
Flora and Fauna Assessment 72 Muntz Road, Ashbourne

Prepared for Ashbourne Landcare Group



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1.0 INTRODUCTION

1.1 Background

In 2021, the Ashbourne Landcare Group commissioned the author to conduct flora and fauna assessments across twelve private properties occurring within the Ashbourne district. The project was funded by a grant provided by the North Central Catchment Management Authority (NCCMA).

The surveys confirmed that the private lands across the Ashbourne district are of very high conservation significance. The following ecological values were recorded across the 12 properties:

- 306 separate plant species, 220 which are indigenous and 86 introduced,
- 59 separate bird species,
- eight plant species listed as *Endangered* or *Critically Endangered* under the Flora and Fauna Guarantee List,
- numerous plant species of regional significance,
- 43 of the plant species observed have not previously been (officially) recorded in the area according to a 10km radius search of the Victorian Biodiversity Atlas (VBA). Twenty-five of these are indigenous and 18 are introduced.

This report presents the results of the flora and fauna assessment at 72 Muntz Road, Ashbourne. It provides a list of the flora and fauna species that were recorded, a description of vegetation and habitat values and some recommendations for the maintenance and enhancement of ecological values.

1.2 Study area

The property at 72 Muntz Road is approximately 20 hectares in size. It is located near the southern edge of a volcanic plateau that formed over one million years ago when lava travelled down the ancestral valley of the Campaspe River. Over time the river formed a new course to the immediate east and is situated just outside the property boundary. Most of the site has been previously cleared in the past except for scattered trees, including a larger patch in the far north-east corner to the east of a small dam. The house and associated gardens occur in the south-east corner.

1.3 Methods

72 Muntz Road was assessed for approximately three hours on the 24th of November 2021. As much of the property was surveyed as possible in the time allocated, with priority given to the flats south of the river. These areas were all traversed on foot and a list was compiled of all flora and fauna species observed. For fauna, most species were recorded from identification of calls (e.g. birds, frogs) or scats and tracks (e.g. Common Wombat). Notes were taken on the vegetation, habitat features and management issues, whilst photographs were taken of representative areas.

2.0 RESULTS

2.1 Flora species

During the November 2021 survey, a total of 73 flora species were recorded at 72 Muntz Road (see Appendix 1). Of these, 47 are indigenous species and 25 are introduced. One of the recorded species is listed as threatened under the Flora and Fauna Guarantee Act 1988 and three are considered to be of regional significance (see Table 1 and Figure 1), including:

- several Yarra Gum (*Eucalyptus yarraensis*) along the north-west boundary of the property. These trees are part of a relatively large stand that occurs along this section of the Campaspe River. Yarra Gum (*Eucalyptus yarraensis*) is listed as a threatened species under the Victoria Flora and Fauna Guarantee (FFG) Act 1988.
- two Snow Gum (*Eucalyptus pauciflora*) trees, including one very large and old individual on the northern border of the property and another tree on the edge of the plateau to the south that had fallen over but was re-shooting. Several more trees have been recorded along the southern border (Brendan Martin pers. comm.). Snow Gum is of restricted occurrence across the region and is disjunct from larger populations in eastern Victoria.
- The regionally significant Tussock-sedge (*Carex iynx*) and Prickfoot (*Eryngium vesiculosum*) along the wet flats east of the Campaspe River.
- The rare Black Gum (*Eucalyptus aggregata*) was recorded just outside the property to the north-east.

Table 1 Significant flora species recorded at 72 Muntz Road, November 2021

Scientific Name	Common Name	Status
<i>Carex iynx</i>	Tussock Sedge	Regional
<i>Eryngium vesiculosum</i>	Prickfoot	Regional
<i>Eucalyptus pauciflora</i>	Snow Gum	Regional
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG

FFG – listed as a threatened species under the Flora and Fauna Guarantee Act 1988. **Regional** – considered to be of regional significance.

