

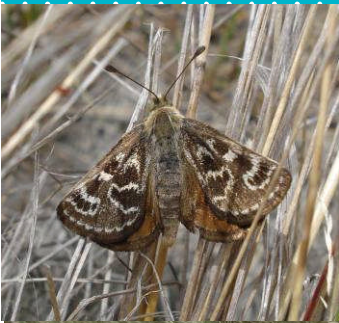
FINAL REPORT:

Net Gain Offset Management Plan Saxon Paddock, Warrambeen, Victoria

PREPARED FOR:

Mt Mercer Windfarm Pty Ltd

August 2012



PREPARED BY:

Ecology and Heritage Partners Pty Ltd

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SUMMARY

Introduction

Ecology and Heritage Partners Pty Ltd was engaged by Mt Mercer Windfarm Pty Ltd to prepare an Offset Management Plan for the Saxon Paddock, Warrambeen, Victoria, associated with the proposed development of the Mount Mercer Wind Farm Powerline and the Elaine Terminal Station.

The Offset Management Plan is required by Mt Mercer Windfarm Pty Ltd, for the removal of 0.30 habitat hectares of High Conservation Significance Plains Grassy Woodland.

The Offset Management Plan prescribes actions including; management, security and monitoring of the approved offset site to be undertaken over the mandatory ten-year period to achieve the Net Gain offset, in accordance with *Victoria's Native Vegetation Management – A Framework for Action*.

Study Area

The study area consists of the 'Saxon Paddock', which covers 42.1 hectares and is located within the Warrambeen Demonstration Landcare Farm, 815 Gumley Road, Mount Mercer. Warrambeen is privately owned and supports extensive areas of remnant native grassland. A detailed Net Gain analysis of the study area has previously been undertaken by Ecology Partners Pty Ltd.

Vegetation Losses

Remnant vegetation proposed to be removed from within the clearing site consists of:

- 0.30 habitat hectares of High conservation significance Plains Grassy Woodland

Net Gain Offset Targets

The Net Gain targets for removal of native vegetation in remnant patches within the clearing site consist of:

- 0.45 habitat hectares of High conservation significance vegetation of the same habitat type as that being lost (Plains Grassy Woodland); OR,
- 0.34 habitat hectares of Very High conservation significance vegetation in the same bioregion as that being lost (Victorian Volcanic Plain).

In this instance, Very High conservation significance Plains Grassland is proposed to offset the loss of High conservation significance Plains Grassy Woodland vegetation in accordance with the like-for-like criteria.

Offset Site Results

The offset site contains approximately 22.31 habitat hectares (42.1 hectares) of Very High conservation significance Plains Grassland. Based upon the approved losses, the offsets proposed to be obtained within the offset site include 0.34 habitat hectares (1.02 hectares) of Very High conservation significance Plains Grassland.

Management Actions

Several management actions are required as part of the Offset Management Plan including biomass control, strategic grazing and, pest plant and animal control. Other important management requirements such as population and habitat monitoring, and reporting have also been identified.

Any proposed uses or development of the offset site which conflicts with the landowner commitments are not allowed under this plan. Any native vegetation loss due to the development of the offset site which conflicts with these commitments will be subject to further Net Gain targets and offsets and requires consultation with the relevant authorities including the Department of Sustainability and Environment and the Golden Plains Shire.

1 OFFSET MANAGEMENT PLAN

This Net Gain Offset Management Plan (OMP) is consistent with the requirements of the Department of Sustainability and Environment (DSE) ‘Standard Offset Plan’ template (DSE 2010a), and *Victoria’s Native Vegetation Management – A Framework for Action* (the Framework) (NRE 2002). The template is for proposals involving vegetation removal in excess of the scattered tree and area of vegetation referral triggers specified in Clause 66.02 of the Victorian Planning Provisions.

The template is in two parts:

- **Part A: Offset Suitability.** This is an assessment of the suitability of the proposed offset site. It includes details about the approved clearing, like-for like criteria and gain calculations. It needs to be read in conjunction with Part B, but due to its technical nature is not intended to be placed on title (e.g. covenant or Section 173 Agreement pursuant to the *Planning and Environment Act 1987*).
- **Part B: Offset Implementation.** This describes how the offset is to be implemented. It includes details about landowner commitments, management activities monitoring and reporting. This section should be comprehensible to people responsible for implementing the plan, including future landowners, and will be placed on title (DSE 2010a).

2 INTRODUCTION

2.1 Background

Ecology and Heritage Partners Pty Ltd was engaged by Mt Mercer Windfarm Pty Ltd (MMWF) to prepare an OMP within the 'Saxon Paddock', Warrambeen Landcare Demonstration Farm, 815 Gumley Road, Mount Mercer, Victoria.

The OMP is required by MMWF, to address offset requirements under the Native Vegetation Framework (NRE 2002) for the removal of 0.30 habitat hectares of High Conservation Significance Plains Grassy Woodland (CPG 2011).

The OMP prescribes actions including; management, security and monitoring of the approved offset site to be undertaken over the mandatory ten-year period to achieve the Net Gain offset, in accordance with the Framework (NRE 2002).

2.2 Study Area

The study area consists of the Saxon Paddock, which covers 42.1 hectares and is located within the Warrambeen Demonstration Landcare Farm, 815 Gumley Road, Mount Mercer, Victoria (Figure 1). The Warrambeen Demonstration Landcare Farm is privately owned and supports extensive areas of remnant native grassland. A detailed Net Gain analysis of the study area has previously been undertaken by Ecology Partners (2011).

According to the Department of Sustainability and Environment's (DSE) Biodiversity Interactive Map (DSE 2012) the study area occurs within the Victorian Volcanic Plain bioregion.

3 METHODS

3.1 Net Gain Scoring Methodology

Gains in habitat score to compensate for vegetation loss can be achieved through a number of means where a commitment is made to designate an area as a permanent offset site elsewhere. Four types of gains are recognised by DSE for existing vegetation offset sites; these include prior management gain, security gain, maintenance gain and improvement gain. Gains in habitat score for each of these gain types are determined using the DSE Gain Calculator and associated manual (DSE 2006a).

Gains can also be achieved through revegetation of formerly modified land where such offset types are permitted. Gain scoring operates via the DSE Gain Calculator (DSE 2010c), which allocates a score based on the habitat score measure for vegetation management actions that maintain vegetation quality, or at a higher level, improved vegetation quality.

The guidelines and methodology for gain scoring are presented in Native Vegetation: Scoring Gain from an offset – DSE Gain Calculator user instructions (DSE 2006a) and Vegetation Gain Approach – Technical basis for calculating gains through improved native vegetation management and revegetation (DSE 2006b) and were used in combination with the Gain Calculator to determine gains for vegetation protection, maintenance and improvement activities for this project.

