

Old Glenorchy Road Deep Lead Offset Site Year 1 Audit Report

Prepared for Regional Roads Victoria 28 July 2020



Biosis offices

NEW SOUTH WALES

Newcastle Phone: (02) 4911 4040 Email: <u>newcastle@biosis.com.au</u>

Sydney Phone: (02) 9101 8700 Email: sydney@biosis.com.au

Wollongong Phone: (02) 4201 1090 Email: wollongong@biosis.com.au

Albury Phone: (02) 6069 9200 Email: <u>albury@biosis.com.au</u>

Western Sydney

Phone: (02) 91018733 Email: <u>WesternSydneyOffice@biosis.com.au</u>

VICTORIA

Melbourne

Phone: (03) 8686 4800 Email: melbourne@biosis.com.au

Ballarat Phone: (03) 5304 4250 Email: ballarat@biosis.com.au

Wangaratta Phone: (03) 5718 6900 Email: <u>wangaratta@biosis.com.au</u>

Document information

Report to:	Regional Roads Victoria
Prepared by:	Matt Gibson
Biosis project no.:	30626
File name:	30626.Year1Audit.20200728

Citation: Biosis 2020. Old Glenorchy Road Deep Lead Offset Site. Year 1 Audit Report. Report for Regional Roads Victoria. Authors: Gibson, M., Biosis Pty Ltd, Ballarat. Project no 30626.

Document control

Version	Internal reviewer	Date issued
Draft version 01	MV	17/07/2020
Final version 01	PW	28/07/2020

Acknowledgements

Biosis acknowledges the contribution of the following people and organisations in undertaking this study:

Regional Roads Victoria: Peter Woods

© Biosis Pty Ltd

This document is subject to copyright and may only be used for the purposes in respect of which it was commissioned and in accordance with the Terms of Engagement of the commission. Unauthorised use of this document in any form whatsoever is prohibited.

Disclaimer:

Biosis Pty Ltd has completed this assessment in accordance with the relevant federal, state and local legislation and current industry best practice. The company accepts no liability for any damages or loss incurred as a result of reliance placed upon the report content or for any purpose other than that for which it was intended.



Contents

1	Intr	oduction	1
	1.1	Background	1
	1.2	Objectives of the project	1
2	Met	hods	3
	2.1	Information sources	3
	2.2	Site assessment	3
	2.3	Limitations	3
3	Find	lings	4
	3.1	Site observations	4
		3.1.1 Habitat Hectare Assessment	4
		3.1.2 Weed Infestations (Herbaceous, Woody and New and Emerging Species)	4
		3.1.3 Fence Boundaries - Exclusion of Stock, Unauthorised Activities and Vehicle Access	5
		3.1.4 Pest Animals – European Rabbit, Red Fox and European Hare	5
	3.2	Habitat hectare assessment	9
	3.3	Compliance with management actions	10
		3.3.1 Landholders annual report	10
		3.3.2 Monitoring schedule by the landholders	11
		3.3.3 Exclusion of stock, unauthorised activities and vehicle access	11
		3.3.4 Weed control	11
		3.3.5 Pest animal control	12
		3.3.6 Habitat hectare assessment	12
		3.3.7 Tree and shrub regeneration and overstorey condition	12
		3.3.8 Proposed additional monitoring methods	13
4	Con	clusion	17
Refe	erence	S	19

Tables

Table 1	Habitat hectares of habitat zones 1F and 1G	10
Table 2	Compliance with management actions	14
Table 3	Summary of non-compliance items and recommended action	17

Figures

Figure 1	Old Glenorchy Road Offset Site
Figure 1	Old Glenorchy Road Offset Site2



Plates

Plate 1	Plains Sedgy Woodland Habitat Zone 1F	6
Plate 2	Shallow Sands Woodland Habitat Zone 1G	6
Plate 3	Fence condition along the eastern boundary with the rail reserve	7
Plate 4	Fence condition along the northern boundary	7
Plate 5	Fence along the western boundary with Old Glenorchy Road	8
Plate 6	Disused rabbit warren, with no signs of current occupation	8
Plate 7	Rabbit scats observed within Habitat Zone 1G	9



1 Introduction

1.1 Background

Biosis Pty Ltd was commissioned by the Regional Roads Victoria (RRV) to undertake the first year independent audit report for the Old Glenorchy Road offset site. RRV, formerly VicRoads, is now a part of the Department of Transport (DoT). This report recognises RRV as the approval holder and authority for the project.