2.2 Vegetation description

Remnant vegetation at 72 Muntz Road is concentrated in a few scattered areas:

- along the flats to the east of the Campaspe River. This area contains some good floodplain vegetation dominated by Tall Sedge (*Carex appressa*) and Small Spike-sedge (*Eleocharis acuta*) with scattered forbs such as Shining Buttercup (*Ranunculus glabrifolius*).
- A small spring-fed pond on the edge of the volcanic plateau in the south-west corner of the property (see cover image). This pond is dominated by a variety of wetland plants such as Red Pondweed (*Potamogeton cheesemanii*), Small Spike-sedge (*Eleocharis acuta*) and Swamp Crassula (*Crassula helmsii*). It is difficult to determine whether this is an artificial pond or if it has formed at a ground-water discharge site. If the pond is natural, it would have relatively high geomorphological and ecological significance as such ponds are very uncommon in the region.
- Scattered trees such as Swamp Gum (*Eucalyptus ovata*) and Snow Gum (*Eucalyptus pauciflora*) and a stand of Narrow-leaf Peppermint (*Eucalyptus radiata*) in the far north-east corner.
- The dam in the north-east corner has a high cover of wetland plants dominated by Red Pondweed (*Potamogeton cheesemanii*) and Small Spike-sedge (*Eleocharis acuta*).

The remainder of the property is mostly comprised of exotic pasture grasses with only scattered indigenous grasses.



Plate 1 Significant flora species recorded at 72 Muntz Road, November 2021. Black Gum (*Eucalyptus aggregata*) was recorded just outside the site to the north-east.



Plate 2 Large old Snow Gum near the north-west border of the property.

2.3 High threat weeds

Of the weeds recorded within the property, two are considered to be high threat species that are recommended for control. These species are listed in Table 2 below. Both of these species were only recorded as small, scattered individuals on the flats south of the river.

Table 2 High threat weeds recorded at 72 Muntz Road, November 2021

Scientific Name	Common Name
<i>Rubus anglocandicans</i>	Common Blackberry
<i>Ulex europaeus</i>	Gorse

2.4 Fauna

During the November 2021 survey, a total of 21 fauna species were recorded, including 17 bird, two frog and two mammal species (see Appendix 2). The property would support a much greater diversity of fauna species, however due to the high mobility and cryptic nature of many species, it would take a survey across multiple years and seasons to prepare a detailed list.

Habitat features observed within the property included:

- Several large trees with hollows, including the old Snow Gum. These trees are essential for many local birds and mammals which rely on hollows for breeding.
- Dams/wetlands. The dam in the north-east and the small pond in the south-west both support a good range of aquatic vegetation and would provide habitat for waterbirds, frogs and waterbugs. Both features would also serve as a source of drinking water for some animals.

2.5 Management issues and recommendations

There are significant opportunities to improve the ecological values of the property and in doing so strengthen the Ashbourne biolink:

- Depending on the landowner's personal vision for the property, it would be of great value to restore trees and shrubs to as much of the property as possible. Priority should be given to the 50-metre strip adjacent to the Campaspe River, as any planting in this area would strengthen the existing corridor along the river which is currently relatively narrow. The wider the corridor, the more fauna species that are likely to utilise it. The river flats are relatively boggy and so plant species for this area might need to be restricted to those that

can tolerate seasonal inundation such as Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), River Bottle-brush (*Callistemon sieberi*) and River Tea-tree (*Leptospermum lanigerum*).

Across the volcanic plateau, revegetation in this area could include small scattered patches of plantings, occasional linear shelter-belts or more extensive planting of larger areas. Potential plant species for this area could include Candlebark (*Eucalyptus rubida*), Snow Gum (*Eucalyptus pauciflora*), Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), Manna Gum (*Eucalyptus viminalis*), Narrow-leaf Peppermint (*Eucalyptus radiata*), Blackwood (*Acacia melanoxylon*) and Silver Wattle (*Acacia dealbata*).