3.1.1 Gain Scoring for Offsets in Existing Vegetation

The fundamental premise of gain scoring within sites of existing vegetation is that a gain will be achieved over a 10 year management period and that the offset site will be protected and maintained at that achieved 10 year condition in perpetuity.

Gain scoring within offset sites containing existing vegetation requires the quality of vegetation to be known (i.e. habitat score using the habitat hectares methodology). It is also desirable to have information on vegetation and ecological attributes, such as indigenous species diversity, weed cover, weed species present, management history and other general threats to vegetation and habitat condition.

Such information is essential for working through the decision-making processes for gain scoring in a consistent and rigorous manner. In most cases this information should be available for an offset site where vegetation impact assessments and ecological investigations have been undertaken as part of the planning process. In other cases, where offsets are proposed to be generated off-site, additional field work may be required.

This baseline information is then used to undertake habitat gain scoring (DSE 2006a) or more conveniently by using the DSE Gain Calculator. Scores are allocated as either a percentage of the current total habitat score, or as a specified habitat score value depending on the type of gain.

Four types of gain are currently recognised:

- Prior Management Gain – This gain acknowledges actions to manage a freehold site and usually attracts a score of 10% of the current habitat score of the offset site.
- Security Gain – This is gain resulting from actions to enhance the security of the ongoing management and protection of native vegetation. This gain usually attracts between 10 and 40% of the current habitat score of the offset site, depending on the security agreement reached and land tenure of the offset site.
- Maintenance Gain – This is gain from commitments that contribute to the maintenance of current vegetation quality over time (i.e. avoiding any decline).
- Improvement Gain – this is gain resulting from management commitments beyond existing obligations under legislation to improve the current vegetation quality.

Maintenance and improvement gains are allocated as a habitat score value and vary depending on a number of factors. The two key factors that determine how much (i.e. score) maintenance and improvement gain can be achieved are the nature of existing ‘use rights’ at the offset site, and the management commitments agreed to be undertaken for vegetation maintenance and improvement by the landholder. Management commitments generally include activities such as vegetation protection through grazing control, weed control and eradication and supplementary planting.

Maintenance/Improvement gain is not applicable for the control of noxious weeds, however, there are other weed species present and the management options for controlling high threat woody and herbaceous weeds are relevant. Taking this into consideration, gains for the site have been calculated from prior management, and maintenance/improvement gain.

Once gain scoring has been undertaken for the offset site the total score for prior management, security and maintenance/improvement, gains are summed and multiplied by the area (in hectares) of the offset site to determine how much gain is available. This total allows comparison to Net Gain targets for vegetation losses and decisions can be made regarding the ability of an offset site to achieve a Net Gain outcome through vegetation protection.

4 CLEARING SITE NET GAIN SUMMARY

4.1 The Proposed Development

The construction of the MMWF Powerline is located between Shelford-Mt Mercer Road and the corner of Elaine-Bluebridge Road and Murphys Road, Elaine. The Elaine Terminal Station is located on Government Road, Elaine, Victoria.

4.2 Clearing Site Details

The vegetation clearing site details is summarised in Table 1.

Table 1. Details of the proposed vegetation removal

CLEARING SITE DETAILS	
Landowner of clearing site	Mt Mercer Windfarm Pty Ltd
Location and address of clearing site	<ul style="list-style-type: none"> MMWF Transmission Line is located between Shelford-Mt Mercer Road to the corner of Elaine-Bluebridge Road and Murphys Road, Elaine Elaine Terminal Station is located at Government Road, Elaine
Local Government Area	Moorabool Shire Council
Catchment Management Authority	Corangamite
Responsible Authority	Moorabool Shire Council
Permit applicant	Mt Mercer Windfarm Pty Ltd
Planning Permit Number (ID)/Work Authority Number	PA2010200 and PA2010201
Date approved	10 May 2011

4.3 Habitat Hectares Analysis

A habitat hectare assessment was undertaken within the clearing site by VEMCO Pty Ltd (2010) and re-assessed by CPG (2011) based on an updated construction footprint, to identify patches of remnant native vegetation and scattered indigenous trees.

4.3.1 Vegetation Patches

The site proposed for the construction of the MMWF Powerline and Elaine Terminal Station was found to support 0.30 habitat hectares of High conservation significance Plains Grassy Woodland (EVC 55_61), within one habitat zone (CPG 2011).

Table 2. Habitat score of vegetation within the clearing site.

Location		Government Road	
EVC name (initials)		PGW	
Habitat Zone		HZ3	
EVC Number		55_61	
		Max Score	Score
Site Condition	Large Old Trees	10	0
	Canopy Cover	5	0
	Understorey	25	5
	Lack of Weeds	15	4
	Recruitment	10	0
	Organic Litter	5	4
	Logs	5	0
Subtotal			13
Landscape Context Score		25	4
Habitat points out of 100		100	17
Habitat Score (habitat points/100)			0.17
Area of habitat zone (ha)			1.74
Area proposed to be removed (ha)			1.74
Total habitat hectares within study area			0.30
Total habitat hectares proposed to be removed			0.30
Bioregion			VVP
EVC Conservation Status			Endangered
Conservation Significance	Conservation status x Habitat Score		High
	Threatened Species		High
	Other Site Attributes		n/a
	Overall Conservation Significance (highest rating)		High

Notes: EVC = Ecological Vegetation Class, PGW = Plains Grassy Woodland, VVP = Victorian Volcanic Plain, n/a = not applicable

4.3.2 Summary of Net Gain Analysis

Remnant vegetation proposed to be removed from within the clearing site consists of:

- 0.30 habitat hectares of High conservation significance Plains Grassy Woodland.

4.4 Net Gain Targets

The Victorian Native Vegetation Framework (the Framework) (NRE 2002) and the Corangamite Native Vegetation Plan (CCMA 2005) prescribes the like for like criteria and Net Gain ratios, to clear and offset native vegetation.

To meet the objectives of the Net Gain policy, offset criteria must be met, and at least 1.5 times the habitat hectare loss for High conservation significance vegetation patches (Table 3).

Table 3. Net Gain targets for vegetation proposed for removal.

Habitat Hectares Target					
Habitat Zone Target No.	Conservation Significance	Target EVC	Total Losses in Habitat Ha	Net Gain Multiplier*	Net Gain Target (Habitat Ha)
1	High	PGW	0.30	1.5	0.45
Total habitat hectares					0.45

Notes: *These multipliers relate to Table 6 of the Framework; PGW = Plains Grassy Woodland.

4.4.1 Summary of Net Gain Targets

The Net Gain targets for removal of native vegetation in remnant patches within the clearing site consist of:

- **0.45 habitat hectares** of High conservation significance Plains Grassy Woodland.

All gains for the proposed removal of Plains Grassy Woodland vegetation are required to be generated from the Victorian Volcanic Plain bioregion to meet the objectives of the Net Gain policy.

