

Upper King Parrot Creek Road



A roadside assessment

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Background

This report was commissioned by the Upper Goulburn Landcare Network as part of the Ribbons of Remnants Project, Stage 2, being run by UGLN and the Shire of Murrindindi.

Aim

The aim of this report is to provide an assessment of the roadside along Upper King Parrot Creek Road with regard to vegetation structure, quality and diversity; species present, especially any significant or rare plant species; Ecological Vegetation Classes (EVC) and location of significant habitat trees, particularly those with hollows. The report should provide a basis for management decisions related to the protection and possible enhancement of the natural values of the roadside.

Introduction

Upper King Parrot Creek Road is a 10 km loop running between Strath Creek and Flowerdale, beginning and ending at the Broadford-Flowerdale Road. It is a mostly gravel Shire road, with little through traffic. Short bitumen sections at either end cater for heavier vehicle use, with access to Spring Valley Road at the Flowerdale end and farm vehicle traffic serving large properties at the Strath Creek end.

Method

For this report we have divided the road into seven sections based on roadside vegetation composition, conservation value, management practices, need for protection and potential for rehabilitation or enhancement. Each section has been surveyed according to the Roadside Assessment Handbook published by the Roadsides Conservation Advisory Committee. A description has been prepared and a list compiled of those local indigenous species present that we were able to identify. References in the report mentioning distances are based on starting at the Strath Creek end, and left-hand and right-hand sides refer to heading towards Flowerdale.

The report is based on field observations made during November and December 2016 as well as historical records. Due to good rainfall over the preceding months the abundance and diversity of roadside vegetation, particularly in the ground layer, exceeded the usual conditions. For example, lilies were observed in locations not previously noticed, managing to compete with lush growth of exotic grasses. Yellow markers on each section aerial photo indicate the location of large trees, either dead or alive, with hollows.

Disclaimer

It should be noted that the authors are not botanists or professional consultants, but keen naturalists. The observations compiled within this report cannot be guaranteed to be without flaw. We have done our best to identify species, but some may have been misidentified or missed due to the stage of plant growth or through error. Not all species planted by landholders along the roadside have necessarily been identified as it was considered beyond the requirements of this assessment, but a general description of the type of planting is given and whether indigenous or exotic.

Ecological Vegetation Classes

The Department of Environment Land Water & Planning (DELWP) Biodiversity Interactive Maps indicate there are three 2005 EVCs represented along the roadside: Floodplain Riparian Woodland, Plains Grassy Woodland, both of which are considered to be endangered, and Valley Grassy Forest which is listed as vulnerable.

These EVCs are indicative only and may bear little resemblance to the actual on-ground roadside vegetation structure due to either natural or human disturbance or modification. The relevant DELWP EVC information is shown in Figures 1 to 3. There were also patches of vulnerable Riparian Forest shown in Section 1 at Burslems Bridge and just off the road at Kangaroo Creek leading to the King Parrot Creek, but these are not shown in the figures here since they are not strictly part of the roadside. An aerial photo of the whole length of the road is shown in Figure 4.

