

Final Report

Offset Management Plan: 435 McDonnells Road Ombersely (Birregurra), Victoria (EPBC 2015/7486)

Prepared for

Reeds Consulting Pty Ltd

October 2018



Ecology and Heritage Partners Pty Ltd

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GLOSSARY

Acronym	Description
CaLP	<i>Catchment and Land Protection Act 1994</i>
CMA	Catchment Management Authority
DELWP	Victorian Department of Environment, Land, Water and Planning
DEWHA	(former) Commonwealth Department of Environment, Water, Heritage and the Arts
DoEE	Commonwealth Department of Environment and Energy
DSEWPaC	(former) Commonwealth Department of Sustainability, Environment, Water Population and Communities.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EVC	Ecological Vegetation Class
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
NES	National Environmental Significance
NTGVVP	Natural Temperate Grassland of the Victorian Volcanic Plain
OMP	Offset Management Plan
SLL	Striped Legless Lizard

DECLARATION OF ACCURACY

I declare that:

1. To the best of my knowledge, all the information contained in, or accompanying this Management Plan (EPBC 2015 – 7486: Offset Management Plan: 435 McDonnells Road Ombersely (Birregurra), Victoria) 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

Signed

Signed

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Date

Date

EXECUTIVE SUMMARY

Introduction

Ecology and Heritage Partners Pty Ltd was engaged by Reeds Consulting Pty Ltd to prepare an Offset Management Plan (OMP) to compensate for impacts associated with the development of an Industrial Development located at Ravenhall, Victoria (EPBC 2015/7486).

The intention of this OMP is to detail the offset strategy to mitigate the loss of 40.23 hectares of Striped Legless Lizard *Delma impar* (SLL) habitat and 18.02 hectares of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) at the development site, by outlining management actions for the protection of 32 hectares of SLL and NTGVVP at a site located at 435 McDonnells Road, Ombersely (Birregurra) Victoria. The OMP has been written in consultation with the landowner of the offset site (Bleak House Pty Ltd), and is intended to be implemented by the landowner.

The proposed SLL habitat and NTGVVP offset outlined within this OMP forms part of a parcel of land comprising a number of offsets sites, which will be managed concurrently with the area covered by this management plan.

Proposed Offset Site

The broader property at 435 McDonnells Road is 100 hectares in size. The property contains contiguous native vegetation of similar quality throughout. Thirty-two hectares of SLL habitat and NTGVVP ecological community will be protected on-title through a Section 69 Agreement, in accordance with the Conservation, Forests and Lands Act 1987. The management actions specified within the Management Plan align with those specified within this OMP and are specific to SLL habitat and NTGVVP ecological community.

Management Actions

The offset site will be managed for the purposes of conservation and will involve physical protection of the SLL habitat and NTGVVP, the control of pest animals and environmental weeds, biomass reduction and general maintenance of the character and quality of the native vegetation, consistent with its historic context. The landholder will adopt an adaptive management approach to allow flexibility to respond appropriately and effectively to uncertainties involved in ecological processes. This will ensure that management objectives are being met while allowing for altered circumstances to be included in the management of the offset site.

Any proposed changes to the management actions for the offset site contrary to those specified within this plan must be approved by Commonwealth Department of Environment and Energy, prior to implementation. Any proposed uses or development of the offset site which conflict with the landowners' commitments or maintenance/improvement of the community are not permitted under this plan.

As the landholder has extensive experience in the management of conservation sites, there is considered to be a high degree of confidence that the objectives and actions detailed in this OMP can and will be achieved.

CONDITIONS OF APPROVAL

Conditions pertaining to sections of this report are listed below. The complete list of conditions in accordance with the DoEE approval notice (EPBC 2015/7486) is attached as an appendix (Appendix 2).

Reference	Cond.	Condition Requirement	Demonstration	Section/Report
1. Off-site offsets:	4.	In addition to the on-site offset, and to compensate for the loss of up to 18.02 ha of NTGVVP and up to 40.23 ha of SLL habitat), the approval holder must secure the off-site offset with a covenant prior to commencement of construction. The off-site offset must contain at least 32 ha of NTGVVP and at least 32 ha of SLL habitat.	32 hectares of NTGVVP and SLL habitat has been secured at the offset site located at 435 McDowell's Road Ombersely, which fulfils the requirement for an off-site offset.	Section 2.2 Section 5.1
2. The approval holder must:	5i.	Submit to the Department an Offset Management Plan for the off-site offset.	This report fulfils the requirement for an OMP, to be submitted to DOEE upon completion.	-
	5ii.	Obtain the Minister's approval of the Offset Management Plan prior to commencement of construction.	TBC upon approval of this OMP.	-
	5iii.	Implement the approved Offset Management Plan for a minimum of 10 years following securement of the covenant over the off-site offset area.	The offset site will be managed to ensure the quality of the offset site is improved over 10 years. After this period of management, the land will be required to be maintained in perpetuity.	Section 5.4

Reference	Cond.	Condition Requirement	Demonstration	Section/Report
3. The approval holder must ensure the Offset Management Plan is prepared by a suitably qualified expert and be consistent with the Department's EPBC Act Offset Policy and Environmental Management Plan Guidelines. The Offset Management Plan must include the following:	6i.	A report detailing the baseline vegetation quality and baseline SLL population numbers and extent at the off-site offset site, including targeted surveys in accordance with the Department's survey guidelines.	Striped Legless Lizard surveys have been completed and a report was prepared by Ecology and Heritage Partners in February 2017.	SLL report (Appendix 3)
	6ii.	A map and description of the off-site offset area, boundary and surrounding land uses.	Figures attached show the offset area, boundary and surrounding land uses.	Section 2.2 Figure 2
	6iii.	Key performance indicators and timeframes for implementation of specific management actions within the off-site offset area.	Key performance indicators are described for each key management process, including pest plant and animal control, and management through grazing.	Sections 5.5.3.2; 5.5.4.2; 5.5.4.3; 5.5.5.2; 5.5.6.2
	6iv.	Management actions (including timeframes), which should include but not be limited to, control of weed and pest species, control of access to the protected land, revegetation, strategic fire and grazing management.	Management actions will be implemented, including pest plant and animal management regimes, which are described in detail in this OMP.	Section 5.6
	6v.	The nature, timing and frequency of monitoring to determine the success of management actions and attainment of future condition.	Agreed monitoring regimes for SLL, NTGVVP and SRF are described within this OMP and will be implemented as per the agreed requirements of the EPBC Act approval notice (EPBC 2015/7486).	Section 8
	6vi.	Evidence that all relevant conservation advice, recovery plans and/or threat abatement plans have been considered in formulating the plan and that the management arrangements are consistent with the relevant EPBC Act policy statements.	Ecology and Heritage Partners is a professional ecological consultancy that has drawn upon up-to-date conservation advice, recovery plans and threat abatement plans to formulate this OMP.	NA
	6vii.	Indicative corrective actions that will be implemented in the event monitoring activities indicate future condition objectives are not being achieved. The appropriateness and effectiveness of corrective measures must be demonstrated.	Contingency and adaptive monitoring regimes have been considered and will be implemented when required, according to this OMP.	Section 6
	6viii.	The roles and responsibilities for implementing the management actions.	The roles and responsibilities within this OMP are the	Sections 5.1; 5.5

Reference	Cond.	Condition Requirement	Demonstration	Section/Report
			obligation of multiple parties, including landowners.	
	6ix.	A monitoring schedule for NTGVVP and SLL habitat quality and extant.	An appropriate monitoring schedule for NTGVVP and SLL has been established and is described within this OMP.	Section 8

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1 INTRODUCTION

1.1 Background

Ecology and Heritage Partners Pty Ltd was engaged by Reeds Consulting Pty Ltd to prepare an Offset Management Plan (OMP) to compensate for impacts associated with the development of an industrial estate located at Ravenhall, Victoria (EPBC 2015/7486).

A referral for the action was submitted for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (EPBC 2015/7486), which was approved in September 2017, subject to conditions. Conditions 3 – 6 require the approval holder (Victoria Spinning Pty Ltd, Pei-Guan Song and Giovanni Nominees Proprietary Ltd) to undertake the following actions to compensate for the Ravenhall Industrial Precinct development:

- Secure on-site offsets containing at least 13.37 hectares of Natural Temperate Grassland of the Victorian Volcanic Plain (NGTVVP), 28.98 hectares of Striped Legless Lizard (SLL) *Delma impar* habitat and 86 Spiny Rice-flower (SRF) *Pimelea spinescens* plants, and provide evidence of fulfillment for a number of management progress requirements; and,
- Secure off-site offsets containing at least 32 ha of NGTVVP and 32 ha of SLL habitat.

The intention of this OMP is to detail the ongoing management actions required to protect 32 ha of SLL habitat and NGTVVP habitat at an off-site offset site located at 435 McDonnells Road, Ombersely (Birregurra), Victoria. The OMP has been written in consultation with the landowner of the offset site (Bleak House Pty Ltd), and is intended to be implemented by the landowner.

This OMP responds to Conditions 3 – 6 of the Approval Decision Notice provided by Department of Environment and Energy (DoEE).

The OMP is both strategic and focussed on management actions and performance measures (quantitative amounts indicated, where appropriate) in order to address management issues and key threats across the offset site.

