

28 July 2014

Fiona McDougall
Senior Structure Planner
Metropolitan Planning Authority
Level 29, 35 Collins Street
MELBOURNE VIC 3000

Dear Fiona,

Scattered tree assessment, PSP 1096 Woodstock
Project no. 18183

Biosis Pty Ltd was commissioned to undertake a survey of a selection of trees within the Woodstock PSP. The following details the methods and results of the survey.

Methods

Tree assessments were undertaken within Woodstock PSP on the 16 July 2013 and updated on 22 May 2014.

Locations of trees that required assessment were provided by the Department of Environment and Primary Industries (DEPI). Trees were located in the field using a handheld GPS and the size class and species of each tree was recorded.

Indigenous tree size was determined on the basis of the relevant Ecological Vegetation Class (EVC) benchmark (BM) diameter at breast height (DBH) with tree size classes based on the following size thresholds:

- Very Large Old Tree (VLOT) = $\geq 1.5 \times \text{BM}$
- Large Old Tree (LOT) = $\geq \text{BM} < 1.5 \times \text{BM}$
- Medium Old Tree (MOT) = $\geq 0.75 \times \text{BM} < \text{BM}$
- Small Tree (ST) = $\geq 0.25 \times \text{BM} < 0.75 \times \text{BM}$

Trees were further categorised based on their location relative to the time stamped native vegetation data provided by DEPI. Trees located outside of time stamped native vegetation patches were termed 'scattered trees' and those within patches are termed 'patch trees'.

For patch trees, the associated EVCs were identified in the field. The EVC to which scattered remnant trees originally belonged was determined using nearby time stamped native vegetation, EVC mapping from DEPI's Biodiversity Interactive Maps, and evidence gathered in the field.

The conservation significance of each scattered tree was determined based on its size and EVC (DSE 2007).

Results

The following section details the combined results of surveys conducted on 16 July 2013 and 22 May 2014. All of the trees within the Woodstock PSP are River Red-gum *Eucalyptus camaldulensis*. The trees are remnants of Riparian Woodland (EVC 641) along the Merri Creek and Plains Grassy Woodland (EVC 55_61) elsewhere, although they exist in a modified agricultural context. Trees assessed in this PSP were predominantly small trees with one VLOT, three LOTs and a single MOT present.

The PSP included trees within patches and scattered trees. A single tree was located within a conservation area identified under the Biodiversity Conservation Strategy (BCS) for Melbourne's Growth Corridors (DEPI 2013a) (Figure 1, Table 1).

Field inspection revealed that two points identified as single scattered trees on mapping provided by the MPA were actually small clusters of trees. In such cases each tree was marked with a GPS as an individual tree and its size and species recorded. Clusters of trees have been identified using the number of the original waypoint and a letter to denote each individual tree (e.g. 31a, 31b etc.).



Plate 1: Remnant River Red-gum within the Woodstock PSP

Table 1: Scattered and patch trees within the Woodstock PSP

Tree Number	PSP	Species	Common Name	Indigenous/Introduced	Scattered/Patch	Conservation area	DBH	Size class	conservation Status	EVC#	Bioregion	Threatened Species rating	other Attributes	Conservation significance
31a	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	50	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
31b	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	57	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
31c	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	27	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
31d	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	50	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
32	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	75	MOT	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	High
33a	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	60	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
33b	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	33	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
34	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Patch	34	109	LOT	Endangered	Riparian Woodland	Victorian Volcanic Plain	N/A	Hollows	Very High
36	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	41	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
76	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	30.5	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
77	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	35	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
78	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	39	ST	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	-	Low
79	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	113	LOT	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	Hollows	High
80	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	137	VLOT	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	Hollows	High
81	Woodstock	<i>Eucalyptus camaldulensis</i>	River Red-gum	Indigenous	Scattered	-	107	LOT	Endangered	Plains Grassy woodland	Victorian Volcanic Plain	N/A	Hollows	High

Tree Offset Requirements

This section of the report details the prescribed offset requirements for trees within the Woodstock PSP as outlined in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (DEPI 2013a). The BCS specifies that a 'habitat compensation fee', or offset fee, must be paid for the removal of native vegetation and/or threatened species habitat values within Melbourne's growth corridors, including scattered trees.

Areas identified as 'conservation areas' are excluded from urban development under the BCS. Impacts on conservation areas that are a direct result of development may only occur with the agreement of DEPI and would be offset in the same manner to areas outside of the conservation areas. Conservation areas are displayed in Figure 1 and trees occurring within conservation areas are listed in Table 1.

