

Offset Management Plan

Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018]

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Table of Contents

1	DECLARATION OF ACCURACY	1
2	EXECUTIVE SUMMARY	2
3	INTRODUCTION AND PURPOSE OF PLAN3.1Introduction3.2Purpose of the OMP3.3Objectives of the OMP3.4Compliance3.5Key data and information used3.6Accompanying Documents	
4	 PROPOSED OFFSET PROPERTY	
5	EPBC ACT ENVIRONMENTAL OFFSET POLICY	
6	MANAGEMENT AND SECUREMENT OF OFFSET SITE6.1Securing the offset site6.2Management of offset site	
7	 ENVIRONMENTAL OUTCOMES AND CRITERIA 7.1 Environmental Outcomes. 7.2 Performance and Completion Criteria 7.3 Achieving the Environmental Outcomes and Criteria 	
8	RISK ASSESSMENT	
9	MANAGEMENT MEASURES (OFFSET MANAGEMENT PLAN)9.1Weed Control9.2Biomass control/recruitment space9.3Understorey diversity9.4Pest animals9.5Fencing, Information and Access Control9.6Management Plan Actions and Schedule	
10	MANAGING UNCERTAINTY AND ADAPTIVE IMPLEMENTATION 10.1 Managing limitations and uncertainty 10.2 Reviews	
11	MONITORING11.1Record Keeping11.2Weed and Biomass Monitoring11.3Golden Sun Moth Monitoring11.4Striped Legless Lizard Monitoring11.5Pest animal monitoring11.6Fence Condition11.7Monitoring Schedule	30 30 31 32 33 33 33
12	REPORTING 12.1 Data Handling 12.2 Reporting Schedule	
13	ROLES AND RESPONSIBILITIES	
14	EMERGENCY CONTACTS AND PROCEDURES	
15	REVIEW AND AUDIT	

16	ABBREVIATIONS	40
17	REFERENCES	41

Appendices

APPENDIX A	RISK ASSESSMENT AND MANAGEMENT
APPENDIX B	DOEE EMP GUIDELINES RISK FRAMEWORK
APPENDIX C	ANNUAL REPORTING TEMPLATES
APPENDIX D	GLOSSARY
APPENDIX E	BOND AGREEMENT TEMPLATE

List of Tables

Table 1: Target Habitat Hectares scores resulting from management gains on site	. 14
Table 2: High threat weeds for priority controls	. 18
Table 3: Grazing requirements and limits within the offset area.	. 19
Table 4: Management plan actions and timing for the offset site	. 23
Table 5: Monitoring schedule for the 10-year management plan	. 34
Table 6: Reporting Schedule	. 36
Table 7: Security and management responsibility and reporting requirements.	. 37
Table 8: Abbreviations used within the OMP	. 40
Table 9: Risk assessment and management	. 42
Table 10. Table of definitions of technical terms used in this document	. 48

List of Figures

Figure 1 Offset site location (VIC)	5
Figure 2: Offset area proposed for project	9

List of Plates

Glossary

A glossary of technical terms used throughout this OMP is provided in Appendix D.

1 Declaration of Accuracy

I declare that:

1. To the best of my knowledge, all the information contained in, or accompanying this Management Plan (*use correct title of signed document*) is complete, current and correct.

2. I am duly authorised to sign this declaration on behalf of the approval holder.

3. I am aware that:

a. Section 490 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence for an approval holder to provide information in response to an approval condition where the person is reckless as to whether the Information is false or misleading.

b. Section 491 of the EPBC Act makes it an offence for a person to provide information or documents to specified persons who are known by the person to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) where the person knows the information or document is false or misleading.

c. The above offences are punishable on conviction by imprisonment, a fine or both.

Signed/ n

Full name (please print)

ANDREW TAYLOR

Organisation (please print)

SMEC AUSTRALIA PTY LTD

Date 24-1/201

2 Executive Summary

SMEC Australia Pty Ltd was engaged by VicRoads to prepare an Offset Management Plan for an offset site at 6165 Hamilton Highway, Cressy, in western Victoria. This 75 ha site, which is part of a larger farming property managed by Deep Lead Property Pty Ltd, has been secured to offset impacts on threatened fauna and an ecological community to occur due to the Geelong-Bacchus Marsh Road Upgrade Project.

Specifically, the project proposes to impact matters of National Environmental Significance listed under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), including:

- Threatened Ecological Community Natural Temperate Grassland of the Victorian Volcanic Plain;
- Golden Sun Moth (Synemon plana); and
- Striped Legless Lizard (Delma impar).

Under the EPBC Act, VicRoads is required to offset these impacts, and the site at 6165 Hamilton Highway, Cressy meets these offset requirements. The Commonwealth Department of the Environment and Energy (DoEE) has specified that a site-specific Offset Management Plan be developed for the site, containing details on how the offset will be secured, managed and monitored, including management actions, responsibility, timing and performance criteria (DoEE 2018). The plan must also include the specific environmental outcomes to be achieved from management measures. This plan will be submitted to the Federal Minister for the Environment and Energy for approval.

The offset site will be secured in perpetuity by a covenant as to part Section 3A Victorian *Conservation Trust Act 1972* managed by Trust for Nature (TfN). The site contains up to 75 ha of native Plains Grassland vegetation and contains habitat for Golden Sun Moth and Striped Legless Lizard. Vegetation at the site is expected to be managed to facilitate improvement over a 10-year period, which will be achieved through the management of weeds, control of biomass and the control of domestic stock grazing and pest animals.

The site will undergo regular monitoring during the 10-year period, and an adaptive management framework will be adapted if management actions do not appear to be resulting in necessary improvements. This plan should be referred to for all details on management methods and their intended environmental outcomes, to ensure that the offset site meets the requirements of the DoEE.

3 Introduction and Purpose of Plan

3.1 Introduction

SMEC Australia Pty Ltd (SMEC) was commissioned by Roads Corporation of Victoria (VicRoads) to prepare an Offset Management Plan (OMP) for an offset site required for the Geelong-Bacchus Marsh Road Upgrade Project (the project). The project proposes to undertake safety upgrades for three separate sections of road extending approximately 42 km between Heales Road, Lara and Woolpack Road, Maddingley, located in western Victoria, approximately 60 km north west of Melbourne's CBD. The safety upgrades involve the construction of overtaking lanes, installation of wire rope barriers, intersection improvements and widening of traffic lanes and road shoulders.

The project impacts on several matters of National Environmental Significance (NES) listed under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act): the threatened species Golden Sun Moth (*Synemon plana*) and Striped Legless Lizard (*Delma impar*) and the threatened community Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP), protected under Part 3 of the EPBC Act. An EPBC Act referral (2017/8018) was submitted to the Department of the Environment and Energy (DoEE) in August 2017, and the project was subsequently declared a 'controlled action' on 24 November 2017 by the Federal Minister for the Environment and Energy. On 16 January 2018, it was further decided by DoEE that the proposed action would be assessed by preliminary documentation as the project is likely to have a significant impact on listed threatened species and communities. Offsets for the proposed action have been suggested by DoEE.

A suitable offset site has been identified at Lot 3 TP414211, within the Parish of Cressy and located within the Victorian Volcanic Plain (VVP) Bioregion (Figure 1). The site occurs on the western margin of land known as 6165 Hamilton Highway, Cressy, and is owned and managed by Deep Lead Property Pty Ltd (DLP). The site consists of 16 ha of high quality remnant) Plains Grassland (Ecological Vegetation Class (EVC) 132), which also corresponds to the EPBC Act listed community NTGVVP and concurrently provides habitat for both Golden Sun Moth and Striped Legless Lizard. The site is located within a larger area of NTGVVP. Targeted surveys have identified the presence of both Golden Sun Moth and Striped Legless Lizard at numerous locations across the property, including within the offset site (EHP 2016a, 2016b). Other sections of the property have been secured as offsets for other developments, including to the north and east of the current proposed site (Biosis Research 2018) (Plate 1).

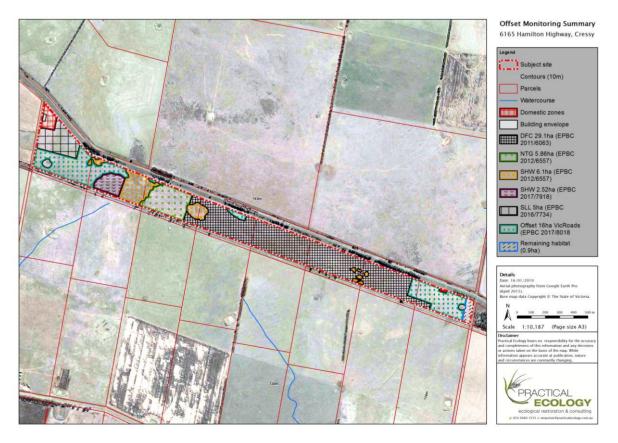


Plate 1. Location of all offset sites at 6165 Hamilton Highway, Cressy. Map from Practical Ecology (2019).

OFFSET MANAGEMENT PLAN Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018] Prepared for VicRoads An ecological assessment of the proposed offset area was conducted by EHP (2017) as part of a broader assessment of the entire property. The EHP (2017) report, along with the OMP prepared by Biosis (2018) for the adjacent site, provides the ecological information to support this OMP.

Proposed dates for key project stages are:

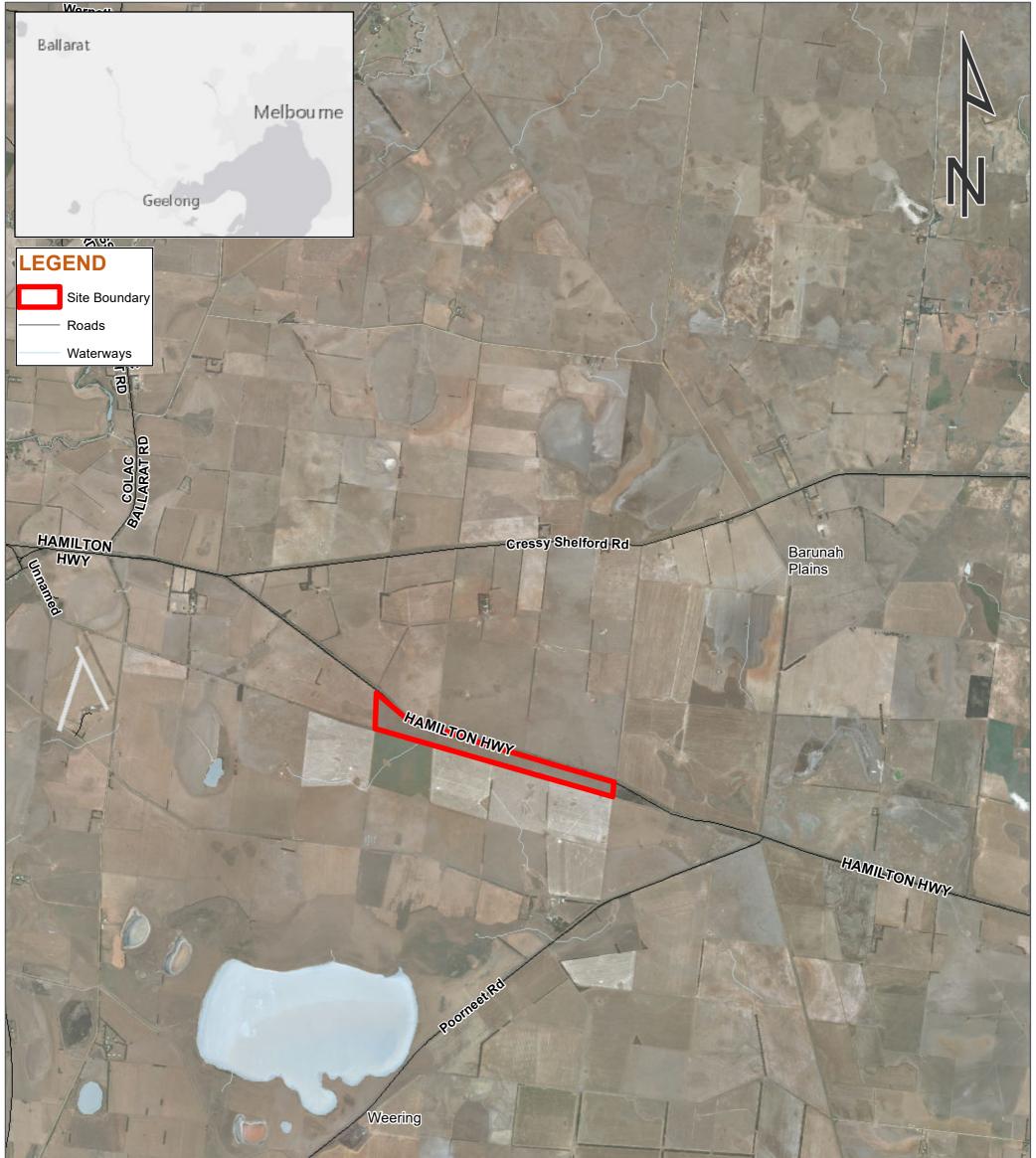
- Pre-construction: 12 months pending EPBC Act post-approvals;
- Construction (roundabouts): 32 weeks commence early-mid 2019 / complete 2020;
- Construction (wire rope barriers / road widening): 32 weeks commence early-mid 2019 / complete 2020; and
- Operation: ongoing following construction commencing early 2020.

3.2 Purpose of the OMP

- The purpose of this OMP is to provide the commitments and management actions that will be undertaken to secure and implement the proposed offset to meet the EPBC Act approval requirements, i.e. offsetting impacts to NTGVVP and habitat for both Golden Sun Moth and Striped Legless Lizard associated with the Geelong-Bacchus Marsh Road Safety Upgrade Project.
- It specifically provides the following details on how the offset will be secured and protected in perpetuity;
- Identification of management actions to protect and improve the quality of native vegetation and habitat for Golden Sun Moth and Striped Legless Lizard within the offset site; and
- A timetable of management actions, reporting requirements, outcomes and progress reviews.

As other sections of the property have already been secured as offsets for other developments, including an area directly adjacent to the current proposed offset site, this OMP provides management actions that are consistent with approved management plans for the broader property. This OMP follows the management actions and timelines specified in the DoEE-approved OMP implemented for an existing offset site that is contiguous with the current proposed site (Biosis Research 2018). This is to enable consistency in management actions by the landholder across a contiguous area of NTGVVP and habitat for Striped Legless Lizard and Golden Sun Moth.