2 OBJECTIVES AND CONTEXT OF THE PROJECT

2.1 Impact Site

The impact site (Ravenhall Industrial Development) is located in Ravenhall, Victoria, approximately 21 kilometres west of the Melbourne CBD. The impact site lies between private landholdings to the west, which are bordered by Hopkins Road, residential development and the Western Highway to the north, Caroline Springs Rail Corridor and open grassland to the south, and Christies Road and the Western Freeway, bordered by industrial development, to the east. The impact site is split between three land owners (Victoria Spinning Pty Ltd, Pei-Guan Song and Giovanni Nominees Proprietary Ltd).

The Ravenhall Industrial Precinct site is approximately 120 hectares in size, comprises private land and public road reserves, and falls within the Melton City Council municipality, the Victorian Volcanic Plains bioregion and the Port Philip and Westernport Catchment Management Authority region (Figure 1). The majority of the impact site is zoned Industrial 3 Zone (IN3Z), with one small section zoned Urban Floodway Zone (UFZ) under the City of Melton Planning Scheme. The small section zoned to UFZ is subject to the overlay Land Subject to Inundation Overlay – schedule 1 (LSIO 1).

The impact site is predominantly flat and consists of both exotic and indigenous flora, with areas of intact remnant grassland containing embedded and loose basalt rocks. The impact site appears to have been predominantly used for agricultural purposes, and is currently grazed by livestock.

The proposed action at the impact site will have a direct impact on three Matters of National Environmental Significance (NES): 18.02 hectares of NTGVVP, 40.23 hectares of SLL habitat and 13 SRF. The objectives of this OMP is to offset the loss of a portion of the NTGVVP (which includes SRF) and SLL. NTGVVP and SLL are listed as critically/endangered under the EPBC Act.

2.2 Off-site Offset Site

2.2.1 Description of the Off-site Offset Site

The off-site offset site (offset site) is within a property located at 435 McDonnells Road, Ombersely Victoria, approximately 50 km southwest of Geelong and 18 km northeast of Colac (Figure 3). The property is currently zoned Farming Zone (FZ) and is not subject to any relevant overlays. The property is currently used for grazing livestock. This property is approximately 100 hectares in size, and all offset sites are proposed to be managed for offset and conservation purposes.

The broader 100 hectares property supports large remnants of the nationally significant NTGVVP and confirmed SLL and SRF habitat (Figure 4). The NTGVVP and SLL outlined within this OMP will be protected on-title through a Section 69 Agreement under the *Conservation Forests and Lands Act 1987* for the area covered by this OMP, with the management actions specified within the Section 69 Agreement alike to those specified within this OMP specific to NTGVVP and SLL. The offset site covered by the OMP comprises 32 ha of Very High Quality NTGVVP and SLL habitat. The offset site has been chosen as it meets 100% (less the offsets met by onsite offsets) of the direct offset requirements generated by the vegetation removal at the impact site, and as such, offers considerably less risk in terms of management of the SLL and NTGVVP communities, and results in a demonstrable benefit in accordance with the Commonwealth's Environmental Offset Policy (DSEWPac 2012a).

According to the Department of Environment, Water, Land and Planning (DEWLP) Native Vegetation Information Management Tool (NVIM) (DEWLP 2018), the offset site occurs within the Victorian Volcanic Plain Bioregion. It is located within the jurisdiction of the Corangamite Catchment Management Authority (CMA) and the Colac Otway Shire municipality

2.2.2 Tenure Arrangements

The proposed offset site is privately owned by Bleak House Pty Ltd, and is currently in the process of being protected through a Section 69 Agreement under the *Conservation Forests and Lands Act 1987*.

2.2.3 Ecological Condition

The broader property supports large remnants of the nationally significant NTGVVP community (Figure 4); however, henceforth, this OMP will solely focus on matters relevant to the offset site as they relate to the conditions of approval for EPBC 2015/7486.

2.2.4 Natural Temperate Grassland of the Victorian Volcanic Plain

An ecological assessment of the offset site was undertaken by a qualified botanist on 31st October 2017. The inspections sought primarily to identify the presence and extent of the NTGVVP ecological community listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The offset site is located on lowland plains, with poorly draining clays. The offset site support grassland species typical of the Plains Grassland EVC (EVC 132), which is also representative of the NTGVVP ecological community. NTGVVP within the offset site was observed to be in good condition during the ecological assessment. The grassland contained a diversity of native species, including Common Tussock-grass *Poa labillardierei*, Kangaroo-grass *Themeda triandra*, Blue Devils *Eryngium ovinum*, Rushes *Juncus* spp., Grassland Wood-sorrel *Oxalis perennans* and Spear-grasses *Austrostipa* spp.

A moderate cover of weeds was present, predominantly comprising low threat grasses such as Quaking-grass *Briza* spp., Onion-grass *Romulea rosea*, Squirrel-tail Fescue *Vulpia myuros* and Cat's Ear *Hypochoeris radicata*. Scattered occurrences of the high threat weeds Brown-top Bent *Agrostis capillaris*, Couch *Cynodon dactylon* Perennial Rye-grass *Lolium perenne*, Sweet Vernal-grass *Anthoxanthum odoratum*, Toowoomba Canary-grass *Phalaris aquatica* and Yorkshire Fog *Holcus lanatus* were present.



Plate 1. Typical site structure and embedded rock at the offset site (Ombersely) (Ecology and Heritage Partners Pty Ltd 2018)



Plate 2. Typical site structure at the offset site (Ombersely) (Ecology and Heritage Partners Pty Ltd 2018)



Plate 3. Embedded rock and Striped Legless Lizard habitat at the offset site (Ombersely) (Ecology and Heritage Partners Pty Ltd 2018)



Plate 4. Tussock habitat at the offset site (Ombersely) (Ecology and Heritage Partners Pty Ltd 2018)

2.2.4.1 Diagnostic Characteristics

The details against the criteria for the classification of NTGVVP (TSSC 2008) is outlined within Table 1.

Table 1. Assessment of Plains Grassland against criteria for *Natural Temperate Grassland of the Victorian Volcanic Plain*

Attribute	Assessment criteria	Result
Diagnostic Characteristics	The grassland is mainly associated with Quaternary basalt soils within the Victorian Volcanic Plain IBRA bioregion.	The offset site is located within the Victorian Volcanic Plain on basalt soils.
	At least one of the following grass genera is the dominant native species in the ground layer: <i>Themeda</i> (Kangaroo-grass), <i>Austrodanthonia</i> (Wallaby-grass), <i>Austrostipa</i> (Spear-grass) and/or <i>Poa</i> (Tussock-grass).	Plains Grassland within the offset site was co-dominated by <i>Themeda</i> , <i>Austrostipa</i> and <i>Poa</i> .
	For a native vegetation remnant ≤ 1 hectare in size, the minimum contiguous size of the grassland patch is 0.05 hectare and the crown cover of shrubs and trees over one metre tall within the grassland patch should not exceed 5% OR For a native vegetation remnant > 1 hectare in size, the minimum contiguous size of a grassland patch is 0.5 hectare and the density of mature trees within the grassland patch should not exceed 2 trees per hectare	The area of contiguous Plains Grassland is 32 hectares. No trees or shrubs over one metre high were recorded.
Condition Thresholds	The total perennial tussock cover represented by the native grass genera <i>Themeda</i> , <i>Austrodanthonia</i> , <i>Austrostipa</i> or <i>Poa</i> is at least 50% OR If the total perennial tussock cover represented by the above 4 native grass genera is less than 50%, then the ground cover of native forbs (wildflowers) is at least 50% of total vegetation cover during spring-summer (September to February) OR The cover of non-grass weeds is less than 30% of total vegetation cover at any time of the year	Plains Grassland within the offset site was dominated by <i>Austrostipa</i> and <i>Poa</i> , with greater than 50% of the total perennial cover comprising these species.

3 RISK ASSESSMENT

An assessment of potential risks associate with the objectives of this plan are outlined within 2. All risks are considered manageable and actions within subsequent sections of this OMP address relevant risks.

Table 2. Risk assessment and management table for specific offset site.

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
To legally secure approved offset properties for conservation.	Failure to legally secure approved offset site	Engage with expert offset brokers	Unlikely	Moderate	Low	n/a	Engage a consultant	Low risk: the site is currently in the process of being secured with an on-title agreement (Section 69 Agreement).
	Legislative reform prejudices proposed tenure arrangements for offset properties.	Monitor DoEE, DELWP, LGAs and other legislative bodies on developments to offsets	Rare	High	Low	Newsletters, expert liaison, press releases and direct contact.	Adjust offset calculations accordingly.	
To achieve performance targets and completion criteria for all MNES	Landowner-approval holder agreements fail to adequately address management commitments in the offset plan	Engage an expert to manage this process. Ensure all impacts are suitably offset.	Unlikely	High	Medium	Quality assurance and monitoring	Revise on-title and/or approval holder agreements.	The site will be protected through a Section 69 Agreement. DELWP undertakes quality assurance process for all offset sites to ensure the landowner agreements address the management commitments in the plan. Further the s69 Agreement will be placed on-title and therefore undergo a further review by the Titles Office.