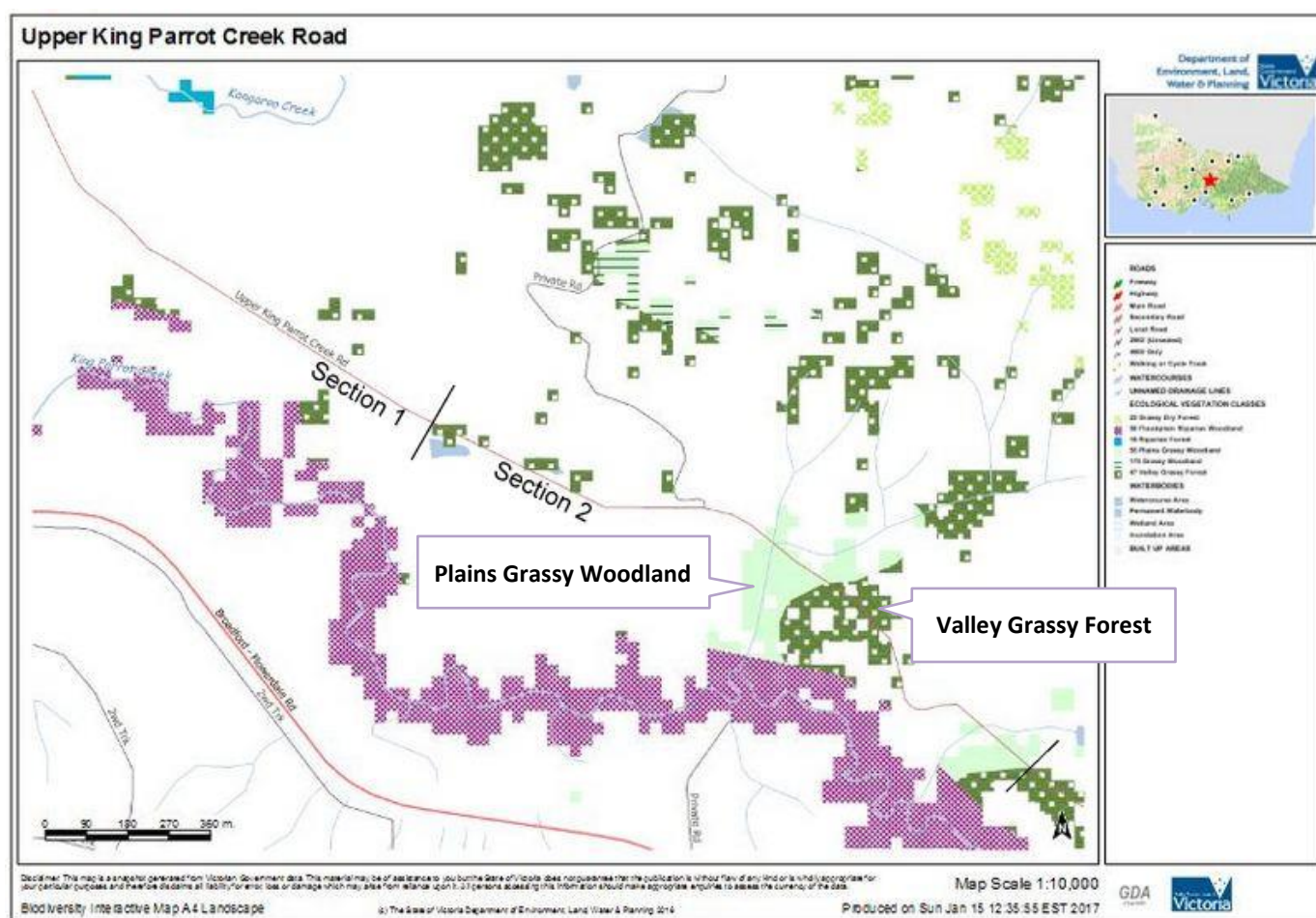
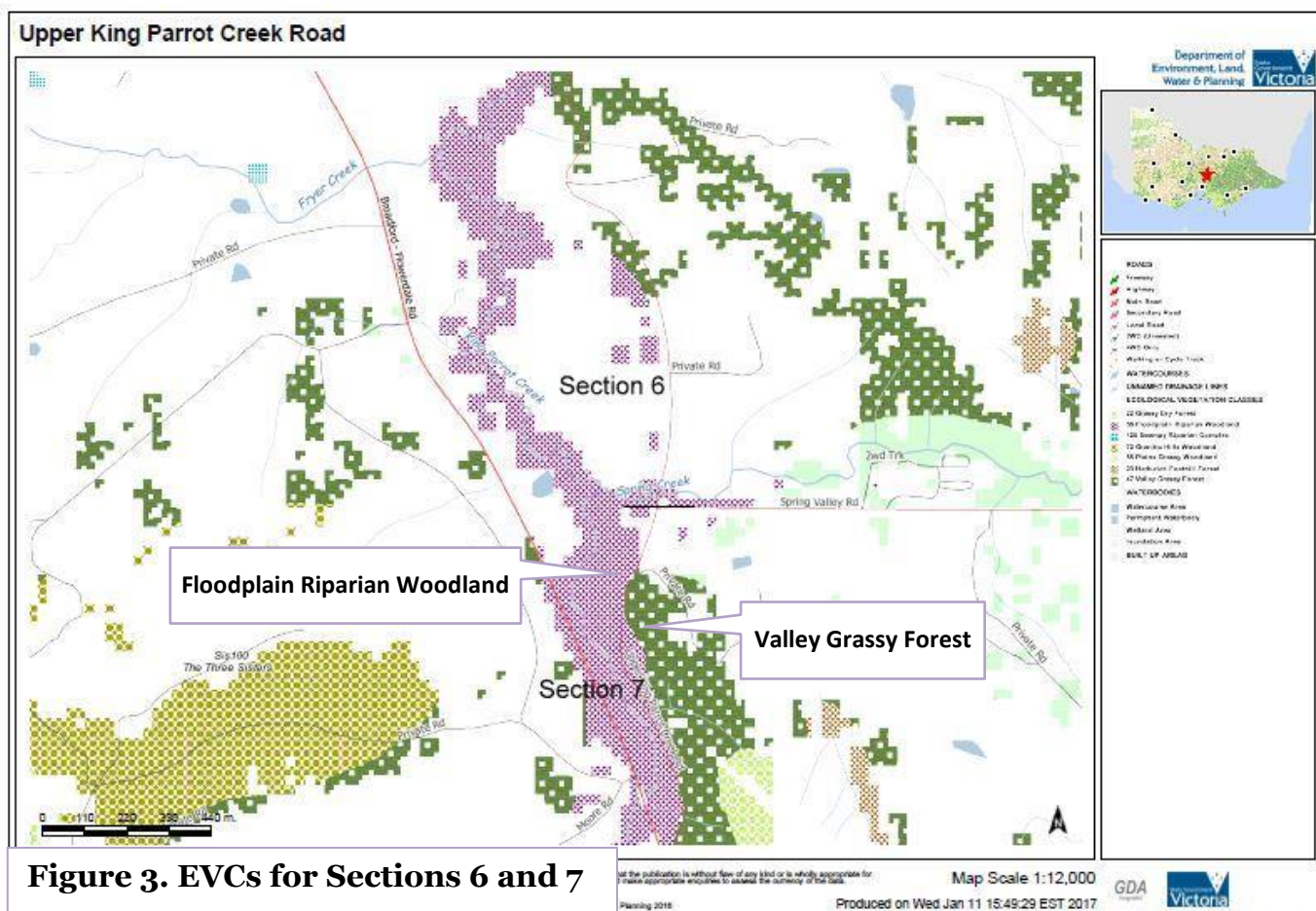
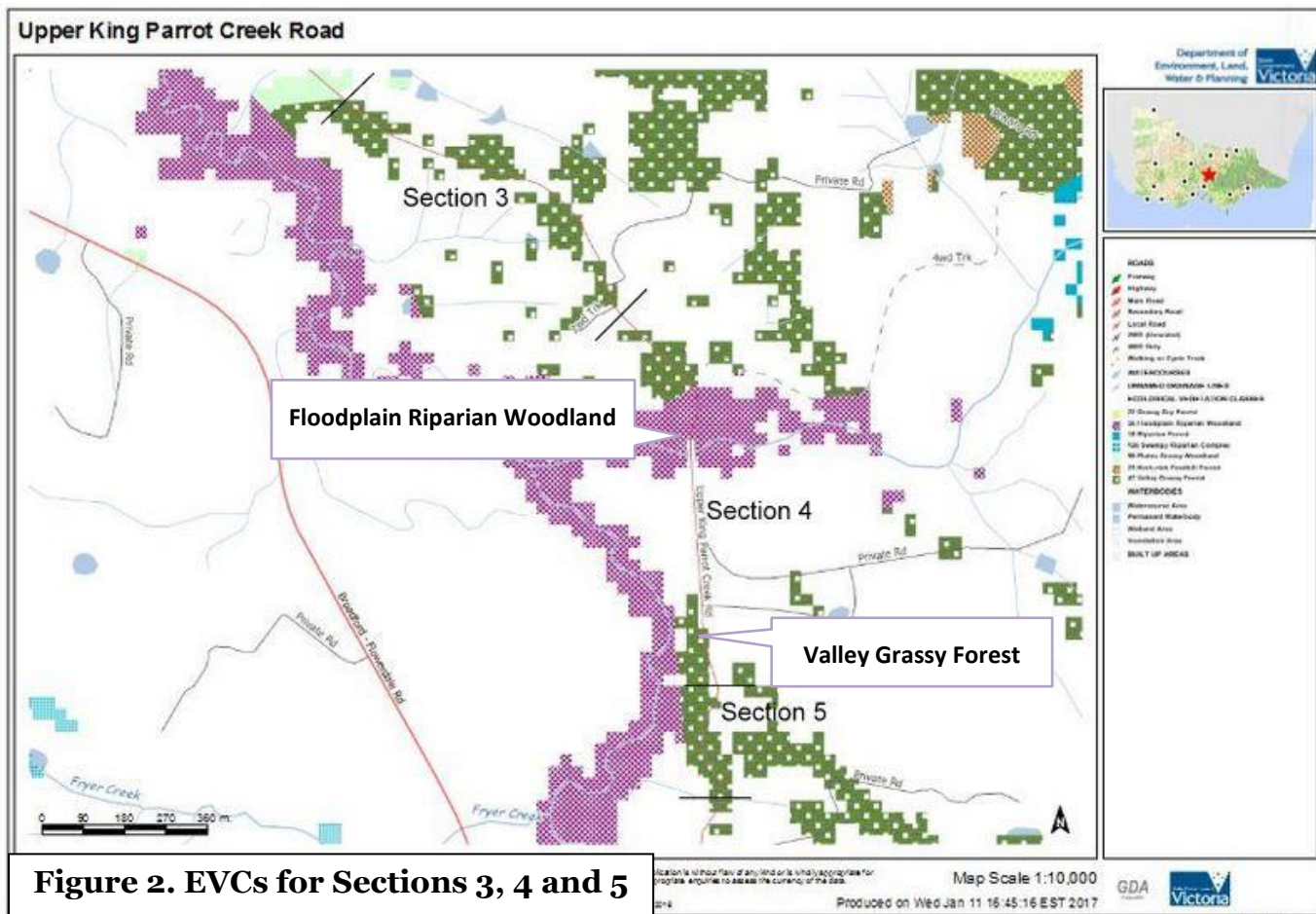