FIGURE 1. Proposed Offset Site Location, Cressy (Victoria)



Barpinba Rd	Poorneet Ro	
DATE 22/10/2018 0 0.5 0 0.5 1:50,000		A MGA Zone 55
FIG NO. 1	FIGURE TITLE Proposed Offset Site Location, Cressy (Victoria)	Member of the Surbana Jurong Group
PROJECT NO. 30041790	PROJECT TITLE Geelong-Bacchus Marsh Road Safety Upgrade	© SMEC Australia Pty Ltd 2018. All Rights Reserved
CREATED BY AM20078	SOURCES World Light Gray Reference: Esri, HERE, Garmin, © OpenStreet and the GIS user community	Map contributors, Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, this map contained data from a number of sources - no warranly is given that the information contained on this map is free from error or ormission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of all information prior to using it. This map is not a design document.

Location: L:\Work\GIS\Projects\30041790 - Marsh Rd, Geelong\GIS Files\MXD\Figure 3 - Cressy - Site Plan.mxd

3.3 Objectives of the OMP

The overall objectives of the OMP are to:

- Achieve the required gains to account for losses of MNES associated with the project through the permanent protection and active management (maintenance and improvement) of the offset site; and
- To ensure that the EPBC Act approval requirements for impacts to NTGVVP and habitat for Golden Sun Moth and Striped Legless Lizard are met (referral 2017/8018).

Gains within the offset site will be achieved through protection of the site under covenant and by enhancing ecological values through the controlled grazing of sheep, ecological burning, the elimination of all woody weeds, and the targeted control of annual and perennial grassy weeds through grazing, burning, and herbicide application. Management actions will include the following:

- Weed control:
 - Ensuring that weed cover does not increase beyond current levels
 - Ensuring that the cover of introduced perennial grasses and broad-leaf weeds decreases from 30% (the baseline assessed cover) to less than 1%
 - Maintaining the absence of all woody weeds (< 1% cover)
 - Monitoring for any new and emerging weeds and reducing to < 1% cover.
- Managing organic litter and biomass accumulation through controlled pulse grazing and/or ecological burning where appropriate;
- Controlling pest animals (rabbits, hares and foxes);
- Monitoring and controlling new and emerging pest animals; and
- Excluding stock, except as otherwise prescribed by this plan for the purposes of reducing biomass without negatively impacting indigenous flora.

The implementation of management actions prescribed in this OMP should not negatively impact other MNES at the site, not specifically mentioned in this OMP.

3.4 Compliance

This plan addresses the approval under the EPBC Act for the project, Victoria as outlined under referral 2017/8018. As directed by DoEE, the OMP must include details on how the offset will be secured, managed and monitored, including management actions, responsibility, timing and performance criteria. This should include the specific environmental outcomes to be achieved from management measures. These environmental outcomes are stated in Section 7.1.

3.5 Key data and information used

This OMP has been developed using information from the following sources:

- Site assessments:
 - EHP 2016a. *Targeted Striped Legless Lizard* Delma impar *Survey within a proposed offset site, Hamilton Highway, Cressy, Victoria*. Unpublished report for Bush Blocks.
 - EHP 2016b. *Targeted Golden Sun Moth* Synemon plana *Survey within a proposed offset site, Hamilton Highway, Cressy, Victoria*. Unpublished report for Bush Blocks.
 - EHP 2017. Offset Site Assessment, 6165 Hamilton Highway, Cressy, Victoria. Unpublished report for Bush Blocks.
- OMP for adjacent offset sites:
 - Biosis Research 2018. Copernicus Way EPBC Act (EPBC 2016/7734) Offset Management Plan: 6165 Hamilton Highway, Cressy. Report for Soho Living Pty Ltd. Author: Steve Mueck, Biosis Pty Ltd, Melbourne. Project No. 25448.

This OMP prescribes management actions that are considered best practice for native grassland management and have been implemented elsewhere in the management of NTGVVP and habitat for grassland fauna. Information sources used in this OMP include government documents such as those produced by the Victorian Department of Sustainability and Environment (DSE; now DELWP) BushBroker management documents (e.g. DSE 2009a, DSE 2009b) and publications including Williams et al. (2015).

3.6 Accompanying Documents

This report should be reviewed in association with the following accompanying documents prepared for the Geelong-Bacchus Marsh Road project:

- SMEC 2018a. Offset Management Strategy: Geelong-Bacchus Marsh Road Upgrade Project; and,
- SMEC 2018b. Preliminary Documentation Request: Geelong-Bacchus Marsh Road Upgrade Project.

4 Proposed Offset Property

4.1 Location of Offset Property

The offset site is located at Lot 3 TP414211 within the Parish of Cressy, located approximately 5.5 km east of Cressy and approximately 110 km west of the Melbourne central business district (Figure 1). The property address is 6165 Hamilton Highway, Cressy, and is bounded to the north by the Hamilton Highway and to the south by an abandoned railway line (Western SG line).

The offset site is a **16 ha** section of the broader 75 ha property and is located on the property's western margin (Figure 2). The offset site supports one habitat zone which will be managed to provide all the MNES offsets prescribed for Geelong-Bacchus Marsh Road Upgrade Project (referral 2017/8018).

4.2 Description and Condition

A detailed description of the proposed offset site is provided within the OMS document (SMEC 2018a). In brief, the property is currently zoned Farming Zone (FZ) and is not covered by any overlays relating to biodiversity or inundation. The land is owned and managed by Deep Lead Property Pty Ltd (DLP) who also own and manage other properties with significant native vegetation across the Western District and Wimmera regions. The offset site is currently managed for conservation values on a voluntary basis and has historically been used for domestic stock grazing.

The property has adequate boundary fencing comprising a combination of rock wall and fencing wire, but very limited interior fencing. The entire property will be managed for native vegetation conservation and enhancement as offsets. The property has public land on all sides, including road and rail reserves, and there are no adjacent grazing blocks of different ownership.

4.3 Ecological values

The proposed offset site contains 62.344 ha of Plains Grassland (EVC 132_61) vegetation, considered to be in good condition during the most recent assessment conducted by EHP (2017). All 62.344 ha of Plains Grassland vegetation meets condition thresholds to be considered NTGVVP. Areas of NTGVVP within the broader 75 ha property do not have connectivity to other remnants of NTGVVP outside the property. A total of 42 indigenous and 17 introduced flora species have been recorded in the broader property (EHP 2017).

The broader 75 ha property contains the following threatened flora species (EHP 2017):

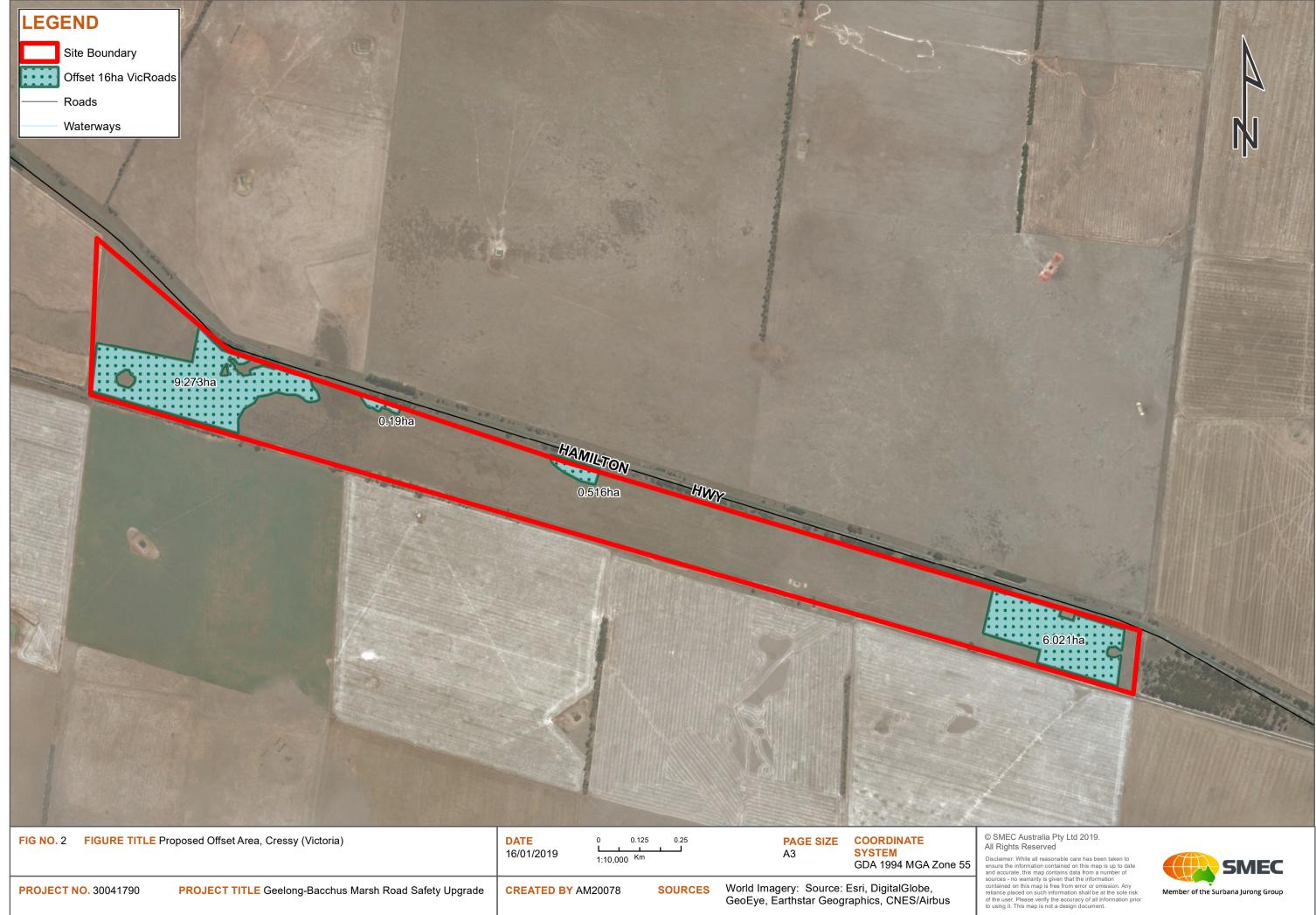
- Spiny Rice-flower (Pimelea spinescens subsp. spinescens), Critically Endangered in Australia;
- Small Milkwort (Comesperma polygaloides), Vulnerable in Victoria; and
- Plains Yam Daisy (*Microseris scapigera s.s.*), Vulnerable in Victoria).

The property also contains resident populations of the following threatened fauna species (EHP 2016a, 2016b, 2017):

- Golden Sun Moth (Synemon plana), Critically Endangered in Australia; and
- Striped Legless Lizard (Delma impar), Endangered in Australia.

A detailed description of the flora values of the property and Habitat Hectare scores within the proposed offset area are provided in the EHP (2017) assessment report for the site.

FIGURE 2. Proposed Offset Area, Cressy (Victoria)



5 EPBC Act Environmental Offset Policy

The offset requirements for the project have been determined in accordance with the EPBC Act Offsets Policy (DSEWPaC 2012). Details of the offset calculations using the EPBC Act Offset Assessment Guide spreadsheet¹ are provided in the OMS (SMEC 2018a).

The offset calculations have been performed using conservative estimates of site improvement, and the area to be protected of 16 ha provides an offset in excess (100%) of the offset area required to balance the impacts to all three matters of NES (SMEC 2018a).

The site will be designated as an offset site under the EPBC Act and will therefore be no longer eligible as an offset under any other biodiversity offset program.

The initial quality of the offset site has been determined using information from recently conducted site inspections (EHP 2017), including assessment of the condition of NTGVVP and habitat for Striped Legless Lizard and Golden Sun Moth. The quality of the site without offsetting has the potential to decline due to threats associated with existing 'permitted uses' of the property, i.e. normal farming practices, including inappropriate grazing regimes to maintain the quality and extent of Plains Grassland vegetation, pasture improvement causing the reduction in area of Plains Grassland vegetation and fertiliser application which favours introduced flora species instead of native species and increases biomass. Other threats include the expansion of the existing high threat weed populations, woody weed invasion and increases in ground cover biomass.

The future quality of the site as an offset will be improved by gains to the site's ecological values. This will be achieved through the management actions specified in Section 9 and Table 4 of this OMP to improve the condition of NTGVVP and habitat values for fauna.

¹ EPBC Act spreadsheet available online at: http://www.environment.gov.au/epbc/publications/epbc-actenvironmental-offsets-policy

6 Management and securement of offset site

6.1 Securing the offset site

The securement of the offset site will be undertaken in the form of a Bond Agreement (or Deed) to be executed between the proponent and Trust for Nature (Victoria) to secure funds for an offset package in a trust. The objective of this approach will allow the action to commence while providing time for associated documentation pertaining to the preparation of a covenant as per Section 3A of the Victorian *Conservation Trust Act 1972* and placing the offset site on a formal land-title. The following section provides a brief overview of the Bond Agreement as requested by the DoEE:

1. Provide an explanation of the requirements of the Bond Agreement (i.e. is agreement between proponent and TfN, requires the provision of funds to trust etc)

The Bond Agreement template has been used in the past and is structured for circumstances whereby an infrastructure project needs to proceed, but an EPBC offset has not yet been sourced. A benchmarked cost estimate of the offset required is placed in trust whilst TfN and the marketplace sources an offset.

In this circumstance, the offset has been identified and the proponent and landowner have a verbal agreement to proceed with a transaction subject to the OMP being signed off by DoEE.

2. How the approach to secure the offset via a Bond Agreement meets the requirements of the EPBC offset policy

The legitimacy of the cost estimate underpins that the amount of money held in trust will sufficiently fund the EPBC offset. Whilst an offset site has been identified and is currently under assessment by DoEE, Trust for Nature may be required to search for an alternative offset on behalf of the proponent in the event of non-approval of the current proposed offset. The services of Trust for Nature provide further support.

3. Information on the proposed covenant to secure the offset site

A generic Trust for Nature Deed of Covenant has been provided in Appendix E. This will be used to secure the OMP on title. Prior to registration on title, the following information will be inserted into the Deed to the satisfaction of DoEE:

- Proponent and Landowner details;
- A legal description of the land;
- Identification of the offset site component including map; and
- The approved OMP.

4. A reasonable estimate of the offset site cost and with justification

A non-binding agreement to supply offsets for this referral is attached. It will be replaced by a legally binding Credit Trading Agreement once EPBC approval of the OMP has occurred. The agreed price of **\$50,000.00** (ex GST) per hectare will apply. DELWP-accredited Victorian Offset Broker Vegetation Link was sourced to approach the market prior to this transaction ensuring that the price agreed is a reflection of supply and price in the current market.