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
To achieve performance targets and completion criteria for all MNES	Adjacent/regional landowner's land management practices fail to support attainment of offset outcomes.	Liaise with adjacent landholders. Ensure understanding of offset objectives	Unlikely	High	Medium	Adjacent land practices begin to negatively impact offset site.	Take steps to halt negative impacts. Follow up with stakeholder discussions	The adjacent land parcels contain agricultural land (grazing and/or cropping). Based on the current land management practices in the region and it is unlikely that any foreseeable land management practices within the vicinity will impact the offset site.
	Insufficient funds provided by approval holder to implement the plan.	Ensure reputable land holder to implement plan.	Unlikely	High	Medium	Monitoring and/or annual reporting	Review plan for cost efficiencies.	The landholder has extensive experience in management of conservation sites and the offset funds provided by the proponent will be deposited in a trust account with the Department of Environment, Land, Water and Planning (DELWP) and annual payments over ten years will be reliant on annual reports being provided each year by the land holder. In effect, the offset funds will be administered using the same system used for Victorian state offsets and this will guarantee that funds are available for the first ten years of management, which will include the most extensive habitat improvement works required.
	Stochastic events (wildfire/drought/flood) prejudice	Ensure appropriate biomass management. Plan	Possible	High	Medium	Monitoring and/or annual reporting	Apply adaptive management to ensure the	-

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
To achieve performance targets and completion criteria for all MNES	attainment of interim performance targets and/or completion criteria for MNES.	for scheduling delays.					objectives of the OMP are not compromised.	
	Approved development on/near project/offset prejudicing plan outcomes	Ensure proper stakeholder engagement to prevent poor outcomes.	Unlikely	High	Medium	Advertisement of planning scheme amendments/planning permit applications	Objection to proposed development/laisse with proponent to ensure the proposed development does not compromise the objectives of the OMP.	The offset site is within a rural agricultural landscape, as such, there is a low likelihood of development within adjacent properties. The ecological values within the offset site do not rely on habitat values within adjacent land.

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
NTGVVP community and SLL habitat improved	Drought	Apply adaptive management to ensure the site is not over-grazed	Likely	Moderate	Medium	Drought Event	Apply adaptive management to ensure the site is not over-grazed	The NTGVVP offset site is within a larger site of 100 ha hectares of similar grassland, historically subject to frequent drought and occasional wildfire. As such, the NTGVVP community is likely to survive such an event.
	Wildfire		Likely	Moderate	Medium	Wildfire Event		

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
	Uncontrolled grazing	Maintain fences and install temporary fencing, if required (Section 5.5.3.1)	Highly Likely	Moderate	Unlikely	Continual monitoring	Repair permanent fences, and/or install temporary exclusion fences.	The strategic grazing regimes specified within this plan aim to shift species dominance to favour native species abundance and diversity, improving the ecological condition and habitat.
		Exclude stock during (October-November) (see Section 5.5.6 for further information on exclusion period)						
	High biomass levels preventing establishment of native herbs (see Section 5.5.6.4 for performance indicators)	Undertake pulse grazing (Section 5.5.6.2)	Highly Likely	Moderate	Possible	Annual monitoring	Apply pulse grazing in appropriate season to reduce biomass levels (Section 5.5.6.2)	Further, strategic grazing strategies will improve and maintain recruitment space required for native plants to establish, further improving species diversity over time.
		Grazing excluded between October-November annually, in perpetuity (Section 5.5.6.2)						
	Loss of biodiversity due to competition with weeds (see Section 5.5.4.3 for performance indicators)	Spot spraying of weeds (Section 5.5.4.2)	Likely	Moderate	Possible	Annual monitoring	Undertake weed control activities (Section 5.5.4.2)	The Offset Management Plan includes actions to reduce weed cover, improving the ecological condition of the site over the ten-year period.
		Undertake pulse grazing (Section 5.5.4.2)						
		Annual monitoring to adapt future						

Management objective/desired outcome	Event or circumstance	Relevant management actions/measures	Residual risk			Trigger detection and monitoring activity/ies	Feasible/effective corrective actions	Notes
			L	C	RR			
		control works and targets (Section 5.5.4.2)						
	Loss of biodiversity due to pest animal activity (see Section 5.5.5.3 for performance indicators)	Rabbit warrens or fox dens are controlled (Section 5.5.5.2)	Likely	Moderate	Possible	Annual monitoring	Undertake pest control activities (Section 5.5.5.2)	The Offset Management Plan includes actions to reduce pest animal activity, thereby reducing predation of Striped Legless Lizard by Foxes and grazing/soil disturbance by Rabbits. As a result, the population of Striped Legless Lizard is likely to increase and ecological condition of NTGVVP within the site improved.

Notes. L = Likelihood; C = Consequence; RR = Residual Risk

4 UNAVOIDABLE LOSS AND OFFSET OBLIGATIONS

4.1 Unavoidable Loss

The proposed development at the impact site (Ravenhall Industrial Precinct) will result in the removal of the following Matters of National Environmental Significance (NES):

- 18.02 hectares of NTGVVP;
- 40.23 hectares of SLL habitat; and,
- 13 Spiny Rice-flower plants.

4.2 Offset obligations, user inputs and applying the offset guide

4.2.1 Striped Legless Lizard habitat

Based on the EPBC Act offset calculator (DSEWPaC 2012a), the protection and management of 32 hectares of Striped Legless Lizard habitat within the proposed offset site as an offset mitigates 51.73% of the impact of the removal of 40.2 hectares of Striped Legless Lizard habitat (Table 3) (Appendix 4). On-site offsets will mitigate 84.92% of the impacts (Ecology and Heritage Partners 2016), as such, 100% of the offset requirements will be met through direct offsets and is considered to be in accordance with the Commonwealth environmental offset policy (DSEWPaC 2012b).

Table 3. EPBC Act Offset Calculator (Stripped Legless Lizard)

Offset Criteria	Response
Impact Site	
Impact Location	Ravenhall Industrial Precinct
Habitat to be removed	40.228 hectares of Striped Legless Lizard habitat
Habitat quality	5/10. The Striped Legless Lizard habitat to be removed is of moderate quality. The areas of high quality habitat will be retained with a conservation reserve.
Offset Site	
Offset location	435 McDonnells Road Ombersely (Birregurra), Victoria
Risk-related time horizon	20 years. The land will be managed in perpetuity for conservation purposes for Striped Legless Lizard.
Time until ecological benefit	10 years. The existing habitat condition is expected to be improved over the 10 year active management schedule detailed in the Offset Management Plan.
Start area and quality of offset site	32 hectares; 6/10. The offset site was assessed by Ecology and Heritage Partners on 31 October 2017. The site supports high quality habitat for Striped Legless Lizard. While the proposed offset site is 32 hectares in size, it is contiguous with larger areas of high quality Striped Legless Lizard habitat within conservation areas to meet approvals for other projects under the EPBC Act.

Offset Criteria	Response
Risk of loss without offset	<p>50%. There are currently no formal protection mechanisms that protect the ecological values present within the offset site. Without protection and ongoing management as an offset site, there is uncertainty regarding the future condition of the land.</p> <p>As the broader offset property is zoned Farming Zone (FZ), there is a risk that the site will degrade, resulting in a complete loss of habitat values for the protected matters due to inappropriate agricultural practices. Inappropriate grazing regimes will result in pugging during wet periods, reducing species diversity and increasing opportunities for weed invasion. Intensive agricultural activities such as ploughing, rock removal and/or tilling the soil will destroy habitat that supports Striped Legless Lizard.</p> <p>Further, without protection, there is risk that the habitat may be removed for construction of infrastructure.</p>
Future quality without offset	<p>4/10. Without protection as an offset site there is uncertainty regarding the future condition of the land. A reduction in quality over time is likely due to continued weed encroachment from adjoining properties, as well as perennial weeds that exist elsewhere within the broader property, as well as a lack of land management, including biomass management resulting in a reduction in species diversity.</p>
Risk of loss with offset	<p>5%. There is a 5% chance that the offset site will be lost with the offset being protected and managed in accordance with the OMP placed on-title. This low level of risk is based on the demonstrated experience of the Land Manager in managing other existing offset sites within the property, the and the location of other adjacent offsets sites, further consolidating habitat within the property.</p>
Future quality with offset	<p>8/10. The offset site is to be secured and managed for conservation purposes in perpetuity, with implementation of a management plan incorporating weed control, biomass control and regular monitoring, aiming to enhance native biodiversity.</p>
Confidence in result	<p>60%. Confidence in applied scores is relatively high due to careful consideration of the offset site, existing condition and known experience that the landowner has in managing other offset sites within the property. The site will be protected through a Section 69 Agreement under the <i>Conservation Forests and Lands Act 1987</i> with DELWP. DELWP undertakes a rigorous quality assurance process for all offset sites to ensure the landowner agreements address the management commitments in the plan.</p>
% of impact offset off-site	51.73%
% of impact offset on-site	84.92%

4.2.2 Natural Temperate Grassland of the Victorian Volcanic Plain

Based on the EPBC Act offset calculator (DSEWPac 2012a), the protection and management of 32.0 hectares of NTGVVP within the proposed offset site as an offset mitigates 64.07% of the impact of the removal of 18.02 hectares of NTGVVP (Table 4) (Appendix 4). On-site offsets will mitigate 36.48% of the impacts (Ecology and Heritage Partners 2016), as such, 100% of the offset requirements will be met through direct offsets, and is considered to be in accordance with the Commonwealth environmental offset policy (DSEWPac 2012b).

