

PLAN OF MANAGEMENT

FOR

196 ROBERTSON ROAD MUDGEE NSW



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Abbreviations

Abbreviation	Meaning
BC Act	Biodiversity Conservation Act 2016
BGGW	Box Gum Grassy Woodlands
DCP	Development Control Plan
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change and Water
DAWE	Department of Agriculture, Water and the Environment
EEC	Endangered Ecological Community
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act Ha	Environment Protection and Biodiversity Conservation Act 1999
LEP	Hectare
LGA	Local Environmental Plan
LMBC	Local Government Area
MU	Land Management and Biodiversity Conservation
NPWS	Map Unit
OEH	NSW National Parks and Wildlife Service
TEC	Office of Environment and Heritage
	Threatened Ecological Community



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I INTRODUCTION

Firebird ecoSultants has been engaged by Le Motte Group to prepare a Plan of Management (PoM) for an approved 27-lot residential subdivision ('the project') at Lot 266 DP 756894, 196 Robertson Road, Mudgee, NSW, 2850 ('the site'). The project was deemed a controlled action under the (EPBC Act) and was approved following referral and assessment by the Commonwealth Department of Agriculture, Water and the Environment (DAWE), for potential impacts to the federally listed White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland (hereafter referred to as 'Box-Gum Grassy Woodlands' (BGGW), Leucochrysum albicans var. tricolor (Hoary Sunray) and Anthochaera phrygia (Regent Honeyeater) habitat.

I.I Purpose

The purpose of this PoM is to provide for a range of Conditions of Consent determined for the proponent by DAWE (EPBC Ref: 2015/7476), as well as Conditions of Consent relevant to DA0191/2015 as determined by Mid-Western Regional Council.

This PoM prescribes the procedures to be followed during the construction phase of the project, as well as future management of an identified Conservation Area with specific detail to offsetting the loss of 265 individual *L. albicans var. tricolor* (Hoary Sunray) plants, the restoration and management of the BGGW and the management of retained *Acacia ausfeldii* (Ausfeld's Wattle) (which is a state listed threatened species).

1.2 Site Description and Existing Environment

The site is located at the southern extent of the Mudgee Township. It occurs within the NSW South Western Slopes biogeographical zone and is close to the Sydney Basin biogeographical zone. The site has linkages, through private properties, to Avisford Nature Reserve, which protects 2,437 ha of ridgelands, typified by steep sloping gullies and hills with open forest and woodlands. The site is zoned R2 Low Density Residential under the Mid-Western Regional Local Environmental Plan (LEP) 2012 and is 7.25 ha in size.

The site is predominantly cleared and is currently being used for cattle grazing. It contains an existing dwelling and two farm dams and has been approved for a 27-lot residential subdivision. An electricity easement runs through the south-western corner of the site. Vegetation consists largely of exotic pasture species, interspersed with occasional native grassland flora species. Areas of native grassy woodland occur along two ephemeral creeks, which converge with each other and run through the north-western corner of the site. Surveys on the site have detected the presence of the threatened ecological community (TEC), BGGW as well as two threatened flora species, being *L. albicans var. tricolor* (Hoary Sunray) and *Acacia ausfeldii* (Ausfeld's Wattle).

See Figure 1-1 for the site location, Figure 1-2 for the site's ecological features and Figure 1-3 for the boundaries of the Conservation Area.

