

**Site inspection report**

**Site inspection conducted by Brian Faulkner (Casual Native Vegetation Officer, GMC)**

**Property name: Lots 1/1034565, 2/1238214 & 3/1034565 “Dossie Street”, Goulburn**

**Date of site inspection: Thursday 7/11/2019**

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## **Reasons for site inspection**

- Confirm presence of previously identified native grassland community on area of subject land identified as “Area 3: Pasture dominated by native grasses” in a preliminary site inspection conducted on 10/07/2019.
- Identify key plant species present on site.
- Confirm remaining areas of the subject land are dominated by exotic species and do not constitute native vegetation communities.

## **Overview of the subject land**

The subject land comprises former farmland labelled as Lots 1/1034565, 2/1238214 & 3/1034565, and bounded by the Hume Highway to the south, Sloane Street to the east, Lockyer Street to the west, and Dossie Street along part of the northern boundary.

The land identified as Lot 2/1238214 was previously surveyed by Ecoplanning botanist Elizabeth Norris and reported on by Ecoplanning as Lot 47//DP1204727 (12 Tait Crescent) Goulburn.

The subject land is shown as outlined with a red boundary in Figure 1 (page 5).

## Site description and overview of site inspection findings

The subject land features a series of farm paddocks, most of which have been previously pasture improved and are now dominated by exotic pasture grasses such as Cock's Foot Grass (*Dactylis glomerata*) and Phalaris (*Phalaris aquatica*). These areas are also heavily infested by a range of exotic weed species, including Serrated Tussock (*Nassella trichotoma*), African Love Grass (*Eragrostis curvula*), Chilean Needle Grass (*Nassella neesiana*), St John's Wort (*Hypericum perforatum*) and others.

In the north eastern sector of 1/1034565 there is a series of swales, running in a north easterly direction, that have been planted with native tree and shrub species. The top swale appears to have been planted with Apple Box (*Eucalyptus bridgesiana*), which are mostly less than 5 metres high, are not mature and are in relatively poor condition. The second swale has been planted with Early Black Wattle (*Acacia decurrens*). These trees are in very poor condition and show evidence of extensive borer attack. These two swales are followed by three further swales that have been planted with Highlands Honey Myrtle (*Melaleuca parvistaminea*).

On the northern boundary of 1/1034565 there are two small dams, which may provide habitat for aquatic fauna. The dam located in the north eastern part of this lot has an extensive stand of African Box Thorn (*Lycium ferocissimum*) along its eastern and southern banks.

The lower parts of Lot 1/1034565 and Lot 3/1008818 have a drainage line running from west to east. While this does have some native vegetation including Cumbungi (*Typha* species), it is heavily infested and overgrown with exotic weeds, including Creeping Buttercup (*Ranunculus repens*), Blackberry (*Rubus fruticosus*) and Hemlock



(*Conium maculatum*). Lower areas alongside this drainage line are heavily infested with Chilean Needle Grass (*Nassella neesiana*), Serrated Tussock (*Nassella trichotoma*) and other weeds.

Lot 3/1008818 is divided broadly into two paddocks with a fence running from west to east along the middle of the lot. In a previous site visit (10/07/2019), the upper paddock of this lot was found to be dominated by exotic pasture species and weeds, but the lower paddock was found to be dominated by native grass species including Kerosene Grass (*Aristida* species), Wallaby Grasses (*Rytidosperma* species), Spear Grasses (*Austrostipa* species), Weeping Grass (*Microlaena stipoides*), Kangaroo Grass (*Themeda triandra*) and Red Stem Grass (*Bothriochloa macra*). As this site inspection was conducted in winter, in conditions that were not ideal for flora survey work, it was recommended that a further site inspection be carried out in spring.

These findings were confirmed during the site inspection conducted on 7/11/2019 and this area was found to contain a diversity of native grassland species (see Appendix 1: Flora recorded on site). While it is degraded to some extent and is being invaded by exotic weeds such as African Lovegrass (*Eragrostis curvula*) and Serrated Tussock (*Nassella trichotoma*), at the time of the site inspection, over the majority of the area identified as native grassland, native groundcover was found to be greater than 70%.