Table 4. EPBC Act Offset Calculator (NTGVVP)

Offset Criteria	Response
Impact Site	
Impact Location	Ravenhall Industrial Precinct
Habitat to be removed	18.02 hectares of NTGVVP
Habitat quality	4/10. The NTGVVP to be removed ranges from low to high quality. Areas of the highest quality will be retained with a conservation reserve.
Offset Site	
Offset location	435 McDonnells Road Ombersely (Birregurra), Victoria
Risk-related time horizon	20 years. The land will be managed in perpetuity for conservation purposes for Striped Legless Lizard.
Time until ecological benefit	10 years. The existing habitat condition is expected to be improved over the 10 year active management schedule detailed in the Offset Management Plan.
Start area and quality of offset site	32.0 hectares; 7/10. The offset site was assessed by Ecology and Heritage Partners on 31 October 2017. The site supports grassland vegetation in good condition and provides confirmed NTGVVP (due to the cover of perennial native grasses exceeding 50%) and supports a diversity of native grasses. While the proposed offset site is 32 hectares in size, it is contiguous with larger areas of high quality NTGVVP within conservation areas to meet approvals for other projects under the EPBC Act.
Risk of loss without offset	50%. There are currently no formal protection mechanisms that protect the ecological values present within the offset site. Without protection and ongoing management as an offset site, there is uncertainty regarding the future condition of the land. As the broader offset property is zoned Farming Zone (FZ), there is a risk that the site will degrade, resulting in a complete loss of habitat values for the protected matters due to inappropriate agricultural practices. Inappropriate grazing regimes will result in pugging during wet periods, reducing species diversity and increasing opportunities for weed invasion. Intensive agricultural activities such as ploughing, and/or tilling the soil will destroy native vegetation present. Further, without protection, there is risk that the NTGVVP may be removed for construction of infrastructure.
Future quality without offset	4/10. Without protection as an offset site there is uncertainty regarding the future condition of the land. A reduction in quality over time is likely due to continued weed encroachment from adjoining properties, as well as perennial weeds that exist

Offset Criteria	Response
	elsewhere within the broader property, as well as a lack of land management, including biomass management resulting in a reduction in species diversity.
Risk of loss with offset	5%. There is a 5% chance that the offset site will be lost with the offset being protected and managed in accordance with the OMP placed on-title. This low level of risk is based on the demonstrated experience of the Land Manager in managing other existing offset sites within the property, the and the location of other adjacent offsets sites, further consolidating habitat within the property.
Future quality with offset	8/10. The offset site is to be secured and managed for conservation purposes in perpetuity, with implementation of a management plan incorporating weed control, biomass control and regular monitoring, aiming to enhance native biodiversity.
Confidence in result	60%. Confidence in applied scores is relatively high due to careful consideration of the offset site, existing condition and known experience that the landowner has in managing other offset sites within the property. The site will be protected through a Section 69 Agreement under the <i>Conservation Forests and Lands Act 1987</i> with DELWP. DELWP undertakes a rigorous quality assurance process for all offset sites to ensure the landowner agreements address the management commitments in the plan.
% of impact offset off-site	64.07%
% of impact offset on-site	36.48%

5 OFFSET IMPLEMENTATION

5.1 Management Objectives and Strategy

The offset site will be managed for the purposes of conservation and will involve physical protection of the SLL habitat and NTGVVP communities, the control of pest animals and environmental weeds, biomass reduction and general maintenance of the character and quality of the native vegetation, consistent with its historic context.

The offset site will be protected in perpetuity via a Section 69 Agreement (Table 5). This OMP will be attached to the on-title agreement and require the landowner to manage the offset site in accordance with the requirements detailed herein. Security, management and monitoring responsibilities are summarised in Table 5.

This requires the landowner to manage the offset site in accordance with the requirements detailed herein. This OMP relates solely to the 32 ha of SLL habitat and NTGVVP community identified in Figure 4, and includes actions related to the ongoing monitoring and management of these ecological communities.

Table 5. Security and Management Responsibility

Offset Security and Management Responsibility	Birregurra
Who is liable/responsible for meeting offset requirements?	Victoria Spinning Pty Ltd, Pei-Guan Song and Giovanni Nominees Proprietary Ltd
Type of security mechanism	Section 69 agreement
Agreement or Planning Permit Number (ID)	TBC
Date 10-year offset management to commence	Upon approval of this OMP by DoEE
Date 10-year offset management expires	Ten years following approval of this OMP by DoEE
Offset site management responsibility (i.e. Landowner, Authority Name)	Bleak House Pty Ltd
Offset Monitoring Responsibility (i.e. Responsible Authority)	Landowner, DoEE

5.2 Compliance with Offset Principles

The 'Environmental Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy' (DSEWPaC 2012a) outlines a set of principles that a proposed offset must meet in order to be assessed under the referral process. These principles are detail in Section 7 of the Preliminary Documentation (Ecology and Heritage Partners 2016), along with how the proposed off-site offset site meets these requirements.

5.3 Offset Targets

The EPBC Act offsets policy (DSEWPaC 2012a) provides the details of the offsetting approach for Matters of NES; this includes an Offset Assessment Guide and offset calculator.

The Offset Assessment Guide offset calculator has been completed to determine the area of offset required to adequately compensate for the removal of the NTGVVP ecological community and Striped Legless Lizard habitat at the development site. The Offset Assessment Guide offset calculator is provided in Appendix 4, and a justification for the scores given in Section 4.2.

5.4 Ongoing Land-use Commitments

The offset site will be managed to ensure the quality of remnant native vegetation and habitat for Matters of NES is improved over 10 years. After this period of management, the land will be required to be maintained in the condition achieved as a result of that management, in perpetuity.

From the commencement of the agreement, the Landowner agrees to undertake the following long-term (ongoing) management commitments in perpetuity in the 32 hectares of NTGVVP and SLL habitat:

- Retain and manage all native vegetation as directed by this OMP;
- Exclude domestic stock, except as permitted by this OMP;
- Eliminate all woody weeds < 1 % cover;
- Ensure that weed cover does not increase beyond the current level;
- Monitor for any new and emerging weeds and eliminate to < 1% cover;
- Control rabbits; and,
- Undertake biomass management (grazing).

5.5 Management Actions

Implementation of this OMP is the overall responsibility of the landowners (Bleak House Pty Ltd). However, direct management responsibility may be delegated to a designated site manager and/or managing ecologist with annual reports submitted to DELWP, DoEE and Victoria Spinning Pty Ltd, Pei-Guan Song and Giovanni Nominees Proprietary Ltd.

Management actions detailed in this OMP will commence from the date the Section 69 Agreement is registered on-title. A breakdown of management actions required over the mandatory 10-year active management period is shown below (Table 10). Following the 10-year active management period, the landowner will continue to manage the offset site as specified in this plan, such that:

- By year 10 of management, the weed cover must be improved (ie. reduced) from levels upon inception of this plan (Section 5.5.4). Following year 10 of this plan, the weeds within the site must be maintained at the improved state achieved at year 10, or ideally improved further;
- managed in perpetuity to ensure it does not increase beyond the level attained at year 10 of management; and,

- SLL habitat and NTGVVP ecological communities are improved.

Funding for undertaking security, management and monitoring actions prescribed in this OMP has been agreed between the landowner (Bleak House Pty Ltd) and the Proponent (Victoria Spinning Pty Ltd, Pei-Guan Song and Giovanni Nominees Proprietary Ltd).

Any proposed uses or development of the offset site which conflict with the landowner's commitments are not permitted under this plan. The sensitivities of the offset site must be considered with all management actions and all contractors entering the offset site need to be made aware of its ecological values.

The management and monitoring actions detailed in this OMP have been development is accordance with the following legislations and/or policies:

- *Environment Protection and Biodiversity Conservation) Act 1999;*
- *Flora and Fauna Guarantee Act 1988 (FFG Act);*
- *Catchment and Land Protection Act 1994 (CaLP Act);*
- Commonwealth's Threat abatement plan for competition and land degradation by rabbits (DoEE 2016);
- Commonwealth's Threat Abatement Plan for predation, habitat degradation, competition and disease transmission by feral pigs (DoEE 2017);
- Commonwealth Listing Advice on Natural Temperate Grassland of the Victorian Volcanic Plain (TSSC 2012c); and,
- Approved Conservation Advice for the Natural Temperate Grassland of the Victorian Volcanic Plain (DEWHA 2008).

Of particular note, weed invasion and inappropriate grazing regimes are two of the main demonstrated threats to both NTGVVP and SLL communities. Inappropriate fire regimes are also recognised as a threat for NTGVVP communities (DSEWPac 2012c; DEWHA 2008).

This OMP addresses these demonstrated threats by including management actions aimed at reducing the likelihood of weed invasion, the preparation of an appropriate grazing regime sensitive to the values that exist in the offset site and surrounds.

Further, the actions contained in this OMP address several Priority Actions included in the conservation advice (DSEWPac 2012c; DEWHA 2008) and will be undertaken to support the recovery of the SLL populations and NTGVVP ecological communities.

5.5.1 Natural Temperate Grassland of the Victorian Volcanic Plain

- Habitat Loss, Disturbance and Modification
 - Monitor known sites to identify key threats and the effectiveness of management actions.
 - Undertake survey work to locate additional remnants.
 - Minimise adverse impacts from changed land use at known sites.

- Protect remnants of the listed ecological community through the development of conservation agreements and covenants.
- Invasive Weeds
 - Undertake weeding of known sites to reduce or remove key weeds, for example Chilean Needle Grass and Serrated Tussock Grass.
 - Ensure any chemicals are applied in a manner that does not adversely impact on the ecological community
- Trampling, Browsing or Grazing
 - Prevent trampling and excessive grazing pressure at known sites.

