

# Saxon Paddock Vegetation Offset

## Baseline Monitoring Report



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Client: Warrambeen Pastoral

### Prepared by

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26-Jul-2016

Job No.: 60474580

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## Quality Information

Document      Saxon Paddock Vegetation Offset



Ref             60474580

Date            26-Jul-2016

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Reviewed by   Cameron Miller

### Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
1	30-Jun-2016	DRAFT FOR COMMENT	Cameron Miller, Associate Director	
2	26-Jul-2016	FINAL	Cameron Miller Associate Director, Natural Resources	

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## 1.0 Introduction

A 7.55 ha section of land known as Saxon Paddock), has been protected under *Section 173* of the *Planning and Environment Act 1987* as an offset for removals undertaken within the Diggers Rest Native Vegetation Precinct Plan (NVPP). This offset was required as a condition under the permit for removal of remnant vegetation protected under Victoria's *Planning and Environment Act 1987* (Clause 52.16) and under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The landowner of the site where the clearing occurred is Investa Nominees (2) Pty Ltd and they have entered into an agreement with Ian and Trish Taylor of Warrambeen Pastoral Pty Ltd (Warrambeen Offset Management) for the establishment, management and protection of an offset site.

As part of the agreement to protect the offset area, a Vegetation Offset Management Plan (VOMP) was prepared by AECOM (2014) to identify conditions and management actions required to maintain and improve the conservation values of the site in accordance with the permits issued for the vegetation removal within the Diggers Rest NVPP. The VOMP was approved by the Victorian Department of Environment and Primary Industries, Melton City Council and Golden Plains Shire Council.

As a condition of the vegetation offset, Saxon Paddock is to be inspected on a periodic basis to ensure compliance with the VOMP. This report provides results of the first periodic review of the progress of management actions which was completed in October 2015. Further monitoring is to be carried out in 2017 (Year 2), 2020 (Year 5) and 2025 (Year 10).



## 2.0 Offset Site

The offset site is 7.55 ha in size and makes up part of Saxon Paddock, located on the property Warrambeen Pastoral Pty Ltd (Warrambeen Offset Management) which is owned and managed by Ian and Trish Taylor. The offset site is located at 815 Gumley Road, Mount Mercer and occurs within the Golden Plains Shire, Corangamite Catchment Management Authority boundary and the Victorian Volcanic Plain bioregion. It is zoned as Farming Zone (FZ) and is partially covered by an Environmental Significance Overlay (ESO 2). A map showing the location of the offset site is included in Appendix A.

A summary of the ecological values of the offset site is provided below. This information is drawn from the Vegetation Offset Management Plan (AECOM 2014).

### 2.1 Flora

The offset contains:

- Very High conservation significance Plains Grassland which also qualifies as Natural Temperate Grassland of the Victorian Volcanic Plan;
- The *Flora and Fauna Guarantee Act 1988* vegetation community: Western (Basalt) Plains Grassland Community;
- Very High conservation significance EVC 132: Plains Grassland of the Victorian Volcanic Plain;
- Largely consistent vegetation quality which has been assessed as one habitat zone;
- Vegetation assessed as having the following characteristics as determined by a Vegetation Quality Assessment (see Appendix B for full VQA Details):
  - Standardised Site Condition score of 57 out of 75 showing dominance by native grasses and low weed cover;
  - Landscape Context Score of 12 out of 25 showing that it is situated within a fragmented landscape;
- 4.3 Habitat Hectares (HHa) of EVC 132 Plains Grassland of the Victorian Volcanic Plain.
- The following dominant species:
  - Kneed Spear-grass (*Austrostipa bigeniculata*);
  - Rough Spear-grass (*Austrostipa scabra* subsp. *falcata*);
- The following sub-dominant species:
  - Kangaroo Grass (*Themeda triandra*);
  - Wallaby-grasses (*Rhytidosperra* spp);
  - Common Tussock-grass (*Poa labillardieri*);
  - Common Wheat-grass (*Elymus scaber*); and
  - Long-hair Plume-grass (*Dichelachne crinite*);
- The following native herbs and forbs within inter-tussock spaces:
  - Lemon Beauty-heads (*Calocephalus citreus*);
  - Chocolate Lily (*Arthropodium strictum*);
  - Common Everlasting (*Chrysocephalum apiculatum*);
  - Blue Devil (*Eryngium ovinum*), and
  - Scaly Buttons (*Leptorhynchus squamatus*).
- The following Introduced species (10 - 15% of the vegetation cover):
  - Cocksfoot (*Dactylis glomerata*);
  - Toowoomba Canary Grass (*Phalaris aquatic*);