Figure 1. EVCs for Sections 1 (part) and 2



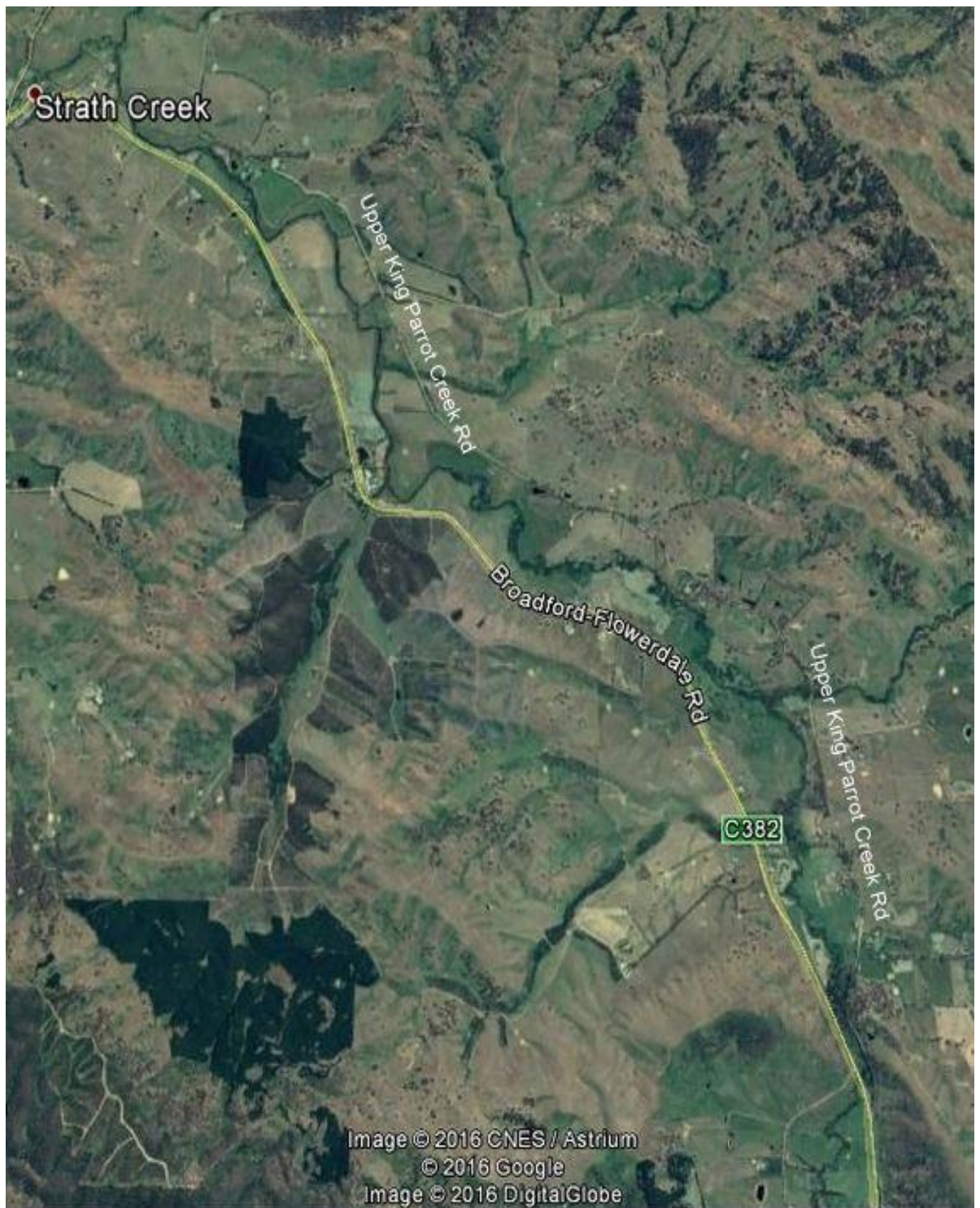


Figure 4. Upper King Parrot Creek Road, full length

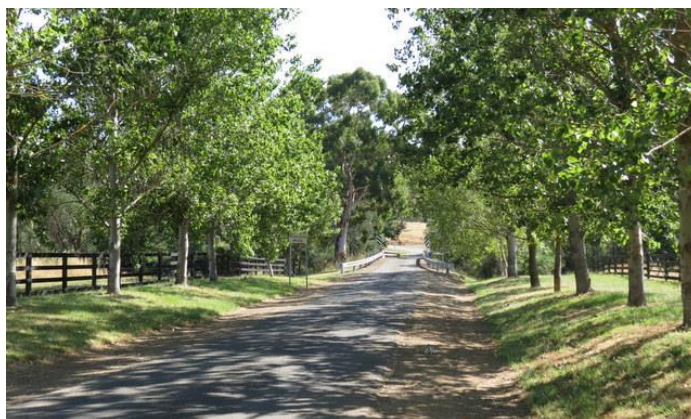
Section descriptions and species lists:

Section 1: Broadford-Flowerdale Road (0.0 km) to 4.0 km

Starting at the Strath Creek end, the first 4 km of Upper King Parrot Creek Road has been included here as one section, largely because the structure and conservation value of the roadside is heavily influenced by the management of ‘Callandoon’, the large grazing property that adjoins the road at least on one side for the full 4 km, and for most of that distance on both sides. The road is used as a laneway for livestock movement between paddocks and at times the roadside is grazed for short periods.

Over the years, the Callandoon owners have done extensive roadside planting, mostly in fenced strips parallel to the road. These plantings, which provide a degree of connectivity, comprise mainly local indigenous trees and shrubs, although troublesome species such as Cootamundra Wattle are also present. Closer to the house area, there has been considerable intervention on the natural roadside in the form of sowing and irrigating lawn grass species, and planting of introduced specimen trees. Further towards Flowerdale some roadside areas, presumably considered too bare by the landholder despite having some native grass cover, have been covered with imported topsoil and sown with exotic grass species.

From the Broadford-Flowerdale Road to Burslems Bridge over the King Parrot Creek, the roadside is a close-mown strip with a row of Lombardy Poplars on each side. The creek banks and adjoining picnic area have some large old Candlebarks that are showing some recruitment. The King Parrot Creek itself is a valuable wildlife corridor and is protected by fencing at this point, while the banks contain a wide range of riparian species both naturally grown and planted.



Poplar plantation near Burslems Bridge

Past the picnic area, the left-hand side is only mown in summer for fire protection and has good tree cover with some eucalypt recruitment. Native grasses, lilies and other native ground flora persist within a fairly dense sward of introduced grasses. Beyond the park-like setting up to the Callandoon shearing shed, roadside vegetation consists mainly of strips of planted trees and shrubs of various ages, which provide a degree of habitat connectivity. Some higher sections on the left side, particularly at about 2.7 km, support a range of native grasses – six genera including five different wallaby-grass species were identified here.

Apart from a few apple and plum trees, this section is largely free of woody weeds. There are several links via strip plantings to both the King Parrot Creek and the foothills of the Yea Spur.



Fenced roadside plantations

Table 1: Section 1 indigenous species list

<i>Acacia baileyana</i> #	Cootamundra Wattle
<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i> #	Lightwood
<i>Acacia melanoxylon</i>	Blackwood
<i>Acacia pravissima</i> #	Ovens Wattle
<i>Acacia provincialis</i> #	Wirilda
<i>Acaena</i> sp.	Sheep's Burr
<i>Allocasuarina verticillata</i> #	Drooping Sheoak
<i>Amyema quandang</i>	Grey Mistletoe
<i>Anthosacne scabra</i>	Common Wheat-grass
<i>Arthropodium strictum</i>	Chocolate Lily
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Austrostipa semibarbata</i>	Fibrous Spear-grass
<i>Banksia marginata</i> #	Silver Banksia
<i>Bursaria spinosa</i> #	Sweet Bursaria
<i>Callistemon</i> sp. #	Bottlebrush
<i>Calystegia</i> sp. §	Bindweed
<i>Cassinia arcuata</i> #	Drooping Cassinia
<i>Dodonaea viscosa</i> #	Hop-bush
<i>Epilobium hirtigerum</i>	Hairy Willow-herb
<i>Eucalyptus crenulata</i> #	Buxton Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus globulus bicostata</i> #	Eurabbie
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus polyanthemos</i> #	Red Box
<i>Eucalyptus rubida</i>	Candlebark
<i>Eucalyptus tricarpa</i> #	Red Ironbark
<i>Eucalyptus viminalis</i> #	Manna Gum
<i>Kunzea</i> sp.	Burgan
<i>Leptospermum lanigerum</i> §	Woolly Tea-tree
<i>Leptospermum myrsinoides</i> #	Silky Tea-tree
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Lomandra longifolia</i> #	Spiny-headed Mat-rush
<i>Lythrum hyssopifolia</i> §	Small Loose-strife
<i>Melaleuca</i> sp. #	Melaleuca
<i>Melicytus dentatus</i>	Tree Violet
<i>Pentapogon quadrifidus</i>	Five-awned Spear-grass
<i>Persicaria</i> sp. §	Knotweed
<i>Poa morrisii</i>	Velvet Tussock-grass
<i>Pultenaea daphnoides</i> #	Large-leaf Bush-pea
<i>Rytidosperma auriculatum</i>	Lobed Wallaby-grass
<i>Rytidosperma carphoides</i>	Short Wallaby-grass
<i>Rytidosperma erianthum</i>	Hill Wallaby-grass
<i>Rytidosperma pilosum</i>	Velvet Wallaby-grass
<i>Rytidosperma racemosum</i>	Striped Wallaby-grass
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Themeda triandra</i>	Kangaroo Grass

Planted

§ On creek bank

Section 2: 4.0 – 6.0 km

After about 4 km from the Strath Creek end, natural (unplanted) tree growth recommences and patches of roadside perhaps better resembling Valley Grassy Forest EVC occur. On the left, native grasses and forbs can be found among introduced grasses and patches of Burgan, Narrow-leaf Bitter-pea and Tree Violet. Further along, the tree cover is denser but the ground layer is weedier. There are a number of large trees on both sides in this section, some with hollows. On the right side the roadside is slashed in spring/summer and any fallen timber collected and burnt, but native grasses and lilies persist where the tractor cannot go.