6.2 Management of offset site

Deep Lead Property Pty Ltd, who own and manage the property containing the offset site, will be responsible for ongoing management of the offset site throughout the period of this plan. The offset area will be secured and managed in perpetuity by a covenant as per Section 3A of the Victorian *Conservation Trust Act 1972*, with management oversight and auditing by the TfN. Gains in vegetation quality through on-ground actions will be achieved over the duration of the 10-year OMP, and through the ongoing land-use commitments to manage the offset site for biodiversity conservation.

It has also been confirmed by Deep Lead Property Pty Ltd that areas shown on the offset plan which have been excluded was due to poorer areas of vegetation not meeting the NTGVVP thresholds (Plate 1). While these are not part of the proposed 16 ha offset, these will be included as part of the covenant and managed for conservation purposes in accordance with this OMP at the landowner's expense.

After the 10-year period, the land will be required to be maintained in the condition achieved because of that management in perpetuity. The landowner will continue to manage the offset site after the completion of year 10 as specified under the covenant agreement.

The deed will specifically state the in-perpetuity land-use commitments across the site are to:

- Retain and manage all native vegetation as directed by this offset management plan;
- Exclude domestic stock except as permitted by this plan;
- Exclude the use of stock food such as hay or grain that is sourced from outside the offset area;
- Maintain the absence of any woody weeds and ensure that the cover of other high threat weeds does not increase beyond levels achieved at Year 10 of management (targeted to reduce from 30% to less than 1%);
- Ensure that pest animals are controlled to the level attained at the completion of Year 10 of management;
- Exclude pasture improvement and fertilizer application;
- Control the accumulation of ground cover biomass through either the controlled grazing of sheep or the controlled application of fire; and
- Maintain a progressive annual works plan which caters to current conditions and prescribes ongoing management with maintenance of the native grassland community as its primary objective.

7 Environmental Outcomes and Criteria

7.1 Environmental Outcomes

The environmental outcomes to be achieved through protection and management of the offset site are:

- 1. Legal protection of 16 ha of NTGVVP and habitat for Golden Sun Moth and Striped Legless Lizard in perpetuity;
- 2. Physical protection of the habitat area from manageable threats including uncontrolled stock grazing, weed infestations and degradation by pest animals; and
- 3. Improvement in the condition of NTGVVP and Golden Sun Moth and Striped Legless Lizard habitat, as measured by condition score, habitat assessment and population monitoring.

7.2 Performance and Completion Criteria

The key performance and completion criteria to be achieved are:

- Establishment of legal protection via a covenant (Section 6);
- Improvement in site condition (Section 7.3.1);
- Successful management of threats, including the control of stock grazing, weeds and pests (Section 9);
- Completion of scheduled management actions (Section 9 and Table 4);
- Completion of scheduled monitoring activities (Section 11 and Table 5); and
- Completion of scheduled reports and audits (Sections 12 and 15 and Table 6).

7.3 Achieving the Environmental Outcomes and Criteria

The environmental outcomes and the key performance and completion criteria provide a way to assess the expected outcomes the offset is aiming to achieve through management actions and inform monitoring and reporting for the project. The outcomes will be achieved through the protection of the offsite site in perpetuity under covenant (Section 6) and the implementation of management actions (such as reducing the cover of annual weeds) provided in this OMP (Section 9 and Table 4). Monitoring will be carried out regularly to assess whether these actions are achieving the overall environmental outcomes as measured by condition score, habitat assessment and population monitoring (Section 11).

7.3.1 Assessing Site Condition

The offset calculations used to define the size of the offset area specify the maintenance in average habitat condition throughout the offset site over the period of the OMP at an assessed score of 6/10 (as shown as the starting score in the EPBC offset calculations). This score is based on baseline ecological assessment undertaken by EHP and will need to be maintained and improved as part of management requirements outlined in this OMP (EHP 2017; SMEC 2018a). This condition score will be assessed using the Habitat Hectares assessment method (DSE 2004).

Monitoring assessments will be undertaken in marked 5 x 5 m quadrats distributed through the offset site as described in Section 11.2. A key target will be a decline in the average abundance of perennial introduced pasture grass species and other high threat weeds.

7.3.1.1 NTGVVP

Overall condition of NTGVVP will be improved through increases in components of the Habitat Hectares score as measured during initial assessments (EHP 2017):

Current Habitat Hectares scores

- Diversity and cover of different lifeforms in the grassland (current score is 15/25);
- Presence of suitable habitat structure to provide opportunities for species recruitment (current score is 6/10);
- Weed cover (current score is 6/15); and
- Organic litter cover (current score is 4/5).

The proposed management actions described in this OMP are expected to provide improvements in these assessment criteria as outlined below:

Expected Habitat Hectares scores

- Diversity and cover of different lifeforms in the grassland (expected score is 15/25);
- Presence of suitable habitat structure to provide opportunities for species recruitment (expected score is 10/10);
- Weed cover (expected score is 11/15); and
- Organic litter cover (expected score is 5/5).

Table 1: Target Habitat Hectares scores resulting from management gains on site

SITE CONDITION COMPONENT	L CURRENT SCORE* L TARGET SCORE Y1-3 L T		TARGET SCORE Y4-7	TARGET SCORE Y8-10	
Understorey	15	15	15	15	
Lack of Weeds	6	7	11	11	
Recruitment	6	6	10	10	
Organic Litter	4	4	5	5	

*current score based on patch PG1 recorded during the Habitat Hectares assessment of the site (EHP 2017, Table 4).

Understorey

The site already contains high native herb diversity, as defined by the VQAM (DSE 2004), i.e. containing greater than 50% of the benchmark number of herbaceous species for the Plains Grassland EVC. Therefore, the goal for the site will be to maintain species diversity across the site for the period of management, which will be achieved through weed and biomass control.

Lack of Weeds

Reduction of the cover high threat weeds is the key aim of management on site. Reduce the cover of high threat weeds to 0% by targeted spraying and hand-pulling (score goes from 6 to 7). This is considered achievable as there is only a current cover of approximately 1% cover of high threat weeds including Spear Thistle and Briar Rose. Areas of Toowoomba Canary-grass should be targeted (currently 2% cover), which is also considered a high threat weed. If overall weed cover is reduced to below 25%, the score increases to 11.

Recruitment

Toowoomba Canary-grass control will also contribute to a reduction in overall weed cover and biomass. After initial treatment in Year 1 through appropriate seasonal grazing and/or ecological burning, follow up weed control of perennial grassy weeds to maintain reduced cover abundance of weeds in general, and increasing recruitment area for native species to 40%. This will in turn enhance habitat for Golden Sun Moth and Striped Legless Lizard on site.

Organic Litter

The maintenance of species diversity and increase of recruitment area will facilitate the majority of organic litter at the site being dominated by native species instead of introduced species, and the increase of the organic litter score from 4 to 5.

7.3.1.2 Golden Sun Moth and Striped Legless Lizard

The habitat condition for Golden Sun Moth and Striped Legless Lizard will be assessed using the habitat features known to support these species, including the presence of an open tussock grassland structure (with 20% to 40% open ground or inter-tussock spaces) and the abundance of known food plants such as spear-grasses (*Austrostipa* spp.) and wallaby-grasses (*Rytidosperma* spp.).

Maintenance of the open tussock structure across the site, the exclusion of woody weeds and a decline in the average cover of perennial grassy weeds from the current estimate of 30% (EHP 2017) to less than 1% after 10 years of management (in comparison to baseline monitoring data) will be considered as the successful meeting of Environmental Outcome 3, stated in Section 7.1.

8 Risk Assessment

The risk of failure to achieve the OMP targets and completion criteria are set out in a risk assessment (Appendix A), based on the DoEE EMP Guidelines Risk Framework. These risks are described further below. The main risks identified in the management of the offset site are:

- Unauthorised entry of domestic stock or vehicles into the offset area;
- Woody weed infestations;
- Increase in cover of new or existing weeds to uncontrollable levels;
- Stochastic disturbance events such as wildfire, drought or flood;
- Rabbit infestations; and
- An unexplainable decline in the abundance of Golden Sun Moth and / or Striped Legless Lizard.

Any failure of the adaptive management approach (Section 10) to adequately respond to these risks, as identified in monitoring reports (Section 12) or audits (Section 15), will result in a review of this plan.

The active involvement of Trust for Nature (TfN)² is also reasonably expected to provide high quality guidance and advice to the landholder in their management of the site and reduce the identified risks.

The most significant risks associated with the management of the offset site is the insufficient allocation of resources to the control of weeds, the failure to conduct an appropriate level of work at an appropriate time or the occurrence of persistent adverse conditions restricting an appropriate management response. Varying seasonal conditions and climatic triggers can also lead to increases in weed cover. However, if the weed control actions prescribed in this OMP are followed, the risk of increases in weed cover is considered low. Management should always over-allocate resources to weed control, as the comprehensive control achieved by such works will reduce the ability of these species to recover. Integrating herbicide control works with biomass control works (grazing and/or fire) increases the efficacy of both actions and the plan has been developed to encourage this. Two examples of how adaptive management would be implemented are provided below:

- Woody weeds are currently absent from the offset site and will be relatively simple to maintain at a negligible level. While woody weeds will probably colonise the site from near-by infestations, seedlings will be detected by monitoring exercises and controlled by the proposed on-going works. If woody weeds are present in Year 2 of the plan, then it could be assumed that reasonable action was not taken to control these species or conditions were so adverse that works could not be completed (unlikely). If woody weeds are evident in Year 2 of the plan corrective action would be required and TfN could withhold funds until works were completed to their satisfaction.
- Perennial grassy weeds control works will target perennial weeds such as Toowoomba Canary-grass. Persistent herbicide application is an effective control measure for these species and while these species are likely to reinvade from surrounding infestations, ongoing works are planned to cope with the associated management requirements. If adequate resources are not allocated to these tasks, the cover of these species may remain static or increase. This would trigger a requirement for a greater management input. In that context monitoring and site observations collected by TfN (or an independent ecologist) is essential in providing feedback on the efficacy of management.

The conduct of the regular site inspections will allow land managers to anticipate changes in seasonal conditions and respond accordingly, particularly if there are increases in weed cover, such as an increase in annual grassy weeds in wet years Persistent, well timed management actions will be able to take advantage of seasonal fluctuations to achieve the prescribed condition outcomes.

Ground cover biomass management is also a major component of this OMP, which includes a basic strategy (pulse grazing) for control. Where this method fails to deliver the prescribed outcome in any one year, ecological burning provides an option to achieve the required biomass management target (i.e. maintaining an open grassland environment dominated by native species). The application of one or both of these strategies will provide the prescribe biomass control outcome required.

² Trust for Nature is a is a not-for-profit organisation in the Australian state of Victoria which protects native plants and wildlife in cooperation with private landowners. The Trust was established under the Victorian Conservation Trust Act 1972. https://www.trustfornature.org.au/

There is some risk that biomass control is not properly managed in any one year. This has the potential to occur in response to above average rainfall years when ground cover growth is persistently high and wet conditions restrict stock access and the potential use of ecological burning. If such events occur, the landholders and TfN will ensure additional efforts are made in subsequent years to maintain the rate of improvement required.

Active management to target the control of pest plants and to manage the accumulation of ground-cover biomass is advantageous to both the health of NTGVVP but also to the ability of Golden Sun Moth to persist within this environment. However, if the Golden Sun Moth monitoring detects significantly fewer Golden Sun Moth observations in successive years' potential causes for such a decline would be investigated. Such an outcome resulting from the implementation of this OMP is considered highly unlikely (i.e. low risk).

9 Management Measures (Offset Management Plan)

This section describes the management measures that will be undertaken at the offset site to satisfy the requirements of the EPBC Act approval conditions. Site ecological information is provided by EHP (2017) and management actions and timelines are consistent those provided by Biosis Research (2018) for an offset site adjacent to the current site. This approach encourages consistent management across the contiguous area of NTGVVP and Striped Legless Lizard and Golden Sun Moth habitat, and across the larger property.

The required gains at the offset site will be achieved through active management (maintenance and improvement), including:

- Weed control:
 - Ensuring that weed cover does not increase beyond current levels
 - Ensuring that the cover of introduced perennial grasses and broad-leaf weeds decreases from 30% (the baseline assessed cover) to less than 1%
 - Maintaining the absence of all woody weeds (< 1% cover)
 - Monitoring for any new and emerging weeds and reducing to < 1% cover.
- Managing organic litter and biomass accumulation through controlled pulse grazing and/or ecological burning where appropriate;
- Controlling pest animals (rabbits, hares and foxes);
- Monitoring and controlling new and emerging pest animals; and
- Excluding stock except as otherwise prescribed by this plan.

Descriptions of these management actions are provided below, and an annual works program including timing of management actions is provided in Table 5. Each year the annual works program will be reviewed prior to commencement, and any issues that have arisen that may not have been anticipated in this original OMP will be addressed.

9.1 Weed Control

Weed control will be a primary focus of the active management of the site and is required to achieve biodiversity gains for an offset under the EPBC Act. In addition, DoEE requires a habitat improvement for NTGVVP and both Golden Sun Moth and Striped Legless Lizard habitat.

High threat weeds recorded within the site include Spear Thistle (*Cirsium vulgare*) and the perennial introduced pasture grass Toowoomba Canary-grass (*Phalaris aquatica*). These will be controlled to minimise or reduce their occurrence and prevent further spread. Annual grassy weeds are also present at a moderate level of cover throughout the site. Weed control works will be timed appropriately in accordance with Table 1, Table 2, Table 3 and Table 4.

The overall target for weed reduction is set from the current estimated level of 30% to 5% for annual grasses and <1% for perennial grasses and broad-leaf weeds (Tables 1 and 2). Management must prevent annual weeds from increasing their current cover and all perennial species must decrease in extent by over 50% of their baseline monitoring condition.

9.1.1 Annual grasses

A moderate cover of weeds is present across the entire property, primarily comprising low threat annual grasses such as Squirrel-tail Fescue (*Vulpia myuros*), Delicate Hair-grass (*Aira elgantissima*) and Quaking-grass (*Briza* spp). These weeds will be managed using pulse grazing by sheep to prevent seed set and reduce abundance to <5% cover. Scorching with a hand-held weed burner will also be used where appropriate. In relatively wet years grazing may not have a large enough impact on ground cover biomass and in this case ecological burning will be evaluated as a weed control option prior to seed set. However, any ecological burning will need to consider habitat for Striped Legless Lizard and therefore the extent of burning in any single year is strictly controlled.