- Control of high threat weeds shown in Table 2. Both Gorse and Common Blackberry are currently in low numbers and so efforts should focus on maintaining weed cover at these low levels by regular control of small plants. These can be removed by hand, however larger plants may need to be cut at ground level and painted with herbicide. If the landowner wishes to avoid using herbicide, plants can be regularly cut at ground level. They will continue to re-shoot but at least will be kept at a low height and will not spread further seed.
- Retention of as many logs under remnant trees as possible, particularly the larger ones, as these provide cover and habitat for many fauna.
- Additional areas for hollow dependant fauna could be provided by installing nest-boxes in the stand of Narrow-leaf Peppermint in the north-east.

3.0 CONCLUSION

A total of 73 flora species and 21 fauna species were recorded during the brief assessment at 72 Muntz Road, including several significant plant species. The property supports patches of remnant vegetation and scattered trees, as well as some good quality faunal habitat. Revegetation across the property, prioritising the flats adjacent to the Campaspe River, is recommended to restore tree cover and strengthen the Ashbourne biolink. Regular weed control should also be conducted to prevent the invasion of high threat species such as Gorse and Common Blackberry.

Appendix 1 - Flora species recorded at 72 Muntz Road, November 2021

Key to symbols	
*	Introduced species
#	Non-indigenous native species

Status	Scientific Name	Common Name	FFG Status
	<i>Acaena echinata</i>	Sheep's Burr	
	<i>Acrotiche serrulata</i>	Honey-pots	
*	<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus	
*	<i>Agrostis capillaris var. capillaris</i>	Brown-top Bent	
*	<i>Aira elegantissima</i>	Delicate Hair-grass	
*	<i>Alopecurus pratensis</i>	Meadow Fox-tail	
	<i>Anthosachne scabra s.s.</i>	Common Wheat-grass	
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
*	<i>Aphanes arvensis</i>	Parsley Piert	
*	<i>Arctotheca calendula</i>	Cape Weed	
	<i>Arthropodium milleflorum s.s.</i>	Pale Vanilla-lily	
	<i>Asperula scoparia subsp. scoparia</i>	Prickly Woodruff	
*	<i>Billardiera heterophylla</i>	Bluebell Creeper	
*	<i>Bromus diandrus</i>	Great Brome	
*	<i>Bromus hordeaceus</i>	Soft Brome	
	<i>Brunonia australis</i>	Blue Pincushion	
	<i>Burchardia umbellata</i>	Milkmaids	
	<i>Carex appressa</i>	Tall Sedge	
	<i>Carex gaudichaudiana</i>	Fen Sedge	
	<i>Carex inversa</i>	Knob Sedge	
	<i>Carex iynx</i>	Tussock Sedge	
	<i>Cassinia aculeata subsp. aculeata</i>	Common Cassinia	
	<i>Cassinia longifolia</i>	Shiny Cassinia	
*	<i>Centaurium tenuiflorum</i>	Slender Centaury	
	<i>Chiloglottis valida</i>	Common Bird-orchid	
*	<i>Cirsium vulgare</i>	Spear Thistle	
	<i>Crassula helmsii</i>	Swamp Crassula	
	<i>Eleocharis acuta</i>	Common Spike-sedge	
	<i>Eleocharis sphacelata</i>	Tall Spike-sedge	
	<i>Epilobium billardioreanum subsp. cinereum</i>	Grey Willow-herb	
	<i>Eryngium vesiculosum</i>	Prickfoot	
	<i>Eucalyptus ovata subsp. ovata</i>	Swamp Gum	
	<i>Eucalyptus pauciflora</i>	Snow Gum	