Beyond the Hume Park cattle yards (4.7 km) through to 6.0 km, the roadside is generally unslashed and in lower parts the ground layer is dominated by Phalaris, whereas higher sections have good native grass content. There are many large trees and good recruitment, except for a section around a sharp bend at about 5.5 km, which could benefit from more tree planting to provide connectivity. An uncommon find here was a couple of patches of Blue Devil. On the right, outside No. 580 a dense stand of River Red Gum saplings is the result of a former landholder spraying out the entire roadside with glyphosate some years ago.

Woody weeds in this section are *Prunus* spp. and some small patches of Blackberry and St John's Wort. Of concern was the discovery of a patch of approximately 50 African Weed Orchids on the left at the beginning of this section, about 4.0 km from the start of the road.



Table 2: Section 2 indigenous species list

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acacia paradoxa</i> #	Hedge Wattle
<i>Amyema quandang</i>	Grey Mistletoe
<i>Anthosacne scabra</i>	Common Wheat-grass
<i>Arthropodium strictum</i>	Chocolate lily
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Austrostipa semibarbata</i>	Fibrous Spear-grass
<i>Bulbine bulbosa</i>	Bulbine lily
<i>Burchardia umbellata</i>	Milkmaids
<i>Callistemon</i> sp. #	Bottlebrush
<i>Carex appressa</i>	Tall Sedge
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
<i>Dianella</i> sp.	Flax-lily
<i>Drosera peltata</i>	Pale Sundew
<i>Eleocharis acuta</i>	Common Spike-sedge
<i>Eryngium ovinum</i>	Blue Devil
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus microcarpa</i>	Grey Box
<i>Eucalyptus rubida</i>	Candlebark
<i>Euchiton japonicus</i>	Creeping Cudweed
<i>Juncus</i> spp.	Rush
<i>Kunzea</i> sp.	Burgan
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Melicytus dentatus</i>	Tree Violet
<i>Microtis</i> sp.	Onion-orchid
<i>Poa labillardierei</i>	Common Tussock-grass
<i>Poa sieberiana</i>	Grey Tussock-grass
<i>Pteridium esculentum</i>	Austral Bracken
<i>Rumex brownii</i>	Slender Dock
<i>Rytidosperma fulvum</i>	Copper-awned Wallaby-grass
<i>Rytidosperma geniculatum</i>	Knead Wallaby-grass
<i>Rytidosperma pilosum</i>	Velvet Wallaby-grass
<i>Rytidosperma racemosum</i>	Striped Wallaby-grass
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Thelymitra</i> sp.	Sun orchid
<i>Themeda triandra</i>	Kangaroo Grass
<i>Tricoryne elatior</i>	Yellow Rush-lily

Planted

Section 2



Blue Devil



Yellow Rush-lily

Section 3: 6.0 – 6.6 km

This short section of the road is differentiated by its location along a ridge line with shallow rocky soil, and by the presence of a couple of patches of rich ground flora including species not found elsewhere along the roadside such as Australian Bindweed, Bronze Bluebell, Curved Rice-flower, Grass-leaved Triggerplant, Small Vanilla-lily, Sweet Hound's-tongue and an unidentified short-leaved Flax-lily species. This section also mostly adjoins the authors' property and has therefore been well studied over the years.

There is good tree connectivity over most of the distance, including some large hollow-bearing trees: Yellow Box, River Red Gum, Red Stringybark and a dead Candlebark, some of which are known to be used by nesting birds such as Striated Pardalotes, Galahs, Crimson Rosellas and Wood Ducks. Recruitment from these trees is evident. On the left (north side) there is also connectivity by way of planted corridors to a Trust for Nature covenanted block where Sugar Gliders, Agile Antechinus and endangered Brush-tailed Phascogales have been recorded.

Mid-layer shrubs are generally lacking as is the case along much of the road, but groundflora diversity is certainly richer here, as the species list for this section (Table 3) shows. Persisting among the many exotic grasses is a good range of native grasses, and lilies and orchids are widespread. Other now uncommon species along this section are Blue Grass-lily, Honeypots and Scaly Buttons. There are small patches of Blackberry and some St John's Wort, but these are generally managed by adjoining landholders and the Shire. Some recruitment of local indigenous species from adjacent plantings has occurred but this is seen as a positive outcome. An unwelcome disturbance that occurs periodically is the Shire-contracted road grader churning up good roadside patches during turning operations.



Table 3: Section 3 indigenous species list

<i>Acacia acinacea</i> #	Gold-dust Wattle
<i>Acacia implexa</i>	Lightwood
<i>Acacia lanigera</i> #	Woolly Wattle
<i>Acacia leprosa</i> #	Cinnamon Wattle
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acacia paradoxa</i> #	Hedge Wattle
<i>Acacia pycnantha</i> #	Golden Wattle
<i>Acaena ovina</i>	Australian Sheep's Burr
<i>Acrotriche serrulata</i>	Honey Pots
<i>Amyema miquelii</i>	Box Mistletoe
<i>Anthosacne scabra</i>	Common Wheat-grass
<i>Arthropodium minus</i>	Small Vanilla-lily
<i>Arthropodium strictum</i>	Chocolate Lily
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Austrostipa scabra</i>	Rough Spear-grass
<i>Austrostipa semibarbata</i>	Fibrous Spear-grass
<i>Bulbine bulbosa</i>	Bulbine lily
<i>Burchardia umbellata</i>	Milkmaids
<i>Caesia calliantha</i>	Blue Grass-lily
<i>Clematis microphylla</i> #	Small-leaved Clematis
<i>Convolvulus angustissimus</i>	Australian Bindweed
<i>Cynoglossum suaveolens</i>	Sweet Hound's-tongue
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
<i>Dianella admixta</i>	Spreading Flax-lily
<i>Dianella laevis</i>	Pale Flax-lily
<i>Dianella</i> sp.	Flax-lily
<i>Dillwynia cinerascens</i>	Grey Parrot-pea
<i>Dodonaea viscosa</i> #	Hop-bush
<i>Drosera peltata</i>	Pale Sundew
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus microcarpa</i>	Grey Box
<i>Eucalyptus polyanthemus</i> #	Red Box
<i>Eucalyptus rubida</i>	Candlebark
<i>Euchiton</i> sp.	Cudweed
<i>Geranium</i> spp.	Crane's-bill
<i>Gonocarpus tetragynus</i>	Common Raspwort
<i>Helichrysum luteoalbum</i>	Jersey Cudweed
<i>Hypericum gramineum</i>	Small St John's Wort
<i>Indigofera australis</i> #	Austral Indigo
<i>Juncus</i> spp.	Rush
<i>Kunzea</i> sp. #	Burgan
<i>Leptorhynchus squamatus</i>	Scaly Buttons

Section 3



Blue Grass-lily



Fibrous Spear-grass

Section 3

<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Luzula meridionalis</i>	Common Woodrush
<i>Melicytus dentatus</i>	Tree Violet
<i>Microlaena stipoides</i>	Weeping Grass
<i>Microtis unifolia</i>	Common Onion-orchid
<i>Pelargonium australe</i> #	Austral Stork's-bill
<i>Pimelea curviflora</i>	Curved Rice-flower
<i>Pimelea humilis</i>	Common Rice-flower
<i>Poa morrisii</i>	Velvet Tussock-grass
<i>Poa sieberiana</i>	Grey Tussock-grass
<i>Pultenaea daphnoides</i> #	Large-leaf Bush-pea
<i>Rhodanthe anthemoides</i> #	Camomile Sunray
<i>Rumex brownii</i>	Slender Dock
<i>Rytidosperma caespitosum</i>	Common Wallaby-grass
<i>Rytidosperma erianthum</i>	Hill Wallaby-grass
<i>Rytidosperma geniculatum</i>	Kneed Wallaby-grass
<i>Rytidosperma laeve</i>	Smooth Wallaby-grass
<i>Rytidosperma pallidum</i>	Red-anther Wallaby-grass
<i>Rytidosperma racemosum</i>	Striped Wallaby-grass
<i>Stylidium graminifolium</i>	Grass-leaved Triggerplant
<i>Thelymitra</i> sp.	Sun-orchid
<i>Themeda triandra</i>	Kangaroo Grass
<i>Tricoryne elatior</i>	Yellow Rush-lily
<i>Wahlenbergia luteola</i>	Bronze Bluebell
<i>Wurmbea dioica</i>	Early Nancy
<i>Xerochrysum viscosum</i> #	Sticky Everlasting
#	Either planted or probably recruited from plantings on adjoining property
Found in previous years:	
<i>Eryngium ovinum</i>	Blue Devil
<i>Ranunculus lappaceus</i>	Common Buttercup



Curved Rice-flower



Triggerplant

Section 4: 6.6 km to 7.5 km

As the road drops down towards the ford at Carver Creek, the tree cover gradually changes from Yellow Box and Broad-leafed Peppermint to predominantly River Red Gum on both sides, reflecting a change to Floodplain Riparian Woodland EVC. There are also Blackwood, Silver and Black Wattles and Candlebark. The ground layer is noticeably weedier with many exotic grasses, cleavers etc. The banks of Carver Creek itself are well-vegetated and it represents an effective wildlife corridor to the King Parrot Creek. The low-lying stretch of road beyond the creek has been planted out with a mix of native species on the right-hand side and there are some long-established non-local species on the left.