5 PART A - OFFSET SUITABILITY

This section of the report:

1. Outlines the results of the assessment of the proposed vegetation offset area and outlines the quality of this vegetation; and,
2. Compares the site of the proposed vegetation removal to the offset site and discusses the ability for the offset site to achieve Net Gain targets by analysis of the 'like for like' criteria.

5.1 Description of the Offset Site

The proposed offset site is located within the Saxon Paddock (Figure 1), and consists of Plains Grassland vegetation. The proposed Net Gain offset site is located within an area of 8.44 hectares, and meets the criteria for *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed ecological community *Natural Temperate Grassland of Victorian Volcanic Plain* (NTGVVP). The Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) has identified this area as a suitable offset for the loss of NTGVVP associated with construction of the MMWF Powerline and Elaine Terminal Station (Ecology Partners 2012).

5.2 Ecological Vegetation Classes

DSE modelled (pre-1750) EVC mapping for the region shows that the study area and immediate surrounds would have predominantly contained Plains Grassland (EVC 132) and Plains Grassy Woodland (EVC 55) (DSE 2012). Extant EVC mapping (DSE 2012) shows a scattered occurrence of Plains Grassland and Plains Grassy Woodland within the study area and the immediate surrounds. Plains Grassland and Plains Grassy Woodland are listed as Endangered within the VVP bioregion (DSE 2012).

One EVC was recorded during the field assessment: Plains Grassland (EVC 132_61). Plains Grassland vegetation occurs across the whole of Saxon paddock (Figure 2).

5.3 Vegetation Condition

The study area was characterised by high quality Plains Grassland vegetation which is largely intact, containing a rich diversity of indigenous grasses and herbs, including some threatened species.

Plains Grassland vegetation within the study area was generally dominated by Knead Spear-grass *Austrostipa bigeniculata*, Rough Spear-grass *Austrostipa scabra* subsp. *falcata*, with a lesser presence of Kangaroo Grass *Themeda triandra*, Wallaby-grasses *Austrodanthonia* spp., Common Tussock-grass *Poa labillardierei*, Common Wheat-grass *Elymus scaber* var. *scaber* and Long-hair Plume-grass *Dichelachne crinita*. Native herb species present included Chocolate Lily *Arthropodium strictum*, Lemon Beauty-head *Calocephalus citreus*, Common

Everlasting *Chrysocephalum apiculatum*, Blue Devil *Eryngium ovinum*, Tall Bluebell *Wahlenbergia stricta* and Scaly Buttons *Leptorhynchus squamatus*.

Introduced weeds also present within the study area included Perennial Rye-grass *Lolium perenne*, Cocksfoot *Dactylis glomerata*, Toowoomba Canary Grass *Phalaris aquatica* and Narrow-leaf Clover *Trifolium angustifolium* var. *angustifolium*, Cat's Ear *Hypochoeris radicata*, Long Stork's-bill *Erodium botrys*, Onion Grass *Romulea rosea*, Yorkshire Fog *Holcus lanatus*, Sweet Vernal-grass *Anthoxanthum odoratum*, Cape Weed *Arctotheca calendula* and Ribwort *Plantago lanceolata*.

Listed noxious weeds present included Serrated Tussock *Nassella trichotoma*, Sweet Briar *Rosa rubiginosa* and Spear Thistle *Cirsium vulgare*.

5.4 Significant Flora and Fauna Species

1.1.1 National

No nationally significant flora species were detected within the study area during the assessment. Two nationally significant flora species, Clover Glycine *Glycine latrobeana* and Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* have been previously recorded within other areas of Warrambeen, and due to the relatively intact area of Plains Grassland vegetation, the study area is considered to provide potential habitat for these species.

1.1.2 State

Three state listed flora species were detected within the study area during the assessment;

- Small Milkwort *Comesperma polygaloides* – Vulnerable (DSE 2005), FFG Act listed,
- Small Scurf-pea *Cullen parvum* – Endangered (DSE 2005), FFG Act listed; and,
- Slender Bindweed *Convolvulus angustissimus* subsp. *omnigracilis* - Poorly Known (DSE 2005).

5.5 Significant Communities

One nationally listed ecological community, Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP), listed as critically endangered under the EPBC Act, occurs within the study area (SEWPaC 2011, Figure 2).

The minimum patch size for NTGVVP is 0.05 hectares. Additionally, for an area of native vegetation to qualify as NTGVVP, the following condition thresholds must be met (DEWHA 2008):

- One or more of the following native grass genera accounts for at least 50% of the perennial ground layer cover: Themeda, Austrodanthonia, Austrostipa and/or Poa;

OR

- If native grasses account for less than 50% of the perennial ground layer cover, then the patch is either:
 - A valuable wildflower site where at least 50% of the ground layer vegetative cover is represented by dryland forbs during spring-summer; OR,
 - The area comprises less than 30% cover of non-grassy weeds at any time of the year.

Plains Grassland vegetation (Figure 2) within the study area covers approximately 42.1 hectares and was comprised of greater than 50% native perennial grass cover, and therefore meets condition thresholds for NTGVVP (DEWHA 2008). Therefore, there is approximately 42.1 hectares of NTGVVP are present within the study area.

Plains Grassland has a bioregional conservation significance of Endangered within the Victorian Volcanic Plain bioregion (DSE 2012).

Plains Grassland vegetation within the study area is also considered to be part of the FFG Act listed community Western (Basalt) Plains Grassland Community.

5.6 Habitat Hectare Assessment

A Net Gain assessment has been prepared for the offset site (Ecology Partners 2011). One habitat zone of Plains Grassland was identified within the offset site (Figure 2; Table 4).

Table 4. Habitat scores for vegetation quality zones recorded within the offset site

Location		Offset Site
EVC Name		PG
Habitat Zone		1
EVC Number		132_61
Bioregion		VVP
Bioregional Conservation Status		E
		Possible Score
Site Condition	Large Old Trees	n/a
	Canopy Cover	n/a
	Understorey	25
	Lack of Weeds	15
	Recruitment	10
	Organic Litter	5
	Logs	n/a
	Subtotal	55
Standardised subtotal (treeless vegetation standardiser, x1.36)		74.8
Landscape Context Score		25
Habitat points out of 100		100
Habitat Score (habitat points/100)		0.53
Total Assessed Area of Habitat Zone (ha)		42.1
Total Assessed Area (habitat hectares)		22.31
Conservation Significance	Conservation status x Habitat Score	Very High
	Threatened Species	Very High
	Other Site Attributes	n/a
	Overall Conservation Significance (highest rating)	Very High

Notes: PG = Plains Grassland, VVP = Victorian Volcanic Plain, E = Endangered, n/a= Not Applicable.

5.6.1 Summary of Habitat Hectare Assessment

In summary, the offset site contains approximately 22.31 habitat hectares of Very High conservation significance Plains Grassland within remnant patches.