The specific offset requirements for scattered trees and large old trees within patches assessed in this survey are provided as follows:

Large old trees within patches

Under the BCS the loss of any patches of time stamped native vegetation will attract a habitat compensation fee. There are no specific additional offsets requirements for trees within time stamped patches of native vegetation. The cost of offsetting these trees will be met through payment of the habitat compensation fees for native vegetation patches.

Trees within patches are assigned the conservation significance appropriate to the EVC to which they belong. Under the BCS all patches of native vegetation and, therefore, trees within patches, are assigned a conservation significance of 'Very High'.

Scattered trees

Under the BCS the removal of a scattered tree would attract a habitat compensation fee of \$13,218.00 per tree as specified in the 'Draft Habitat Compensation Under the Biodiversity Conservation Strategy' document (DEPI 2013b). This fee applies to trees that are within the 'medium' or greater size classes. It does not apply to the removal of 'small' trees.

Scattered old trees are assigned the lowest conservation significance category appropriate to the conservation status of the EVC to which they originally belonged, unless there are threatened species or other attributes that increase their rating (DSE 2007). Scattered trees within Woodstock PSP are considered to be remnants of Plains Grassy Woodland (55_61) which is endangered in the Victorian Volcanic Plain Bioregion. The lowest conservation significance category applicable to an endangered EVC is 'High' (NRE 2002). No threatened species or other attributes were identified which would increase the significance of the trees recorded. Small scattered trees are given a conservation significance of 'low'.

Please contact me on 9646 9499 if you have any queries.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R. Simkin'.

Rohan Simkin

Botanist
0429 019 163

References

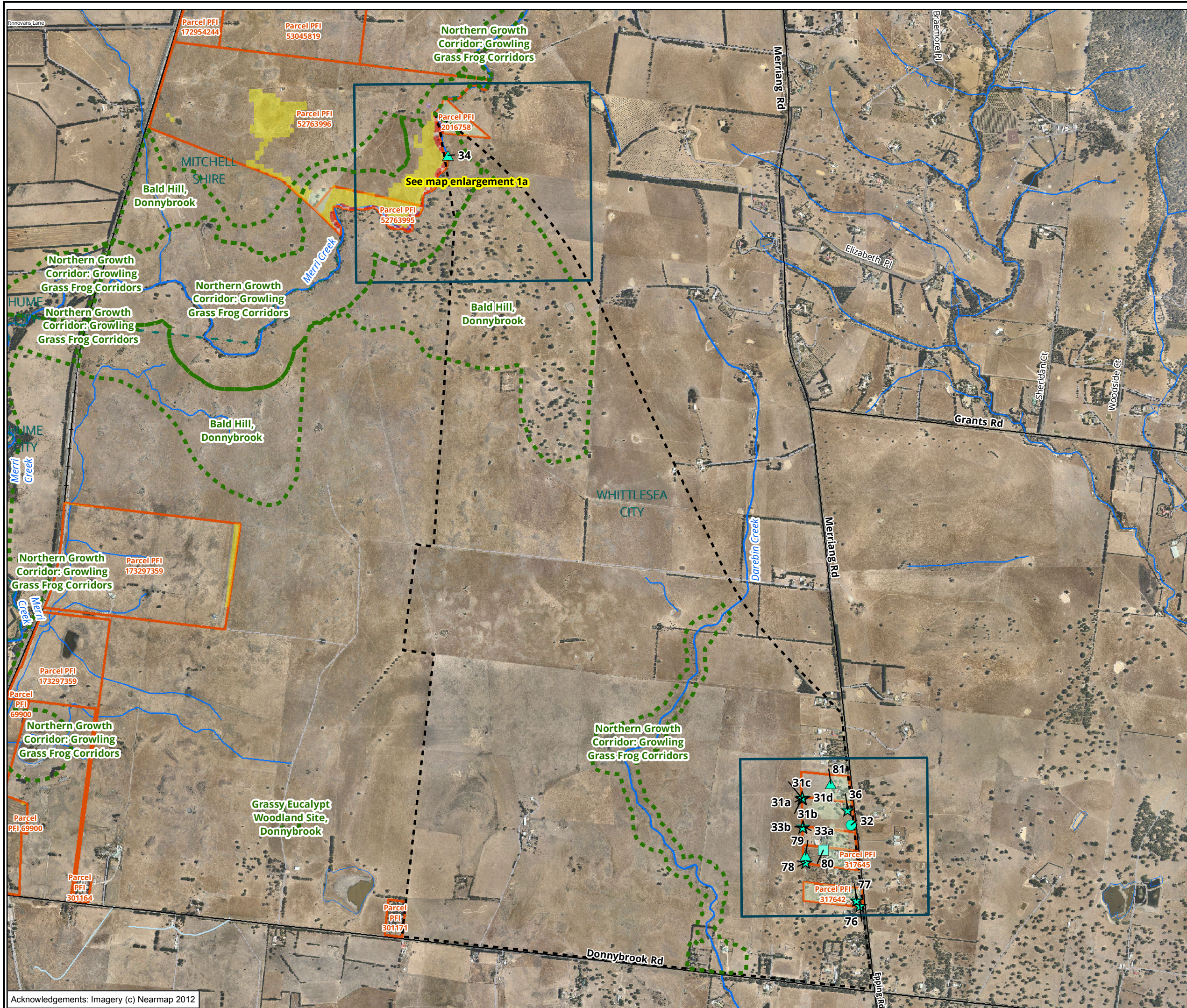
DEPI 2013a, Biodiversity Conservation Strategy for Melbourne's Growth Corridors, Victorian Government Department of Environment and Primary Industries, Melbourne