- Serrated Tussock (*Nassella trichotoma*);
  - Sweet Briar (*Rosa rubiginosa*); and
  - Spear Thistle (*Cirsium vulgare*).
- No recorded threatened flora species although a number of threatened species have been recorded in the adjoining paddock including Small Scurf-pea *Cullen parvum* and Small Milkwort *Comesperma polygaloides*;
- The offset site is considered to provide best 50% habitat for:
- Small Scurf-pea (Endangered);
  - Small Milkwort (Vulnerable);
  - Spiny Rice-flower (*Pimelea spinescens* subsp. *Spinescens*) (Vulnerable); and
  - Clover Glycine (*Glycine latrobeana*) (Vulnerable).
- Note: See Appendix B for full detail

## 2.2 Fauna

- No recorded threatened fauna species, however a number of threatened fauna species have been recorded in close proximity to the offset site, and Golden Sun Moth (*Synemon plana*) has been recorded in remnant vegetation that adjoins the offset site.
- The offset site is considered to provide best 50% habitat for:
- Golden Sun Moth;
  - Growling Grass Frog (*Litoria raniformis*); and
  - Striped Legless Lizard (*Delma impar*).

## 2.3 Management issues (threats)

There are a number of management issues which threaten the ecological integrity of the offset site. These threats relate to:

- Pest plants / Weeds: High threat weeds (including listed noxious weeds) are present at the site and can compete with native species and reduce the complexity of habitat for native species.
- Pest animals including European rabbits: European rabbits *Oryctolagus cuniculus* are present at the site and if they become abundant, are likely to overgraze native species and degrade soil structure so that remnant species are unable to recruit / regenerate.
- Biomass accumulation: The exclusion of stock grazing and presence of weeds could result in excessive build-up of biomass that could smother inter-tussock spaces and reduce the diversity of small native herbs and forbs, reduce the availability of suitable habitat for Golden Sun Moth, and cause dieback in the native tussock-grasses.

The VOMP detailed a number of management actions to be implemented to reduce these threats and improve the conservation value of the sites. This report provides information on progress against these action items.

### 3.0 Methods

A site assessment was completed on 22 October 2015, by AECOM's Senior Botanist, Thomas Wright, as an independent ecological consultant. The purpose of the assessment was to monitor the implementation of the VOMP and the success of management actions in reducing the threats of pest plants, rabbits and biomass accumulation. The assessment was completed in accordance with the VOMP and included collection of information regarding:

- Herbicide application (type and quantities);
- Stock grazing (number and duration);
- Replanting (number planted, number established, survival rate, timing of planting);
- Rabbit control (methods used, number warrens destroyed, timing of control, locations of control);
- Quality of native vegetation;
- Percentage cover of bare ground;
- Percentage cover of high-threat weeds;
- Rabbits opportunistically observed during monitoring; and
- Any other management actions.

This information is provided in the following sections and has been used to assess progress against VOMP management actions.

The information was collected through interviews with the landowner, a site assessment and review of landholder reporting.



## 4.0 Results

### 4.1 Rabbit abundance

Rabbits are controlled primarily through targeted ground shooting programs which are conducted every two months through nocturnal spot lighting. No warrens have been located so no fumigation or ripping has been conducted. Rabbit scats were observed infrequently and no rabbits were observed during the site assessment which indicates that control using targeted shooting is suitable for managing the population.

### 4.2 Weeds

Native grasses are the dominant vegetation at the site however some high risk weed species are present including Serrated Tussock which is a Weed of National Significance. The baseline cover of the targeted species provided in the VOMP is listed below in Table 1.