5.7 Assessment of Best or Remaining 50% Habitat for Rare and Threatened Species

Several significant flora and fauna species have been recorded within the vicinity of the offset site. Therefore remnant patches within the study area have the possibility of containing habitat for threatened flora and fauna. The habitat assessment in accordance with the *Native Vegetation Guide for assessment of referred planning permit applications* (DSE 2007a) is summarised in Table 5.

Table 5. Habitat Assessment for threatened species

Step	Description	Outcome
A	Is the species, or has the species been recorded as resident on site> OR if the species is not 'resident' has it been recorded regularly (e.g. annually) on-site?	Yes – go to B No – go to D
B	Is it possible to discriminate between the importance of different populations of the species? For example, can numbers be reasonably estimated and is there available knowledge on what are typical population sizes?	Yes – go to C No – go to E
C	Does the site contain a population that is above average size or importance for the bioregion?	Yes – Best 50% of habitat No – remaining 50% of habitat
D	Does the habitat on site clearly meet one or more of the habitat requirements of the species? Is it reasonable to expect that the species is present or would make significant use of the site in the medium term (i.e. within the next 10 years)?	Yes to both – go to F No to either – no further consideration required for that species
E	Has some form of habitat modelling been undertaken for the species in the bioregion?	Yes – use this information to determine Best 50% of habitat or Remaining 50% of habitat No – go to F
F	Does the site represent above-average condition and landscape context for the relevant EVC or habitat type in the bioregion?	Yes – best 50% of habitat No – Remaining 50% of habitat

5.7.1 Best or remaining 50% for rare and threatened flora species

The determination of the best or remaining habitat for threatened flora species within the study area is provided in Table 6.

Table 6: Assessment of best or remaining 50% habitat for rare and threatened flora species

Species	Conservation Status	Potential Habitat (Remnant Patch No)	Steps (1)	Determination of Best 50% / Remaining 50% (2)	Conservation significance (3)	Notes
Small Scurf-pea	e (DSE)	PG1	B (no), D (yes), F (yes)	Best 50%	Very High	Recorded within adjacent paddock
Small Milkwort	v (DSE)	PG1	B (no), D (yes), F (yes)	Best 50%	Very High	Recorded within adjacent paddock
Spiny Rice-flower	v (DSE)	PG1	A (No), D (Yes), F (Yes)	Best 50%	Very High	Not recorded within study area, but known to occur elsewhere within the property
Clover Glycine	v (DSE)	PG1	A (No), D (Yes), F (Yes)	Best 50%	Very High	Not recorded within study area, but known to occur elsewhere within the property

(1) From Table 2 in the Guide for Assessment of Referred Planning Permit Applications (DSE 2007a) specify steps taken in habitat assessment to determine best 50% or remaining 50% of habitat.

(2) Specify 'best' or 'remaining'.

(3) Conservation significance of the habitat zone based on consideration of threatened species.

5.7.2 Best or remaining 50% for rare and threatened fauna species

The determination of the best or remaining habitat for threatened fauna species within the study area is provided in Table 7.

Table 7: Assessment of best or remaining 50% habitat for rare and threatened fauna species.

Species	Conservation Status	Potential Habitat (Remnant Patch No)	Steps (1)	Determination of Best 50% / Remaining 50% (2)	Conservation significance (3)	Notes
Golden Sun Moth	CE (DSE)	PG1	A (yes), B (yes), C (yes)	Best 50%	Very High	Recorded during targeted surveys
Growing Grass Frog	E (DSE)	PG1	B (no), D (no), F (yes)	N/A	N/A	No further consideration required
Striped Legless Lizard	E (DSE)	PG1	A (no), D (yes), F (yes)	Best 50%	Very High	Not recorded within the study area, but high likelihood of occurrence. Recorded elsewhere within the property
Plains Wanderer	CEDSE)	PG1	A (yes), B (yes), C (no)	Remaining 50%	Very High	Previously recorded west of 'East Creek North' paddock, likely to use habitat within offset site

(1) From Table 2 in the Guide for Assessment of Referred Planning Permit Applications (DSE 2007a) specify steps taken in habitat assessment to determine best 50% or remaining 50% of habitat.

(2) Specify 'best' or 'remaining'.

(3) Conservation significance of the habitat zone based on consideration of threatened species.

5.7.3 Summary of Threatened Species Assessment

No national or State significant flora species considered threatened are known to occur within the study area. The study area provides potential habitat for two nationally and two State significant flora species previously recorded in other parts of the property; Spiny Rice-flower, Clover Glycine, Small Scurf-pea and Small Milkwort. Therefore, following the steps within Table 6 (DSE 2007a), the offset site is considered to be within the 'best 50%' habitat for the threatened flora listed above, within the Victorian Volcanic Plain bioregion.

One nationally threatened fauna species (Golden Sun Moth) is known to occur within the study area. The study area also provides potential habitat for the nationally threatened Striped Legless Lizard and Plains Wanderer. Therefore following the steps within Table 6 (DSE 2007a), the offset site is considered to be within the 'best' 50% habitat for the threatened fauna listed above, within the Victorian Volcanic Plain bioregion.

5.8 Like for Like Criteria

In determining the appropriate offset responses for permitted vegetation clearance, the Framework sets out several ‘like for like’ criteria in Table 6, Appendix 4 (NRE 2002), which must generally be considered for any offset site. In order to locate an offset site for vegetation of high conservation significance, there is a requirement that the offset be:

- The same vegetation/habitat type in the same bioregion OR a Very High significance vegetation/habitat in the same bioregion;
- Similar or more effective ecological function OR land protection function as impacted by the loss.
- At least 75% of the quality of the vegetation being lost.

The Net Gain targets for removal of native vegetation in remnant patches within the clearing site consist of:

- **0.45 habitat hectares** of High conservation significance vegetation of the same habitat type as that being lost (Plains Grassy Woodland); OR,
- **0.34 habitat hectares** of Very High conservation significance vegetation in the same bioregion as that being lost (Victorian Volcanic Plain).

In this instance, Very High conservation significance Plains Grassland is proposed to offset the loss of High conservation significance Plains Grassy Woodland vegetation in accordance with the like-for-like criteria outlined above.

To ensure the offset areas meet all like for like criteria as outlined in *the Framework* (NRE 2002), Table 8 has been provided to show how the proposed offset sites meet these criteria.

Table 8. Meeting Like-for-Like criteria for the proposed vegetation removal.

Clearing Site						Offset Site					
Target #	Habitat Zones	Bioregion	EVC	Conservation significance	Min. habitat score for target	Trading Up	Offset Zone	Bioregion	EVC	Conservation Significance	Habitat Score
PG1	HZ1	VVP	PGW	High	12.75	Yes	PG1	VVP	PG	Very High	53

Notes: VVP = Victorian Volcanic Plain, PGW = Plains Grassy Woodland, PG = Plains Grassland, EVC = Ecological Vegetation Class.