Status	Scientific Name	Common Name	FFG Status
	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
*	<i>Gaudinia fragilis</i>	Fragile Oat	
	<i>Geranium molle</i> var. <i>molle</i>	Dove's Foot	
	<i>Geranium</i> sp. 5	Naked Crane's-bill	
	<i>Glyceria australis</i>	Australian Sweet-grass	
	<i>Hackelia suaveolens</i>	Sweet Hound's-tongue	
	<i>Haloragis heterophylla</i>	Varied Raspwort	
	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass	
	<i>Isolepis inundata</i>	Swamp Club-sedge	
*	<i>Isolepis levynsiana</i>	Tiny Flat-sedge	
	<i>Isolepis platycarpa</i>	Broad-fruit Club-sedge	
	<i>Juncus sarophorus</i>	Broom Rush	
	<i>Juncus subsecundus</i>	Finger Rush	
*	<i>Lolium perenne</i>	Perennial Rye-grass	
	<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	Wattle Mat-rush	
	<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	Wattle Mat-rush	
	<i>Lomandra longifolia</i> subsp. <i>exilis</i>	Cluster-headed Mat-rush	
*	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	
	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush	
	<i>Lythrum hyssopifolia</i>	Small Loosestrife	
	<i>Ozothamnus ferrugineus</i>	Tree Everlasting	
*	<i>Paspalum distichum</i>	Water Couch	
*	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	
	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Common Tussock-grass	
*	<i>Poa pratensis</i>	Kentucky Blue-grass	
	<i>Potamogeton cheesemanii</i>	Red Pondweed	
	<i>Ranunculus amphitrichus</i>	Small River Buttercup	
	<i>Ranunculus glabrifolius</i>	Shining Buttercup	
	<i>Ranunculus lappaceus</i>	Australian Buttercup	
*	<i>Rubus anglocandicans</i>	Common Blackberry	
	<i>Rumex brownii</i>	Slender Dock	
*	<i>Rumex conglomeratus</i>	Clustered Dock	
	<i>Rytidosperma racemosum</i> var. <i>racemosum</i>	Slender Wallaby-grass	
	<i>Schoenus apogon</i>	Common Bog-sedge	
*	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	
	<i>Themeda triandra</i>	Kangaroo Grass	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium striatum</i>	Knotted Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
*	<i>Ulex europaeus</i>	Gorse	

Status	Scientific Name	Common Name	FFG Status
	<i>Veronica gracilis</i>	Slender Speedwell	
*	<i>Vicia sativa subsp. nigra</i>	Narrow-leaf Vetch	

Appendix 2 - - Fauna species recorded at 72 Muntz Road, November 2021

Key to symbols	
*	Introduced species
L	Recorded previously by the landowner

Status	Common name	Scientific Name	Type	FFG Status
	Australian Magpie	<i>Cracticus tibicen</i>	Bird	
	Banjo Frog	<i>Limnodynastes dumerilii</i>	Frog	
	Brown Thornbill	<i>Acanthiza pusilla</i>	Bird	
	Common Froglet	<i>Crinia signifera</i>	Frog	
	Common Wombat	<i>Vombatus ursinus</i>	Mammal	
	Crimson Rosella	<i>Platycercus elegans</i>	Bird	
	Eastern Grey Kangaroo	<i>Macropus giganteus</i>	Mammal	
*	Eurasian Skylark	<i>Alauda arvensis</i>	Bird	
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	Bird	
	Grey Currawong	<i>Strepera versicolor</i>	Bird	
	Grey Fantail	<i>Rhipidura albiscapa</i>	Bird	
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	Bird	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Long-billed Corella	<i>Cacatua tenuirostris</i>	Bird	
	Rufous Whistler	<i>Pachycephala rufiventris</i>	Bird	
	Striated Pardalote	<i>Pardalotus striatus</i>	Bird	
	Stubble Quail	<i>Coturnix pectoralis</i>	Bird	
	Superb Fairy-wren	<i>Malurus cyaneus</i>	Bird	
	Welcome Swallow	<i>Hirundo neoxena</i>	Bird	
	White-necked Heron	<i>Ardea pacifica</i>	Bird	
	Yellow-faced Honeyeater	<i>Lichenostomus chrysops</i>	Bird	