Further on past the driveway to No. 737, natural tree cover resumes with Candlebark, Broad-leafed Peppermint, Yellow Box and River Red Gum. The ground flora here is still weedy but some native grasses, lilies and some other indigenous species are evident.

Generally this section is characterised by good continuous tree cover, including some large old specimens, a limited shrub layer and minimal native ground flora content. There are some fallen logs and dead standing trees with hollows providing wildlife habitat. Woody weeds are limited to St John's Wort, *Prunus* spp. and a few small patches of Blackberry.



Table 4: Section 4 indigenous species list

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i> #	Lightwood
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acaena ovina</i>	Australian Sheep's Burr
<i>Allocasuarina verticillata</i> #	Drooping Sheoak
<i>Angophora sp.</i> #	Angophora
<i>Arthropodium strictum</i>	Chocolate Lily
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Banksia marginata</i> #	Silver Banksia
<i>Burchardia umbellata</i>	Milkmaids
<i>Bursaria spinosa</i> #	Sweet Bursaria
<i>Callistemon sp.</i> #	Bottlebrush
<i>Dodonaea viscosa</i> #	Hop-bush
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus globulus</i> #	Blue Gum
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus polyanthemos</i> #	Red Box
<i>Eucalyptus rubida</i>	Candlebark
<i>Eucalyptus viminalis</i> #	Manna Gum
<i>Gonocarpus tetragynus</i>	Common Raspwort
<i>Goodenia ovata</i> #	Hop Goodenia
<i>Leptospermum sp.</i> #	Tea-tree
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Melaleuca decussata</i> #	Totem Poles
<i>Melicytus dentatus</i>	Tree Violet
<i>Pultenaea daphnoides</i> #	Large-leaf Bush-pea
<i>Rumex brownii</i>	Slender Dock
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Themeda triandra</i>	Kangaroo Grass
<i>Tricoryne elatior</i>	Yellow Rush-lily

Planted

Section 4



Giant tree stump – a sign of what's been lost!



River Red Gums

Section 5: Significant Roadside Area (7.5 to 7.8 km)

At about 7.5 km from the start, a long sweeping bend has left a roughly semi-circular remnant of bushland that contains an unusually wide range of local indigenous flora including many tree species, some with hollows; there are also shrubs, orchids, lilies and other groundflora. In the mid-1990s the authors and other locals recognised the high conservation value of this area and were concerned about disturbance being caused by cattle driven through the area, by Council road contractors and by King Parrot Creek anglers digging for worms. The situation was brought to the attention of Murrindindi Shire Council and, with the help of local botanist David Laurie, a species list was compiled. After some consultation, Significant Roadside Area signs were erected at both ends of the area.

The signs seem to have had the desired effect of reducing disturbance, but without active management the encroachment of exotic grasses seems to have increased over the years and, perhaps exacerbated by drought years, a few original species have not been found recently. However, many uncommon species persist and the area remains of significant conservation value. That value is enhanced by a wide plantation of indigenous trees and shrubs on private land leading down to the King Parrot Creek. The fairly narrow right-hand roadside strip also contains some valuable large Yellow Box trees as well as lilies, native grasses and mat-rush.

This remnant retains many of the characteristics of the drier end of the spectrum of Valley Grassy Forest EVC in the Central Victorian Uplands bioregion, with 19 of the 29 species (65%) listed as typical for at least part of the EVC range.

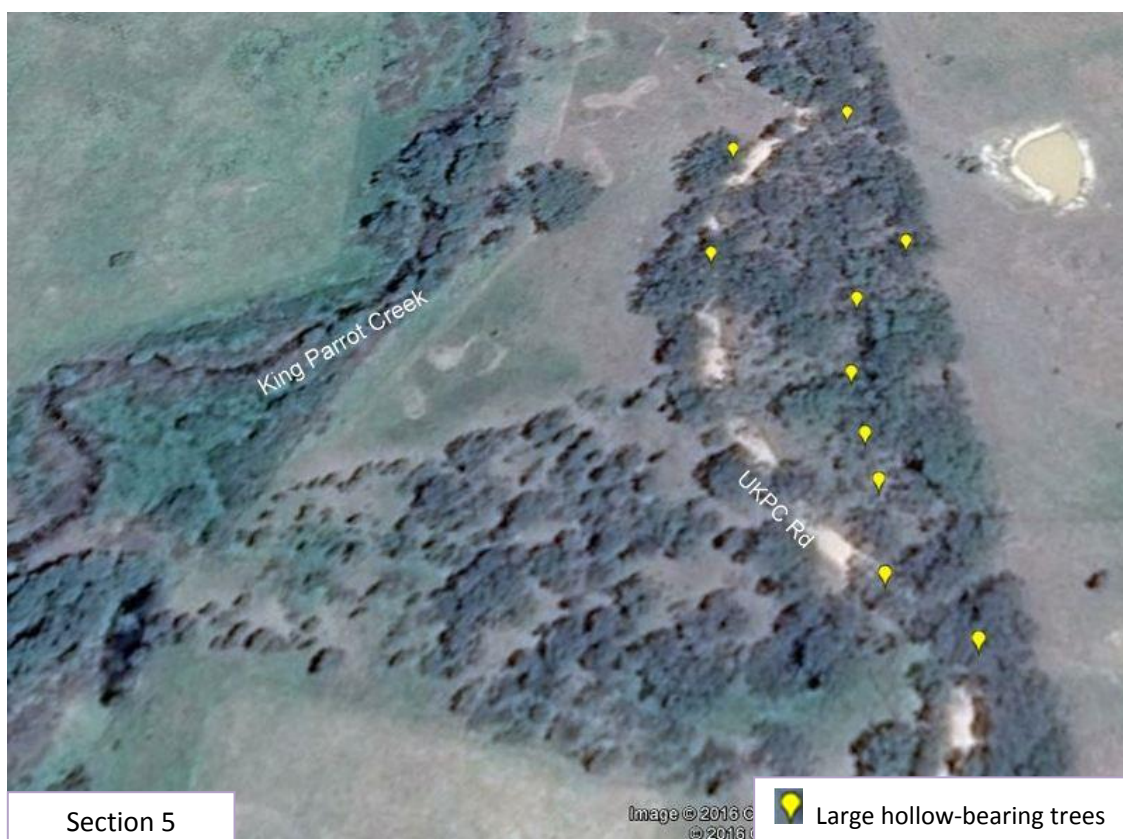


Table 5: Section 5 indigenous flora list

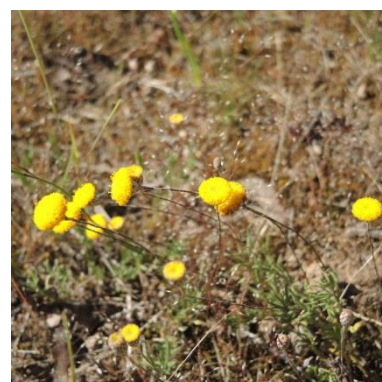
Original list compiled in 1995:

<i>Acacia dealbata</i>	Silver Wattle	✓
<i>Acacia implexa</i>	Lightwood	✓
<i>Acacia mearnsii</i>	Black Wattle	
<i>Acacia melanoxylon</i>	Blackwood	✓
<i>Acaena echinata</i>	Sheep's Burr	
<i>Acaena ovina</i>	Australian Sheep's Burr	✓
<i>Acrotriche serrulata</i>	Honey Pots	
<i>Arthropodium milleflorum</i>	Pale Vanilla Lily	
<i>Arthropodium strictum</i>	Chocolate Lily	✓
<i>Asperula conferta</i>	Common Woodruff	
<i>Austrostipa rudis</i>	Veined Spear-grass	✓
<i>Brunonia australis</i>	Blue Pincushion	
<i>Bulbine bulbosa</i>	Bulbine Lily	✓
<i>Burchardia umbellata</i>	Milkmaids	✓
<i>Caesia calliantha</i>	Blue Grass-lily	✓
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	✓
<i>Dianella admixta</i>	Black Anther Flax- lily	✓
<i>Dianella laevis</i>	Pale Flax-lily	✓
<i>Dichondra repens</i>	Kidney Weed	
<i>Dillwynia cinerascens</i>	Grey Parrot-pea	✓
<i>Diuris chryseopsis</i>	Golden Moths	✓
<i>Diuris sulphurea</i>	Tiger Orchid	✓
<i>Drosera aberrans</i>	Scented Sundew	✓
<i>Drosera peltata</i>	Pale Sundew	✓
<i>Eragrostis brownii</i>	Common Love-grass	
<i>Eucalyptus camaldulensis</i>	River Red Gum	✓
<i>Eucalyptus dives</i>	Broad-leafed Peppermint	✓
<i>Eucalyptus macrorhyncha</i>	Red Stringybark	✓
<i>Eucalyptus melliodora</i>	Yellow Box	✓
<i>Eucalyptus rubida</i>	Candlebark	✓
<i>Geranium potentilloides</i>	Crane's Bill	
<i>Geranium solanderi</i>	Austral Crane's Bill	✓
<i>Gonocarpus tetragynus</i>	Common Raspwort	✓
<i>Hardenbergia violacea</i>	Purple Coral Pea	✓
<i>Hovea linearis</i>	Common Hovea	
<i>Hydrocotyle sp.</i>	Pennywort	✓
<i>Hypericum gramineum</i>	Small St John's Wort	✓
<i>Hypoxis glabella</i>	Tiny Star	
<i>Indigofera australis</i>	Austral Indigo	✓
<i>Juncus sp.</i>	Rush	✓
<i>Leptorhynchos squamatus</i>	Scaly Buttons	✓
<i>Lomandra sp.</i>	Mat-rush	✓
<i>Luzula meridionalis</i>	Common Woodrush	✓
<i>Melicytus dentatus</i>	Tree Violet	✓
<i>Microlaena stipoides</i>	Weeping Grass	✓
<i>Microtis unifolia</i>	Common Onion-orchid	✓
<i>Oxalis sp.</i>	Wood-sorrel	✓

Section 5



Milkmaids



Scaly Buttons

Section 5

<i>Pimelea humilis</i>	Common Rice-flower	✓
<i>Poa sieberiana</i>	Grey Tussock-grass	✓
<i>Ranunculus lappaceus</i>	Common Buttercup	
<i>Rytidosperma pallidum</i>	Red-anther Wallaby-grass	✓
<i>Rytidosperma pilosum</i>	Velvet Wallaby-grass	✓
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass	✓
<i>Rytidosperma tenuius</i>	Purplish Wallaby-grass	
<i>Thelymitra pauciflora</i>	Slender Sun Orchid	✓
<i>Themeda triandra</i>	Kangaroo Grass	✓
<i>Thysanotus patersonii</i>	Twining Fringe-lily	
<i>Tricoryne elatior</i>	Yellow Rush-lily	✓
<i>Wurmbea dioica</i>	Early Nancy	✓



Species confirmed in 2016

Additional species found in 2016:

<i>Pteridium esculentum</i>	Austral Bracken
<i>Anthosacne scabra</i>	Common Wheat-grass
<i>Carex appressa</i>	Tall Sedge
<i>Rumex brownii</i>	Slender Dock
<i>Rytidosperma erianthum</i>	Hill Wallaby-grass
<i>Rytidosperma laeve</i>	Smooth Wallaby-grass
<i>Rytidosperma racemosum</i>	Striped Wallaby-grass



Sun Orchid &
Kangaroo Grass



Section 6: Significant Roadside Area to Spring Valley Road (7.8 to 9.0 km)

From the signposted Significant Roadside Area heading towards Flowerdale the roadside has some large trees, then becomes more managed, with mowing and planting up to and around the sharp bend at No. 804. The plantings appear to be mostly local tree species. There is a high native grass content along this stretch with an impressive almost pure sward of Bristly Wallaby-grass and Veined Spear-grass on the bend. Further along on the undisturbed left side, native grasses, forbs and a few low shrubs persist. The natural tree cover then becomes predominately River Red Gum, some very large and hollow-forming, along with some Yellow Box and Blackwood.

Along the flat section up to the Spring Valley Road intersection houses become more frequent, and the roadside becomes significantly weedier and subject to more disturbance.

This section is somewhat of a mixture with regard to roadside conservation value. There are certainly some valuable large trees and patches of ground flora/shrubs worthy of protection, but other patches are either very over-grown with exotic grasses or mowed and lacking diversity. Some weed species such as Ivy and Agapanthus may have been deliberately introduced, and the adjoining landholders should perhaps be made aware of their invasive potential.



Table 6: Section 6 indigenous flora list

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acaena ovina</i>	Australian Sheep's Burr
<i>Acaena sp.</i>	Sheep's Burr
<i>Anthosacne scabra</i>	Common Wheat-grass
<i>Arthropodium strictum</i>	Chocolate Lily
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Bulbine bulbosa</i>	Bulbine Lily
<i>Burchardia umbellata</i>	Milkmaids
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
<i>Dillwynia cinerascens</i>	Grey Parrot-pea
<i>Drosera peltata</i>	Pale Sundew
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus rubida</i>	Candlebark
<i>Geranium sp.</i>	Crane's-bill
<i>Gonocarpus tetragynus</i>	Common Raspwort
<i>Isotoma fluviatilis</i>	Swamp Isotome
<i>Juncus sp.</i>	Rush
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Melaleuca sp.</i>	Melaleuca
<i>Melicytus dentatus</i>	Tree Violet
<i>Microlaena stipoides</i>	Weeping Grass
<i>Pimelea humilis</i>	Common Rice-flower
<i>Poa morrisii</i>	Velvet Tussock-grass
<i>Rumex brownii</i>	Slender Dock
<i>Rytidosperma erianthum</i>	Hill Wallaby-grass
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Senecio quadridentatus</i>	Cottony Fireweed
<i>Themeda triandra</i>	Kangaroo Grass

Section 6



Dense sward of Wallaby- and Spear-grass

Section 7: Spring Valley Road to Broadford-Flowerdale Road (9.0 to 10.0 km)

This section is unique in that, for most of its length on the right (west) side, it adjoins the King Parrot Creek streamside reserve known as Coonans Reserve. This area of approximately 12 ha, although having a weedy ground layer, is notable for its majestic Manna Gums as well as examples of large indigenous shrubs such as Native Hemp, Victorian Christmas Bush and Hazel Pomaderris. Much of the shrub layer consists of Tree Violet and Common Cassinia. Weeds such as willows and Common Elder have been treated over the past year by Green Army teams, Blackberry has been regularly controlled by Goulburn Broken Catchment Management Authority contractors, while general weed control and maintenance is carried out by the Strath Creek Landcare Group members. The reserve is a valuable refuge for wildlife with a large and varied bird population while natural hollows and installed nest boxes support many possums and gliders.

A 3 m wide gravelled walking/bike riding path runs between the reserve and the road. Beside the path, within the reserve, there is an almost continuous canopy provided by Manna Gum, Silver Wattle and Black Wattle with Tree Violet below. Ground flora here is dominated by introduced grasses, with some broadleaf weeds such as Plantain, Prickly Lettuce, Spear Thistle and Black-berry Nightshade. The only natives managing to compete seemed to be Native Raspberry, Small Loosestrife, Cottony Fireweed and some Common Reed.