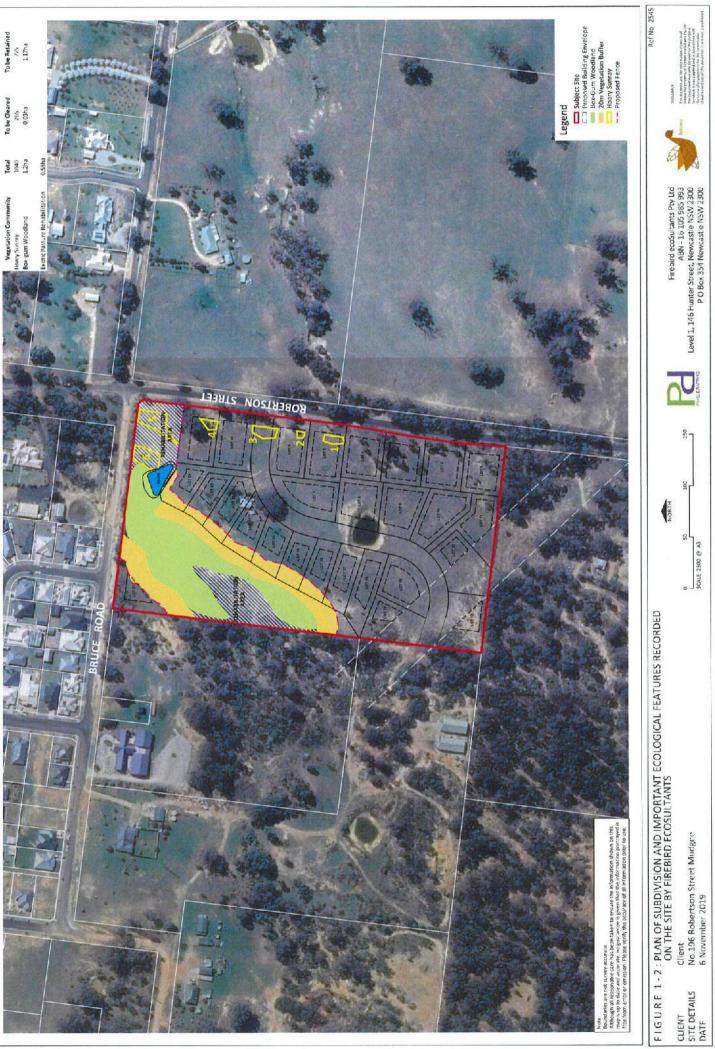




Photo 1: The site's creekline area within White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

1.3 Project Description

The project will subdivide the site into 27 residential lots. This will involve the construction of lots, an internal road, a stormwater detention basin and installation of utilities (sewer, water, electricity and communications). The site has connection to the town sewer system and thus, on-site effluent management systems are not be required. The subdivision plan is shown in Figure 1-3; the locations of development features such as building areas and vegetation buffers are indicated. Construction is estimated to take between 16 to 25 weeks and will not be undertaken during the breeding season of *A. phrygia* (Regent Honeyeater) (spring-summer). See Appendix A for detailed site plans.



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Legend
Subject Site

Client No.196 Robertson Street Mudgee 6 November 2019

CLIENT SITE DETAILS DATE



1.4 Management Issues

1.4.1 Box Gum Grassy Woodlands and Threatened Fauna Habitat

The site contains 1.2 ha of BGGW (i.e. White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland) (which is listed as endangered under the NSW *Biodiversity Conservation Act 2016* (BC Act) and critically endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)). BGGW occurs along the western slopes and tablelands of the Great Dividing Range from Southern Queensland through NSW to central Victoria (NSW Scientific Committee, 2002; Threatened Species Scientific Committee (TSSC), 2006). It has been heavily cleared across most of its range. The remaining extent is highly fragmented, occurring in small isolated patches within a cleared environment, or within a landscape of other disturbed woodlands.

It is likely that the site's BGGW represents a portion of the foraging range of *Anthochaera phrygia* (Regent Honeyeater) (which is listed as critically endangered under the NSW BC Act and the Commonwealth EPBC Act). Indeed, a search of *A. phrygia* (Regent Honeyeater) records, contained in the OEH Atlas of NSW Wildlife (NSW BioNet), indicated that this species has been recorded in the Mudgee area several times; the closest record is approximately 1 km west of the site in 2003, on the edge of Avisford Nature Reserve. *A. phrygia* (Regent Honeyeater) is a nomadic species, with a patchy distribution. It exists as a single population in south-eastern Australia and has undergone a significant decline, with the current population estimated at 350-400 mature individuals (DoE, 2016).

A total area of 351 m² of the site's BGGW would be removed for the proposed detention basin. The project must offset this by increasing the area of BGGW in the Conservation area from 1.2 ha to at least 1.5 ha. The project must also improve and maintain the condition of the existing BGGW in the Conservation Area.