DEPI 2013b, Draft Habitat Compensation Under the Biodiversity Conservation Strategy, Victorian Government Department of Environment and Primary Industries, Melbourne

DSE 2007. Native Vegetation - Guide for assessment of referred planning permit applications. Victorian Government, Department of Sustainability and Environment, East Melbourne.

DSE 2011. Biodiversity Conservation Strategy for Melbourne's Growth Areas Draft for Public Consultation. The Victorian Government Department of Sustainability and Environment Melbourne.

NRE 2002. Victoria's Native Vegetation Management: A Framework for Action. Department of Natural Resources & Environment, Victoria.



Indigenous Trees

- Very Large Old Tree
Eucalyptus camaldulensis
- Large Old Tree
Eucalyptus camaldulensis
- Medium Old Tree
Eucalyptus camaldulensis
- Small Tree
Eucalyptus camaldulensis

Time-stamped EVCs

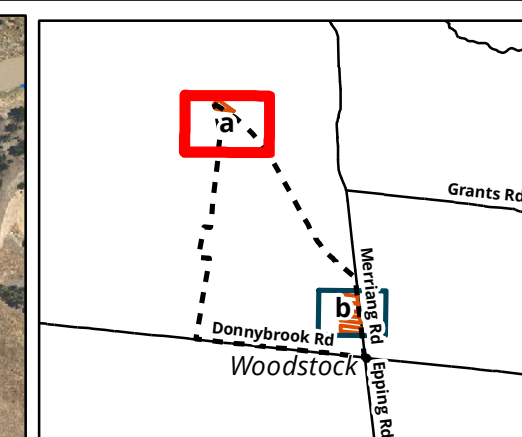
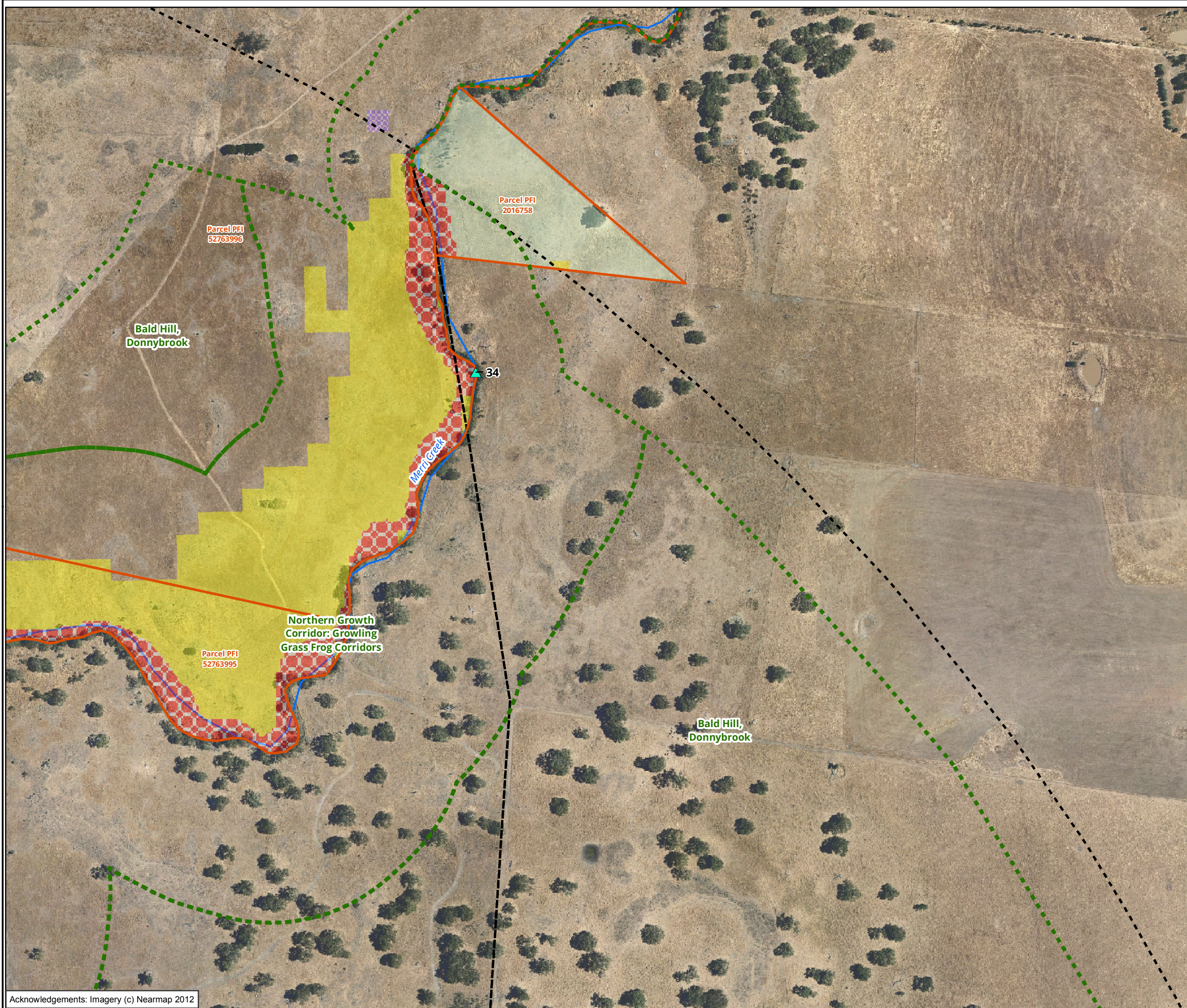
- 132 Plains Grassland
- 55 Plains Grassy Woodland
- 641 Riparian Woodland
- 654 Creekline Tussock Grassland
- PSP Boundary
- Parcels for survey
- Conservation Reserves