5.5.2 Striped Legless Lizard

- To protect and manage the SLL habitat to maintain the potential for its evolution in the wild across its natural geographical range.
- Protect and prevent impacts to habitat critical to the survival of the species in the planning, construction and post construction phases of developments.
- Negotiate and implement conservation agreements or reserves for SLL on privately owned land which do not allow high intensity grazing, cropping and pasture improvement activities and involve ongoing management.
- Identify, control and reduce the spread of invasive grasses including escaped pasture species.
- Control feral cats and foxes in areas where SLL are present.
- Work with fire authorities and private landholders to plan and undertake any burns proposed in areas of habitat critical to the survival of the species in a way that will maintain or improve the habitat for the species.

5.5.2.1 Existing Threats

The main threats to the offset site include the existing permitted uses associated with normal farming practices, such as inappropriate grazing regimes, pasture improvement and fertiliser application. Other threats include the expansion of the existing high threat weed populations that are present within the surrounding area, weed invasion in general and the accumulation of ground cover biomass.

This OMP details the prescribed actions and outlines the relevant timing for implementation. These actions will be applied to the entire offset area identified in Figure 4.

Maintenance and protection of the offset site will be achieved by:

- Maintaining the existing stock-proof fencing around the boundary of the broader property;
- Weed control through active management;
 - Eliminating all woody environmental weeds to < 1 % cover;
 - Controlling weeds to ensure cover does not increase;

- Biomass control through high intensity pulse grazing of domestic stock (sheep only) with stock excluded from 1st October to 31st January;
- Controlling pest animals, particularly rabbits and foxes; and
- Managing native species understorey diversity and recruitment.

5.5.3 Fencing and Access

An existing permanent stock-proof fence currently exists around the perimeter of the broader offset property. Under this agreement livestock (sheep) may be permitted into the offset site for control of herbaceous/grassy weeds and biomass management, with grazing to be excluded between 1st October and 31st January. Further details pertaining to grazing/biomass control are provided in Section 5.5.4.

Permanent fencing around the offset site is not recommended to avoid the need for establishing stock watering points which will displace native vegetation, to avoid the funnelling of stock through internal gates, and to minimise the disturbance to native vegetation along internal fence-lines. Temporary fencing will be erected around the offset site during the grazing exclusion period if livestock are grazed within other areas of the broader property and cannot be contained.

Posts marking the boundary of the offset site will be established to clearly identify the area for monitoring and management purposes.

The offset site and broader property remains private property and access or disturbance to the offset site by unauthorised persons is prohibited. Access to the broader property is provided via the north-west corner of the property, with a secondary access point provided along the north-eastern boundary (Figure 4). The existing access and security (locked gates) arrangement is adequate to service the access requirements for management of the offset site.

5.5.3.1 Actions

- Maintain existing perimeter fencing and access control to the broader property;
 - If any damage occurs to the existing fencing, repair immediately.
- Erect temporary fencing around the offset site, if livestock are grazed within the broader property during the exclusion period from 1st October to 31st January and cannot be contained to these areas. Note that pulse grazing may be permitted from 1st February to 30th September provided conditions are dry enough, and ground disturbance (pugging) will not occur;
- Establish posts to mark the boundary of the offset site for management and monitoring purposes in accordance with advice from a qualified ecologist and land surveyor;
- Control access and any passive use of the offset site to minimise impacts on native vegetation;
- Provide access for farm owned management vehicles into the offset site, using the existing access gates. No additional vehicle access is to be established without the approval of the landowner, DELWP and DoEE.

5.5.3.2 Performance Indicators

- Stock excluded from offset site during relevant exclusion period (October-November) (see Section 5.5.6 for further information on exclusion period);
- Access to the offset site is appropriately controlled via the identified access points;
- Existing and temporary fencing is maintained in good repair;
- Posts around the perimeter of the offset site are established for monitoring and management purposes.
- All fencing activities and repairs are effectively documented.

5.5.3.3 Adaptive Management

- The location of the temporary fencing may be slightly varied from year to year to minimise the disturbance to native vegetation along internal fence-lines.

5.5.4 Weed Control

5.5.4.1 Objectives

The objective of weed control within the offset site is to improve the existing quality of the SLL habitat and NTGVVP communities by reducing/minimising future invasion by exotic flora. This will be achieved through a combination of controlled pulse grazing (to limit opportunities for weed establishment and seed set in exotic flora), and through on-ground management activities.

Weed invasion is recognised as one of the main demonstrated threats to NTGVVP ecological communities (DSEWPac 2012c; DEWHA 2008). Effective management of weeds is necessary to improve NTGVVP ecological communities.

Woody weeds

No woody weeds were recorded within the offset site. Monitoring for new and emerging woody weeds will be conducted throughout the year for the term of the agreement, and any new and emerging woody weeds eliminated.

Herbaceous weeds

The aim of management is to ensure that weed cover does not increase beyond current levels. Current weed cover within the offset site is estimated to range from 20% to 24% of the vegetative cover. Weeds listed in Table 6 were found within offset site. These weeds will be monitored each year to ensure their cover does not increase. Increasing cover of these weeds must be controlled using the methods outlined in Table 6. Treat weeds before the plant has flowered and set seed. Indigenous plants must not be impacted during treatment of weeds.

Annual weeds within the offset site are not considered to be a significant threat, and will be managed using grazing to reduce their prominence.

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 in close proximity to threatened flora without protective measures in place (i.e. physical shielding). Biomass control is also considered to be an effective method for controlling and reducing weed levels, and will include controlled livestock grazing (sheep).

Weed control methodology for eradicating graminoid and herbaceous weeds will comprise manual removal and/or targeted spot spraying with an appropriate herbicide. Care must be taken when spraying herbicide to ensure that the poison does not affect native vegetation in the local application area. Weed species must be treated before seed is set, which may involve localised slashing if spot-spraying proves ineffective. A dye will be used in the spray to mark where spraying has been utilised.

The composition and distribution of vegetative cover across the offset site is likely to change over time in response to seasonal conditions or pulse grazing. Therefore, weed cover and species will be continually monitored and management activities adapted to ensure the desired outcomes outlined in this OMP are achieved.

New and emerging herbaceous weeds

Monitoring for new and emerging herbaceous weeds will be conducted throughout the year for the term of the agreement, and any new and emerging weeds eliminated (<1% cover).

Any other significant environmental weeds identified within the broader property during monitoring will also be controlled. The landowners may consult with a qualified ecologist regarding appropriate control techniques for any new or emerging weeds identified within the offset area.

Table 6 Herbaceous weeds to be controlled – method and timing

Common name	Scientific name	% total cover at inception	Method	Timing
Bearded Oat	<i>Avena barbata</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Brown-top Bent	<i>Agrostis capillaris</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Buck's-horn Plantain	<i>Plantago coronopus</i>	5%	Hand chip and spot spray	Spring / Summer
Cape weed	<i>Arctotheca calendula</i>	<1%	Hand chip and spot spray	Spring / Summer
Cat's Ear	<i>Hypochaeris radicata</i>	<1%	Targeted spot spraying with appropriate herbicide.	Spring / Summer
Chickweed	<i>Stellaria media</i>	<1%	Targeted spot spraying with appropriate herbicide.	Spring / Summer

Common name	Scientific name	% total cover at inception	Method	Timing
Couch	<i>Cynodon dactylon</i>	10%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Hair Grass	<i>Aira spp.</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Hare's-foot Clover	<i>Trifolium arvense</i>	<1%	Spot Spray	Spring / Summer
Hop Clover	<i>Trifolium campestre</i> var. <i>campestre</i>	<1%	Spot Spray	Spring / Summer
Large Quaking-grass	<i>Briza major</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Onion Grass	<i>Romulea rosea</i>	<1%	Targeted spot spraying with appropriate herbicide.	Spring / Summer
Ox-tongue	<i>Helminthotheca echioides</i>	<1%	Targeted spot spraying with appropriate herbicide.	Spring / Summer
Perennial Rye-grass	<i>Lolium perenne</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Ribwort	<i>Plantago lanceolata</i>	<1%	Hand chip and spot spray	Spring / Summer
Salsify	<i>Tragopogon porrifolius</i> subsp. <i>porrifolius</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Sheep Sorrel	<i>Acetosella vulgaris</i>	<1%	Spot Spray	Spring / Summer
Smooth Cat's-ear	<i>Hypochaeris glabra</i>	5%	Targeted spot spraying with appropriate herbicide.	Spring / Summer

Common name	Scientific name	% total cover at inception	Method	Timing
Soft Brome	<i>Bromus hordeaceus</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Spear Thistle	<i>Cirsium vulgare</i>	<1%	Hand chip and spot spray	Spring / Summer
Squirrel-tail Fescue	<i>Vulpia bromoides</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>	<1%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	5%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October
Yorkshire Fog	<i>Holcus lanatus</i>	5%	Targeted spot spraying with appropriate herbicide. Pulse-grazing can occur when annual weeds cover is equal to, or exceeds 25%.	Spot-Spray – October – January; Graze – January – October

Spot Spraying

The application of herbicides is an effective and efficient control technique for a range of woody, herbaceous and grass weeds. The correct use and application of herbicides can provide targeted control of a range of species. However, all herbicides must be used in accordance with the manufacturer's specifications and occupational health and safety policies.

Application methods for herbicides include: spot spraying with a knapsack, dabbing of weeds in sensitive areas with a foam-tipped application device, rig spraying with a pump for larger areas, dabbing of cut stumps and injection of woody weeds.

Timing of the interval of spot spraying is dependent upon many factors such as plant age and growth seasons, plant stress levels and climatic factors. All these factors need to be considered when developing methodologies for the application of herbicides to ensure successful outcomes. Surrounding native plants' susceptibility to herbicides and ongoing uses of the treated areas must also be considered when choosing

the right herbicide to be used in a weed control program, as some herbicides are residual and may persist within the soil for varying durations.