Previously reported survey findings for the adjoining Lot 2/1238214 by Ecoplanning are broadly supported. This area is largely dominated by exotic pasture species and parts of it feature heavy infestations of St John's Wort (*Hypericum perforatum*). However there is a small area of native grassland in the south eastern corner (forming an extension of the native grassland in the lower paddock of Lot 2/1238214).

The area of the site that was identified as containing native grassland comprises approximately 1.6 hectares and is shown in Figure 2 (page 6) as a yellow highlighted polygon with a black boundary.

### **Summary of outcomes of site inspection**

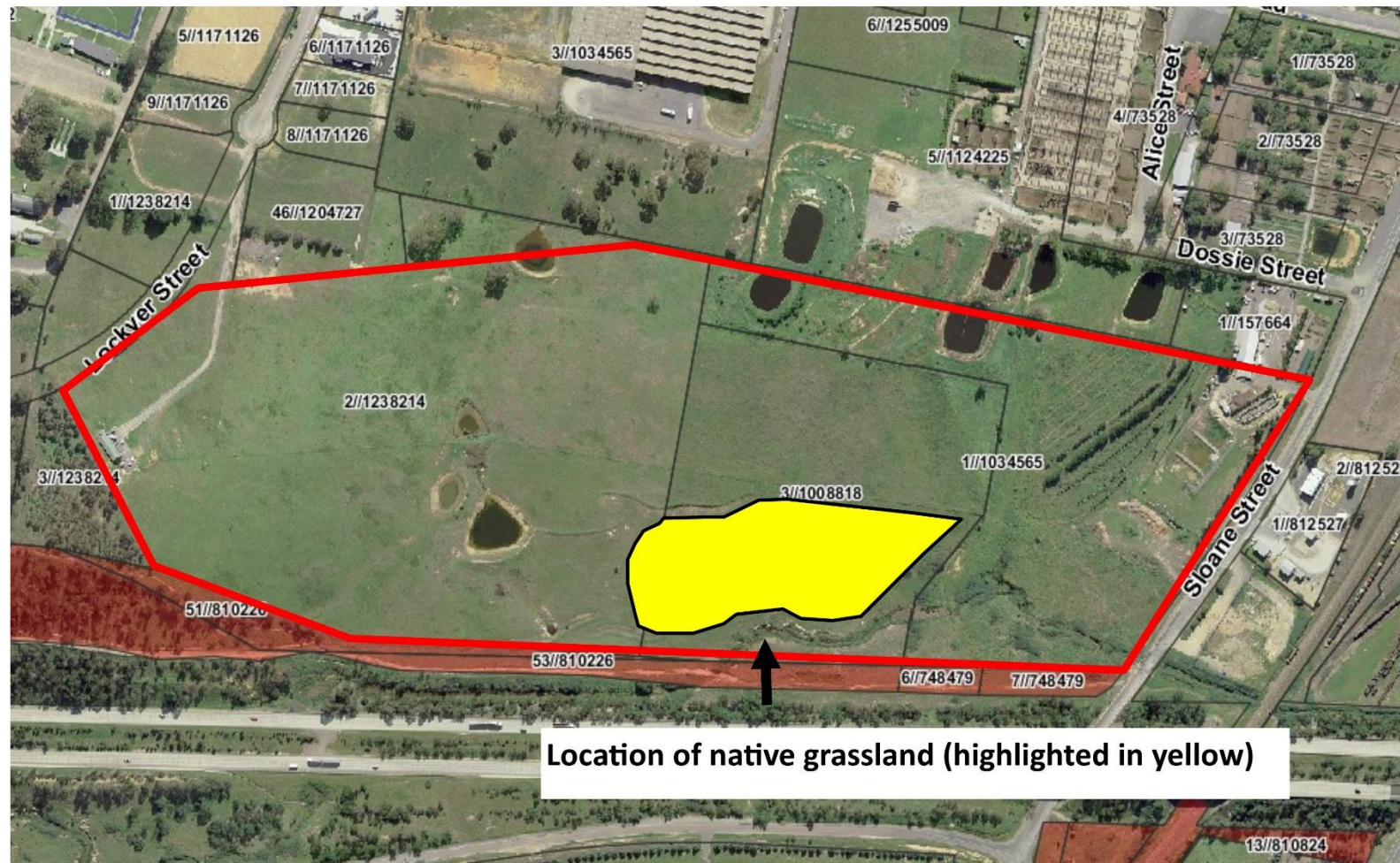
- Presence of previously identified native grassland community on area of subject land identified as “Area 3: Pasture dominated by native grasses” in a preliminary site inspection conducted on 10/07/2019 is confirmed.
- Key plant species present on site have been identified (see Appendices 1 & 2 flora list and photographs).
- Confirmed remaining areas of the subject land are dominated by exotic species and do not constitute native vegetation communities.