9.1.2 Perennial grasses and broad-leaf weeds

The total cover of perennial grassy and broad-leaf weeds on site will have a reduction target from the current level of 30% to no more than 1% by the end of the ten-year management period (Tables 1 and 2).

9.1.3 Woody weeds

Woody weeds are not known from the offset area, although Briar Rose (*Rosa rubiginosa*) has been recorded in low abundance in the broader 75 ha parcel. If woody species are observed within the site, these will be controlled and eliminated before fruiting and seed set. The cover of woody weeds will be maintained at zero to negligible.

9.1.4 Control and monitoring

Weed levels will be monitored and management methods adapted over time in response to changing conditions, including spot spraying and biomass control.

Spot spraying with appropriate herbicide is the main method for reducing weed cover. Spot spraying will be undertaken regularly, particularly in spring and early summer, with a focus on killing weed plants prior to seed set. Spot spraying will be completed in a manner which minimises non-target damage. Spot spraying will not occur during high wind days or near threatened flora without protective measures in place (i.e. physical shielding).

Biomass control is also considered an effective method for controlling and reducing weed levels and promoting the regeneration of indigenous plant species. Biomass control at the site will include controlled sheep grazing and, when considered appropriate, ecological burning, which can be particularly effective at reducing weed cover, especially for species that are difficult to control such as perennial weedy grasses. Periodic burning followed by spot spraying will be important for weed species that are difficult to control until they are replaced by native species. Hand-held weed burners will also be used where appropriate for annual grassy weeds.

Target species are likely to change over time in response to seasonal conditions, the result of pulse grazing or the conduct of any controlled burns (e.g. likely flush of broad-leaf weeds to be treated post-burn). Weed cover and species will therefore be monitored and management adapted in response to achieve desired outcomes outlined in this management plan. TfN will be consulted and approve the control techniques for any new or emerging weeds identified within the offset area.

The offset area is not in proximity to any named waterway although a number of seasonal wetlands occur within this parcel and its surrounds. While there maybe localised surface water flows during high rainfall events, any wetland within the site is ephemeral and no specific runoff risk is identified for the application of herbicides to this area.

SCIENTIFIC NAME	COMMON NAME	% BASELINE COVER	CONTROL PROPOSED	TARGET OUTCOME^	HABITAT HECTARES TARGET SCORE
Annual grasses (Vulpia, Briza, Bromus, Aira)	Annual Grasses	10%	Controlled pulse grazing by sheep to prevent seed set. Spot spraying appropriate herbicide to prevent seeding. Use of hand-held weed burners where appropriate.	5% cover	11 (i.e. 5-25% overall cover of weeds, with no
Perennial grasses (Phalaris aquatica)	Toowoomba Canary-grass	2%	Spot spraying appropriate herbicide (early spring).	<1% cover	high threat weeds present).
Broad-leaf weeds (Cirsium vulgare)	Spear Thistle	1%	Spot spraying appropriate herbicide (early spring).	<1% cover	

Table 2: High threat weeds for priority controls.

Note: ^ Desired outcome after 10 years of ecological management (DSE 2009a).

9.1.5 New and emerging weeds

Monitoring for new and emerging weeds will be conducted throughout the year and if recorded will be treated. This must include high threat weeds and noxious weeds listed under the *Catchment and Land Protection Act 1994* (CaLP Act). New and emerging high threat weeds will be monitored and controlled <1% cover if found.

High threat weeds identified in surrounding areas owned by the landowner will be controlled to reduce any potential invasion into the offset area.

The offset owner will contact the land owner of any public land (i.e. council managed road reserves adjacent to the offset site) where high threat weeds occur within the vicinity of the offset area, with the aim to have these weeds controlled.

9.2 Biomass control/recruitment space

Biomass management is an essential component of grassland management to maintain recruitment or intertussock space, promote species richness and recruitment of native species, reduce competition and shading for native grassland forbs, and to maintain habitat structure for fauna. Adequate levels of recruitment of native species is considered to be sufficient to replenish natural attrition of individual plants and species within the various lifeforms within the grassland (DSE 2004). Recruitment is considered inadequate in a grassland context when there is insufficient inter-tussock space for native species to recruit into. The adequate recruitment of native species must be managed on site to maintain the minimum cover of native grasses (50%) for the grassland to be considered NTGVVP.

Biomass will be controlled if it reaches a level in any one year that results in an increase in inter-tussock grass space to an average of 20-40% across the site. This threshold will be assessed by the landowner in conjunction with TfN. The methods for biomass control will be controlled grazing, and where appropriate, ecological burning at an appropriate scale.

9.2.1 Grazing

Currently the offset site is subject to unrestricted grazing by sheep. Grazing by sheep will be continued in a controlled manner (pulse grazing) following a grazing management plan as a method of biomass reduction, consistent with the standards for management of ecological grazing provided by DSE (2009a).

Requirements for grazing activities within the site are provided in Table 3. Stock will be excluded from the end of August to the end of January annually to allow native species to grow and set seed over the spring to mid-summer period (DSE 2009a). Grazing will occur over a short duration and will significantly exceed the standard stocking rate to prevent selective grazing and allow for periods of grazing exclusion. The maximum length of continuous grazing is four weeks with at least two weeks' rest between cycles. At least three pulse grazing cycles will occur within the grazing period, one of which will occur immediately prior to the exclusion period (weather permitting).

Table 3: Grazing requirements and limits within the offset area.

Period where grazing by domestic stock is not permitted	31 August – 31 January annually (in perpetuity)
Number of pulse grazing cycles required	3 (minimum)
Grazing required prior to exclusion period	15-30 August
Minimum rest from grazing between pulse grazing	2 weeks
Maximum continuous pulse grazing	4 weeks
Biomass management thresholds	Total vegetation cover of no greater than 70%
Target inter-tussock space	Maintain 20-40% of total inter-tussock space, and 50- 60% native vegetation cover. It is preferred that an inter-tussock space is closer to 40% to aid habitat preferences for Striped Legless Lizard and Golden Sun Moth.
Habitat Hectares target score	10

The objectives for biomass management are that inter-tussock space will be maintained to an average of 20-40% and the total vegetation cover will not fall below 50%. Grazing by other domestic stock including but not restricted to cattle, goats and horses is to be excluded from the offset site by this plan.

The landowner will keep records of the number of sheep and duration of grazing within the offset site. This data will be provided to the TfN on an annual basis. This data and the resultant impact on biomass will provide the basis for an on-going grazing strategy to be approved by the TfN. The grazing exclusion period may be varied by TfN in response to seasonal conditions, but any variation must be approved in writing.

If an ecological burn is planned during or following the pulse grazing period, a fire management plan produced by a qualified contractor will inform when grazing will be removed to allow for a build-up in biomass to establish a burn.

Sheep used for pulse grazing will be shorn within the previous 1-2 months to reduce likelihood of weed seed introductions. Stock transfer into the offset site will be timed to minimise the potential for weed seed transport via mud (i.e. stock movements into the offset site will be excluded within two days of rainfall). The offset will be monitored during wet periods to prevent excessive soil disturbance in seasonally wet areas. Following any high rainfall events, stock will be removed immediately.

9.2.2 Ecological burning

An efficient and cost-effective alternative to grazing for managing biomass in native grasslands is ecological burning, which opens inter-tussock space and promotes the natural regeneration of native grassland plant species. As weed seed banks can also be stimulated by burning, post-burning weed-control will be essential to maintain the dominance of native vegetation. However, repeated stimulation of the soil stored weed seed bank can also lead to the exhaustion of the weed seed bank through active management, producing the desired outcome of lower weed cover.

Burning within the offset area will only be undertaken in consultation with the Country Fire Authority (CFA) and in line with a fire management plan completed by a suitably qualified consultant. The following provides guidelines for use of ecological burning only. The land owner is responsible for ensuring the requirements of this OMP can be carried out only if compliant with all other government planning requirements and permits.

Controlled ecological burning will follow these guidelines:

- Any one individual burn will cover only a portion of the site (mosaic burning)
 - Patchy burns (i.e. non-uniform burning) are considered a desirable outcome
 - An array of small patches covering up to a hectare is an appropriate target for a burn.
- No area of the offset site will be burnt more frequently than every two years;
- No area of the offset site can be burnt at a frequency of more than three times over the decade covered by this OMP. This is considered a low fire frequency for the management of NTGVVP;
- The presence of threatened fauna species (Striped Legless Lizard and Golden Sun Moth) must be considered when planning a burn to avoid killing individual animals
 - Timing of burns will only be undertaken outside the Golden Sun Moth flight season (generally November to January)
 - Burns will not occur adjacent to any areas without a cover of vegetation considered adequate for Striped Legless Lizard to avoid high levels of predation
 - A target of burning one hectare in an array of scattered small patches (i.e. 5 patches each of 0.2 ha) within every six months with no adjacent patches burnt within 12 months of each other is considered an effective strategy in providing an adequate cover for Striped Legless Lizard to minimise any mortality from management associated with ecological burning
 - Burns will have a maximum target width of 60 metres to provide opportunities for animals to escape into nearby unburnt fire refugia
 - Late spring burns can be implemented if less than 20% of the site is impacted.
- Ecological burns will be documented in maps to record the fire history of the site;
- Ecological burns will be conducted during mild weather conditions of low wind and mild temperatures and must occur outside of the prescribed declared fire danger period for this region; and
- Burnt areas will be protected from grazing for at least 6 months to allow species regeneration and recruitment to occur.

9.3 Understorey diversity

9.3.1 Supplementary planting and revegetation

The understorey of the offset site retains a diversity native species with between 50 and 90% of the expected number of understorey life-forms for this EVC. It is therefore not considered necessary to supplement the understorey with enrichment planting. However, this can be reviewed by the independent ecologist monitoring the site after five years of active ecological management.

9.3.2 Maintenance and improvement of understorey diversity and recruitment

Management actions implemented for biomass control (controlled grazing and fire), weed control and reduction of grazing by pest animals such as rabbits will also contribute to maintaining and promoting understorey diversity and recruitment of threatened species. Biomass control works will also reduce the potential for uncontrolled bushfire to impact this site.

9.4 Pest animals

The control of pest animals including rabbits and other pest herbivores beyond the legal duty of care outlined under the CaLP Act is a requirement of this OMP. Therefore, pest animal control works are required within the offset site. These works will be undertaken in accordance with current guidelines provided by the relevant Victorian Department of Agriculture.

Populations of European Rabbits (*Oryctolagus cuniculus*) and European Hares (*Lepus europeaus*) are at low levels within the site. These populations will be monitored and controlled throughout the year. If rabbit activity is detected on the site, an integrated approach in accordance with BushBroker Information Sheet 7 – Standards of Management – Rabbits (DSE 2012) will be used. This includes fumigation, baiting and hand-collapsing any active warrens present. Ripping of rabbit warrens within the offset site is not permitted. If baiting is implemented, then carcases must be removed to prevent poisoning of native fauna. Any shrubby weeds present that may provide shelter will be removed.

Other problem pest animals may include cats and foxes, although due to the lack of shelter these species are less likely to be resident within the offset site. Poisoning cats and foxes are therefore likely to be ineffective. If present, the landowner should select and apply the most effective combination of control techniques for the site and local conditions.

Populations of Golden Sun Moth and Striped Legless Lizard are not expected to be negatively impacted by these control measures undertaken for pest animals.

9.5 Fencing, Information and Access Control

Permanent fencing that excludes domestic stock already exists around the boundary of the 75 ha property. Additional fencing around the proposed 16 ha offset site is not required because the broader parcel will be managed in accordance with this OMP. This will also discourage funnelling of traffic through access gates and associated disturbance to soil and the trampling of native vegetation by stock along fence boundaries. Instead, sheep will be allowed to graze the offset area as part of the broader existing paddock structure following the prescriptions in this OMP. If required, temporary fencing may be used within the offset area where negligible impacts to native vegetation associated with the placement and removal of that fencing can occur.

Posts marking the boundary of the offset site will be set up to clearly identify the area for monitoring and management purposes. Posts will be located in accordance with advice from a qualified ecologist to ensure impacts to native vegetation are avoided.

Temporary stock fencing will be established and maintained around the boundary of any burnt area within the offset site for at least 6 months' post-burn to prevent stock access and damage to regenerating vegetation from grazing.

The offset area remains private property and access or disturbance to the offset site by unauthorised persons is prohibited. The existing access gate and security (locked gates) arrangement is adequate to service the access management requirements of this offset area.

If existing land-use rights are to be fully exercised in the remainder of the broader parcel, fencing to control stock access to the offset site will be required. Fencing must meet the minimum standard set by DELWP's fencing standards in BushBroker Information Sheet 12 - Standards for Management – Fencing, to establish a sturdy stock

proof fence. If rabbit populations impacting the site cannot be controlled to an adequate level (based on advice from TfN) then fencing protecting the offset site will need to be upgraded to a rabbit proof standard.

No additional signs identifying the property as an offset site are proposed. Explicit signage may inadvertently attract undesirable impacts. However, signs identifying the property as a protected area of native vegetation will be considered by the owner.

Monitoring of access and threats will be conducted on an ongoing basis with fencing repaired or upgraded as required to control threats.

Where fencing exists or is required to control threats, ensure all fencing around the perimeter of the property is maintained in good condition according to the standards detailed in BushBroker Information Sheet 12 – Standards for Management – Fencing (DSE 2012), for the term of the OMP.

Management Plan Actions and Schedule 9.6

Table 4: Management plan actions and timing for the offset site.

PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY	UNITS	RESPONSIBILITY	STANDARD TO BE ACHIEVED
Establishment of covenant	Legal protection of offset site	0	0.1	-	Establish offset area.	Upon registration of the agreement.	16	ha	Land Owner	Covenant as to part Section 3A Victorian Conservation Trust Act 1972 covering 16 ha.
Completion of scheduled management action	Physical protection of habitat	0	0.2	-	Establish appropriate fencing. Fencing already protects a broader parcel within which the offset site is located. The offset area allocated to this specific offset management plan does not need to be fenced separately unless existing land-use rights are fully exercised in the remainder of the broader parcel.	Upon registration of the agreement.	-	-	Land Owner	Site isolated from activities excluded by this plan (i.e. construction works, uncontrolled grazing by domestic stock).
Completion of scheduled management action	Delineation of offset site	0	0.3	-	Establish markers to identify boundary of the offset site to assist with management and monitoring of the area.	Upon registration of the agreement.	-	-	Land Owner in consultation with qualified ecologist	Markers established to identify boundary. Guidance provided by a qualified ecologist to ensure impacts to native vegetation are avoided.
Completion of scheduled management action	Protection of site from threats	0	0.4	-	Identify a person/company to control pest plants and animals. Trust for Nature (TfN) will provide appropriate supervision for the land owner to conduct the pest plant and animal control works.	Upon registration of the covenant between land owner and TfN.	-	-	Land Owner	Appropriate personnel appointed to conduct works.
Completion of scheduled monitoring activity	Improvement in site condition	0	0.5	-	Qualified ecologist to undertake baseline monitoring, establish monitoring points, photo points and refine management actions based on baseline results. Establish four Striped Legless Lizard monitoring grids before the end of July.	Oct-Nov monitoring	1	Report	Qualified ecologist	Prepare standard report including photos and confirm agreed performance measures outlined in Section 12.
Completion of scheduled report/audit	Improvement in site condition	1	1.1	0.1-0.5	Land owner to develop annual works plan in consultation with the TfN based on a site inspection.	Upon registration of the covenant.	-	-	Land Owner and TfN	Annual works plan prepared and approved for implementation by TfN.
Completion of scheduled management action	Protection of site from threats	1	1.2	1.1	Maintain fences and gates around broader offset area and markers around offset site in good working order. Remove any rubbish present within the offset site.	Continuous (inspection and management)	-	-	Land Owner	Potential threats (i.e. rabbits, domestic stock, unauthorised entry) excluded.

OFFSET MANAGEMENT PLAN Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018] Prepared for VicRoads

SMEC Internal Ref. 30041790 29 January 2019

PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY	UNITS	RESPONSIBILITY	STANDARD TO BE ACHIEVED
Completion of scheduled management action	Improvement in site condition	1	1.3	1.1	Undertake pulse grazing to reduce biomass following Table 3. Vegetation cover will not be grazed below 50% and inter- tussock space will be maintained to at least 20-40% (and as close to 40% as possible to promote Golden Sun Moth and Striped Legless Lizard habitat preferences).	31st January – 31st July	16	ha	Land Owner	Maintain an open tussock grassland with at least 20-40% cover of inter- tussock space.
Completion of scheduled management action	Protection of site from threats	1	1.4	1.1	Control pest animals (e.g. rabbits, hares, foxes and cats) within the offset and surrounding area (within 500m of offset site where possible).	Feb–Apr, Sep– Nov	-	-	Land Owner in consultation with ecological restoration contractor	No ground disturbance by pest animals within offset site. No active rabbit warrens present within offset site, minimal surface harbour for rabbits and hares present (but excluding natural harbour such as rocks).
Completion of scheduled management action	Protection of site from threats	1	1.5	1.1	Control all high threat grass / herb weeds before seed set using appropriate methods to ensure a reduction of existing weed levels (Table 2). Refer to Table 2 for percentage cover of high threat weeds at inception. Eliminate any woody weeds. Control total cover of weeds, in particular perennial grassy weeds and broadleaf weeds. Monitor for new and emerging weeds and eliminate any found.	July–Nov as detailed in the annual works plan	16	ha	Land Owner in consultation with vegetation management contractor	Minimise the occurrence of weeds, with a reduction in total cover of weeds, including high threat weeds, beyond current levels. Target is a total perennial weed cover of no more than 2% with reduced cover of high threat weeds listed in Table 2, <1% perennial grassy weeds and no more than 2% broadleaf weeds by the end of 10 years. Minimum off-target damage. Control new and emerging weeds to < 1% cover across offset site.
Completion of scheduled management action	Improvement in site condition	1	1.6	1.1	Develop burn plan and undertake ecological burn of the offset site to reduce plant biomass and promote recruitment of native species. Ecological burns may be undertaken over 20% of the offset area at least ten times during 10-year management period. Conduct burns in different seasons to promote regeneration of a variety of species. Any burn adjacent to another burn must be separated in time by at least 12 months.	Sep-Oct or March - May (or as specified in the burn plan)	1	ha	Qualified contractor in consultation with CFA and TfN	Medium intensity burns over 20% of the 16 ha area. Some small areas within burn boundary left unburnt. No area to be burnt at a frequency of more than once every three years. Follow up weed control will be undertaken within the burn area in accordance with section 3.9. Burns must also be undertaken to generate a mosaic pattern of burnt and unburnt areas (See section 3.9.5.)

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SMEC Internal Ref. 30041790 29 January 2019

PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY	UNITS	RESPONSIBILITY	STANDARD TO BE ACHIEVED
Completion of scheduled monitoring activity	Improvement in site condition	1	1.7	0.5	Conduct regular site inspections at a frequency to ensure management activities are conducted as prescribed. This will incorporate identification of any new weeds and evaluation of biomass conditions. These inspections will be conducted by the land owner. TfN to participate in site inspections at least four times over offset period.	Site inspections at an appropriate frequency	-	-	Land Owner and TfN	Reporting of management activities as agreed. This can consist of a series of notes of observations made by the land owner during site inspections.
Completion of scheduled monitoring activity	Improvement in site condition	1	1.8	0.5	Qualified ecologist to undertake vegetation and Striped Legless Lizard monitoring (including Habitat hectare assessment) and refine management actions based on results. Identify any new high threat weeds for priority control. Report to regulator as directed.	Oct-Nov monitoring Dec Reporting	1	Report	Qualified ecologist to be engaged by the Land Owner	Prepare standard report including results from photos and agreed performance measures outlined in Section 12. Vegetation and Striped Legless Lizard monitoring report provided to TfN, VicRoads & DoEE as appropriate.
Completion of scheduled monitoring activity	Improvement in site condition	1	1.9		Conduct baseline Golden Sun Moth surveys and document results.	Nov - Dec	4	Report	Qualified ecologist	Document baseline Golden Sun Moth population and distribution
Completion of scheduled report/audit	Improvement in site condition	1	1.10	1.7	Prepare annual report based on site inspections conducted throughout the year. Report to be provided to TfN and DoEE.	Nov	1	Report	Land Owner	Report reviewing the success of management and level of implementation of OMP provided to TfN and DoE.
Completion of scheduled report/audit	Improvement in site condition	1	1.11	1.8- 1.10	Review and update Annual Works Plan in consultation with TfN.	Dec	1	Report	Land owner in consultation with TfN	Following year's management tailored to current site conditions.
Recurrent Activit	ties									
Completion of scheduled management action	Physical protection of habitat	2-10	X.1	1.2	Maintain fences and gates around broader offset area and markers around offset site in good working order.	Continuous (inspection and management)	-	-	Land Owner	Potential threats (i.e. rabbits, domestic stock, unauthorised entry) excluded.
Completion of scheduled monitoring activity	Improvement in site condition	2-10	X.2	1.3	Undertake pulse grazing to reduce biomass. A minimum of three pulse grazing cycles are required within the grazing period, and one of these will occur immediately before the exclusion period (unless otherwise advised by the fire management plan). The maximum grazing length at any one time is four weeks with a minimum two-week rest period between grazing cycles. Vegetation cover will not be grazed below 50% and inter- tussock space will be maintained to at least 20-40%.	16th January – 31st July	16	ha	Land Owner	Maintain an open tussock grassland with at least 20-40% cover of inter- tussock space.
Completion of scheduled monitoring activity	Improvement in site condition	2-10	X.3	None	Develop burn plan and undertake ecological burn of the offset site to reduce plant biomass and promote recruitment of native species. Ecological burns may be undertaken over 20% of the offset area at least ten times during 10-year management period.	Sep-Oct or March - May (or as specified in the burn plan)	1	ha	Qualified contractor in consultation with CFA and TfN	Medium intensity burns over 20% of the 16 ha area. Some small areas within burn boundary left unburnt. No area to be burnt at a frequency of more than once every three years.

OFFSET MANAGEMENT PLAN Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018] Prepared for VicRoads

SMEC Internal Ref. 30041790 29 January 2019

Management Measures (Offset Management Plan)

PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY		UNITS	RESPONSIBILITY	STANDARD TO BE ACHIEVED		
					Conduct burns in different seasons to promote regeneration of a variety of species. Any burn adjacent to another burn must be separated in time by at least 12 months.						Follow up weed control will be undertaken within the burn area in accordance with Section 9.1. Burns must also be undertaken to generate a mosaic pattern of burnt and unburnt areas (See Section 9.2.2)		
Completion of scheduled management action	Protection of site from threats	2-10	X.4	1.4	Control pest animals (e.g. rabbits, hares, foxes and cats) within the offset and surrounding area (within 500m of offset site where possible).	Feb–Apr, Sep– Nov	-	-		Land Owner in consultation with ecological restoration contractor	No ground disturbance by pest animals within offset site. No active rabbit warrens present within offset site, minimal surface harbour for rabbits and hares present (but excluding natural harbour such as rocks).		
Completion of scheduled management action	Protection of site from threats	2-10	X.5	1.5	Control all high threat grass / herb weeds before seed set using appropriate methods to ensure a reduction of existing weed levels. Refer to Table 2 for percentage cover of high threat weeds at inception. Eliminate any woody weeds (see Section 9.1.3). Control total cover of weeds, in particular perennial grassy weeds and broadleaf weeds. Monitor for new and emerging weeds and eliminate any found.	July–Nov as detailed in the annual works plan	16	ha		Land Owner in consultation with vegetation management contractor	Minimise the occurrence of weeds, with a reduction in total cover of weeds, including high threat weeds, beyond current levels. Target is a total perennial weed cover of no more than 2% with reduced cover of high threat weeds listed in Table 2, <1% perennial grassy weeds and no more than 2% broadleaf weeds by the end of 10 years. Minimum off-target damage. Control new and emerging weeds to < 1% cover across offset site.		
Completion of scheduled monitoring activity	Improvement in site condition	2-10	X.6	1.8	Qualified ecologist to undertake vegetation and Striped Legless Lizard monitoring (including a habitat hectare assessment) and refine management actions based on results. Identify any new high threat weeds for priority control. Report to regulator as directed.	Oct-Nov monitoring Dec Reporting	1	Report		Qualified ecologist to be engaged by the Land Owner	Prepare standard report including results from photos and agreed performance measures outlined in Section 12. Vegetation and Striped Legless Lizard monitoring report provided to TfN, VicRoads & DoEE as appropriate.		
Completion of scheduled monitoring activity	Improvement in site condition	2-10	X.7	1.9	Undertake regular site inspections at a frequency to ensure management activities are conducted as prescribed. This will incorporate identification of any new weeds and evaluation of biomass conditions. These inspections will be conducted by the land owner. TfN to participate in site inspections at least four times over offset period.	Site inspections at an appropriate frequency	-	-	Land Owner and TfN		Reporting of management activities as agreed. This can consist of a series of notes of observations made by the land owner during site inspections.		
Completion of scheduled report/audit	Improvement in site condition	2-10	X.8	2.5	Prepare annual report based on site inspections conducted throughout the year. Report to be provided to TfN, VicRoads and DoEE.	Nov	1	Report	Land Owner	Report reviewing the success of management and level of implementation of OMP provided to TfN, DoE, and VicRoads			

PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY		UNITS	RESPON
Completion of scheduled report/audit	Improvement in site condition	2-9	X.9	2.6	Review and update Annual Works Plan in consultation with TfN.	Dec	1	Report	TfN and land owner	Following y
Year-specific act	ivities									
Completion of scheduled monitoring activity	Improvement in site condition	2, 4, 6, 8 & 10	X.10	Nil	Conduct Golden Sun Moth monitoring surveys	Golden Sun Moth flight season (November to December)	1	Report	Qualified Zoologist	Report doo past survey
Completion of scheduled report/audit	Improvement in site condition	10	10.10	10.8	Revise OMP in consultation with TfN to identify management actions required to maintain the offset site in perpetuity.	Dec	1	OMP	Qualified ecologist	Updated or offset site.
Completion of scheduled management action	Improvement in site condition	10	10.11	10.9	Identify and allocate resources for ongoing management and continue to implement active ecological management to maintain the offset site.	Dec			Land Manager in consultation with TfN	Ongoing eo ecological
Beyond Year 10										
Completion of scheduled management action	Physical protection of habitat	10+			Maintain fences and gates around broader offset area in good working order.	Continuous (inspection and management)	-	-	Land Owner	Potential the excluded.
Completion of scheduled monitoring activity	Maintenance of site condition	10+			Evaluate ground cover biomass and manage using pulse grazing and ecological burning	As prescribed by the revised OMP.	16	ha	Land owner	Maintain a spacing) us of dead we
Completion of scheduled management action	Maintenance of site condition	10+			Control pest animals (e.g. rabbits, hares, foxes and cats) within the offset and surrounding area.	Feb – Apr, Sept – Nov	-	-	Land Owner	Absence of
Completion of scheduled management action	Maintenance of site condition	10+			Control all high threat grass / herb weeds before seed set using appropriate methods to ensure existing weed levels, at the minimum, do not increase.	July - Nov	16	ha	Land Owner	Minimise t weeds, inc

SMEC Internal Ref. 30041790 29 January 2019

ONSIBILITY	STANDARD TO BE ACHIEVED

ng years management tailored to current site conditions

documenting the results of the survey and comparisons with veys (see Section 12)

d offset management plan to aid ongoing maintenance of the te.

g ecological management to maintain and improve the cal values of the Protection Site in perpetuity.

al threats (i.e. rabbits, domestic stock, unauthorised entry) d.

n an open tussock grassland structure (20-40% inter-tussock) using fire and pulse grazing and ensure areas with high levels weeds are subject to biomass reduction.

e of evidence of grazing/browsing by pest animals.

se the occurrence of weeds, with no increase in cover of including high threat weeds, beyond current levels.

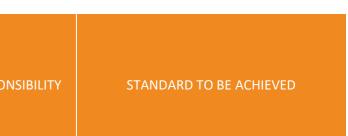
PERFORMANCE CRITERIA	ENVIRON-MENTAL OUTCOME	YEAR	ACTION	REQUIRED PRECEDING	MANAGEMENT ACTION	TIMING OF ACTIVITY – MONTH(S)	QUANTITY	UNITS		RESPON
Completion of scheduled management action	Maintenance of site condition	10+			Eliminate all woody weeds. Control total cover of weeds, in particular perennial grassy weeds and broadleaf weeds. Monitor for new and emerging weeds and eliminate any found.					Minimum Control ne
Completion of scheduled monitoring activity	Maintenance of site condition	10+			Undertake monitoring and refine management actions based on results. Identify any new high threat weeds for priority control. Conduct regular site inspections at a frequency to ensure management activities are conducted as prescribed. These inspections will be conducted by the land owner.	Oct–Nov monitoring Site inspections at an appropriate frequency		Land Owne	r	Land Own biannually

Note: 'X' as a designated year indicates that the activity can occur in any or all years, as identified in the Year number column.

