <i>Eucalyptus pauciflora</i> and more rarely <i>Eucalyptus rubida</i> Woodland are found between natural grassland and the <i>Eucalyptus melliodora</i> – <i>Eucalyptus blakelyi</i> community.
Broad-leaved Peppermint – Apple Box Tableland Woodland	<i>Eucalyptus dives</i> – <i>Eucalyptus bridgesiana</i> Tableland Woodland Broad-leaved Peppermint – Apple Box Tableland Woodland	<i>Eucalyptus dives</i> <i>Eucalyptus bridgesiana</i> <i>Eucalyptus nortonii</i> <i>Bursaria spinosa</i> <i>Elymus scaber</i> <i>Themeda triandra</i>	Landscape position: On warm dry lower slopes. Elevation: 900–1200 m. Soil type: Shallow sedimentary soils. Comment: Single species stands of <i>Eucalyptus bridgesiana</i> are part of this community.
Ribbon Gum Tableland Riparian Woodland	<i>Eucalyptus viminalis</i> Tableland Riparian Woodland Ribbon Gum Tableland Riparian Woodland	<i>Eucalyptus viminalis</i> <i>Eucalyptus radiata</i> <i>Acacia melanoxylon</i> <i>Eucalyptus pauciflora</i> <i>Eucalyptus dives</i> <i>Eucalyptus rubida</i> <i>Acacia dealbata</i>	Landscape position: On river flats and lower broad creek-lines and as thin ribbons along forested creek lines. Soil type: Alluvial soils and sand. Comment: The distribution of the community in the ACT was likely to have been greater prior to European settlement, but cannot be accurately assessed because of the extent of clearing in its habitat. Occurs at several locations on the Murrumbidgee River between Kambah Pool and Angle Crossing, and at Condor Creek.
Snow Gum Montane Woodland	<i>Eucalyptus pauciflora</i> Montane Woodland Snow Gum Montane Woodland	<i>Eucalyptus pauciflora</i> <i>Eucalyptus rubida</i> <i>Eucalyptus dives</i> <i>Eucalyptus viminalis</i> <i>Eucalyptus stellulata</i>	Landscape position: In frost hollow valleys throughout the montane region. Soil type: Shallow to moderate humic soils.

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
Snow Gum Subalpine Woodland	<i>Eucalyptus pauciflora</i> Subalpine Woodland Snow Gum Subalpine Woodland	<i>Eucalyptus pauciflora</i> <i>Eucalyptus debeuzevillei</i> <i>Eucalyptus niphophila</i> <i>Bossiaea foliosa</i> <i>Oxylobium ellipticum</i> <i>Olearia phlogopappa</i> <i>Tasmannia xerophila</i> <i>Oxylobium alpestre</i>	Landscape position: A widespread subalpine woodland occurring in a range of landscape positions. Elevation: 1500–1900 m. Soil type: Moderate depth soils. Comment: Depending on aspect may descend to 1220 m (as at Tidbinbilla).
She-oak Tableland Riparian Woodland	<i>Casuarina cunninghamiana</i> Tableland Riparian Woodland River She-oak Tableland Riparian Woodland	<i>Casuarina cunninghamiana</i> <i>Acacia mearnsii</i> <i>Acacia dealbata</i> <i>Microlaena stipoides</i> <i>Lomandra longifolia</i>	Landscape position: On river and stream banks between normal water levels and maximum flood levels, in particular on sandy and shingle terraces. Soil type: Alluvial soils on rivers. Comments: The species does not store seed on the plant, and through continual seasonal release has some capacity to take advantage of floods to achieve distribution.
Forests			
Red Stringybark – Scribbly Gum Tableland Forest	<i>Eucalyptus macrorhyncha</i> – <i>Eucalyptus rossii</i> Tableland Forest Red Stringybark – Scribbly Gum Tableland Forest	<i>Eucalyptus macrorhyncha</i> <i>Eucalyptus rossii</i> <i>Eucalyptus mannifera</i> <i>Eucalyptus dives</i> <i>Eucalyptus polyanthemos</i>	Landscape position: Exposed dry sites on the hills and foot slopes around Canberra, such as Black Mountain, as well as dry, steep, rocky sites. Elevation: Up to 1000 m. Soil type: Often on poorly developed or skeletal soils. Comment: Mono-specific stands of <i>Eucalyptus mannifera</i> on shallow soils are part of this community.
Broad-leaved Peppermint – Candlebark Montane Dry Forest	<i>Eucalyptus dives</i> – <i>Eucalyptus rubida</i> Montane Forest Broad-leaved Peppermint – Candlebark Montane Dry Forest	<i>Eucalyptus dives</i> <i>Eucalyptus rubida</i> <i>Eucalyptus bridgesiana</i> <i>Eucalyptus pauciflora</i> <i>Eucalyptus mannifera</i> <i>Eucalyptus dalrympleana</i> <i>Daviesia mimosoides</i>	Landscape position: on all aspects except southeasterly to south. At higher altitudes it shows a preference for warmer northerly aspects. Soil type: Dry exposed shallow soils occurring equally on granite and sediments throughout the Naas–Gudgenby catchment.

Vegetation Community (this report)	Vegetation Community (Sharp et al. 2007)	Characteristic Species	Where the community occurs in the ACT
Black Cypress Pine Tableland Woodland	<p><i>Callitris endlicheri</i> Tableland Open Forest</p> <p>Black Cypress Pine Tableland Open Forest</p>	<p><i>Callitris endlicheri</i> <i>Eucalyptus nortonii</i> <i>Eucalyptus macrorhyncha</i> <i>Eucalyptus blakelyi</i> <i>Allocasuarina verticillata</i></p>	<p>Landscape position: On dry rocky steep slopes near and adjacent to the rivers, riparian and creek areas and within the steeper gorges of the Gudgenby and Murrumbidgee rivers, on warm aspects tending westerly. Also occurs on dry north-northwest facing lower slopes of Mt Tennent.</p> <p>Comment: may occur as a woodland or open forest, where Black Cypress Pine is a dominant or associated species with Eucalypts or shrubs.</p>
Narrow-leaved Peppermint – Ribbon Gum Montane Forest	<p><i>Eucalyptus robertsonii</i> – <i>Eucalyptus viminalis</i> Montane Forest</p> <p>Narrow-leaved Peppermint – Ribbon Gum Montane Forest</p>	<p><i>Eucalyptus robertsonii</i> <i>Eucalyptus viminalis</i> <i>Eucalyptus pauciflora</i> <i>Eucalyptus dalrympleana</i> <i>Daviesia mimosoides</i> <i>Daviesia ulicifolia</i> <i>Poa</i> spp.</p>	<p>Landscape position: On variable slopes facing northeast to south.</p> <p>Soil type: Moderately deep soils on sediments in Namadgi NP, and in the Cotter valley on deep granite soils.</p>