5.5.4.2 Actions

- Periodic spot spraying of weeds with appropriate herbicide will be undertaken, particularly through spring and early summer as detailed in Table 6;
- Any populations of new and emerging high threat weeds will be treated promptly and eliminated to <1% cover. This will be done in consultation with DoEE;
- During weed control, natural regeneration of indigenous flora will be protected from off-target damage;
- Undertake pulse grazing within the offset site to reduce weed cover as per 4; and
- Annual monitoring will be undertaken to demonstrate the effectiveness of weed control works and the results are to be used to adapt future control works and targets.

5.5.4.3 Performance Indicators

- Reduction in the cover of weed species within the offset site (Table 6);
- Where herbicide application is employed, waterway sensitive products and non-residual herbicides are to be employed;
- No off-target damage to indigenous plants; and
- No new or high threat weeds establishing within the offset site.

5.5.4.4 Adaptive Management

- Respond to the annual monitoring report and associated recommendations;
- If objectives and performance indicators are not being met:
 - Review grazing regime;
 - Increase frequency of control activities; and
 - Raise any significant issues with DoEE as soon as they arise.

5.5.5 Pest Animals

5.5.5.1 Objectives

The objective of pest animal management is to control pest animals (e.g. rabbits, foxes) within the offset site, as required, to minimise negative impacts to the NTGVVP communities. The *Catchment and Land Protection Act 1994* lists rabbits and foxes as established pest animals and requires that all landowners take reasonable steps to prevent the spread of, and as far as possible eradicate, established pest animals on their land.

Rabbits will be monitored and controlled throughout the year. No active rabbit warrens were identified within the offset site. However, if rabbit activity is detected within the offset site, an integrated approach in accordance with BushBroker Information Sheet 7 - Standards of Management – Rabbits, will be followed which will involve fumigation, hand collapsing of burrows and baiting. Any rabbit carcasses found within the offset site will be removed to prevent poisoning of native predators. These actions are in accordance with the Commonwealth's *Threat abatement plan for competition and land degradation by rabbits* (DoEE 2016).

Ripping of rabbit warrens within the offset site is not permitted. If any warrens develop within the offset site they will be treated by low impact measures such as fumigation or collapsing.

Foxes are a threat to native fauna and must be controlled if identified within the offset site. If identified, fox dens will be destroyed through fumigation and hand collapse.

To reduce the likelihood of pest animals inhabiting the offset site on a regular basis, any artificial piles of logs and rocks that may be used as harbour by pest animals will be removed or dispersed.

Both rabbits and foxes will be controlled as detailed in Table 7.

Table 7: Pest animals to be controlled – species, method and timing

Common name	Method	Timing
Rabbits	Baiting. When baiting collect and dispose of carcasses to prevent poisoning of native predators.	Ongoing
Rabbits & Foxes	Fumigation and collapse of rabbit burrows and fox dens if identified. Remove or disperse surface harbour.	Ongoing
New & Emerging pest animals	Monitor and control	Ongoing

5.5.5.2 Actions

- Control and seek to locally eliminate pest animals using appropriate control techniques, including poison baits, warren fumigation and collapsing, or similar methods, without soil disturbance; and
- Fumigate rabbit warrens according to best practice management techniques. Fumigation works will be conducted by the landowner or a suitably qualified operator where rabbit activity is identified.

5.5.5.3 Performance Indicators

- Any rabbit warrens or fox dens are controlled immediately following detection;
- Reduction in the abundance of pest animals, and no detectable impacts to the NTGVVP ecological community; and
- All monitoring and management activities are effectively documented.

5.5.5.4 Adaptive Management

- If pest animal management fails to achieve a reduction, or effectively control rabbit or fox numbers, or if impacts to SLL and NTGVVP ecological communities are attributable to an increase in

pest animals activities, a review of the current procedures and management measures will be undertaken;

- Review performance of pest animal contractor;
- Increase active monitoring of pest animal activity;
- Incorporate additional control measures (i.e. spotlighting and shooting); and
- Improve existing fencing of broader offset property to exclude pest fauna.

5.5.6 Biomass Control

5.5.6.1 Objectives

The objective of biomass control within the offset site is to promote and maintain floristic diversity, and inter-tussock spaces for germination and recruitment of native flora associated with the NTGVVP ecological communities. In addition, these actions will improve habitat quality for existing flora present within the offset site, and assist with minimising the growth of weeds.

Biomass management is essential to maintain and improve indigenous flora and fauna values throughout the offset site. Biomass management is also required to maintain inter-tussock spaces and prevent excessive competition to grassland forbs. Biomass control will aim to maintain approximately 20% to 40% cover of bare ground or inter-tussock space to allow sufficient space for recruitment of herbs and grasses. If the NTGVVP offset area is found to be less than 20% bare ground then biomass reduction must be implemented at the earliest possible opportunity (with consideration of seasonality in order to minimise risk to ecological values, life and assets).

It is noted that inappropriate grazing regimes are identified as a main demonstrated threat to the NTGVVP ecological communities (TSSC 2012c; DSEWPac 2012b; TSSC 2008). As such, it is the objective of the following actions to ensure the grazing regime to manage biomass is designed to be appropriate to enhance the ecological values of the NTGVVP communities within the offset site.

Pulse Grazing

A detailed study has been undertaken on the ecological impacts and benefits various grazing regimes on grasslands within the property, in addition to similar properties (Mavromihalis et al 2013). It was concluded that a period of grazing exclusion may be beneficial for enhancing conservation values of grasslands. Further, exclusion of grazing during spring (September-November) is most beneficial, however, due to seasonal variation in vegetation composition, fixed grazing strategies were considered inappropriate, as they do not allow for temporal fluctuations. For example, in occasional years, excluding grazing during summer, rather than spring, may be beneficial in controlling annual grasses following particularly heavy spring rains; although, grazing during spring every year may lead to a decline in species richness. As such, the grazing regime within this OMP is to generally exclude stock during spring, however, if seasonal variation to this period may be required in order to adapt to annual variation in vegetation composition.

Grazing will be undertaken in a controlled manner following the grazing management plan detailed in 6, to ensure that biomass accumulation control within the offset site is consistent with the standards for management of ecological grazing provided by DELWP (DSE 2009). Grazing of domestic stock will be

restricted to the use of sheep. Grazing by other domestic stock, including, but not restricted to, cattle, goats and horses is prohibited within the offset site at all times.

Grazing will occur over a short duration and exceed the standard stocking rate to prevent selective grazing within the offset site. The maximum length of continuous grazing is four weeks with at least two weeks rest between cycles (6). 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 8. Grazing Management Plan within the offset site.

Grazing Requirement	Ecological community	Targets
Period where grazing by domestic stock is not permitted	NTGVVP	October-November annually in perpetuity, in addition to times outside this period when standing water is present, or soil is waterlogged. However, if seasonal variation to this period may be required in order to adapt to annual variation in vegetation composition.
Pulse grazing cycles required	NTGVVP	3 (minimum)
Minimum rest from grazing between pulse grazing events	NTGVVP	2 weeks
Maximum continuous pulse grazing event	NTGVVP	4 weeks
Biomass management thresholds	NTGVVP	Minimum height of 10 cm; total vegetation cover of no greater than 70%
Target inter-tussock space	NTGVVP	Minimum of 30% of total offset site cover.

Grazing may only be undertaken when there is not standing water or waterlogged soils in the NTGVVP offset area (Table 8).

Stock must be removed should total vegetation cover fall to or below 70%. Stock pens and heavy vehicle traffic must be confined to the areas outside that covered within this OMP. Following any high rainfall events, stock will be removed from the offset site immediately.

5.5.6.2 Actions

- Biomass will be managed by pulse grazing with sheep for a maximum period of four weeks followed by a minimum two week period of rest;
- In perpetuity, grazing will be excluded annually between October-November; however, on an occasional basis, seasonal variation to this period may be required in order to adapt to annual variation in vegetation composition (Mavromihalis et al 2013). Stock must be excluded at any time when standing water is present, or soil is waterlogged, to mitigate pugging of the soil surface;

5.5.6.3 Performance Indicators

- Maintain or improve species richness and improve species diversity.

- Improve species recruitment through improvement and maintenance of suitable vegetation structure throughout the site; biomass remains moderate (i.e. no increase on current levels), and suitable inter-tussock spaces for natural recruitment maintained/provided (through transect monitoring and photo-points – see below).
- Stock grazing is excluded from areas of NTGVVP between October-November, except where necessary for further biomass reduction during dry periods.
- Weed biomass does not increase in areas of remnant vegetation;
- Minimum of 20% of total offset site cover will comprise inter-tussock space;
- All grazing events effectively documented.

5.5.6.4 Adaptive Management

Highly seasonal conditions are not uncommon across western Victoria, and can result in variable conditions from year to year. This is acknowledged within the OMP by allowing for a flexible approach to the timing of grazing actions at the discretion of the Landowner.

5.5.7 Monitoring and Reporting

This Offset Management Plan requires the landowner to submit a report annually to DELWP and DoEE for each year of the ten years of this Offset Management Plan, and every year following for the life of the projects approval under the EPBC Act (ie. until July 2030). The reports will include a review of past management works against the performance targets and objectives contained within this OMP. Future management priorities will also be detailed in these reports.