Photo 2: Box Gum Grassy Woodlands. Photo courtesy of Local Land Services.



Photo 3: Anthochaera phrygia (Regent Honeyeater). Photo courtesy of Birdlife Australia.

1.4.2 Threatened Flora Species

The site contains two threatened flora species, being *L. albicans var. tricolor* (Hoary Sunray) and *A. ausfeldii* (Ausfeld's Wattle).

L. albicans var. tricolor (Hoary Sunray) is listed as endangered under the Commonwealth EPBC Act. It has undergone a decline in range and abundance, largely due to degradation and loss of habitat for agriculture (DSE, 2010). L. albicans var. tricolor (Hoary Sunray) grows in natural and secondary grasslands and grassy woodlands, often colonising disturbed sites such as road verges, but does not persist well in grazed



situations (DSE, 2010). Firebird ecoSultants recorded a total of 1040 *L. albicans var. tricolor* (Hoary Sunray) plants in the site, in November 2015. Distribution of the species was limited to the north-east corner and along the eastern margin of the site. The project will involve the removal of 265 of the 1040 *L. albicans var. tricolor* (Hoary Sunray) individuals recorded on the site. This must be offset by increasing the retained population of 775 to not less than 1035 individuals in the Conservation Area. The overall number of *L. albicans var. tricolor* (Hoary Sunray) plants, which is 1035 individuals within the Conservation Area, must be protected in perpetuity.

A. ausfeldii (Ausfeld's Wattle) is listed as vulnerable under the NSW BC Act. The species is restricted in range, with only a small number of locations (6-8) estimated to contain 90% of the total population (OEH, 2019a). The project will involve the removal of 10 of the 507 plants recorded in the site by RPS (2015). The retained plants must be protected in the Conservation Area.



Photo 4: Successfully restored native grassland, showing Leucochrysum albicans (Hoary Sunray) population (white flowers). Photo courtesy of Dr Paul Gibson-Roy, Greening Australia.



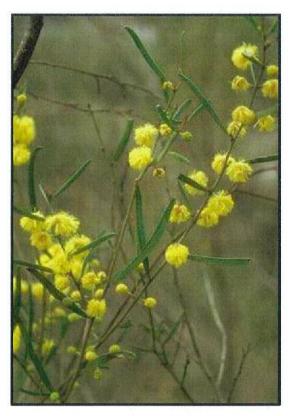


Photo 5: Acacia ausfeldii (Ausfeld's Wattle). Source WorldWideWattle ver. 2.

1.5 Management Objectives and Performance Criterion

The overall objectives of this PoM are:

- To minimise impacts to flora and fauna, and their habitats, during the construction phase of the project;
- To ensure that there is no net loss of BGGW and L. albicans var. tricolor (Hoary Sunray) as a result of the project;
- To ensure that the site maintains a healthy and viable population of *L. albicans* var. tricolor (Hoary Sunray);
- To ensure that the site's BGGW is increased in area and is maintained in a healthy condition;
- To enhance habitat for hollow dependent fauna, in the Conservation Area;
- To ensure that the Conservation Area is protected and managed for conservation, in perpetuity;

This PoM is composed of the following actions / management strategies, which are designed to achieve the overall objectives of the PoM:

Construction Phase Management Measures



- Establishment of the Conservation Area
- Grassy Woodland Restoration Strategy
- Habitat Augmentation Strategy
- A Monitoring and Reporting plan

The overall performance criterion of this PoM are as follows:

- Within 5 years of commencement of this PoM, the loss of 265 individual L. albicans var. tricolor (Hoary Sunray) plants will be compensated by increasing the retained population of 775 to not less than 1035 (±10%) individuals in the Conservation Area.
- The area of BGGW in the Conservation Area will be increased from 1.2 ha to at least 1.5 ha.
- The condition of the site's BGGW will be improved so that it reaches the highest condition, being 'state 1', in the Grassy Woodlands' in the Box-Gum Grassy Woodland State and Transition Model, in Appendix 3 of DECCW (2011) (this document is provided in Appendix B of this PoM).