5.9 Quantification of Habitat Hectare Gains Available on site

Likely gains at the potential offset area were calculated using the *Native Vegetation: Vegetation Gain Approach – technical basis for calculating gains through improved native vegetation management and revegetation* and the DSE Net Gain calculator (DSE 2006b, 2008). The breakdown of the gain scoring for the patch of vegetation which occurs within the offset area is provided in Table 9.

5.9.1 Summary of Habitat Hectare Gains Available on site

In summary, the offset site contains a total potential gain of approximately of 13.91 habitat hectares within remnant patches. The required offset requires a gain of 0.34 habitat hectares (1.02 hectares) of Very High conservation significance Plains Grassland. The remaining area of available offset (13.57 habitat hectares) is not included as part of this offset.

Table 9. Gains available from management of vegetation within the Saxon Paddock, Warrambeen

EOI Code / land manager name		Saxon Paddock, Warrambeen			
Habitat Zone		PG1			
Land tenure		Freehold			
Property Size		>=10Ha			
Patch Size		>=20ha			
Zone type		Offset (Stat Planning)			
Proposal type		Remnant patch			
Security arrangement		Registered on-title agreement or crown land equivalent			
Bioregion		Victorian Volcanic Plain			
EVC name		Plains Grassland			
Biodiversity Conservation Significance		Endangered			
EVC standardiser		1.36			
		Max	Current condition	Maintenance gain/ha	Improvement gain/ha
Scores	Large Trees	n/a	n/a	n/a	n/a
	Tree Canopy Cover	n/a	n/a	n/a	n/a
	Understorey	25	15	7.5	2.5
	Lack of Weeds	15	9	0	2
	Recruitment	10	0	0	2
	Organic Litter	5	3	1.5	1
	Logs	n/a	n/a	n/a	n/a
	Standardised Site Condition	75	36.72		
	Landscape Context	25	16		
Habitat Hectare Score		100	53		
Subtotal of gains				9	7.5
Standardised Sum Main + Improve Gain/Ha		22.44			
Prior Mgt Gain/Ha		5.3			
Security Gain/Ha		5.3			
Total Gain/Ha		33.04			
Size of habitat zone (Ha)		1.02			
TOTAL GAIN (HHa)		0.34			

Notes: n/a = Not Applicable.

5.10 Allocation of Native Vegetation Gains

Following the implementation, security and commitment to management of the offset site the habitat hectare offset targets will be met with 0.34 habitat hectares (1.02 hectares) of Very High conservation significance Plains Grassland (Table 10).

Table 10. Allocation of native vegetation gains for clearing a remnant patch

Gain Target		Trading up	Source of gains to meet the target [3]		Outcome	
Target No.[1]	Target (Hha)	Discount [2]	Offset Zone	Gain (Hha)	Total gains (Hha)	Surplus/ Deficit (Hha)
H1	0.34	n/a	PG1	0.34	0.34	n/a

Notes: n/a = not applicable.

6 PART B – OFFSET IMPLEMENTATION

This section presents the management actions required to achieve a Net Gain within existing vegetation at the offset area located within the Saxon Paddock (Figure 1). It prescribes how the offset area should be managed to achieve the gains outlined above.

6.1 Offset Site Details

The proposed offset site is privately owned land and consists of high quality Plains Grassland vegetation, and has been identified as a suitable offset site (Ecology Partners 2011) (Table 11).

Table 11. Offset Site Details

Offset Site Details	
Landowner of offset site	Ian and Trish Taylor
Type of offset (onsite, 3rd party)	Off-site, 3rd party
Location and address of offset site	Saxon paddock, Warrambeen Landcare Demonstration Farm. 815 Gumley Road, Mount Mercer
Area of offset site (ha)	1.02 hectares
Offset site number (if applicable)	NA
Volume	NA
Folio	NA
Parish	Shelford West
Allotment	125\PP3485
Local Government Area	Golden Plains Shire
Responsible Authority	Department of Sustainability and Environment
Bioregion	Victorian Volcanic Plain

6.2 Strategy for Offset Area

The offset area is to be secured and managed in perpetuity (Table 13). Offsets are proposed to be located within the retained native vegetation of Plains Grassland PG1 (Figure 2). The total required gain equates to 0.34 habitat hectares (1.02 hectares) of Very High conservation significance Plains Grassland.

The management strategy for the proposed offset site consists of implementing a management plan incorporating weed control and regular monitoring.

Table 12. Security and Management Responsibilities

Offset Security and Management Responsibility	
Who is liable/responsible for meeting offset requirements?	Landowner
Type of security i.e. Planning Permit Condition, Section 69 of the <i>Conservation, Forest and Lands Act 1987 (Vic)</i> , Section 173 of the <i>Planning and Environment Act 1987 (Vic)</i> Covenant under the <i>Victorian Conservation Trust Act 1972 (Vic)</i>	Registered on-title Agreement - Section 173 of the <i>Planning and Environment Act 1987 (Vic)</i> Covenant under the <i>Victorian Conservation Trust Act 1972 (Vic)</i>
Agreement or Planning Permit Number (ID)	PA2010200 and PA2010201
Date 10-year offset management to commence	2012
Date 10-year offset management expires	2022
Registered on title? (Yes/No)	Yes
Offset management responsibility (i.e. Landowner, Authority Name)	Landowner
Offset Monitoring Responsibility (i.e. Responsible Authority, DSE)	Ecological Consultant and/or Golden Plains Shire

6.3 On-going Land Use Commitments

The landowner will continue to manage the offset site after the completion of year 10 as specified in this offset plan, such that:

- Weed cover is managed in perpetuity to ensure it does not increase beyond the level attained at year 10 of management; and,

- Pest animals are controlled in perpetuity to the level attained at year 10 of management.

Any proposed uses or development of the offset site which conflicts with the landowner commitments are not allowed under this plan. Any native vegetation loss due to the development of the offset site which conflicts with these commitments will be subject to further Net Gain targets and offsets and requires consultation with the relevant authorities including the Department of Sustainability and Environment and the Golden Plains Shire.

6.4 Management Actions

Net Gain offsets will be achieved by:

- Retaining all native vegetation, dead or alive, within the offset site;
- Eliminate woody weeds to a level less than 1%;
- Reduce the cover and extent of identified 'high threat' weed species;
- Controlling grazing pressure from pest animals (e.g. rabbits) from all habitat zones;
- Considering the use of ecological burns to manage organic litter levels and fire safety issues, if deemed appropriate by a qualified ecological consultant as a necessary management tool; and,
- Monitoring and reporting on the progress of management actions.

6.4.1 Pest Plant Control

The site is generally dominated by indigenous species; however, the control of pest plants (e.g. Serrated Tussock *Nassella trichotoma*) is a key requirement for management of the offset site. In order to control and/or eradicate weed species, several on-going techniques can be used (i.e. herbicide application). However, with any weed control works it is important to establish a cover of native species as soon as possible to occupy areas of bare ground. While native species will naturally colonise such areas, so will exotic species, if weed seed is present.