The Landowner undertakes to establish seven permanent photo-points in the NTGVVP and SLL offset site. These points will be marked via GPS and shown on a Figure. Photographs taken from these points will be representative of the vegetation and objectives of the OMP (e.g. areas of high threat weed invasion). Photographs will be taken in October each year and clearly labelled. Each photo will be taken from as near to the same point each year and will use the same direction, trajectory and camera settings as is practicable.

Photographs and Annual Reports are to be submitted at least 2 months prior to the anniversary date of the execution of the agreement to allow time for compliance to be assessed before the anniversary date.

The Annual Report addresses progress against the commitments set out in this agreement. Annual Reports must 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 each zone.

The template for a landowner monitoring and reporting form is shown in Table 9. Information to be provided in the reporting form includes:

- A copy of the Management Action Table from the OMP with information on which actions have been completed for year/s of this reporting period;
- A description of the specific monitoring results from surveys undertaken (i.e. SLL surveys);
- Success of weed and pest animal control work;

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

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified, the landowner is to document the justification and the actions that will be action/s will be undertaken to implement the requirement.

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

Table 9. Template for a Landowner Monitoring and Reporting Form

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

5.5.8 Offset Management Plan Review

The protection and management of the nominated offset area is for perpetuity. The OMP will be reviewed by a suitably qualified Ecologist, in consultation with the Landowner, five years from the date of approval.

The focus of the review will be to determine its effectiveness in managing the NTGVVP ecological communities.

The 5 year review of the OMP will be submitted to DELWP and DoEE for approval prior to any recommendations regarding management of the offset site being implemented.

5.6 Management Actions Table

Management actions proposed to compensate for the loss of native vegetation and habitat under Commonwealth legislation at the offset site are presented in Table 10. The actions constitute the minimum management requirements for the offset site over the mandatory 10 year management period, and are appropriate for the management of the NTGVVP ecological community.

Table 10. Management Actions Table

Year from Commencement	Area	Management Action Description	Timing	Environmental outcome to be achieved
Fencing				
1-10	32 ha of NTGVVP and SLL habitat	Maintain fencing in good condition around entire boundary of all sites where fencing exists or is required Refer Section 5.5.	Ongoing	Maintain fencing to DELWP fencing standards in BushBroker Information Sheet 12 - Standards for Management – Fencing
1-10	32 ha of NTGVVP and SLL habitat	Erect temporary fencing around offset site during grazing exclusion period (if stock present during this period within the property cannot be confined to certain areas) Refer Section 5.5.	October -November	Exclude stock from the offset site during exclusion period to protect NTGVVP community.
1-10	32 ha of NTGVVP and SLL habitat	If a threat arises erect an additional fence immediately around the entire boundary of the offset site Refer Section 5.5.	Immediately on identification of threat	Erect fencing to DELWP fencing standards in BushBroker Information Sheet 12 - Standards for Management – Fencing
1	32 ha of NTGVVP and SLL habitat	Establish posts to mark the boundary of the offset site in accordance with advice from a qualified ecologist and land surveyor Refer Section 5.5.1.	Immediately on approval of Year 1 of management works	Facilitate management and monitoring of the offset site. Delineate location of temporary exclusion fence.
Woody Weeds				

Year from Commencement	Area	Management Action Description	Timing	Environmental outcome to be achieved
1-10	32 ha of NTGVVP and SLL habitat	Eliminate all new and emerging woody weeds Refer Section 5.5	Ongoing	<1% cover of all woody weeds at the end of Year 10
Herbaceous Weeds				
1-10	32 ha of NTGVVP and SLL habitat	Control all herbaceous weeds. Refer to Table 4 for list of herbaceous weeds, their control method and timing of actions Refer Section 5.5	Refer to Table 6	Reduction in weed cover (ie. <24%). Minimise off-target damage (avoid all native plants)
1-10	32 ha of NTGVVP and SLL habitat	Eliminate all new & emerging herbaceous weeds Refer Section 5.5	Ongoing.	<1% cover of all new and emerging herbaceous weeds at the end of Year 10
Pest Animals				
1-10	32 ha of NTGVVP and SLL habitat	Control rabbits and foxes. Refer to Table 4 for a list of control methods and timing of actions Refer Section 5.5	Refer to Table 7	No surface disturbance within the offset site; No active rabbit warrens to be present; No active fox dens to be present; No rubbish/artificial harbour present; Minimal artificial piles of logs and rocks;
1-10	32 ha of NTGVVP and SLL habitat	Monitor and control rabbits and foxes Refer Section 5.5	Ongoing	Reduction in the abundance of pest animals, and no detectable impacts to the NTGVVP ecological community
1-10	32 ha of NTGVVP and SLL habitat	Monitor and control all new and emerging pest animals Refer Section 5.5.3.	Ongoing	Control numbers of any new & emerging pest animals

Year from Commencement	Area	Management Action Description	Timing	Environmental outcome to be achieved
Biomass Management				
1-10	32 ha of NTGVVP and SLL habitat	Pulse grazing Refer Section 5.5.6.	<p>The maximum length of continuous grazing is four weeks with at least two weeks rest between cycles.</p> <p>Stock generally excluded during October -November within NTGVVP.</p> <p>Stock removed immediately following any high rainfall events.</p>	<p>Stock must be removed should total vegetation cover fall to or below 70%</p> <p>Sufficient bare ground (approximately 20% to 40% cover) maintained in order to maintain space for recruitment of herbs and grasses.</p> <p>No loss of native plant diversity as a result of grazing regimes.</p> <p>Reduction in weed cover.</p>
Detailed SLL population and vegetation monitoring				
Years 1-4, 6, 8 and 10	NTGVVP Offset	Monitoring Refer Section 8.2 and 8.3	Spring	<p>Allow for ongoing auditing of the effectiveness of management.</p> <p>Reports will include a review of past management works against the performance targets and objectives contained within this OMP.</p>

Year from Commencement	Area	Management Action Description	Timing	Environmental outcome to be achieved
Annual reporting				
1-10	NTGVVP Offset	Prepare and submit an annual report and photo monitoring to DELWP and DoEE. Refer Section 5.5.7 and 8.1	Submit at least 2 months prior to on-title agreement anniversary date	<p>Annual report is signed, dated and submitted by the Landowner at least 2 months prior to the anniversary date of on-title agreement registration</p> <p>Report provides 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.</p> <p>Allow for ongoing auditing of the effectiveness of management. Reports will include a review of past management works against the performance targets and objectives contained within this OMP. Future management priorities will also be detailed in these reports.</p> <p>Obligations of the Landowner have been met and the obligations form is signed, dated and submitted with the annual report</p>
5	NTGVVP Offset	Review effectiveness of OMP. Refer Section 5.5.8 and 8.1	End of Year 5.	<p>If existing OMP is not leading to the ongoing maintenance and improvement of the NTGVVP community, a review will be undertaken, and a new management plan prepared for the remaining 5 years of management.</p>

6 CONTINGENCY RESPONSE AND CORRECTIVE ACTIONS

The landholder will use an Adaptive Management Approach to allow the flexibility to respond appropriately and effectively to the uncertainties involved in ecological processes. This will ensure that management objectives are being met while allowing for altered circumstances to be included in the management of the site.

If after Year 5 of management, the actions detailed in this OMP are not leading to the ongoing maintenance and improvement of the NTGVVP community, a review will be undertaken, and a new management plan prepared for the remaining 5 years of management.

Any proposed changes to the management contrary to that specified within this plan must be approved by DoEE, prior to implementation. Any proposed uses or development of the site which conflict with the landowners' commitments or maintenance/improvement of the NTGVVP community and/or habitats for Matters of NES are not permitted under this plan.

Highly seasonal conditions are not uncommon across western Victoria and can result in variable conditions from year to year. This is acknowledged within the OMP by allowing for a flexible approach to the timing of grazing actions at the discretion of the Landowner.

The landholder will use an Adaptive Management Approach to allow the flexibility to respond appropriately and effectively to the uncertainties involved in ecological processes. This will ensure that management objectives are being met while allowing for altered circumstances to be included in the management of the site. Any proposed changes to the management contrary to that specified within this plan must be approved by DoEE, prior to implementation. Any proposed uses or development of the site which conflict with the landowners' commitments or maintenance/improvement of SLL populations and/or habitat are not permitted under this plan.

Alternative management measures, as part of an adaptive management approach, may be implemented if:

- The management outcomes outlined within Section 5 are unable to be met based on methods outlined within this plan;
- A new management technique has been identified which is considered to be more effective in meeting the objectives of this OMP, and relevant recovery plans, threat abatement plans, conservation advices and does not increase risk of impacts to NGTVVP or SLL communities. A review of the benefits and risks of the proposed management technique must be prepared and submitted to DoEE; and,
- The proposed management technique has been approved by DoEE.

Where management outcomes outlined within Section 6 have not been met during any monitoring event (Section 8) corrective actions must be identified upon submission of the monitoring report.

Where an adaptive management approach has been implemented, the success, or failure, of the approach must be outlined within subsequent monitoring reports. The monitoring report must make recommendations on whether the approach should be continued, or whether subsequent alternative management is recommended.

6.1 Managing Uncertainty

An assessment of potential risks associate with the objectives of this plan are outlined within Table . All risks are considered manageable and actions within subsequent sections of this OMP address relevant risks.

7 EMERGENCY CONTACTS AND PROCEDURES

Should any environmental emergency occur on-site that poses a risk to the objectives of this OMP, the relevant contacts (Table 11) must be notified as soon as possible, and no later than 12 hours following the event. At a minimum, DoEE, and the landholder must be notified; CFA and Victoria Police should be notified if assistance is 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 absolutely necessary, must be avoided).