Figure 1: Surveyed trees within the Woodstock PSP

0 200 400 600 800 1,000
Metres
Scale: 1:20,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

biosis
Biosis Pty Ltd
Ballarat, Brisbane, Canberra, Melbourne,
Sydney, Wangaratta & Wollongong

Matter: 18183,
Date: 30 May 2014,
Checked by: RDS, Drawn by: JMS/SKM, Last edited by: Imilne
Location: P:\18100s\18183\Mapping\18183_F1_Tree_survey_WStock



Indigenous Trees

- Large Old Tree
Eucalyptus camaldulensis

Time-stamped EVCs

- 132 Plains Grassland
- 55 Plains Grassy Woodland
- 641 Riparian Woodland
- 654 Creekline Tussock Grassland

Legend

- PSP Boundary
- Parcels for survey
- Conservation Reserves

Figure 1a: Surveyed trees within the Woodstock PSP

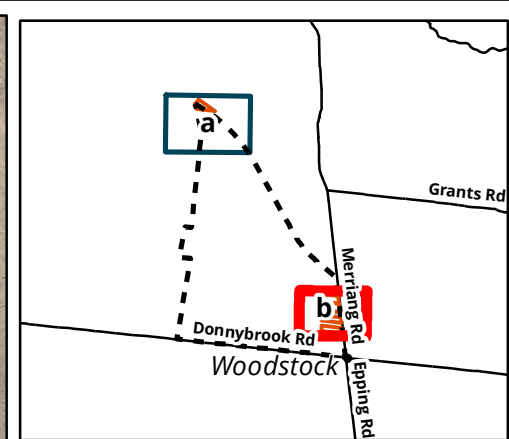
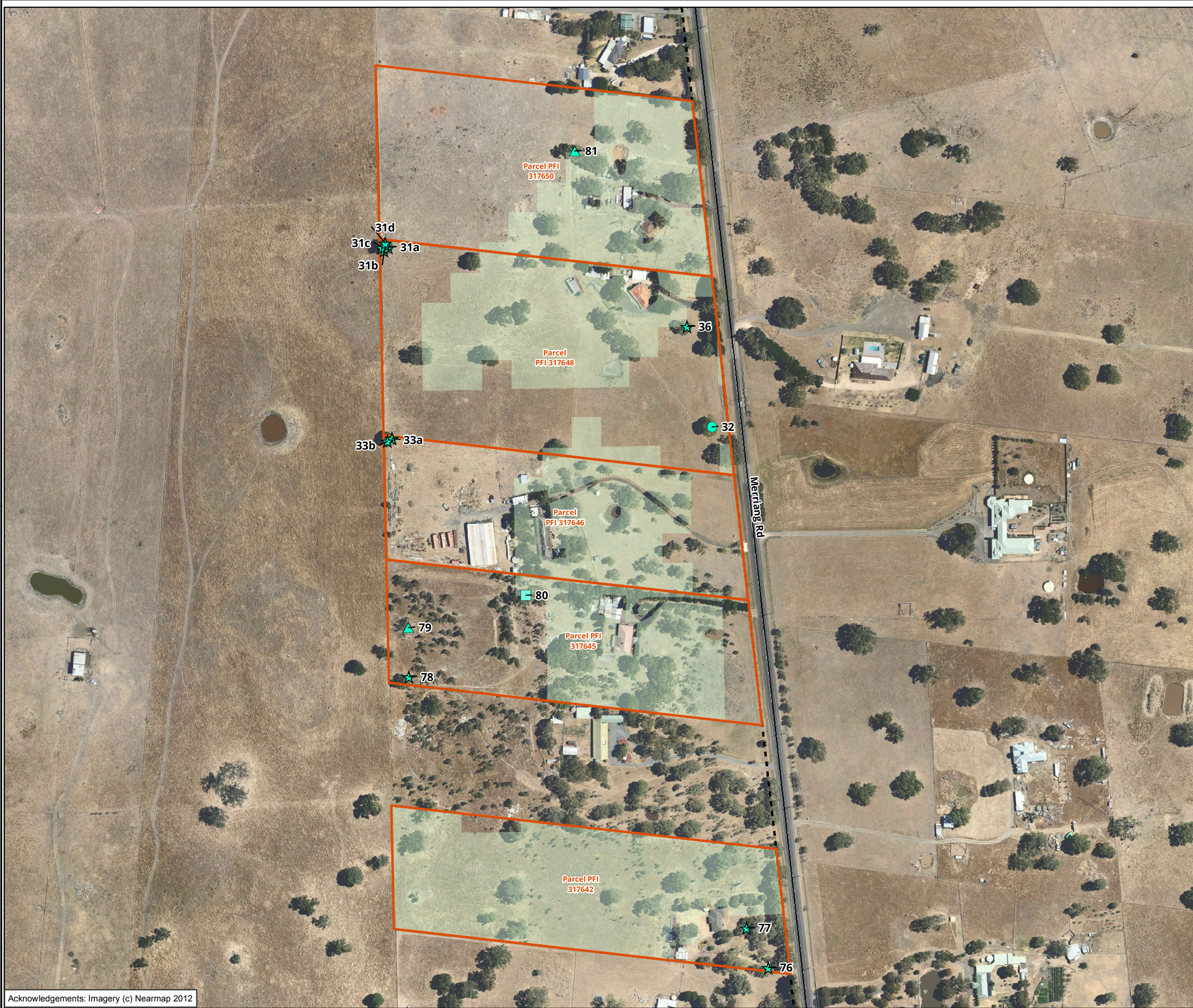
0 40 80 120 160 200
Metres

Scale: 1:4,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

biosis
Biosis Pty Ltd

Ballarat, Brisbane, Canberra, Melbourne,
Sydney, Wangaratta & Wollongong

Matter: 16781,
Date: 28 July 2014,
Checked by: RDS, Drawn by: JMS, Last edited by: Imiline
Location: P:\18100s\18183\Mapping\18183_F1_Tree_survey_detail_WStock



Indigenous Trees

- Very Large Old Tree
Eucalyptus camaldulensis
- Large Old Tree
Eucalyptus camaldulensis
- Medium Old Tree
Eucalyptus camaldulensis
- Small Tree
Eucalyptus camaldulensis

Time-stamped EVCs

- 132 Plains Grassland
- 55 Plains Grassy Woodland
- Parcels for survey

Figure 1b: Surveyed trees within the Woodstock PSP

0 30 60 90 120 150
Metres
Scale: 1:3,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

biosis
Biosis Pty Ltd
Ballarat, Brisbane, Canberra, Melbourne,
Sydney, Wangaratta & Wollongong

Matter: 16781,
Date: 28 July 2014,
Checked by: RDS, Drawn by: JMS, Last edited by: Imiline
Location: P:\18100s\18183\Mapping\18183_F1_Tree_survey_detail_WStock