Figure 1: The Subject Land Lots 1/1034565, 2/1238214 & 3/1034565 "Dossie Street", Goulburn





Figure 2: Approximate area dominated by native grassland species



## Discussion

Prior to clearing, the subject land would have featured the Endangered Ecological Community: White Box – Yellow Box – Blakely’s Red Gum grassy woodland. Remnant Yellow Box and Blakely’s Red trees are present on adjoining properties in the South Goulburn area and a small patch of heavily degraded Box Gum woodland was identified on adjoining land (Lot 2/1238214) by Ecoplanning.

The area described as native grassland and identified in Figure 2 meets the criteria for listing as a White Box – Yellow Box – Blakely’s Red Gum grassy woodlands derived native grassland community under “Advice to the Minister for the Environment and Heritage from the Threatened Species Scientific Committee (TSSC) on Amendments to the List of Ecological Communities under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)”:

### *4. Condition Class*

*The White Box – Yellow Box – Blakely’s Red Gum grassy woodlands that existed prior to European settlement now exists as remnants in three different states.*

*The three states are:*

- An overstorey of eucalypt trees exists, but there is no substantial native understorey.*
- A native understorey exists, but the trees have been cleared.*

- *Both a native understorey and an overstorey of eucalypts exist in conjunction.*

*The Committee considers that areas in which an overstorey exists without a substantially native understorey are degraded and are no longer a viable part of the ecological community.*

*Although some native species may remain, in most of these areas the native understorey is effectively irretrievable.*

*In order for an area to be included in the listed ecological community, a patch must have a predominantly native understorey.*

*The size and life-form of understorey species are such that viable populations can exist in very small areas (Prober & Thiele 1993). Therefore, in order to be the listed ecological community, an understorey patch, in the absence of overstorey trees, must have a high level of native floral species diversity, but only needs to be 0.1 hectares or greater in size.*

*A patch in which the perennial vegetation of the ground layer is dominated by native species, and which contains at least 12 native, non-grass understorey species (such as forbs, shrubs, ferns, grasses and sedges) is considered to have a sufficiently high level of native diversity to be the listed ecological community.*

*At least one of the understorey species should be an important species (e.g. grazing-sensitive, regionally significant or uncommon species; such as Kangaroo Grass or orchids) in order to indicate a reasonable condition.”*

The area of identified native grassland can be classified as Condition Class State 2: A native understorey exists, but the trees have been cleared.

Furthermore, it meets the criteria for classification as an EEC:

- The patch has a predominantly native understorey (groundcover at the time of site inspection estimated to be greater than 70% native species)
- The area of derived native grassland was estimated to be approximately 1.6 ha (i.e. considerably larger than the minimum 0.1 ha in size required for listing)
- During the site inspection, 27 species of native understorey species were recorded in the native grassland area, of which 11 comprised native grass species and 18 comprised non-grass species
- Kangaroo Grass is present as a component of the grassland. Another grazing sensitive species present is Bulbine Lily.

As such, any development proposal that would have an impact on this area will require preparation of a BDAR (Biodiversity Assessment Report).

## **Summary and recommendations**

Area identified during the site inspection as Native Grassland in Figure 2 comprises approximately 1.6 ha.

Area identified as Native Grassland in Figure 2 meets criteria for identification as EEC White Box – Yellow Box – Blakely's Red Gum grassy woodland, Condition Class State 2 (A native understorey exists, but the trees have been cleared).

Any future development activity that impacts or is likely to impact on this EEC will require a BDAR (Biodiversity Assessment Report).

As the area is undergoing encroachment by exotic weedy species such as African Love Grass and Serrated Tussock, it is recommended that a Plan of Management be developed.