Table 11. Emergency contacts

Contact	Role	Telephone
Country Fire Authority (CFA)	Bushfire emergency	000
Victoria Police	Various (e.g. unauthorised access)	000
DoEE	Offset Monitoring Responsibility	1800 803 772
DELWP	Offset Monitoring Responsibility	03 9637 8451
Landholder	Site management (Claire Dennis)	0488 362 850

8 MONITORING AND REPORTING

Ongoing monitoring is required to determine whether SLL population/s and NTGVVP quality persist and remain viable over time and to ensure that management actions improve habitat.

Site monitoring must include:

- General habitat monitoring by the landholder (or an appointed entity on behalf of the landowner) annually; and,
- Detailed monitoring to be conducted by a qualified ecologist for an initial four year period, and then in years 6, 8 and 10 of this management plan.

Further details on the monitoring actions is outlined below.

8.1 Annual monitoring of habitat and effectiveness of management actions

The landowner undertakes to establish seven permanent photo-points across the offset site. These points will be marked via GPS and shown on a Figure. Photographs taken from these points will be representative of the vegetation and objectives of the OMP (e.g. areas of high threat weed invasion). Photographs will be taken in October annually and clearly labelled. Each photo will be taken from as near to the same point each year and will use the same direction, trajectory and camera settings as is practicable.

Annual monitoring must be undertaken by the landowner (or an appointed entity on behalf of the landowner), and must include an assessment of:

- Photographs taken at established photo-points;
- The extent, severity, trend and presence of current weed species and any new and emerging weed species.
- The extent, severity, trend and presence of pest animal activity;
- Biomass levels, visually assessed across the site;
- Evidence of unpermitted human/stock access; and,
- Any new threats.

The annual monitoring must be undertaken for each year of the ten years of this Offset Management Plan, and every year following for the life of the projects approval under the EPBC Act (ie. until July 2030)

8.2 Detailed vegetation monitoring (Years 1-4, 6, 8 and 10)

Detailed vegetation monitoring will be conducted by a qualified ecologist for an initial four year period, and then in years 6, 8 and 10 of this management plan, and will document the following components:

- Overall assessment of the quality and quantity of vegetation and composition of species (i.e. Habitat Hectare assessment*);
- Biomass levels, assessed through 14 x 1 m² sampling plots equidistant along the offset site; and,
- The extent, severity, trend and presence of current weed species and any new and emerging weed species.

** Department of Sustainability and Environment 2004. Vegetation quality assessment manual: Guidelines for applying the habitat hectares scoring method. Version 1.3. Victorian Department of Sustainability and Environment, Melbourne Victoria*

8.3 Striped Legless Lizard population monitoring (Years 1-4, 6, 8 and 10)

In addition to annual monitoring outlined in Section 8.1.1, appropriate monitoring of SLL will be undertaken for an initial four year period, and then in years 6, 8 and 10 of this management plan, or thereafter upon written agreement with the Commonwealth Minister for Environment. If the results indicate a decline in the population size or habitat degradation becomes evident, actions within this management plan will be re-evaluated. If any changes to management are required in the landowners' view, a revised management strategy must be approved by DoEE prior to implementation. Monitoring of SLL habitat must be undertaken by a suitably qualified ecologist(s).

Specific survey procedures will follow those approved monitoring guidelines for SLL prepared by DoEE*. The following measures will be undertaken as part of population and habitat monitoring for SLL at the offset site:

- Surveys are to be conducted by suitably trained observers;
- As the offset site is contiguous with other conservation areas managed for the same conservation values, monitoring for SLL may be undertaken across the broader area (thereby reducing the survey effort required within each individual conservation/offset site). However, a minimum of ten monitoring grids, containing 50 tiles each, must be located within the offset site outlined within this plan, or within adjacent conservation areas. At least three of these grids must be located within the offset site outlined within this plan (ie the remaining seven grids may be located within adjacent conservation areas). These tile grids must be maintained and checked a minimum of two times between October – November;
- Shelter sites will be checked when ambient temperatures do not exceed 28°C. Grids may be checked during summer/autumn for the presence of shed skin; and,
- Checking more frequently than once or twice a week may lead to SLL abandoning the artificial shelters, as such, tile checks at this frequency should be avoided.

** Department of Sustainability, Environment, Water, Population and Communities 2011. Survey guidelines for Australia's threatened reptiles, EPBC Act survey guidelines 6.6.*

8.4 Reporting

To demonstrate that the management measures are effective in meeting the environmental outcomes, this OMP requires the landowner to submit a report annually to DELWP and DoEE for each year of the ten years

of this Offset Management Plan, and every year following for the life of the projects approval under the EPBC Act (ie. until July 2030).

Photographs and reports are to be submitted at least 2 months prior to the anniversary date of the execution of the agreement to allow time for compliance to be assessed before the anniversary date.

The report must address progress against the commitments set out in this agreement and the conditions of the EPBC Act referral (EPBC 2015/7486). Reports 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 each zone.

Information to be provided in the progress report includes:

- Detailing actions completed during the reporting period;
- Results of SLL population monitoring;
- Results of vegetation condition assessment (Habitat Hectare Assessment);
- A description of the specific monitoring results from ecological surveys undertaken;
- Results of weed and pest animal control work;
- Successful management tools (i.e. techniques used to control weed species, monitoring technique, etc.);
- Any problems or issues experienced (i.e. new infestation of weed species, etc.);
- Any corrective actions and contingency measures where monitoring indicates that there has been a deterioration in the native vegetation or SLL population;
- Photographs showing evidence of works; and,
- Assessment on how the site is on track to meet, or meets the conditions of the conditions under the EPBC referral (EPBC 2015/7486), including an assessment against the EPBC offset gain calculator inputs

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified, the landowner is to document the justification and the substituted actions that will be undertaken in order to compensate and ensure the required outcomes are achieved.

All records/evidence of management actions must be maintained, and be submitted to DoEE upon request.

REFERENCES

- DELWP 2018. Native Vegetation Information Management Tool [www Document]. URL: <<https://nvim.delwp.vic.gov.au/>>. Victorian Department of Environment, Land, Water and Planning, Melbourne, Victoria.
- DEWHA 2008. Approved Conservation Advice for the Natural Temperate Grassland of the Victorian Volcanic Plain. Canberra, ACT: Department of Environment, Water, Heritage and the Arts.
- DoEE 2016. Threat abatement plan for competition and land degradation by rabbits. Department of the Environment and Energy, Commonwealth of Australia 2016.
- DoEE 2017. Threat Abatement Plan for predation, habitat degradation, competition and disease transmission by feral pigs (*Sus scrofa*) (2017). Department of the Environment and Energy, Commonwealth of Australia 2017.
- DSE 2009. BushBroker: Standards for management – Ecological grazing: Information Sheet No. 13. DSE, East Melbourne.
- DSEWPaC 2012a. *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy (October 2012). Department of Sustainability, Environment, Water, Population and Communities, Canberra.
- DSEWPaC 2012b. Offsets Assessment Guide: For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999* (2 October 2012). Microsoft Excel spreadsheet developed by the Department of Sustainability, Environment, Water, Population and Communities, Canberra.
- DSEWPaC 2012c. Approved Conservation Advice for the Natural Temperate Grassland of the Victorian Volcanic Plain. Canberra, ACT: Department of Sustainability, Environment, Water, Population and Communities.
- Ecology and Heritage Partners 2016. Preliminary Documentation for the Ravenhall Industrial Precinct (EPBC 2015/7486).
- Mavromihalis et al 2013. Manipulating livestock grazing to enhance native plant diversity and cover in native grasslands. *The Rangeland Journal* 35, 95-108
- TSSC 2008. Commonwealth Listing Advice on Natural Temperate Grassland of the Victorian Volcanic Plain. Threatened Species Scientific Committee. Department of Sustainability, Environment, Water, Population and Communities. Canberra, ACT.

FIGURES

APPENDIX 1. RISK ASSESSMENT AND MANAGEMENT DEFINITIONS

Risk framework

		• Consequence				
• Likelihood	•	• Minor	Moderate	• High	• Major	• Critical
	Highly Likely	Medium	• High	• High	Severe	Severe
	Likely	• Low	Medium	• High	• High	• Severe
	Possible	• Low	Medium	Medium	• High	• Severe
	Unlikely	• Low	• Low	Medium	• High	• High
	Rare	• Low	• Low	• Low	Medium	• High

Likelihood and consequence

Qualitative measure of likelihood (how likely is it that this event/circumstances will occur after management actions have been put in place/are being implemented)	
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 or doubtful
Rare	May occur in exceptional circumstances
Qualitative measure of consequences (what will be the consequence/result if the issue does occur)	
Minor	Minor risk of failure to achieve the plan's objectives. Results in short term delays to achieving plan objectives, implementing low cost, well characterised corrective actions.
Moderate	Moderate risk of failure to achieve the plan's objectives. Results in short term delays to achieving plan objectives, implementing well characterised, high cost/effort corrective actions.
High	High risk of failure to achieve the plan's objectives. Results in medium-long term delays to achieving plan objectives, implementing uncertain, high cost/effort corrective actions.
Major	The plan's objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies.
Critical	The plan's objectives are unable to be achieved, with no evidenced mitigation strategies.

APPENDIX 2. APPROVAL NOTICE (EPBC 2015/7486)

APPENDIX 3. STRIPED LEGLESS LIZARD TARGETED SURVEYS

APPENDIX 4. EPBC OFFSET CALCULATOR