Herbicides are currently proposed to be used to reduce the cover and extent all perennial tussock-forming introduced grasses and herbaceous weed species. Woody weeds must be eliminated (to less than 1%). It is important to ensure that weed control works using herbicides are both targeted (i.e. spot spraying) and undertaken at the right time of the year, as this can also reduce the requirement for future weed control works.

An appropriate management strategy for the control and eradication of weeds within the offset site consists of spot spraying with herbicide and strategic grazing to prevent further spread. Care will be taken when spraying with herbicide to ensure that the poison does not affect

native vegetation in the local application area. Weed species should be treated before seed is set. It is envisaged that the herbaceous weeds listed in Table 13 can be controlled to minimise or eliminate their occurrence within ten years of the commencement of weed management actions.

Strategic grazing can also be used in many ways to favour indigenous species over introduced species (e.g. by reducing plant biomass and competition, by targeting seedling growth and by preventing the plants from setting seed). This method of weed control can be utilised annually during late summer and autumn, and also winter (very short periods at high stocking rates, if the site is not wet).

Weed control using grazing may also be considered in late winter and September, if a particularly dense cover of annual introduced seedlings is present.

The timing of any grazing strategy to control weeds is always variable as seasons and site conditions, such as weed growth, are never standard, and therefore any grazing strategy will require flexibility.

Ongoing monitoring needs to ensure any additional weed species that invade the site (particularly high threat and woody weeds) are controlled. A summary of weed control requirements is provided below (Table 13).

Table 13. Control protocols for weed species recorded within the offset site

Common Name	Scientific Name	Weed Type	Treatment Methods	Timing of Treatment	Desired Outcome
Serrated Tussock	<i>Nassella trichotoma</i>	Perennial tussock-forming grass	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Sweet Briar	<i>Rosa rubiginosa</i>	Woody Scrub	Annual Spraying (before seeding)	Late winter, early spring and late spring	E
Spear Thistle	<i>Cirsium vulgare</i>	Herbaceous	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	Perennial tussock-forming grass	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Perennial Rye-grass	<i>Lolium perenne</i>	Perennial tussock-forming grass	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Cocksfoot	<i>Dactylis glomerata</i>	Perennial tussock-forming grass	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Long Stork's-bill	<i>Erodium botrys</i>	Herbaceous	Annual Spraying (before seeding)	Late winter, early spring and late spring	C
Yorkshire Fog	<i>Holcus lanatus</i>	Perennial tussock-forming grass	Annual Spraying (before seeding)	Late winter, early spring and late spring	C

Notes: E = eliminate to <1% cover; C = control populations of weed species and maintain at a cover less than current levels.

Key Performance Targets

The following key performance targets have been provided to measure the success of the weed management program:

- Reduce weed cover to <5% for herbaceous weeds; and,
- Eliminate woody weed cover to <1%.

6.4.2 Pest Animal Control

The following section outlines a combination of techniques recommended to control rabbits and hares within the offset site. The management techniques outlined below are to be instigated immediately if vegetation appears to be directly influenced by these species within the 10 year management requirement of this offset site. Annual monitoring will be undertaken to guide decisions upon the success of pest animal management within the offset site.

6.4.2.1 Rabbits/Hares

Rabbits can degrade native vegetation through soil disturbance, the further spread of weeds, burrowing, and grazing of palatable species. For example, rabbit populations of less than three per hectare can maintain the dominance of introduced plants, although when rabbits are excluded, native grasses may gradually replace introduced species.

Rabbits place pressure on native wildlife by competing for resources, particularly under drought conditions, and prevent regeneration of native plant species by selecting the most nutritious parts of the plants. It is unlikely to control rabbits, and indeed all of the pest animals mentioned, with the intention of totally eradicating them from the site.

Therefore, given the likelihood that the animals will re-invade from the surrounding agricultural and rural areas, a broad scale strategic approach to pest animal control is a future recommendation (although outside the scope of this OMP).

It is important to determine overall rabbit/hare densities within the site and undergo ongoing monitoring of populations to determine the effectiveness of control activities. Rabbit control is currently dependent on conventional control measures such as poisoning, fumigation, warren ripping and trapping.

Two chemicals, sodium monofluoroacetate (1080) and Pindone are used for rabbit control. Unlike Pindone, which can be used in urban areas, 1080 is not recommended in areas where domestic dogs or pets are likely to come in contact with the poison.

Pindone is an anti-coagulant, similar to rat poison, that is applied in carrot or oat bait. A number of feeds over several days are needed for a lethal dose, and it is relatively safe for cats and dogs, but macropods (e.g. kangaroos) and possums are susceptible to this poison. Given

the relatively high kangaroo population on the site, 1080 should be used rather than Pindone, and should be followed up by careful fumigation and selective harbour destruction. (Note: domestic dogs should be restrained during all baiting programs).

Actions

- Shooting (and trapping) will be implemented where required to control pest animal populations within the study area. Trapping will only be used as an additional control method if there is a noticeably high abundance of pest animals within and adjacent to the study area.

Performance Measures

- Ecological management of the study area is not hindered by pest animal populations;
- A reduced number of hares and rabbits within the study area;
- All rabbit warrens identified and destroyed;
- Native vegetation ground cover is maintained and enhanced; and,
- There is persistence and expansion of significant species populations.

6.4.3 Fencing

The offset site is contiguous within a larger remnant patch of Plains Grassland (Figure 2). Fencing of the offset site (1.02 hectares) is considered unnecessary and counterproductive to the conservation of the larger patch of Plains Grassland. It is recommended that an ecological grazing regime is implemented according to biomass control requirements within the offset site (Appendix 1).

6.4.4 Management Actions

Management actions proposed to achieve the calculated Net Gain targets are outlined in Appendix 1. The actions constitute the minimum management requirements for the offset site over the 10 year mandatory management period.

6.5 Monitoring and Reporting

Monitoring by a suitably qualified ecologist should be undertaken to ensure key performance targets are met and the responsible authority notified of the progress of works through the submission of progress reports and landowner monitoring forms. Monitoring and reporting to the responsible authority is proposed to be undertaken at the end of years 2, 5, 7 and 10 after commencement of the offset works (Appendix 1). The monitoring process will detail the works undertaken, the timing of works, successes and failures, and an analysis of whether key

performance targets are being met. An audit in year 10, detailing the type of works undertaken and other relevant details will provide the responsible authority with the outcomes and effectiveness of management actions outlined in Appendix 1.

The landowner is required to implement permanent photo points across the offset site. Each photograph must be taken at the same time (season) and location each year. Photo points will allow for monitoring of weed populations and maintenance of the current condition of native vegetation within the offset site. Details of photo points and photographs taken will be required as evidence of progress.