1.6 Land Ownership, Responsibility and Duration

Implementation and funding of this PoM is the responsibility of the proprietor of the site and Conservation Area. The PoM will be implemented over a 20-year period. It will be adaptive and may be subject to review in the future.

Where necessary, the strategies outlined in the PoM will be undertaken by suitably experienced and qualified persons or companies engaged by the proprietor of the site and Conservation Area. Vegetation restoration works will be undertaken by AABR (Australian Association of Bush Regenerators) accredited bush regeneration companies. Nest box installation, clearing supervision and monitoring and maintenance works will be undertaken by a suitably qualified ecologist.

Additionally, as required in the DAWE conditions of consent, the following measures will be adhered to:

It is the responsibility of the proponent that: within 30 days after the commencement of construction, the person taking the action must advise the Department in writing of the actual date of commencement (as per Conditions of Consent EPBC2015/7476).

Furthermore, the duration of this PoM is explicitly linked to the covenant(s) established under Section 88D or 88E of the Conveyancing Act 1919 which are required as per the DAWE Conditions of Consent (EPBC2015/7476). An explicit time frame of 5 years has been conditioned for the compensation of the loss of 265 individual Leucochrysum albicans var. tricolor (Hoary Sunray) plants, of which the new total of 1035 individuals must be protected for the life of the approval (20 years). Additionally, of note (as per EPBC2015/7476):



- The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the CEMP and PoM, and make them available upon request to DAWE. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media;
- Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister:
- The person taking the action must notify the Department by email (to: EPBCMonitoring@environment.gov.au or an email advised by the Department) of any actual or potential non-compliance with the conditions of this proposed approval, including any plan required by the conditions of this proposed approval, within 7 days of the person taking the action becoming aware of the actual or potential non-compliance;
- The person taking the action may choose to revise the PoM approved by the
 Minister under conditions 6, without submitting it for approval under section
 143A of the EPBC Act, if the taking of the action in accordance with the revised
 plan would not be likely to have a new or increased impact. If the person taking
 the action makes this choice they must:
 - o notify the **Department** in writing that the approved plan has been revised and provide the **Department**, at least four weeks before implementing the revised plan, with an electronic copy of the revised management plan showing changes to the plan
 - provide the Department with an explanation of the differences between the revised management plan and the approved management plan, and
 - provide the Department with the reasons the person taking the action considers that taking the action in accordance with the revised management plan would not be likely to have a new or increased impact.

Additionally;

11 C. If the Minister gives a notice to the person taking the action that the Minister is satisfied that the taking of the action in accordance with the revised management plan would be likely to have a new or increased impact, then:



- i. Condition 11 does not apply, or ceases to apply, in relation to the revised management plan; and
- ii. The person taking the action must implement the management plan approved by the Minister.

To avoid any doubt, this condition does not affect any operation of conditions 11, 11 A and 11 B in the period before the day the notice is given. At the time of giving the notice the Minister may also notify that for a specified period of time that condition 11 does not apply for one or more specified plan(s) required under the approval.



2 CONDITIONS OF CONSENT REFERENCE TABLES

This PoM provides for a range of Conditions of Consent determined for the proponent by the Commonwealth DAWE (EPBC Ref: 2015/7476), as well as Conditions of Consent relevant to DA0191/2015 as determined by Mid-Western Regional Council.

Tables 2-1 and 2-2 details the following:

- The approval condition requirements that this PoM is intended to address. Note that Table 2-1 details the conditions set by DAWE and Table 2-2 details those set by Council.
- The section and page numbers of this PoM, which address the approval conditions.
- Demonstration of how the PoM addresses the condition requirements.