OFFSET MANAGEMENT PLAN

Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018] Prepared for VicRoads

SMEC Internal Ref. 30041790 29 January 2019



m off-target damage.

new and emerging weeds to < 1% cover across offset site.

wner to undertake monitoring as required and site inspections ally (at a minimum).

10 Managing uncertainty and adaptive implementation

10.1 Managing limitations and uncertainty

Given that the management of natural resources can be unpredictable it important to understand limitations and how to progress management in the face of uncertainty. This enables the management actions to be adjusted to respond to particular events and conditions that may arise.

Information provided in previous site assessments (EHP 2016a, 2016b and 2017) used to develop this OMP is limited by seasonal conditions at the time of the surveys, and survey duration and intensity. Baseline monitoring prior to the commencement of the OMP (in Year 0) will provide further data on initial site condition and habitat quality (Table 1) and will provide a more recent assessment of conditions. Management actions will be refined based on these results.

Regular monitoring and record keeping (Table 5) will be an integral part of the management of the offsite site and will identify the outcomes of the management activities. Where required, corrective management actions will be implemented to ensure that the stated commitments in the OMP continue to be adhered to.

Seasonal conditions can also vary greatly from year to year and influence offset site management actions in any one year. This seasonality is recognised in this OMP by allowing for flexibility around timing of actions at the discretion of the land manager in consultation with TfN and based on advice provided by an experienced grassland ecologist.

Management actions may also be adjusted over time if new management techniques become available or if new information arises about the ecology and condition of the offset site; for example, if new species are recorded during monitoring activities that may require particular management actions.

10.2 Reviews

The OMP will require external review and quality assurance by TfN as part of the process to register the site covenant.

Following commencement of the OMP, a review will only be necessary in the event of a major incident that makes a significant change to the character or condition of the offset area. The most likely such event is a major wildfire.

If a plan review is triggered, this will be conducted by VicRoads in consultation with the offset site owner, DoEE. Any future adaptive management changes will be incorporated into the OMP and an updated version of the OMP will be supplied to DoEE.

The OMP review may involve changes to any part of the OMP, to adequately respond to the trigger and re-direct management actions towards achieving the environmental outcomes under potentially altered site conditions.

This could involve changes to:

- Specific details of offset site management methods;
- Monitoring methodology; and
- Schedules of monitoring, reporting and auditing.

11 Monitoring

Monitoring of the offset site will be carried out regularly to ensure that the management actions are achieving the objectives of this OMP, and specifically that the targets and timelines presented in Table 4 are being adhered to. A full schedule of monitoring activities is detailed in Table 5. In addition, observations by the landowner will also be regularly made during normal activities within the offset site and broader property. Such observations are important for maintaining things such as the integrity of fencing and site security. While these are normal land management activities they have also been formalised in this OMP. Regular site inspections to provide general condition observations are also a requirement of this plan (Table 4).

The schedule of monitoring will identify any unexpected changes at the offset site early, allowing an appropriate and timely management response to matters which would otherwise undermine the objectives of the OMP.

More general supervision/monitoring of the grassland will be undertaken by the TfN to ensure the grassland's response to management actions produces the desired outcome outlined by this plan. TfN will visit the site a minimum of four times over the 10-year management period (at least the spring of years 1, 3, 6 and 10) and will liaise with the land owner annually regarding the development of an annual works plan.

The progress of management works will be monitored by the land owner on a regular basis (at a minimum once every 2 months). The land owner will provide a management progress report to VicRoads and TfN on an annual basis (or more frequently as required).

Annual vegetation monitoring assessments will include a broad assessment of the entire offset site including the conduct of a habitat hectare assessment to document the general overall condition of the of the site and the ability of management works to maintain the general vegetation and habitat condition as assumed in the offset calculations provided in the Offset Management Strategy (SMEC 2018a).

11.1 Record Keeping

Records of all management actions must be kept by the landowner to provide evidence of completed works and management tasks. This will also assist in self-auditing the implementation and effectiveness of the OMP.

The landowner, i.e. Deep Lead Property Pty Ltd, will keep a diary of any works conducted within the offset site and record any observations which could influence or initiate a management response (i.e. *observed seedlings of a new woody weed in the middle of the offset site today - will spot spray these with glyphosate by the end of the week*). These details provide valuable information on the management of the site and detail the commitment of the landowner to the OMP.

A list of plant species observed, noting which, if any, weed species have become extinct will be maintained for the offset site. While all data collection will be the responsibility of the landowner, all data collected will be provided to VicRoads and TfN and become the property of VicRoads and TfN.

11.2 Weed and Biomass Monitoring

Weed monitoring will be conducted annually in spring and will have three components:

- Inspection of the entire offset area for woody weeds by foot or vehicle. This must be at a pace so that a visual inspection (including with binoculars) is able to detect the presence of woody weeds:
 - All infestations or individual woody weeds will be identified to species level and mapped with a GPS
 - Locations of woody weeds will be supplied to the weed management contractor/landholder for treatment
 - Subsequent monitoring will revisit previously mapped infestations to evaluate the success of weed control, as well as inspecting the entire offset site for new infestations;
 - In accordance with the Habitat Hectares score targets outlined in Table 1, the quality of vegetation will improve in quality after years where an ecological benefit is expected. This will mean a 5-25% cover of weeds is maintained, and high threat weeds are absent, resulting in a VQA weeds score of 11).
- During the survey, the following information on herbaceous weed species will be recorded:
 - Maps of species and areas suitable for targeted treatment (such as spot spraying)
 - Estimates of cover of herbaceous weed species within the areas to the nearest five percent cover
 - Maps of areas/species will be supplied to the weed management contractor/landholder for treatment.
- 10 monitoring quadrats will be established for monitoring:

- Quadrats will be 5 x 5 m in size and located in areas where significant weed control works are required
- Quadrats will be clearly marked and accurately located by GPS or similar within the offset site
- During the survey, the following data will be recorded:
 - Percentage total vegetation cover, the percentage cover of inter-tussock spaces, the average height of vegetation and the cover of native and exotic life-forms
- This data will be used in conjunction with the observations made on herbaceous weeds collected in association with woody weed monitoring, used to report on progress in the management of weeds over the entire offset site.

Each of the vegetation monitoring quadrats will also act as permanent photo points established by the ecologist. Photo points will be located to adequately characterise the current vegetation condition and include a range of weed species. Using a selected marker point for the vegetation monitoring quadrat, a photo will be taken facing the four points of the compass (N, S, E & W). These photo points will be used to monitor the vegetation for at least the 10-year period covered by this plan.

The information collected during monitoring will be included in an annual monitoring report to be submitted to TfN and DoEE.

11.3 Golden Sun Moth Monitoring

Golden Sun Moth monitoring will be undertaken to observe the efficiency of management actions on the population within the offset site by recording the number of individuals observed during survey event. The objective of monitoring over the 10-year period is to confirm that the population is self-sustaining and the effectiveness of management actions being undertaken for the species are adequate. The surveys will detect flying males, and if possible identify laying females/eggs and/or pupal cases to confirm that reproduction is taking place on the site. It is expected that monitoring for Golden Sun Moth will commence in the 2019/20 survey season in response to DoEE approval of the preliminary documentation and associated management plans in late 2018.

11.3.1 Monitoring events

As Golden Sun Moth have already confirmed on site, monitoring every second year is considered adequate for the duration of this OMP. That is, monitoring events will occur in Years 2, 4, 6, 8, and 10 following a baseline survey in the 2019/20 monitoring season. The results of the baseline survey will form a robust set of data to be compare ongoing monitoring events over the 10-year period.

11.3.2 Survey methods

The monitoring of Golden Sun Moth will be undertaken in accordance with the EPBC Act 'Significant impact guidelines for the critically endangered Golden Sun Moth (Synemon plana)' (DEWHA 2009). Targeted surveys typically commence from late October onwards within western Victoria (A, Taylor pers. obs.).

Survey methods will include the following requirements:

- During the local flying season (late October to early January);
- Effort Over at least four suitable days, at approximately weekly intervals;
- Once presence is established, surveys should focus on determining the relative distribution of the species on the site;
- Warm to hot day where ambient temperatures are ≥20oC by 10:00 hrs;
- Surveys will be undertaken during the warmest part the day, typically between 10:00-14:00 hrs;
- Weather conditions are clear or mostly cloudless sky;
- Still or relatively still wind conditions during the survey period; and
- A period of at least two days since rain.

As a population of Golden Sun Moth has been confirmed within the offset site, there will be no requirement to check for species activity at a separate reference site. The offset site will be surveyed using a transect method to provide consistency over sequential monitoring events. Each survey will involve two zoologists walking systematic transects at 50 m intervals across the entire offset site. All transects will be recorded using a handheld GPS and a waypoint will be taken for each located where Golden Sun Moth are observed. Any differential observations between male and female Golden Sun Moths will also be recorded, along with incidental observation during associated monitoring for vegetation condition and during inspections by the land owner or TfN.

11.3.3 Reporting

All survey results will be supported by relevant photos with any habitat or management issues for the species identified. Golden Sun Moth monitoring results will be provided to TfN and DoEE in a report at the agreed survey intervals of years 2, 4, 6, 8, and 10. The report will include an assessment of any noticeable changes or management concerns with the species habitat condition or population size at the site.

11.4 Striped Legless Lizard Monitoring

Striped Legless Lizard monitoring will be undertaken to observe the number of individuals within the offset site by utilising targeted survey methods. Monitoring will be undertaken to determine the abundance of Striped Legless Lizard within the offset site and to confirm the species has persisted over the 10-year period and that habitat management actions have maintained a viable Striped Legless Lizard population.

11.4.1 Monitoring events

Monitoring of Striped Legless Lizard will be undertaken annually for the duration of this OMP. The alteration of any monitoring proposed can only be undertaken with prior written approval from the Australian Minister of the Environment. For example, this may occur if survey results indicate a decline in the population or degradation to habitat where actions within this management plan are to be re-evaluated and approved by TfN and DoEE prior to implementation.

11.4.2 Survey methods

The monitoring of Striped Legless Lizard will be undertaken in accordance with the EPBC Act '*Referral guidelines for the vulnerable Striped Legless Lizard, Delma impar*' (DSEWPaC 2011). All surveys will be undertaken by experienced and qualified zoologists' familiar with the biology and appearance of the species. The following survey methods will be undertaken in accordance with the referral guidelines as part of population and habitat monitoring for Striped Legless Lizard (DSEWPaC 2011):

- Establishment of **four (4)** separate monitoring tile grids within the offset site;
- Tile grids will be installed a minimum of one month prior to the initial survey/checks (August 2019);
- All tiles will be placed in areas supporting vegetation and not bare ground;
- Each tile grid will consist of an array of 50 tiles, at 5 metre spacing between tiles, arranged in a grid of 10 tiles by five transects;
- Tile grids will be checked when ambient temperatures do not exceed 28°C;
- Tile grids will be checked a total of **six (6)** times between September-December in Years 1 and 2 to collect baseline data and morphological data as described below; and
- Tile grids will be checked a total of **four (4)** times between September-December in remaining Years 3-10.

11.4.2.1 Morphological data

Morphological data will be collected for all individuals captured at the offset site to inform DoEE of the population structure at the site. This will include a photograph of the dorsal head-scale detail to categories individuals at the site (i.e. repeat captures or new individuals). This will require a data-sheet to be completed which must include the following information:

- Location details (roof tile number [1-200], and the GPS coordinates);
- Snout-vent length measurement (mm);
- Tail length measurement (mm);
- Weight (g); and
- Sex (if possible).

11.4.3 Reporting

All survey results will be supported by relevant photos with any habitat or management issues for the species identified. Striped Legless Lizard monitoring results will be provided to TfN and DoEE in a report at the agreed annual intervals, unless otherwise agreed in writing by the Australian Minister of the Environment. The report will include an assessment of any noticeable changes or management concerns with the species habitat condition or population size at the site.

11.5 Pest animal monitoring

Signs of pest animals (rabbits, hares and foxes), i.e. sightings of the animals, their warrens or scats will be recorded during weed monitoring surveys, and at all other times when visiting the offset site.

The locations of any active rabbit warrens will be recorded using GPS, and the locations supplied to the pest animal management contractor/landholder for treatment. Subsequent monitoring will then revisit previously mapped warrens to check for on-going use, as well as searching for new warrens throughout the offset area.

11.6 Fence Condition

Surveys of the property boundary fence must be conducted quarterly, and when visiting the site to conduct other monitoring or management actions. Any damage to the fence that may allow vehicles or stock to enter outside of the parameters outlined in this OMP must be repaired immediately.

11.7 Monitoring Schedule

Table 5: Monitoring schedule for the 10-year management plan.

#	MONITORING ACTIVITY	PARAMETER/S MEASURED	SURVEY / MONITORING GUIDELINES	WHEN	RELIABILITY
1	Weed and biomass monitoring (including new and emerging weeds)	Cover of woody and herbaceous weed species present. Percentage cover of vegetation attributes within monitoring quadrats.	Refer to Section 9.1 and 11.2 for details.	Annual - Spring	High
2	Golden Sun Moth population and habitat condition monitoring	Number of Golden Sun Moth observed. Subjective condition of habitat.	Refer to Section 11.3 for details.	Biennial -after baseline survey.	High
3	Striped Legless Lizard population and habitat condition monitoring	Number of individuals of Striped Legless Lizard observed. Subjective condition of habitat.	Refer to Section 11.4 for details.	Annual	High
4	Pest animal monitoring (Rabbits, Hares and Foxes, and new and emerging pest animals)	Presence of pest animals or signs e.g. scats, diggings, browsing or grazing.	Record signs of pest animals during weed monitoring. Map locations of rabbit warrens using GPS. Refer to Section 11.5 for details.	Annual – spring during weed survey	High
5	Fence condition	Condition of boundary fences.	Ensure fences are intact and assess evidence of domestic stock, vehicle access or firewood harvesting. Refer to Section 11.6 for details.	Quarterly	High

SMEC Internal Ref. 30041790 29 January 2019

12 Reporting

The landowner, Deep Lead Property Pty Ltd, must submit two reports annually to TfN and DoEE for each year of the ten years of this OMP:

- Annual management actions report; and
- Annual monitoring report.

The management actions report will tabulate management actions completed within the offset area and will be completed by 31 August each year, so information is available prior to spring monitoring

The monitoring report will present the results of the annual offset site monitoring activities during spring (including Striped Legless Lizard surveys) and will be completed by November 30 of each year. Golden Sun Moth surveys will be conducted biennially or as requested by DoEE and reports detailing the results will be submitted as required.