Table 1 Baseline cover levels for targeted weeds

Common Name	Scientific Name	Weed Type	Weed Status <sup>1</sup>	Treatment Methods	Timing of Treatment	Standard to be Achieved	Baseline cover level (%)
Serrated Tussock	<i>Nassella trichotoma</i>	Small to medium-sized tussock forming perennial-grass	C, WONS	Spraying or spreading (Glyphosate / Fluproponate)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	1%
Sweet Briar	<i>Rosa rubiginosa</i>	Medium-sized woody shrub	R	Spraying (2,4-D)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	1%
Spear Thistle	<i>Cirsium vulgare</i>	Tall annual or biennial-herbaceous daisy	R	Spraying (2,4-D)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	2%
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	Medium to tall-sized tussock forming perennial-grass	-	Spraying (Glyphosate / Fluproponate)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	5%
Cocksfoot	<i>Dactylis glomerata</i>	Medium to tall-sized tussock forming perennial-grass	-	Spraying (Glyphosate / Fluproponate)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	5%
Yorkshire Fog	<i>Holcus lanatus</i>	Medium to tall-sized tussock forming perennial-grass	-	Spraying (Glyphosate / Fluproponate)	Prior to seeding (late winter to late spring).	Reduce cover to < 1%	5%

Warrambeen Offset Management has been proactive in initiating weed management actions required in the VOMP as follows:

- Contractor engaged to spot spray herbaceous weeds using 2,4-D (present as the 2-ethylhexyl ester in the product Ester LV 680 and present as dimethylamine and monomethylamine salts in the product Amicide Advance 700);
- Contractor engaged to spot spray grassy weeds using Glyphosate and Fluproponate; and
- Radiata Pine found along Warrambeen Creek (see Plate 1) was removed.



Plate 1 Removal of Radiata Pine from the offset site

### 4.3 Biomass

The average cover of bare ground was 10-15% across the site, which is above the minimum threshold stipulated in the VOMP for bare ground which is set at 10% (see Table). Warrambeen Offset Management conducted crash grazing for a period of three months since the commencement of the agreement in order to control biomass accumulation. During this time one thousand mixed-age ewes were brought into the area for ten (10) days and were then removed for one month after which the sequence was repeated. It was determined that no further grazing or other biomass control was required due to drought conditions maintaining a low level of biomass accumulation.

Biomass monitoring was not undertaken by Warrambeen Offset Management as it was determined that there was insufficient organic matter to conduct monitoring effectively. The 1m x 1m grazing exclusion cages have been established and will be monitoring every 3 months to determine biomass levels.

Warrambeen Offset Management determined that vegetation growth and biomass levels were manageable based on a visual assessment of the biomass levels and forecasting of growth levels under the drought conditions that were present.

### 4.4 Revegetation

Supplementary planting is required under the VOMP to improve the biodiversity of the site and establish Kangaroo Grass (*Themeda triandra*) as a key species at the site in accordance with EVC and ecological community descriptions for Plains Grassland. It was intended that replanting would be undertaken in late spring (3-6 weeks after herbicide application) when conditions are most favourable for establishment.

In Spring 2015, Warrambeen Offset Management consulted with AECOM regarding the suitability of climatic conditions for replanting. It was determined that localised drought conditions were not suitable for planting of seed or tubestock as there was a high likelihood that seedlings / tubestock would fail to establish from a lack of soil moisture and a forecast period of below average rainfall.

The management action in the VOMP required planting of 300 Kangaroo Grass tubes and 50 native forb tubes in the first year (Spring 2015), second year (2016) and third year (2017). As the first supplementary planting did not occur, Warrambeen Offset Management intend to conduct the planting in 2016, 2017 and 2018 instead (i.e.: Years two, three and four).

The 2016 planting event is planned for spring 2016 and Warrambeen Offset Management have been liaising with multiple suppliers to obtain the agreed planting stock (i.e.: 300 grass tubes, 50 forb tubes). At this stage, the supply of sufficient stock is not yet confirmed for the 2016 planting season, however if the full requirement cannot be obtained in time for this planting season then it will be planted during the 2017 planting season along with the agreed planting stock for that season. The order for the stock for the 2017 planting season has been placed and will be progressed provided that rainfall patterns and temperatures indicate that the planting season will be suitable for tubestock establishment.

#### 4.5 Additional information

During the baseline monitoring (October 2015) a Small Scurf-Pea *Cullen parvum* was recorded in Saxon's Paddock (see Plate 2). The species was not recorded previously at the site by either AECOM (2014) or Ecology and Heritage Partners (2011). The Small Scurf-Pea is listed as threatened under the Victorian *Flora and Fauna Guarantee Act 1988* and Endangered under the *Advisory List for Victorian Rare and Threatened Plants* (DEPI 2014). It is possible that the species has recruited as result of biomass and weed control.