Plan of Management components should include as a minimum:

- Fencing to exclude grazing stock
- Protection from harmful human activity such as trailbikes or recreational vehicles
- Targeted weed control/management
- Target feral pest fauna control/management
- Ongoing, annual monitoring of native and exotic vegetation



Remaining areas of the subject land (as delineated with the red boundary in Figures 1 & 2) are dominated by exotic species and do not constitute native vegetation communities.

## **Appendix 1: Flora recorded on site**

(Please note that this list comprises flora recorded during a site inspection conducted on 7/11/2019. Further site inspections at different times of year would undoubtedly reveal many more species.)

Flora recorded 7/11/2019		
Scientific Name	Common Name	Native/Exotic
<i>Acacia decurrens</i>	Early Black Wattle	Native
<i>Acetosella vulgaris</i>	Sheep's Sorrel	Exotic
<i>Aira</i> sp.	Hair Grass	Exotic
<i>Arctotheca calendula</i>	Capeweed	Exotic
<i>Aristida ramosa</i>	Kerosene Grass	Native
<i>Austrostipa bigeniculata</i>	Tall Spear Grass	Native
<i>Austrostipa densiflora</i>	Brushtail Spear Grass	Native
<i>Austrostipa scabra</i>	Corkscrew Grass	Native
<i>Avena ludocoviciania</i>	Ludo Wild Oat	Exotic

<i>Bothriochloa macra</i>	Red Stem Grass	Native
<i>Briza maxima</i>	Quaking Grass	Exotic
<i>Briza minor</i>	Shivery Grass	Exotic
<i>Bromus catharticus</i>	Prairie Grass	Exotic
<i>Bromus diandrus</i>	Great Brome	Exotic
<i>Bromus molliformis</i>	Soft Brome	Exotic
<i>Bulbine bulbosa</i>	Bulbine Lily	Native
<i>Cassinia arcuata</i>	Sifton Bush	Native
<i>Cenchrus clandestinus</i>	Kikuyu	Exotic
<i>Chrysocephalum apiculatum</i>	Common Everlasting	Native
<i>Cirsium vulgare</i>	Spear Thistle	Exotic
<i>Conium maculatum</i>	Hemlock	Exotic

<i>Convolvulus erubescens</i>	Blushing Bindweed	Native
<i>Crassula sieberiana</i>	Austral Stonecrop	Native
<i>Crataegus</i> sp.	Hawthorn	Exotic
<i>Cynodon dactylon</i>	Couch	Exotic
<i>Dactylis glomerata</i>	Cock's Foot Grass	Exotic
<i>Dianella longifolia</i>	Smooth Flax Lily	Native
<i>Echium plantagineum</i>	Paterson's Curse	Exotic
<i>Eragrostis curvula</i>	African Lovegrass	Exotic
<i>Eucalyptus blakelyi</i>	Blakely's Red Gum	Native
<i>Eucalyptus bridgesiana</i>	Apple Box	Native
<i>Festuca pratensis</i>	Meadow Fescue	Exotic
<i>Fraxinus oxycarpa</i>	Narrow Leaved Ash	Exotic

<i>Galium aparine</i>	Cleavers	Exotic
<i>Gamochaeta coarctata</i>	Common Cudweed	Exotic
<i>Goodenia pinnatifida</i>	Scrambled Eggs	Native
<i>Hardenbergia violacea</i>	False Sarsaparilla	Native
<i>Holcus lanatus</i>	Yorkshire Fog	Exotic
<i>Hordeum leporinum</i>	Barley Grass	Exotic
<i>Hypericum perforatum</i>	St John's Wort	Exotic
<i>Hypochaeris glabra</i>	Smooth Flatweed	Exotic
<i>Hypochaeris radicata</i>	Flatweed	Exotic
<i>Juncus gregiflorus</i>	River Rush	Native
<i>Lactuca serriola</i>	Compass Weed	Exotic
<i>Leptorhynchos squamatus</i>	Scaly Buttons	Native