To the left (east) the roadside is quite wide, and mostly rises steeply to adjoining farmland. Again there is good tree cover most of the way with River Red Gum, Manna Gum, Candlebark and Broad-leaved Peppermint, and a mid-layer consisting of Silver Wattle, Blackwood and Tree Violet which are showing recruitment, as are the eucalypts. Introduced grasses are dense in parts but there are also Wallaby and Spear Grasses present as well as Common and Weeping Cassinia, Narrow-leaf Bitter Pea and Wattle Mat-rush.



Manna Gums on edge of Coonans Reserve

Woody weeds along this section consist of small patches of Blackberry, St. John's Wort, Montpellier Broom and Paterson's Curse. Some specimens of non-local *Melaleuca* species are also found here. One disappointing aspect of this section was the amount of litter, mostly drink cans, in the roadside gutter (perhaps one drink's distance from the Flowerdale pub?). But overall, with its connection to the reserve, this section provides valuable habitat and a corridor for wildlife.



Native Raspberry



Section 7

 Large hollow-bearing trees

Note: there are many tall Manna Gums on the edge of Coonans Reserve that may have hollows but for clarity are not marked

Table 7: Section 7 indigenous flora list

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acaena sp.</i>	Sheep's Burr
<i>Asperula conferta</i>	Common Woodruff
<i>Austrostipa rudis</i>	Veined Spear-grass
<i>Cassinia aculeata</i>	Common Cassinia
<i>Cassinia arcuata</i>	Drooping Cassinia
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
<i>Epilobium hirtigerum</i>	Hairy Willow-herb
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus dives</i>	Broad-leafed Peppermint
<i>Eucalyptus rubida</i>	Candlebark
<i>Eucalyptus viminalis</i>	Manna Gum
<i>Helichrysum luteoalbum</i>	Jersey Cudweed
<i>Juncus sp.</i>	Rush
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Lythrum hyssopifolia</i>	Small Loose-strife
<i>Melaleuca sp.</i>	Melaleuca
<i>Melicytus dentatus</i>	Tree Violet
<i>Phragmites australis</i>	Common Reed
<i>Pteridium esculentum</i>	Austral Bracken
<i>Rubus parvifolius</i>	Native Raspberry
<i>Rytidosperma fulvum</i>	Copper-awned Wallaby-grass
<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Senecio quadridentatus</i>	Cottony Fireweed
<i>Senecio sp.</i>	Senecio

Section 7

Roadside assessment

The assessment of each section of the remnant roadside vegetation was made based on the Roadside Assessment Handbook produced by the Roadside Conservation Advisory Committee. This handbook was specifically designed for “community volunteers with limited botanical experience to be able to participate in a ‘windscreen survey’ of roadsides to identify and map the conservation status of vegetation”.

We have adapted the handbook parameters to better suit the conditions of this particular road using the local knowledge of the authors, and as a result some key conservation values/scores are different from those originally used on the Assessment Sheet that accompanies the handbook. To allow greater nuance in the scoring we have not always assigned the full allotted value to a particular parameter. The parameters, and how they have been used in the sheet, are discussed below. A slightly modified version of the Assessment Sheet is shown in Table 8 on Page 25.

Roadside Width

There are a number of bends on the road that have created quite a variation in road widths, but where the roadside narrows greatly on one side it is usually compensated by a much wider strip on the opposite side. We have therefore for the most part adopted a medium roadside width of 5 to 20 metres unless the majority of the section is significantly greater than that. The wider the roadside, the less the edge effects and the higher the conservation value.

Fauna Habitat

The headings here are self-explanatory. As can be seen on the aerial photos, there are trees with hollows in all sections and there are also many other large trees that, while not having obvious hollows, still provide valuable wildlife habitat. Many sections have few logs or fallen timber due to firewood collection and the concept of “cleaning up the roadside”. Only Sections 2 and 7 appear to have any rocks/crevices suitable for reptile habitat. We ignored the suggested maximum score of 5 for this parameter, as we felt it was too limiting for this important aspect in relation to the other parameters.

Regeneration

Most undisturbed areas have a moderate amount of recruitment from naturally occurring indigenous plants. Excessive regeneration from human disturbance has been discounted in assigning values.

Wildlife Corridor

The density, width and connectivity of roadside vegetation determine its potential as a wildlife corridor. We have also taken into consideration any linkages perpendicular to the road that lead to bush remnants or other corridors such as creek riparian strips. One column has been changed from ‘unvegetated’ to ‘intermittent vegetation’. While providing a degree of connectivity, plantation strips that are narrow, dense and of uniform age have less value than well-structured natural areas with the full range of habitat components.

Weed Cover

The roadsides have only minor infestations of problematic woody weeds such as Blackberry and St Johns Wort as these have been regularly controlled by landholders, Landcare members and/or Shire contractors. Vigorous introduced grasses represent major competition to native plants as well as a significant fire hazard. Ornamental exotic plants established by landholders have not been considered as weeds in this assessment unless they pose a risk of spreading as environmental weeds. Percentage weed cover figures are a rough estimate only.

Site Disturbance

Comparison with the probable original composition and structure of the roadside vegetation has been used in assessing the amount of site disturbance. Disturbance from natural events such as storms or fire has not influenced the scores.

EVC Type and Status

The scores here have been based on the relevant Bioregion Conservation Status of the EVCs present and an assessment of the degree to which the on-site vegetation conforms to EVC benchmarks.

Rare Species

This has been expanded to include locally uncommon species, and these have been assigned a proportion of the automatic score of 15 for a rare or threatened species.

Conservation Values

The total scores here are of less importance than the relative scores of each section. The scores given in the handbook seemed unrealistic and were ignored. Instead, an estimate of 'low, medium, high' conservation ratings was based on the relative scores.



Candlebark habitat tree Section 2



Galah in Yellow Box hollow, Section 3

Results of Assessment

Sections 3 and 5 were assessed as having high conservation value, the former due to its lack of disturbance and presence of locally rare species, and the latter due to its width, its diverse structure and its wide species composition with a number of uncommon plants. Much of the rest of the road fell into the 'medium conservation value' category, and the most modified sections were considered 'low'. The right-hand side of Section 7 was difficult to assess as it abuts the Coonans Reserve, but the roadside itself consists mostly of the bike/walking path.

Summary

Upper King Parrot Creek Road has a range of natural values worthy of preservation, protection and potential enhancement. It has a significant number of large old habitat trees, interspersed with younger trees and shrubs, and patches of a variety of native grasses and forbs. It is a relatively quiet and aesthetically pleasing back road with impressive views over the King Parrot Creek valley. The adjoining landholders generally take pride in the road and extensive plantings of local species have enhanced the roadside's value as a wildlife corridor and provided almost continuous tree cover along the entire road, either on the roadside itself or on private land immediately adjacent to the road. A fairly sparse stretch at about 5.5 km in Section 2 could benefit from a few additional trees.

While no listed threatened flora species has been found on the roadside to our knowledge, there are a number of plants that are uncommon or rare in the district. It is worrying that these are mostly only present in isolated patches and appear vulnerable to local extinction. We have already witnessed the probable disappearance in recent years of species such as Common Buttercup, Common Hovea and Twining Fringe-lily. On the other hand some groundflora species such as Flax-lily and Blue Grass-lily seem to be spreading, at least along some undisturbed sections.

Although there are stretches of roadside which have been considerably modified and have limited conservation value, these are balanced by areas of relatively high species diversity with old-growth trees that, considering the road in its entirety, make it worthy of being regarded as of significant roadside value in the shire.



Koala using the roadside in Section 3

Appendix 1. Species list – native flora

This list includes only the naturally occurring indigenous plants found on the roadside.