Plate 2 Small Scurf-pea

Warrambeen Offset Management has established a number of permanent monitoring points within Saxon Paddock including adjoining offset sites. The location of these monitoring points is marked in Appendix A. These monitoring points will be used to provide a record of the changes to the site in response to management actions.

## 5.0 Year 1 Management Action Status Review

Table 2 Year 1 Management Action Status Review

Year	Action #	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Complete (Yes/No)	Target Met (Yes/No)	Month and Year Completed
1	1.1	<b>Approve Vegetation Offset Management Plan</b>	Liaise between landholder, Melton City Council, Investa and DEPI to ensure Vegetation Offset Management Plan is approved by all stakeholders.	Prior to any works associated with the vegetation offset management plan.	n/a		Vegetation offset management plan approved by relevant parties.	Yes	n/a	Approved by Council and DEPI in August 2014.
1	1.2	<b>Secure offset site for perpetuity.</b>	Prepare and sign a <i>Section 173</i> agreement for the proposed offset site to protect the site from future development Liaise between landholder, Melton City Council, Golden Plains Shire and Investa.	Prior to any works associated with the vegetation offset management plan.	n/a		<i>Section 173</i> agreement signed by all relevant parties.	Yes	n/a	Agreement signed in August 2014.
1	1.3	<b>Baseline monitoring</b>	Establish baseline data for weeds, rabbit abundance and biomass.	Prior to any works associated with the vegetation offset management plan.	n/a		Baseline data to allow comparison of the success of future management actions.	Yes	n/a	October 2015
1	1.4	<b>High-threat</b>	Landholder to spray and graze high-	Between late winter and	Dependent on baseline		Reduce the cover of all high-threat	Yes	No. Weed cover	Spring 2015

Year	Action #	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Complete (Yes/No)	Target Met (Yes/No)	Month and Year Completed
		<b>weed control</b>	threat weeds.	late spring.	monitoring results.		environmental weeds to less than 1% cover.		between 1 and 5%	
1	1.5	<b>Rabbit control</b>	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on baseline monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	Yes	Yes, number reduced based on visual assessment	Ongoing
1	1.6	<b>Supplementary planting</b>	Landholder to plant Kangaroo Grass and native forbs in areas containing high-threat environmental weeds.	Between mid and late spring (3 – 6 weeks after herbicide spraying).	300 Kangaroo Grass plants / 50 native forb plants.		Plants established in areas where competition with high-threat weeds is required. Survival rate of > 600 Kangaroo Grass plants and > 100 native forb plants over three year planting cycle (see Year 2 and 3).	No	No	Due to drought conditions in 2014 and 2015, planting was not undertaken due to potential failure. This will be done Years 2, 3 and 4 instead.
1	1.7	<b>Biomass monitoring</b>	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	No	No	Drought conditions and insufficient biomass for monitoring. Cages established for future

Year	Action #	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Complete (Yes/No)	Target Met (Yes/No)	Month and Year Completed
										monitoring
1	1.8	<b>Biomass reduction</b>	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on baseline monitoring results.		Maintain 10% cover of bare ground.	Yes	Yes, based on visual assessment	Grazing undertaken to maintain bareground levels above 10% threshold.

For Management Actions for remainder of agreement refer to Appendix C.



## 6.0 Summary

In summary, AECOM has completed an independent ecological assessment of Saxon Paddock, an area protected as an offset site for vegetation removal under Victoria's *Planning and Environment Act 1987* (Clause 52.16) and under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. As part of the offset agreement a Vegetation Offset Management Plan was prepared by AECOM (2014) to identify conditions and management actions required to maintain and improve the conservation values of the site. Periodic ecological assessments are one of these required actions. A site assessment, interviews and documentation from Warrambeen Offset Management were used as the basis for this assessment.

AECOM has found that Warrambeen Offset Management has made good progress towards the management goals for the site and have completed nearly all of the actions required for the first year of the agreement. This includes establishing baseline monitoring, conducting weed control, conducting rabbit control and conducting biomass control. The exception to this was that supplementary planting did not occur as planned noting that this was due to unsuitable climatic conditions at the time at which planting was proposed to occur. Warrambeen Offset Management will conduct the supplementary planting in spring 2016 and to compensate for the missed year of planting, will conduct planting in year four too instead of completing planting in year three as initially planned. In addition, biomass monitoring was not completed as drought conditions led to low organic matter levels and thus visual assessments were sufficient to determine that no further biomass removal via grazing was required. Grazing exclusion cages have been established for future biomass monitoring.