The Landowner will submit a Landowner Monitoring and Report Form to the responsible authority. Details of the reporting schedule are specified below (Table 14).

Table 14. Landowner Monitoring and Reporting Schedule

Year	Year from commencement	Time of year	Monitoring Method	Person Responsible	Report due to DSE by:
2012	2	Spring	Landowner Monitoring Form	Landowner	End of relevant calendar year
2017	5				
2019	7				
2022	10				
	As requested in writing by (appropriate authority) and within a maximum 3 months of the date of issue				

6.5.1 Template for a Landowner Monitoring and Reporting Form

The template for a landowner monitoring and reporting form is shown in Table 15. Information required includes:

- A copy of the Management Action Table from the OMP with information on which actions have been completed for year/s of this reporting period;
- A description of the specific monitoring results from surveys undertaken;
- Details of any fencing or security works;
- Success of weed and pest animal control work;

- Successful management tools (i.e. techniques used to control weed species, protection of new plants, monitoring technique, etc.);
- Any problems or issues experienced (i.e. new infestation of weed species, storm damage to fencing, etc.); and,
- The provision of photographs showing evidence of works.

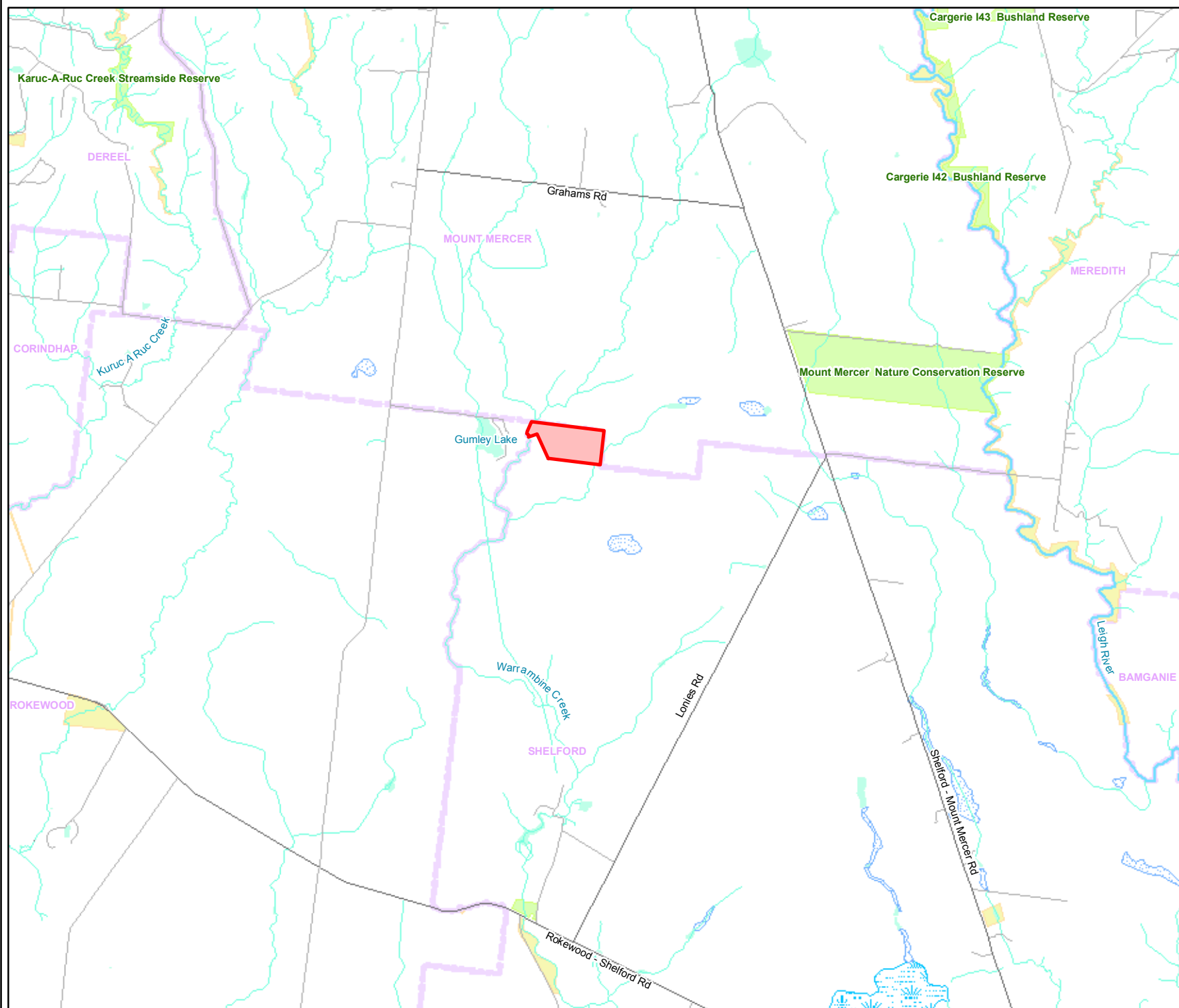
If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified, the responsible landowner must explain the reasons why and what program of action/s will be undertaken to implement the action. If no action is to be undertaken please explain the reason(s) and how the targets specified will be met.

All records/evidence of management actions must be maintained, and be submitted to the responsible authority upon request, and any proposed changes to management must be submitted to the responsible authority prior to the changes being undertaken.

Table 15. Landowner Monitoring and Reporting Form

Landowner of offset site	
Location and address of offset site	
Offset site number (if applicable)	
Offset plan reference number (if applicable)	
Responsible Authority	
Report #	
Signature	
Date	