<i>Acacia dealbata</i>	Silver Wattle	<i>Hardenbergia violacea</i>	Purple Coral Pea
<i>Acacia implexa</i>	Lightwood	<i>Helichrysum luteoalbum</i>	Jersey Cudweed
<i>Acacia mearnsii</i>	Black Wattle	<i>Hydrocotyle</i> sp.	Pennywort
<i>Acacia melanoxylon</i>	Blackwood	<i>Hypericum gramineum</i>	Small St John's Wort
<i>Acaena ovina</i>	Australian Sheep's Burr	<i>Isotoma fluviatilis</i>	Swamp Isotome
<i>Acaena</i> sp.	Sheep's Burr	<i>Juncus</i> spp.	Rush
<i>Acrotriche serrulata</i>	Honey Pots	<i>Leptorhynchus squamatus</i>	Scaly Buttons
<i>Amyema miquelii</i>	Box Mistletoe	<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Amyema quandang</i>	Grey Mistletoe	<i>Lomandra</i> sp.	Mat-rush
<i>Anthosacne scabra</i>	Common Wheat-grass	<i>Luzula meridionalis</i>	Common Woodrush
<i>Arthropodium minus</i>	Small Vanilla-lily	<i>Melaleuca</i> sp.	Melaleuca
<i>Arthropodium strictum</i>	Chocolate Lily	<i>Melicytus dentatus</i>	Tree Violet
<i>Austrostipa rudis</i>	Veined Spear-grass	<i>Microlaena stipoides</i>	Weeping Grass
<i>Austrostipa scabra</i>	Rough Spear-grass	<i>Microtis</i> sp.	Onion orchid
<i>Austrostipa semibarbata</i>	Fibrous Spear-grass	<i>Microtis unifolia</i>	Common Onion-orchid
<i>Bulbine bulbosa</i>	Bulbine lily	<i>Oxalis</i> sp.	Wood-sorrel
<i>Burchardia umbellata</i>	Milkmaids	<i>Pentapogon quadrifidus</i>	Five-awned Spear-grass
<i>Caesia calliantha</i>	Blue Grass-lily	<i>Phragmites australis</i>	Common Reed
<i>Carex appressa</i>	Tall Sedge	<i>Pimelea curviflora</i>	Curved Rice-flower
<i>Cassinia aculeata</i>	Common Cassinia	<i>Pimelea humilis</i>	Common Rice-flower
<i>Cassinia arcuata</i>	Drooping Cassinia	<i>Poa labillardierei</i>	Common Tussock-grass
<i>Convolvulus angustissimus</i>	Australian Bindweed	<i>Poa morrisii</i>	Velvet Tussock-grass
<i>Cynoglossum suaveolens</i>	Sweet Hound's-tongue	<i>Poa sieberiana</i>	Grey Tussock-grass
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	<i>Pteridium esculentum</i>	Austral Bracken
<i>Dianella admixta</i>	Spreading Flax-lily	<i>Rubus parvifolius</i>	Native Raspberry
<i>Dianella laevis</i>	Pale Flax-lily	<i>Rumex brownii</i>	Slender Dock
<i>Dianella</i> sp.	Flax-lily	<i>Rytidosperma auriculatum</i>	Lobed Wallaby-grass
<i>Dillwynia cinerascens</i>	Grey Parrot-pea	<i>Rytidosperma caespitosum</i>	Common Wallaby-grass
<i>Diuris chryseopsis</i>	Golden Moths	<i>Rytidosperma carphoides</i>	Short Wallaby-grass
<i>Diuris sulphurea</i>	Tiger Orchid	<i>Rytidosperma erianthum</i>	Hill Wallaby-grass
<i>Drosera aberrans</i>	Scented Sundew	<i>Rytidosperma fulvum</i>	Wallaby-grass
<i>Drosera peltata</i>	Pale Sundew	<i>Rytidosperma geniculatum</i>	Kneed Wallaby-grass
<i>Eleocharis acuta</i>	Common Spike-sedge	<i>Rytidosperma laeve</i>	Smooth Wallaby-grass
<i>Epilobium hirtigerum</i>	Hairy Willow-herb	<i>Rytidosperma pallidum</i>	Red-anther Wallaby-grass
<i>Eryngium ovinum</i>	Blue Devil	<i>Rytidosperma pilosum</i>	Velvet Wallaby-grass
<i>Eucalyptus camaldulensis</i>	River Red Gum	<i>Rytidosperma racemosum</i>	Striped Wallaby-grass
<i>Eucalyptus dives</i>	Broad-leafed Peppermint	<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
<i>Eucalyptus macrorhyncha</i>	Red Stringybark	<i>Senecio quadridentatus</i>	Cottony Fireweed
<i>Eucalyptus melliodora</i>	Yellow Box	<i>Senecio</i> sp.	Senecio
<i>Eucalyptus microcarpa</i>	Grey Box	<i>Stylidium graminifolium</i>	Grass-leaved Triggerplant
<i>Eucalyptus rubida</i>	Candlebark	<i>Thelymitra pauciflora</i>	Slender Sun-orchid
<i>Eucalyptus viminalis</i>	Manna Gum	<i>Thelymitra</i> sp.	Sun-orchid
<i>Euchiton japonicus</i>	Creeping Cudweed	<i>Themeda triandra</i>	Kangaroo Grass
<i>Geranium solanderi</i>	Austral Crane's Bill	<i>Tricoryne elatior</i>	Yellow Rush-lily
<i>Geranium</i> sp.	Crane's-bill	<i>Wahlenbergia luteola</i>	Bronze Bluebell
<i>Gonocarpus tetragynus</i>	Common Raspwort	<i>Wurmbea dioica</i>	Early Nancy

Some uncommon/locally rare species are shown in bold.

Appendix 2. Species list – exotic flora

This list is not comprehensive but includes the most obvious and widespread introduced species found along the roadsides, both weeds and planted specimens.

<i>Acetosella vulgaris</i>	Sheep sorrel
<i>Agapanthus praecox</i>	Agapanthus
<i>Agrostis capillaris</i>	Brown-top Bent Grass
<i>Aira spp.</i>	Hairgrass
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass
<i>Avena fatua</i>	Wild Oat
<i>Briza maxima</i>	Quaking Grass
<i>Briza minor</i>	Shivery Grass
<i>Bromus diandrus</i>	Great Brome
<i>Bromus hordeaceus</i>	Soft Brome
<i>Centaurea erythraea</i>	Common Centaury
<i>Cirsium vulgare</i>	Spear Thistle
<i>Cynurus echinatus</i>	Rough Dog's-tail
<i>Cyperus eragrostis</i>	Drain Flat-sedge
<i>Dactylis glomerata</i>	Cocksfoot
<i>Disa bracteata</i>	African Weed Orchid
<i>Echium plantagineum</i>	Paterson's Curse
<i>Ehrharta erecta</i>	Panic Veldt-grass
<i>Ehrharta longiflora</i>	Annual Veldt-grass
<i>Fumaria sp.</i>	Fumitory
<i>Galium aperiens</i>	Cleavers
<i>Genista monspessulana</i>	Montpellier Broom
<i>Hedera helix</i>	English Ivy
<i>Holcus lanatus</i>	Yorkshire Fog
<i>Hypericum perforatum</i>	St John's Wort
<i>Hypochaeris spp.</i>	Cat's-ears
<i>Lactuca serriola</i>	Prickly Lettuce
<i>Leucanthemum sp.</i>	Daisy
<i>Malus domestica</i>	Apple
<i>Medicago sp.</i>	Medic
<i>Paspalum dilatatum</i>	Caterpillar Grass
<i>Phalaris aquatica</i>	Phalaris
<i>Plantago lanceolata</i>	Ribwort
<i>Populus nigra</i>	Lombardy Poplar
<i>Prunus cerasifera</i>	Cherry Plum
<i>Prunus sp.</i>	Plum
<i>Robinia pseudoacacia</i>	Black Locust
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Rosa rubiginosa</i>	Sweet Briar Rose
<i>Rumex sp.</i>	Dock
<i>Salix spp.</i>	Willow
<i>Solanum nigrum</i>	Black-berry Nightshade
<i>Sonchus asper</i>	Rough Sow-thistle
<i>Sonchus oleraceus</i>	Common Sow-thistle
<i>Trifolium angustifolium</i>	Narrow-leaf Clover
<i>Trifolium campestre</i>	Hop Clover
<i>Ulmus parvifolia</i>	Chinese Elm
<i>Verbascum virgatum</i>	Twiggy Mullein
<i>Vicia sativa</i>	Common Vetch
<i>Vitis vinifera</i>	Grapevine
<i>Vulpia bromoides</i>	Silver Grass
<i>Vulpia myuros</i>	Rat's-tail Fescue