AECOM recommends that Warrambeen Offset Management continue with the implementation of the VOMP actions and that if this occurs, it is likely that targets will be achieved well before the 10-year timeframes identified in the VOMP. AECOM have identified some opportunities for improvement to current monitoring and management actions and have communicated these directly to Warrambeen Offset Management for future reporting.

## 7.0 References

AECOM (2014) Vegetation Offset Management Plan, Saxon Paddock, Warrambeen (Prepared for Investa Pty Ltd, Melbourne).

Warrambeen Offset Management (2016) Baseline Offset Report for Saxon Paddock, Warrambeen, Baseline Offset Report (Prepared for Investa Pty Ltd).

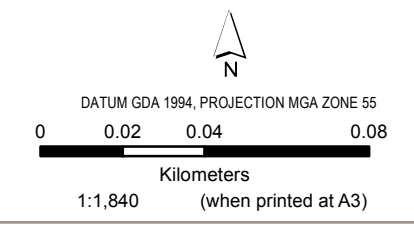
## Appendix A

# Map





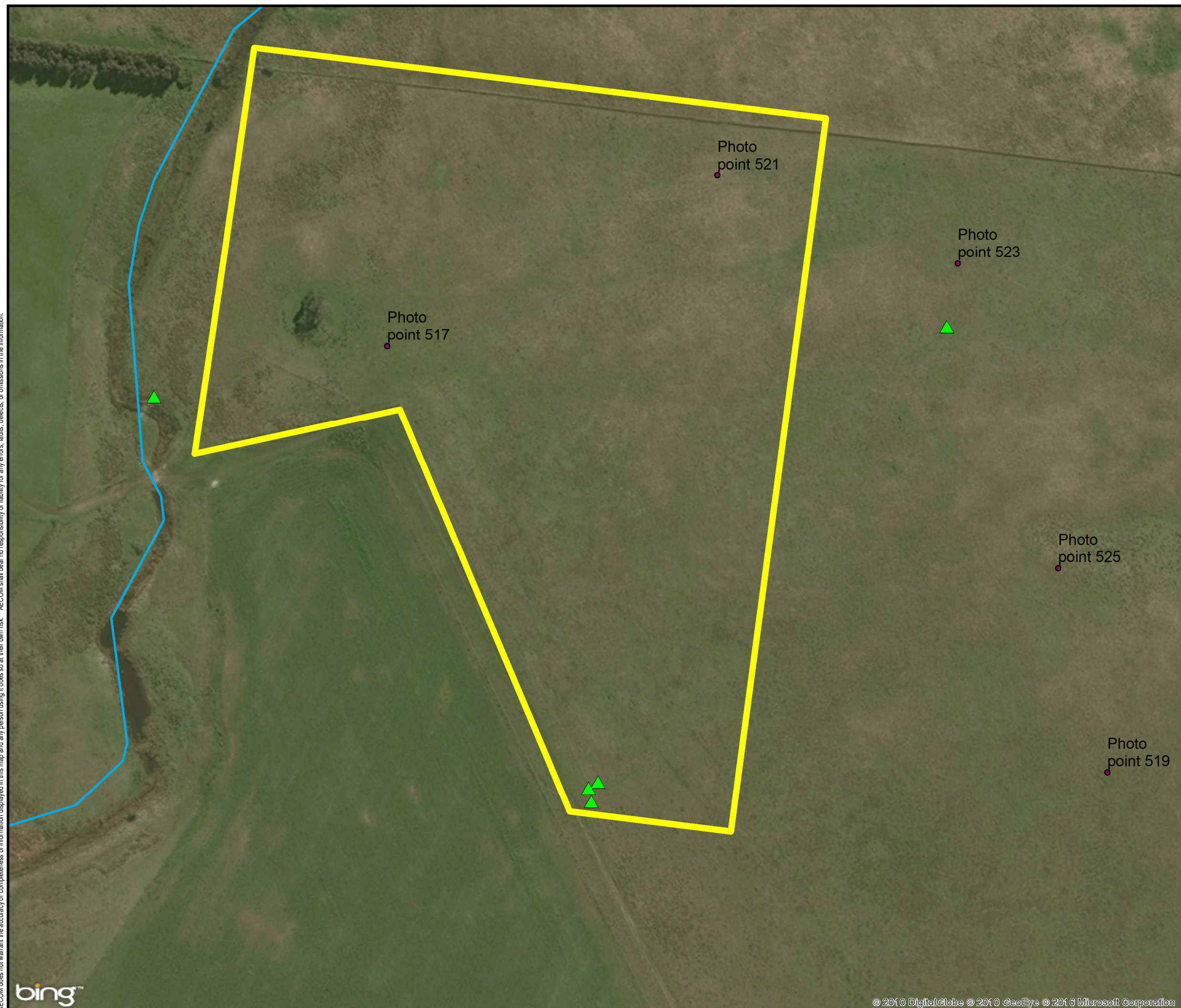


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### Legend

-  Offset Site
-  Warrambine Creek
-  Cullen parvum
-  Photo monitoring points



Data sources:  
Base Data: (c) 20XX (data source)  
(additional data)

### OFFSET LOCATION

**Client: Warrambine Pastoral Pty Ltd**  
*Report Title: Warrambine Offset*  
Site Address:  
Saxon paddock, Warrambine  
Landcare Demonstration Farm,  
815 Gumley Road, Mount Mercer

**Figure**  
**1**





## Appendix B

# Vegetation Quality Assessment and Monitoring Detailed Results

## Appendix B Vegetation Quality Assessment and Monitoring Detailed Results

**Table 3 Detailed Vegetation Quality Assessment (AECOM 2014)**

Habitat Zone			1
EVC Name			Plains Grassland
EVC Number			132_61
Location			Saxon Paddock
Bioregion			Victorian Volcanic Plain
Bioregional Conservation Status (BCS)			Endangered
		Maximum Score	Score
Site Condition	Large Old Trees	n/a	n/a
	Canopy Cover	n/a	n/a
	Understorey	25	15
	Lack of Weeds	15	9
	Recruitment	10	6
	Organic Litter	5	3
	Logs	n/a	n/a
Subtotal		55	33
Standardiser x 1.36 (i.e. 75/55)		75	45
Landscape Context Score		25	12