The reporting schedule is detailed in Table 6 and annual management actions and monitoring report templates are included in Appendix C.

The annual management actions report must include the following:

• Details of management actions, including on ground works, undertaken within the reporting period.

The annual monitoring report must include the following:

- Results of monitoring activities (see Section 11), including fence condition, weeds, pest animals and ground cover biomass accumulation / cover of open ground within the monitoring quadrats;
- Details of any Golden Sun Moth and Striped Legless Lizard monitoring events;
- Site photographs including from five defined photo points;
- Details of compliance or non-compliance with the schedule of management actions (Table 4);
- Details of compliance or non-compliance with the key performance and completion criteria (Section 7); and
- Details of any incidents or new and emerging management issues, with recommendations for corrective action and plan review.

The annual reports must include a discussion regarding the progress of the offset towards the targets of each management action and overall offset outcomes. This provides a way for DoEE to evaluate performance against stated targets and outcomes stated in Section 7. The discussion should provide enough detail in the form of written comments and supporting evidence that an assessor can easily determine the completion of/progress against the commitments for the offset site.

12.1 Data Handling

Data collected during site assessments will be saved and stored on a secure computer with restricted access.

All data collected from the site will undertake a Quality Assurance review prior to being sent to DoEE and TfN or other relevant parties associated with the offset site. All data collected during the 10-year management plan will be made available to DoEE upon request.

12.2 Reporting Schedule

Table 6: Reporting Schedule.

OFFSET MANAGEMENT PLAN

Prepared for VicRoads

Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018] SMEC Internal Ref. 30041790

29 January 2019

#	TYPE OF REPORT	APPROVAL CONDITION	RESPONSIBILITY	TIMING	REPORTING AUTHORITY	TRIGGER (IF ANY)
1	Annual management actions report Table of management actions completed within the offset area (Table 4, Section 9.6).	To be completed	Offset site owner	Report to be completed by 31 August so information is available prior to spring monitoring.	DoEE TfN	Not Applicable
2	Annual monitoring report. Presents results of offset site monitoring activities (Table 6, Section 11.7).	To be completed	Offset site owner	Annual monitoring to be completed in spring. Report to be completed by 30 November of each year.	DoEE TfN	Completion of annual monitoring
3	Review of offset management plan (Section 15).	To be completed	Offset site owner	As required.	DoEE TfN	Significant environmental event causing widespread impact to habitat within the offset site e.g. Wildfire.
3	Golden Sun Moth population and habitat condition assessment.	To be completed	Offset site owner	As required.	DoEE TfN	Baseline in 2018/19 flight season. Biennial thereafter. Otherwise as requested by DoEE.
3	Audit report (Section 15).	To be completed	Approval holder (VicRoads)	End of years 1, 4, 8 and 10.	Doee	Not Applicable

13 Roles and Responsibilities

Implementation of this OMP is the responsibility of the land owner: Deep Lead Property Pty Ltd. However, direct management responsibility may be delegated to a designated site manager and/or managing ecologist. The land owner is responsible for engaging a qualified ecologist to conduct monitoring with reports submitted to TfN, VicRoads and DoEE. Management actions by the land owner will be overseen by TfN as part of the legal protection over the site.

The TfN is responsible for:

- Undertaking site inspections at least four times over the 10-year management period and provide input into the annual works program; and
- Review of ecological monitoring reports including an assessment of targets achieved.

Implementation of the management plan will be monitored by VicRoads and TfN, who will verify that the actions have been carried out appropriately. Implementation of the plan will begin upon registration of the covenant.

Funding for implementation of this OMP has been agreed between the land owner and TfN. Where appropriate, or otherwise agreed, funding will be held by TfN and paid to the land owner over the 10-year management period as per a land owner agreement. This will include agreed funding for anticipated ongoing management required to maintain the offset site in perpetuity, beyond the initial 10-year management period.

Table 7: Security and management responsibility and reporting requirements.

RESPONSIBILITY	
Who is liable/responsible for meeting offset requirements?	VicRoads
Type of security	Covenant as to part Section 3A Victorian Conservation Trust Act 1972
Date of commencement for the covenant	To be completed in early 2019 before works commence on the Geelong-Bacchus Marsh Road Safety Upgrade Project
Date 10-year offset management to commence	To be completed
Date 10-year offset management expires	To be completed
Date agreement registered on-title	To be completed in 2018
Offset site management responsibility	Deep Lead Property Pty Ltd
Offset Monitoring Responsibility	Deep Lead Property Pty Ltd
Site management	Deep Lead Property Pty Ltd
Monitoring	Deep Lead Property Pty Ltd
Auditing	VicRoads
Reporting responsibility (to TfN)	Deep Lead Property Pty Ltd
Reporting responsibility (to DoEE)	VicRoads
Plan review	VicRoads

14 Emergency Contacts and Procedures

Should any environmental emergency occur on-site that poses a risk to meeting the environmental outcomes stated in this plan, the relevant contacts (listed below) must be notified as soon as possible, and no later than 12 hours following any event.

DoEE, TfN and the landholder must be notified. The CFA and Victoria Police must also be notified should assistance be required from these emergency services (e.g. control of wildfire). Emergency services must be advised of the on-site protections to avoid inadvertent damage to ecological values (e.g. creation of graded earthen fire breaks within the site, which unless necessary, must be avoided).

14.1 Emergency Contact Details

Country Fire Authority (CFA) (Bushfire emergency) - Phone 000

Victoria Police (Various issues i.e. illegal dumping or trespassing) - Phone 000

Department of the Environment and Energy (DoEE): Federal authority - Phone 1800 803 772

Trust for Nature (TfN): Offset advisor phone 03 8631 5888

Deep Lead Property Pty Ltd: Site Owners - Lincoln Kern 0417 517 011 and Paul Guest 0414 615 125

15 Review and Audit

The approval holder (VicRoads) is responsible for auditing the implementation and effectiveness of the OMP. Audits will be conducted by an independent ecologist at the following stages:

- At the end of the first year of site management
 - This is to ensure that initial management actions are conducted to the satisfaction of the approval holder and DoEE, including implementing the legal security mechanism, ensuring the property is securely fenced, and that other initial management actions have commenced.
- At the end of the fourth year of site management
 - This will involve a review of four annual monitoring and management reports, as well as an independent assessment of the condition of Golden Sun Moth and Striped Legless Lizard habitat within the site.
- At the end of the eighth year of site management
 - This will involve a review of four annual monitoring and management reports, as well as an independent assessment of the condition of Golden Sun Moth and Striped Legless Lizard habitat within the site.
 - Following the completion of the 10-year management period
 - This will be a final audit of the implementation and effectiveness of the OMP.

The timing of scheduled audits is detailed in Table 4. Additional audits may be triggered because of a plan review (Section 15) or following an environmental incident resulting in significant change to site conditions, as identified in the risk assessment (Appendix A).

16 Abbreviations

Table 8: Abbreviations used within the OMP.

ACRONYMS	DESCRIPTION
CaLP Act	Catchment and Land Protection Act 1994
CFA	Country Fire Authority
DELWP	Department of Environment, Land, Water and Planning
DEPI	Department of Environment and Primary Industries (now DELWP)
DoEE	Commonwealth Department of the Environment and Energy
DSE	Department of Sustainability and Environment (now DELWP)
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EVC	Ecological Vegetation Class
GSM	Golden Sun Moth
ha	Hectares
km	Kilometres
LGA	Local Government Authority
MNES	Matters of National Environmental Significance
m	Metres
NTGVVP	Natural Temperate Grassland of the Victorian Volcanic Plain
OMP	Offset Management Plan
OMS	Offset Management Statement
PD	Preliminary Documentation
SLL	Striped Legless Lizard
sp.	Species (one species)
spp.	Species (more than one species)
subsp.	Subspecies
TfN	Trust for Nature
VVP	Victorian Volcanic Plain

17 References

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Appendix A Risk Assessment and Management

Table 9: Risk assessment and management.

This risk assessment uses the risk framework from the DOEE EMP guidelines. The likelihood and consequence classification are summarised in Appendix B

ACTION (REFER TO TABLE 6)	EVENT OR CIRCUMSTANCE	ПКЕЦНООД	CONSEQUENCE	RISK LEVEL	TRIGGER	CONTINGENCY ACTIONS	RELATED MONITORING ACTIVITY
0.2, 1.2, 1.3, X.1	Unauthorised entry of domestic stock. Grazing, browsing and trampling damage to vegetation. Damage to/loss of native herbs and grasses. Increased opportunities for weed invasion.	Unlikely	Minor	Low	Domestic stock sighted on offset site outside approved timeframe. Signs of recent stock access.	Remove stock. Repair fencing. Monitor vegetation.	Inspection and management
0.2, 1.2, X.1	Entry of vehicles or unauthorised access to offset area. Damage to vegetation, soil compaction.	Unlikely	Minor	Low	Vehicle observed on offset site. Evidence of recent vehicle access. Evidence of dumping.	Repair fencing. Assess adequacy of fencing.	Inspection and management

References

ACTION (REFER TO TABLE 6)	EVENT OR CIRCUMSTANCE	пкепноор	CONSEQUENCE	RISK LEVEL	TRIGGER	CONTINGENCY ACTIONS	RELATED MONITORING ACTIVITY
1.5, 1.7, X.4	Woody weeds present within offset area (currently not present). Herbaceous weed cover exceeds current levels (30- 35%). New high threat weeds resist control efforts	Possible	High	Medium	Woody weed cover exceeds 1%. Herbaceous weed cover exceeds current levels. Weeds appear to be degrading NTGVVP and Golden Sun Moth habitat values. Introduction of new high threat weed	Increase weed control efforts. Minimise off-target damage (avoid all native plants) Undertake control works for new and emerging weed as appropriate.	Vegetation condition assessments (0.5, 1.7, 1.8, 1.9, 1.10, X.5, X.8)
1.4, X.3	Pest animals observed within offset site. Damage to ground cover vegetation, spread of weeds.	Possible	Mod.	Medium	Fresh ground disturbance or scats of pest animals observed in the offset area. Active rabbit warrens observed within offset area. Active fox dens observed within offset area. New and emerging pest observed within offset area.	Destroy fox dens and rabbit warrens through fumigation and hand collapse. Undertake control works for new and emerging pests as appropriate.	0.5, 1.7, X.5

References

ACTION (REFER TO TABLE 6)	EVENT OR CIRCUMSTANCE	пкепноор	CONSEQUENCE	RISK LEVEL	TRIGGER	CONTINGENCY ACTIONS	RELATED MONITORING ACTIVITY
1.3, 1.6, 1.10, X.2,	Wildfire. May temporarily impact ground cover condition and natural regeneration. May impact upon weed recruitment patterns. May destroy fencing. May locally eliminate Striped Legless Lizard population.	Possible	Major	Low	Wildfire observed within offset area.	Review weed control program and prepare for elevated level of control works. Inspect fence condition and repair any damage. Exclude grazing as for planned ecological burn. Monitor for Striped Legless Lizard recolonization.	Vegetation condition assessments (0.5, 1.7, 1.8, 1.9, 1.10, X.5, X.8)
1.3, 1.5, 1.6, X.2, X.4	Two or more drought / wet years May impact upon weed abundance, condition of NTGVVP and habitat suitability for Golden Sun Moth.	Possible	Moder ate	Medium	Significant fluctuation in ground cover biomass	Monitor vegetation condition in line with defined protocols. Exclude or increase grazing as appropriate. Consider burning if biomass levels are excessive. May require review of the OMP to adjust actions and targets.	Vegetation condition assessments (0.5, 1.7, 1.8, 1.9, 1.10, X.5, X.8)

Appendix B DoEE EMP Guidelines Risk Framework

Risk Framework

		Minor	Moderate	High	Major	Critical
	Highly Likely	Medium	High	High	Severe	Severe
ро	Likely	Low	Medium	High	High	Severe
Likelihood	Possible	Low	Medium	Medium	High	Severe
Lik	Unlikely	Low	Low	Medium	High	High
	Rare	Low	Low	Low	Medium	High

Likelihood

Qualitative measu	Qualitative measure of likelihood				
Highly Likely	Is expected to occur in most circumstances				
Likely	Will probably occur during the life of the project				
Possible	Might occur during the life of the project				
Unlikely	Could occur but considered unlikely				
Rare	May occur in exceptional circumstances				

Consequence

Qualitative meas	Qualitative measure of consequences				
Minor	Minor incident of environmental damage that can be reversed				
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts				
High	Substantial instances of environmental damage that could be reversed with intensive effort				
Major	Major loss of environmental amenity and real danger of continuing				
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage				

Appendix C Annual Reporting Templates

Annual Management Actions Report (to be completed by August 31)

Reporting period (Year, reporting period 1 or 2):

Date of submission:

MANAGEMENT ACTIVITIES CARRIED OUT	DATE(S)	OUTCOME(S) AND COMMENTS. REFER TO/INCLUDE PHOTOGRAPHS AND/OR MAPS WHERE RELEVANT

Comments:

Annual Monitoring Report (to be completed by November 30)

Reporting period (Year):

Date of submission:

Report Sections (indicative):

- 1. Results of Monitoring Activities (include photographs and/or maps where relevant)
 - (a) Weed monitoring (including new and emerging weeds)
 - (b) Biomass monitoring
 - (c) Golden Sun Moth population and habitat condition monitoring (if conducted)
 - (d) Striped Legless Lizard population and habitat condition monitoring
 - (e) Pest animal monitoring (Rabbits, Hares and Foxes, and new and emerging pest animals)
 - (f) Fence condition
- 2. Schedule of Management Actions (see Table 3 of OMP): list each management action undertaken, including Action Number, and compliance or non-compliance with the standard to be achieved (from Table 3).
- 3. Assessment of site management and compliance or non-compliance with overall key performance and completion criteria (Section 7.3.1).
- 4. New or emergent management issues: provide details.
- 5. Provide recommendations for any adaptive management actions and/or OMP review.

Include site photographs from photo points.