<i>Linaria vulgaris</i>	Common Toadflax	Exotic
<i>Lolium</i> spp.	Rye Grass	Exotic
<i>Lomandra filiformis</i>	Wattle Mat Rush	Native
<i>Lomandra longifolia</i>	Spiny Mat Rush	Native
<i>Lomandra multiflora</i>	Many Flowered Mat Rush	Native
<i>Lycium ferocissimum</i>	African Box Thorn	Exotic
<i>Malva parviflora</i>	Small Flowered Mallow	Exotic
<i>Marrubium vulgare</i>	White Horehound	Exotic
<i>Melaleuca parvistaminea</i>	Highlands Honey Myrtle	Native
<i>Microlaena stipoides</i>	Weeping Grass	Native
<i>Nassella neesiana</i>	Chilean Needle Grass	Exotic
<i>Nassella trichotoma</i>	Serrated Tussock	Exotic

<i>Onopordum acanthium</i>	Scotch Thistle	Exotic
<i>Paronychia brasiliiana</i>	Brazilian Whitlow	Exotic
<i>Paspalum dilatatum</i>	Paspalum	Exotic
<i>Phalaris aquatica</i>	Phalaris	Exotic
<i>Pimelia curviflora</i>	Curved Rice Flower	Native
<i>Plantago coronopus</i>	Buck's Horn Plantain	Exotic
<i>Plantago lanceolata</i>	Ribwort Plantain	Exotic
<i>Plantago varia</i>	Variable Plantain	Native
<i>Poa labillardieri</i>	Native Tussock	Native
<i>Poa sieberiana</i>	Snow Grass	Native
<i>Populus</i> sp.	Poplar	Exotic
<i>Ranunculus repens</i>	Creeping Buttercup	Exotic



<i>Rosa rubiginosa</i>	Sweet Briar	Exotic
<i>Rubus fruticosus</i> agg.	Blackberry	Exotic
<i>Rumex crispus</i>	Curled Dock	Exotic
<i>Rytidosperma auriculata</i>	Lobed Wallaby Grass	Native
<i>Rytidosperma laevis</i>	Smooth Wallaby Grass	Native
<i>Sonchus oleraceus</i>	Sow Thistle	Exotic
<i>Sysimbrium officinale</i>	Hedge Mustard	Exotic
<i>Themeda triandra</i>	Kangaroo Grass	Native
<i>Tragopogon dubius</i>	Yellow Goat's Beard	Exotic
<i>Tragopogon porrifolius</i>	Purple Goat's Beard	Exotic
<i>Trifolium arvense</i>	Hare's Foot Clover	Exotic
<i>Trifolium subterraneum</i>	Subterranean Clover	Exotic

<i>Triptilodiscus pygmaeus</i>	Austral Sunray	Native
<i>Typha orientalis</i>	Cumbungi	Native
<i>Verbascum thapsus</i>	Greater Mullein	Exotic
<i>Viola betonicifolia</i>	Showy Violet	Native
<i>Vittadinia cuneata</i>	Fuzzweed	Native
<i>Vulpia</i> sp.	Rat's Tail Fescue	Exotic
<i>Wahlenbergia communis</i>	Tufted Bluebell	Native

## **Appendix 2: Site photographs**

## Photographs

1: View of native grassland with extensive patch of Common Everlasting *Chrysocephalum apiculatum*





**2: Patch dominated by native grasses Kerosene Grass *Aristida* and Weeping Grass *Microlaena***





**3: Smooth Flax Lily *Dianella longifolia*, a typical understorey component of Box Gum Woodland**





4: The site features extensive patches of Scaley Buttons *Leptorhynchos squamatus* and other native grassland forbs





**5: An extensive patch of native Weeping Grass *Microlaena stipoides***





**6: Native Bulbine Lily *Bulbine bulbosa*, sensitive to grazing pressure**





**7: Curved Rice Flower *Pimelea curviflora*, a native understory shrub species is common on the site**





**8: Wallaby Grass *Rytidosperma*, Kangaroo Grass *Themeda* & other native grasses**





**9: Native Wattle Mat Rush *Lomandra filiformis***





**10: Austral Sunray *Triptilodiscus pygmaeus* (centre of photograph)**





**11: Blushing Bindweed *Convolvulus erubescens*, a typical native grassland forb**





**12: Native grasses: Kerosene Grass *Aristida*, Weeping Grass *Microlaena* & Wallaby Grass *Rytidosperma***





**13: Drainage line heavily overgrown with weeds (here mostly Blackberry and Creeping Buttercup)**





**14: Area to south of drainage line (Hawthorn in background, heavy infestation of Serrated Tussock)**