Habitat Score		100	57
Habitat Points = Score/100		1.00	0.57
Habitat Zone area (ha)			7.6
Habitat Hectares (Hha = Points x Area)			4.3
BCS x Habitat Score			Very High
Threatened Species Rating			Very High (see Table 4)
Other Site Attribute Rating			n/a
Overall Conservation Significance			Very High
Large Old Trees within Habitat Zone			n/a



**Table 4** Determination of best/remaining habitat for rare or threatened flora species (AECOM 2014)

Species	Conservation Status (DSE 2005)	Steps	Determination of Best 50% / Remaining 50%	Conservation significance	Notes
Small Scurf-pea	Endangered	A, B, D, F.	Best 50%	Very High	Recorded within site (2015) and adjacent paddock.
Small Milkwort	Vulnerable	A, B, D, F.	Best 50%	Very High	Recorded within adjacent paddock.
Spiny Rice-flower	Vulnerable	A, D, F.	Best 50%	Very High	Not recorded within study area, but known to occur elsewhere within the property.
Clover Glycine	Vulnerable	A, D, F.	Best 50%	Very High	Not recorded within study area, but known to occur elsewhere within the property.

Table 5 Determination of best/remaining habitat for threatened fauna species (AECOM 2014)

Species	Conservation status (DSE 2009, 2013)	Steps	Determination of Best 50% / Remaining 50%	Conservation significance	Notes
Golden Sun Moth	Critically Endangered	A, B, C.	Best 50%	Very High	Recorded within adjoining areas and has high likelihood to occur within offset site.
Growling Grass Frog	Endangered	B, D, F.	Best 50%	Very High	Recorded within adjacent paddock, and has high likelihood to occur within offset site.
Striped Legless Lizard	Endangered	A, D, F.	Remaining 50%	Very High	Not recorded within the study area, but high likelihood of occurrence. Recorded elsewhere within the property.
Plains Wanderer	Critically Endangered	A, B, C.	Remaining 50%	Very High	Previously recorded west of 'East Creek North' paddock, likely to use habitat within offset site.