Table 2-1: Conditions of Approval Reference Table - Commonwealth DEPARTMENT OF AGRICULTURE, WATER AND THE ENVIRONMENT

Condition	Condition Condition Requirement	PoM Reference	Demonstration of how the PoM addresses condition requirements
-	The person taking the action must not clear more than 351 m² of the White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community (BGWG), within the footprint of the proposed action as identified on Map 1-2.	Section 3	Section 3 ('Construction Phase Management Measures') states that no more than 351 m² of BGGW may be cleared and lists several measures to ensure that this is adhered to. These include for instance, exclusion fencing and a site inspection by the project ecologist.
2	The person taking the action must not clear more than 265 individual. Hoary, Sunray, (Leucochnysum, albicans, var. tricolor), plants, within the footprint of the proposed action.	Section 3	Section 3 ('Construction Phase Management Measures') states that no more than 265 individual <i>L. albicans var. tricolor</i> (Hoary Sunray) plants may be removed and lists several measures to ensure that this is adhered to. These include for instance, exclusion fencing and the supervision of L. albicans var. tricolor (Hoary Sunray) removal by the project ecologist.
м	Within 5 years of commencement, the person taking the action must compensate for the loss of 265 individual Hoary Sunray plants by increasing the retained population of 775 to not less than 1035 (±10%) individuals in the offset site identified on Map 1-2. The overall number of Hoary Sunray plants, which is 1035 (±10%) individuals within the offset site, must be protected for the life of the approval (20 years).	Section 1.5, Section 5 and Section 7	Section 1.5 ('Management Aims and Objectives') includes this as a key aim of the PoM. Section 5 ('Grassy Woodland Restoration Strategy') prescribes specific restoration strategies to achieve this. Section 7 ('Monitoring and Reporting') prescribes specific monitoring and reporting requirements to ensure that this aim is met.
4	Prior to commencement of construction, for the protection of Hoary Sunray and BGWG, the person taking the action must establish a Construction Environmental Management Plan (CEMP).	Section 3	Section 3 ('Construction Phase Management Measures') requires that a CEMP is established and that the measures detailed throughout this Section are included in the CEMP.
4(a)	The CEMP must indicate the boundaries of Hoary Sunray and BGWG (including buffer zones), to be protected for environmental conservation purposes.	Section 3	Section 3 ('Construction Phase Management Measures') requires that this measure is included in the CEMP.



4(b)	The CEMP must describe appropriate erosion and sediment control measures, which are consistent with those specified in the Blue Book - Managing Urban Stormwater: Soils and Construction. Volume 2A Installation of Services (Department of Environment and Climate Change, 2008)	Section 3	Section 3 ('Construction Phase Management Measures') requires that this measure is included in the CEMP.
4(c)	The CEMP must include suitable weed control measures	Section 3	Section 3 ('Construction Phase Management Measures') requires that this measure is included in the CEMP.
4(d)	The CEMP must include monitoring of protected Hoary Sunray and BGWG to be undertaken weekly during construction, and any non-compliance observed, to be recorded in the Environment Issues Register. The register must include the date, the nature of the issue, the remedial action taken, and any monitoring required as a result.	Section 3.2	Section 3.2 ('Monitoring of Box Gum Grassy Woodlands and Hoary Sunray During Construction') requires that this measure is included in the CEMP.
4(e)	The CEMP must clearly state the responsible persons, including their position or status as a separate contractor, for implementation of these aspects of the CEMP.	Section 3	Section 3 ('Construction Phase Management Measures') requires that this measure is included in the CEMP.
D.	Prior to commencement of construction, for the protection of Hoary Sunray and BGWG, the person taking the action must establish protective covenant(s), under Section 880 or 88E of the Conveyancing Act 1919. The covenant(s) must provide protection to the offset site and the BGWG conservation area in perpetuity.	Section 4.1	Section 4.1 ('Establishing a Protective Covenant') requires this measure.
œ	Prior to commencement of construction, for the protection of Hoary Sunray and BGWG, the person taking the action must establish a Plan of Management (PoM) for the Minister's approval. The PoM must be linked to the covenant(s) under Section 880 or 88E of the Conveyancing Act 1919 to provide protection to the offset site and the BGWG conservation area in perpetuity. The	Section 4.1	This PoM satisfies this condition. Section 4.1 ('Establishing a Protective Covenant') requires that this PoM is linked to the covenant.