FIGURES

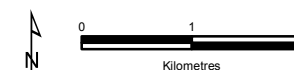


Legend

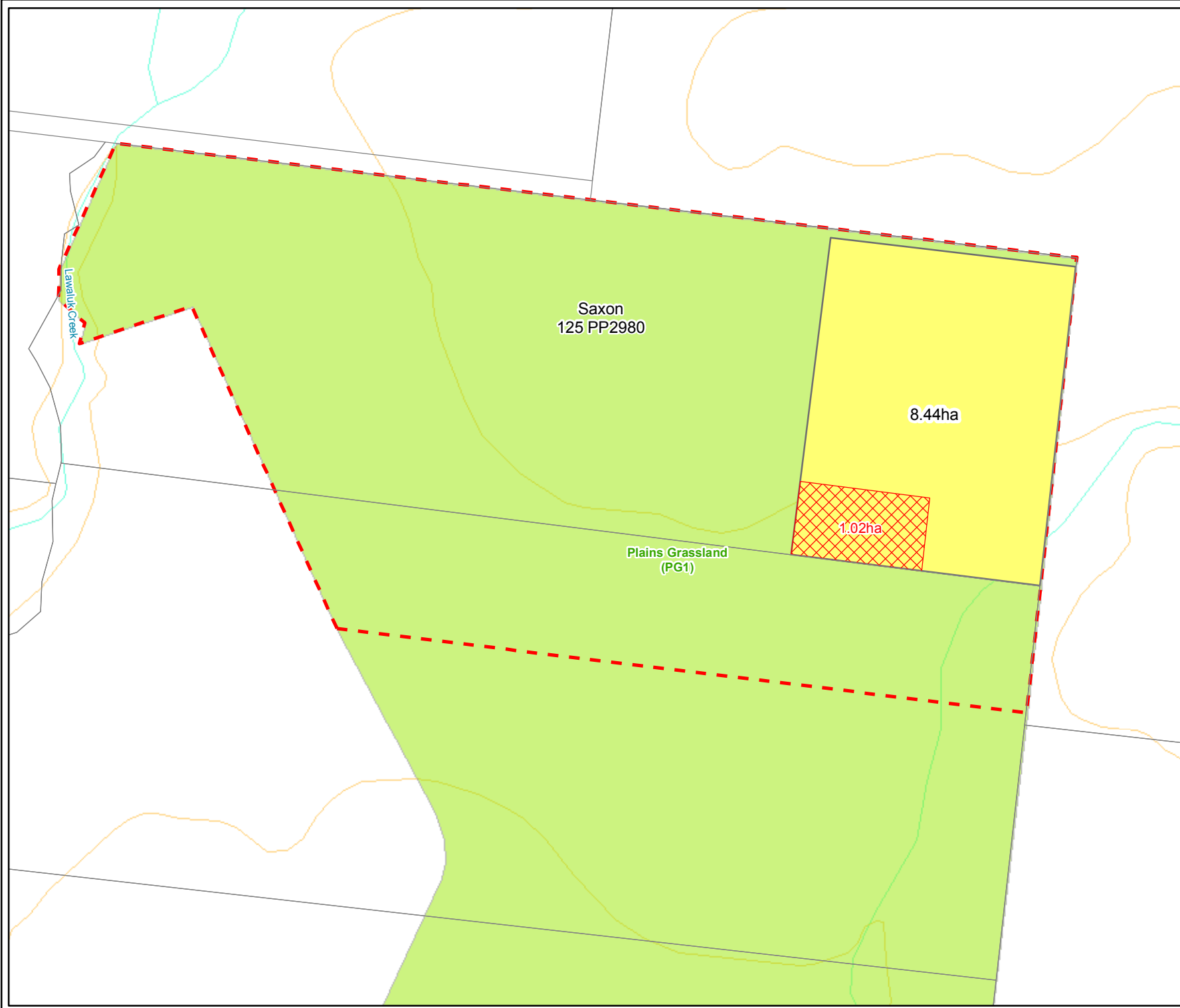
- Freeway
- Major Road
- Collector Road
- Minor Road
- Proposed Road
- Walking Track
- Minor Watercourse
- Major Watercourse
- Permanent Waterbody
- Land Subject to Inundation
- Wetland/Swamp
- Parks and Reserves
- Crown Land
- Localities
- Study area



Figure 1
Location of the study area
Saxon Paddock, Warrambeen



VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



Legend





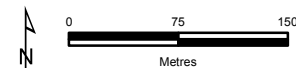
-  Plains Grassland
-  Mt Mercer Wind Farm
Net Gain Offset (1.02ha)
-  EPBC Act offset site (8.44ha)
-  Study area

Figure 2
Location of the proposed
Net Gain offset site
Saxon Paddock, Warrambeen



VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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APPENDICES

Appendix 1 – Management Action Table

Table A1.1. Management Action Table for the offset site to meet targets in the OMP.

Year	Action Number and Type	Management action	Resource/ personnel required	Timing of action	Key performance target	Completed (Yes/No)	Date
1	1.1- Offset Plan	Approve Offset Management Plan	Liaise between the landholder, Golden Plains Shire and DSE	Pre commencement of any works associated with the vegetation management plan.	Site and vegetation management plan approved by relevant parties.		
1	1.2- Security	Arrange details of the on-title agreement over the proposed offset site to ensure the site cannot be developed in the future or used for other offsets.	Liaise between the landholder, Golden Plains Shire and DSE	Pre commencement of any works associated with the vegetation management plan.	Security option approved by DSE		
1	1.3- Monitoring	Acquire baseline monitoring data and initiate offset management plan	Suitably qualified ecological specialist	First year	Report submitted to appropriate authority		
1	1.4- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
1	1.5- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		
1	1.6- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
2	2.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		

Year	Action Number and Type	Management action	Resource/ personnel required	Timing of action	Key performance target	Completed (Yes/No)	Date
2	2.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
2	2.3- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		
3	3.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
3	3.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
3	3.3- Monitoring	Monitor and assess works, and prepare progress report	Suitably qualified ecological specialist	Three years after commencement of works.	Progress report submitted to appropriate authority		
3	3.4- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		
4	4.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
4	4.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
4	4.3- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		

Year	Action Number and Type	Management action	Resource/ personnel required	Timing of action	Key performance target	Completed (Yes/No)	Date
5	5.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
5	5.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
5	5.3- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		
5	5.4- Monitoring	Offset progress to be audited and management actions updated where appropriate aid in achievement of gain targets	Suitably qualified ecological specialist	As required	Satisfactory progress towards achieving management actions		
6	6.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Landowner	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
6	6.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
7	7.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Northern Grampians Shire Council	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
7	7.2- Pest Animal Monitoring	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		

Year	Action Number and Type	Management action	Resource/ personnel required	Timing of action	Key performance target	Completed (Yes/No)	Date
7	7.3- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
7	7.4- Management	Monitor and assess works, and prepare progress report	Suitably qualified ecological specialist	Seven years after commencement of works.	Progress report submitted to appropriate authority		
8	8.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Northern Grampians Shire Council	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
8	8.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
8	8.3- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		
9	9.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Northern Grampians Shire Council	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
9	9.2- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
9	9.3- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		

Year	Action Number and Type	Management action	Resource/ personnel required	Timing of action	Key performance target	Completed (Yes/No)	Date
10	10.1- Weed Management	Conduct systematic weed control for all weed species	Bushland Management Contractor/ Northern Grampians Shire Council	Refer Table 13	Reduce weed levels below 1% for woody weeds and 5% for herbaceous weeds		
10	10.2- Monitoring	Offset site to be audited by undertaking a habitat-hectare assessment	Suitably qualified ecological specialist	As required	Satisfactory progress towards achieving management actions		
10	10.3- Biomass Management	Monitor organic litter density and control biomass	Landowner	Late summer - Autumn	Maintain at least 70% vegetation cover and adhere to seasonal spelling		
10	10.4- Pest Animal Management	Monitor for populations of feral animals such as rabbits and conduct control works if required.	Pest Animal Contractor/ Landowner	After peak breeding season - late summer/early autumn.	No detrimental impact on values from pest animals and reduced pest numbers		