Appendix C

# Year 2 - 10 Management Action Table

## Appendix C Year 2 - 10 Management Action Table

**Table 6 Management Actions for Years 2 - 10**

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
2	2.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on baseline monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
2	2.2	Supplementary planting	Landholder to plant Kangaroo Grass and native forbs in areas containing high-threat environmental weeds.	Between mid and late spring (3 – 6 weeks after herbicide spraying).	300 Kangaroo Grass plants / 50 native forb plants.		Plants established in areas where competition with high-threat weeds is required. Survival rate of > 600 Kangaroo Grass plants and > 100 native forb plants over three year planting cycle (see Year 1 and 3).	NA	NA
2	2.3	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
2	2.4	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on baseline monitoring results.		Maintain 10% cover of bare ground.	NA	NA
2	2.5	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on baseline monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
2	2.6	Monitoring	Suitably experienced ecologist to assess the condition of the offset site,	After the completion of all 2 <sup>nd</sup> year	n/a		Monitoring data to allow for comparison with baseline data, and allow	NA	NA

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
			the abundance of high-threat weeds and rabbits, and accumulation of biomass. Landholder to prepare a progress report to be submitted to the Melton City Council.	management activities.			for the evaluation of the success of management actions.		
3	3.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
3	3.2	Supplementary planting	Landholder to plant Kangaroo Grass and native forbs in areas containing high-threat environmental weeds.	Between mid and late spring (3 – 6 weeks after herbicide spraying).	300 Kangaroo Grass plants / 50 native forb plants.		Plants established in areas where competition with high-threat weeds is required. Survival rate of > 600 Kangaroo Grass plants and > 100 native forb plants over three year planting cycle (see Year 1 and 2).	NA	NA
3	3.3	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
3	3.4	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA
3	3.5	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions.	NA	NA

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
							Eliminate all rabbit warrens.		
4	4.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
4	4.2	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
4	4.3	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA
4	4.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
5	5.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
5	5.2	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
5	5.3	Biomass reduction	Landholder to graze to reduce biomass and maintain inter-tussock	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA



Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
			spaces.						
5	5.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
5	5.5	Monitoring	Suitably experienced ecologist to assess the condition of the offset site, the abundance of high-threat weeds and rabbits, and accumulation of biomass. Landholder to prepare a progress report to be submitted to the Melton City Council.	After completion of all 5 <sup>th</sup> year management actions.	n/a		Monitoring data to allow for comparison with baseline data, 2 <sup>nd</sup> year data, and allow for the evaluation of the success of management actions.	NA	NA
6	6.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
6	6.2	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
6	6.3	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA
6	6.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of	NA	NA

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
			necessary trapping.				management actions. Eliminate all rabbit warrens.		
7	7.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
7	7.2	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
7	7.3	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
7	7.4	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA
8	8.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
8	8.2	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
8	8.3	Biomass reduction	Landholder to graze to reduce biomass and maintain inter-tussock	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
			spaces.						
8	8.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
9	9.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
9	9.2	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
9	9.3	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock spaces.	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA
9	9.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
10	10.1	High-threat weed control	Landholder to spray and graze high-threat weeds.	Between late winter and late spring.	Dependent on monitoring results.		Reduce the cover of all high-threat environmental weeds to less than 1% cover.	NA	NA
10	10.2	Biomass reduction	Landholder to graze site to reduce biomass and maintain inter-tussock	Early autumn.	Dependent on monitoring results.		Maintain 10% cover of bare ground.	NA	NA

Year	Action#	Management Action	Description of Action	Timing	Quantity	Units	Standard to be achieved	Completed (Yes/No)	Month and Year Completed
			spaces.						
10	10.3	Biomass monitoring	Landholder to monitor biomass levels.	Late summer.	One 1 m x 1m grazing exclusion cage.		Biomass reduction from grazing to be based on monitoring of 1 m x 1 m grazing exclusion cages.	NA	NA
10	10.4	Rabbit control	Landholder to control rabbit abundance by shooting and warren ripping, and if necessary trapping.	Between late summer and early autumn.	Dependent on monitoring results.		A lower rabbit abundance than prior to the commencement of management actions. Eliminate all rabbit warrens.	NA	NA
10	10.5	End of plan monitoring	Suitably experienced ecologist to assess the condition of the offset site, the abundance of high-threat weeds and rabbits, and accumulation of biomass. Landholder to prepare a progress report to be submitted to the Melton City Council.	After completion of all management activities.	n/a		Monitoring data to allow for comparison with baseline data, 2 <sup>nd</sup> year data, 5 <sup>th</sup> year data, and allow for the evaluation of the success of management actions.	NA	NA