Appendix D Glossary

TERM	DEFINITION
Annual	A plant that completes its lifecycle and dies within one year.
Bioregion*	A biogeographic area classified in a landscape-scale approach using a range of attributes such as climate, geomorphology, geology, soils and vegetation.
Condition Score *	A score that describes how close native vegetation is to its mature natural state. In Victoria assessed as the habitat score during a habitat hectare assessment.
Covenant	An agreement in a deed to land or real estate which is binding upon the current owner and all future owners, defining the limitations, conditions or restrictions on the use of that land. A conservation covenant is a voluntary agreement made between a landholder and an authorised body with the aim of protecting and enhancing the natural, cultural and/or scientific values of the land.
Ecological Vegetation Class (EVC)	A native vegetation type classified on the basis of a combination of its floristics, lifeforms, and ecological characteristics.
Gain #	Conservation gain is the benefit that a direct offset delivers to the protected matter, which maintains or increases its viability or reduces any threats of damage, destruction or extinction.
Habitat Hectare Assessment *	An assessment of native vegetation to determine its condition, extent (in hectares) and EVC, using the methodology in <i>Native vegetation: sustaining a living landscape. Vegetation Quality Assessment Manual – Guidelines for applying the Habitat Hectares scoring method, Version 1.3</i>
Habitat Zone *	A single continuous patch of vegetation of the same EVC with a similar quality; the base spatial unit for a habitat hectare assessment.
Matters of National Environmental Significance (NES) #	National environmental assets protected under the EPBC Act
Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP)	A threatened ecological community listed under the EPBC Act
Noxious Weed	An introduced plant listed under the Catchment and Land Protection Act 1994 as a State prohibited weed, a regionally prohibited weed, a regionally controlled weed or a restricted weed.
Offset #	Measures that compensate for the residual adverse impacts of an action on the environment.
Offset Management Plan (OMP)	A document setting out the requirements for establishing, protecting and managing an offset site
Native Vegetation #	(In Victoria): Defined in Clause 72 of the Victoria Planning Provisions and all local planning schemes as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'.

Table 10. Table of definitions of technical terms used in this document.

TERM	DEFINITION
Perennial *	A plant that lives for more than two years. Perennials include species that are always visible e.g. shrubs and trees, but also include species that are not always visible above ground.
Residual Impacts #	Remaining and unavoidable impacts after avoidance and mitigation measures have been undertaken.

* cited from DELWP 2017; # cited from DSEWPaC 2012

Appendix E Bond Agreement Template

DEED

between

Proponent

and

Trust for Nature (Victoria)

for

Funds for Offset Package

Deed

DATE / /

BETWEEN

Proponent

of Address "Proponent"

AND

TRUST FOR NATURE (VICTORIA)

of 2/385 Little Lonsdale Street, Melbourne VIC 3000 "Trust for Nature"

RECITALS

- A. Under sections 130(1) and 133 of the EPBC Act, the Minister granted the Approval authorising Proponent to carry out a controlled action in relation to its Proposed Development.
- B. Condition X of Approval No. EPBC 20YY/ZZZZ requires Proponent to provide a conservation offset to compensate for the impact of construction on listed threatened species and communities caused by the Proposed Development.
- C. Proponent wishes to engage Trust for Nature to identify and secure an area of land capable of forming the habitat protection component of a conservation offset to the satisfaction of the Minister. This engagement will be effected through an Engagement Agreement.
- D. Condition AA of the Approval requires Proponent to provide BB million CC hundred thousand dollars (\$BB,CC00,000) to Trust for Nature to be held on trust until such time as an Approved Site is identified, at which time the money will be released to procure Environmental Services from the Owner of an Approved Site.
- E. Proponent has agreed to provide the Funds which are to be managed in accordance with this Deed.

OPERATIVE PROVISIONS

1. Definitions and Interpretation

1.1 Definitions

Approval	means approval no. EPBC 20YY/ZZZZ issued under the EPBC Act, which is attached to this Deed.
Approved Site	means a Candidate Site which has been approved by the Minister as contemplated in condition DD of the Approval.

Candidate Site	means an area of land that has been identified as containing threatened communities or contains known habitat for threatened species which may (subject to the approval of the Minister) be suitable to be secured in perpetuity to compensate for the impact of the Proposed Development pursuant to and in accordance with the Approval.		
Credit Trading Agreemer	nt means a legal agreement, required under the Approval, between Proponent, Trust for Nature and the Owner which will stipulate the obligations of each party to manage the Approved Site for the purposes of the Offset Package.		
Deed	means this deed and all attachments.		
Engagement Agreement	has the meaning given in clause 4.1.		
Environmental Services	means:		
	(a) the services to be provided by the Owner in relation to the Offset Package, including:		
	 (i) entering into and registering a conservation covenant over the Approved Site in accordance with condition EE of the Approval; and 		
	(ii) managing the Approved Site in accordance with an offset management plan approved by the Minister under condition EE of the Approval, and		
	(b) any other environmental services required by the Minister in connection with the Approval,		
	but does not include services to be provided by Trust for Nature under the Engagement Agreement.		
EPBC Act	means the <i>Environment Protection and Biodiversity Conservation</i> <i>Act 1999</i> (Cth).		
Funds	means \$BB,CC00,000.		
GST Amount	has the meaning given in clause 3.		
Management Amount	means the fee Proponent is required to pay Trust for Nature for managing and administering the Trust Account.		
Minister	means the Australian Government Minister responsible for administering the <i>Environment Protection and Biodiversity</i> <i>Conservation Act 1999</i> (Cth), and is taken to include any authorised delegate of the Minister acting within the delegate's power.		
Offset Amount	means that portion of the Funds that are needed to procure Environmental Services from the Owner.		
Offset Package	means the range of measures required to create the conservation offset required by the Approval, being		

Owner	means the person or persons registered or entitled from time to time to be registered by the Registrar of Titles as proprietor or proprietors of an estate in fee simple of the Approved Site.
Proposed Development	means the as referred to in the Approval.
Surplus Funds	means the amount of the Funds less the aggregate of the Offset Amount and Management Amount.
Trust Account	has the meaning given in clause 2.1.

1.2 Interpretation

In this deed, unless the context otherwise requires:

- (a) headings are for convenience only and do not affect interpretation;
- (b) words importing a gender include any other gender;
- (c) words importing persons include a partnership and a body whether corporate or otherwise;
- (d) the singular includes the plural and the plural includes the singular;
- (e) references to dollar amounts are references to Australian dollars;
- (f) reference to any statute or other legislation (whether primary or subordinate) is to statute or other legislation of the Commonwealth as amended or replaced from time to time; and
- (g) where appropriate in the context of this Deed a reference to any Party of this Deed includes a reference to a party's successors and substitute and substitutes or assigns.

2. Funds

2.1 Funds Payment and Investment

The parties agree that:

- (a) Proponent must pay the Funds into an account nominated by Trust for Nature (Trust Account) after this Deed commences and within 7 days of the date that Trust for Nature informs Proponent in writing of the details of the Trust Account, such Trust Account to be:
 - (i) in the name of "Trust for Nature as trustee for Proponent ";
 - (ii) an interest-bearing account with a bank in Australia payable at call;
 - (iii) the subject of regular (minimum 3 monthly) bank statements or other like accounts; and
 - (iv) established so that withdrawals can only be authorised by the signature of two trustees of Trust for Nature;
- (b) Trust for Nature must:
 - (i) hold the Funds in the Trust Account on trust for Proponent; and

- (ii) not permit the Trust Account to be used other than to hold the Funds and must not permit the Funds to be comingled with any other monies;
- (c) Trust for Nature must:
 - (i) provide to Proponent within five business days of receipt copies of all bank statements received in respect of the Trust Account; and
 - (ii) if requested by Proponent, pay to Proponent within ten business days of the request any interest earned on the Trust Account less any taxes deducted from any interest on the Trust Account;
- (d) subject to clauses 2.1(c) and 5.1, Trust for Nature may not release any monies from the Trust Account until:
 - (i) it has received written consent of Proponent that it may do so;
 - (ii) the Credit Trading Agreement has been executed; and
 - (iii) the Minister has approved the Offset Package;
- (e) Trust for Nature must:
 - (i) release the Offset Amount only for the purposes of procuring Environmental Services;
 - (ii) return to Proponent any Surplus Funds (and interest earned on the Funds which has not already been paid to Proponent, less any taxes deducted from any interest and, subject to clause 3, less any GST Amount) within five business days of making all payments necessary to procure all Environmental Services needed to meet the requirements of the Approval;
 - (iii) return the Funds (plus interest earned on the Funds which has not already been paid to Proponent less the Management Amount, less any taxes deducted from any interest and, subject to clause 3, less any GST Amount) within a reasonable time if:
 - i. the Minister confirms in writing that the Offset Package is no longer required; or
 - the Minister otherwise directs that the Funds can be returned to Proponent;
- (f) in the event that the total of the Offset Amount, Management Amount and GST Amount exceed the total value of the Funds and any accrued interest which has not been distributed in accordance with clause 2.1(c), Proponent will pay to Trust for Nature any extra amount needed to procure the Environmental Services and pay the Management Amount and GST Amount within 30 days of Trust for Nature providing to Proponent details in writing of any extra amount;
- (g) subject to clauses 2.1(f) and 5.1, once the Funds and interest have been released pursuant to clause 2.1(e) Proponent will not have any further liability to Trust for Nature in relation to this Deed;
- (h) Trust for Nature will provide Proponent with information and copies of records to verify the balance and transactions history for the Trust Account when reasonably requested by Proponent;

- (i) no Credit Trading Agreement is to be executed unless the Minister has approved the Offset Package;
- (j) Proponent must provide to Trust for Nature its Australian Company Number promptly on request; and
- (k) Once the Funds and interest have been released pursuant to clause 2.1(e) Proponent releases Trust for Nature from any loss, damage, expenses, or liability suffered or incurred in any way arising from or related to this Deed.

2.2 Fees

Proponent must pay any establishment fees and ongoing management fees associated with the Trust Account.

3. GST

3.1 Interpretation

In this clause 3, a word or expression defined in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth) has the meaning given to it in that Act.

3.2 Consideration is GST exclusive

Any consideration to be paid or provided for a supply made under or in connection with this Deed (including, for the avoidance of doubt, the Funds), unless specifically described in this Deed as 'GST inclusive', does not include an amount on account of GST.

3.3 GST gross up

Subject to clause 3.5, if a party makes a supply under or in connection with this agreement in respect of which GST is payable (not being a supply the consideration for which is specifically described in this Deed as 'GST inclusive'), the consideration for the supply but for the application of this clause 3.3 (GST exclusive consideration) is increased by an amount equal to the GST exclusive consideration multiplied by the rate of GST prevailing at the time the supply is made (**GST Amount**).

3.4 Reimbursements

If a party must reimburse or indemnify another party for a loss, cost or expense, the amount to be reimbursed or indemnified is first reduced by any input tax credit the other party is entitled to for the loss, cost or expense, and then increased in accordance with clause 3.3.

3.5 Tax invoice

A party need not make a payment of the GST Amount under clause 3.3 until it receives a tax invoice for the supply to which the payment relates.

4. Identification of Candidate Site

4.1 Trust for Nature to be engaged

Trust for Nature and Proponent agree that they will enter into an agreement pursuant to which Trust for Nature will be engaged to search for Candidate Sites in exchange for a specified fee (**Engagement Agreement**).

4.2 Obligations of both parties

The parties agree that:

- (a) they will discuss all proposals provided by Trust for Nature under the Engagement Agreement; and
- (b) when the parties are reasonably satisfied as to the identity of a Candidate Site and the proposed procurement of Environmental Services upon it, Proponent will nominate the Candidate Site to be the subject of the Credit Trading Agreement.

5. General

- 5.1 Approved site and Credit Trading Agreement
 - (a) The parties acknowledge the requirements of condition DD of the Approval and agree to cooperate with a view to giving effect to these requirements within FF months of the date of the Approval. However, nothing in this Deed requires the parties to enter into a Credit Trading Agreement, or in any way limits or determines the terms of any Credit Trading Agreement.
 - (b) In the event that, due to circumstances beyond its reasonable control, Proponent is unable to comply with its obligations under condition DD of the Approval within FF months of the date of the Approval:
 - i. Proponent shall use its best endeavours to obtain an extension of the time within which its obligations under condition DD of the Approval must be complied with; and
 - ii. Trust for Nature shall not (other than in accordance with clause 2.1(c)) release any monies from the Trust Account until Proponent has exhausted all legal and administrative avenues reasonably available to it to obtain an extension of the time within which its obligations under condition DD of the Approval must be complied with.
 - (c) In the event that the time within which Proponent's obligations under condition DD of the Approval must be complied with is extended, the terms of this Deed shall continue to apply, *mutatis mutandis*, in relation to the Approval as varied or otherwise extended.
 - (d) Subject to clause 5.1(b) and (c), in the event that condition DD of the Approval is not complied with, Trust for Nature shall apply the Funds for the purposes of compensating for the impact of the Proposed Development as directed by the Minister.
 - (e) In the event that the Funds and interest have been released pursuant to clause 5.1(d) Proponent will not have any further liability to Trust for Nature in relation to this Deed.
 - (f) In the event that the Funds and interest have been released pursuant to clause 5.1(d) Proponent releases Trust for Nature from any loss, damage, expenses, or liability suffered or incurred in any way arising from or related to this Deed.

5.2 Costs of Deed

Each party is to pay its own costs (including legal costs) associated with the preparation of this Deed.

5.3 Commencement of Deed

Unless otherwise provided in this Deed, the Deed commences from the date this Deed is executed by both parties.

5.4 Termination

Unless otherwise provided in this Deed, this Deed will be completed upon the execution by all parties of the Credit Trading Agreement.

5.5 Governing Law and jurisdiction

The law of Victoria governs this Deed.

5.6 Severability

If part or all of any provision in this Deed is unenforceable, illegal or void then it may be severed and the remaining provisions of this Deed continue in force.

5.7 Good Faith

Each party must act reasonably and in good faith towards the other and use its best endeavours to do all things necessary or desirable to give full effect to this Deed.

5.8 Variation

An amendment or variation to this Deed is not effective unless it is in writing and signed by the parties.

5.9 Execution of Counterparts

This Deed may be executed in any number of counterparts. Each counterpart is an original but the counterparts together are one and the same agreement.

5.10 Entire Agreement

This Deed constitutes the entire agreement between the parties as to its subject matter.

EXECUTED as a Deed

Executed on behalf of Proponent:

Name and position	Signature
Name and position	Signature
Principal's Seal	
This, two thou	sand and ten
Signed on behalf of Trust for Nature (Victoria)	
Signature of Chief Executive Officer	Signature of Trustee/CFO
Name	Name
Date	Date

Attachment

Approval no. EPBC 20YY/ZZZZ

local people global experience

SMEC is recognised for providing technical excellence and consultancy expertise in urban, infrastructure and management advisory. From concept to completion, our core service offering covers the life-cycle of a project and maximises value to our clients and communities. We align global expertise with local knowledge and state-of-the-art processes and systems to deliver innovative solutions to a range of industry sectors.