The Old Glenorchy Road offset site (Figure 1) was established as an offset area under a Commonwealth EPBC Approval 2016/7809 in relation to impacts associated with road safety works on the Pyrenees Highway in Green Gully, Victoria (Biosis 2017a).

The Department of the Environment and Energy (now the Department of Agriculture, Water and the Environment) determined that the road safety upgrade project would have a significant impact upon Swift Parrot *Lathamus discolor*, and therefore the project was determined to be a controlled action (EPBC Approval 2016/7809), and compensatory offsets were required.

A suitable offset site was identified near Deep Lead in western Victoria. Two offset management plans (OMPs) were established to guide the management of the site:

- An OMP for the BushBroker Credit Site BB-3018 (Brett Lane & Associates 2017). The site is 31.25 hectares in area; and
- An OMP for the 4.5 hectare portion of the site to be allocated for Swift Parrot offsets for compliance with EPBC Approval 2016/7809 (Biosis 2017b).

The BushBroker Credit site has been used for provision of a range of offsets, including offsets for threatened flora, and some sections of the site may be yet to be allocated. The 4.5 hectare portion will be referred to in this report as the 'Swift Parrot Offset Area'. The BushBroker OMP (Brett Lane & Associates 2017) was amended to be consistent with the approved EPBC OMP (Biosis 2017b), to ensure that management requirements for the site are clear, and all specified within the overall site OMP.

Under Condition 6 of the EPBC Approval 2016/7809, the RRV as the approval holder must ensure the Deep Lead offset site is managed in accordance with the Offset Management Plan at Deep Lead for a period of at least 10 years commencing from the day December 2018 the offset is secured. This includes the provision of audit reports at 1, 4, 8 and 10 year intervals to the Department of the Environment and Energy.

This first year audit report has been prepared to meet EPBC approval and relates only to management of the Swift Parrot Offset Area, but may also consider external issues that have potential to impact upon the Swift Parrot Area, such as the condition of boundary fencing and prohibited activities.

1.2 Objectives of the project

The tasks of the project are identified as follows:

- Review the annual report prepared by the landowner, as required under the OMP for the 'Swift Parrot Offset Area' (Biosis 2017b);
- Undertake a site visit to check on the general condition of the site, including fence condition, weeds, pests, overstory and a site habitat hectare (condition) assessment of each habitat zone within the offset area;



- Assess the compliance or non-compliance with the schedule of management actions and performance targets specified in the OMP (Biosis 2017b); and
- Prepare the audit report, including representative site photographs, documenting the findings of the audit.



2 Methods

2.1 Information sources

This audit involves consideration of:

- The OMPs Biosis (2017b) and Brett Lane & Associates (2017), focusing on the schedule of management actions and performance targets listed tables 8, 10 and 11 of Biosis (2017b).
- Approval conditions for EPBC Approval 2016/7809; and
- The Year 1 monitoring report for the offset site (Practical Ecology 2020). Annual Monitoring / Management Action reports are to be prepared by the Offset site owner.

The annual monitoring report was prepared by Practical Ecology, on behalf of the offset site owner. The report was submitted to the RRV on 23/01/2020. Biosis assisted the RRV to provide comments on the draft report, and these were incorporated into the final offset site monitoring report by Practical Ecology and submitted to RRV on 01/05/2020.

2.2 Site assessment

A site assessment was conducted on 28 November 2019 by Senior Ecologist Matt Gibson. The purpose of the assessment is to audit compliance with management actions specified in the site OMP (Biosis 2017b – tables 8, 10 and 11). Findings are summarised in Table 2 of this report.

The following information, listed below, was collected via traversing the 4.5 hectare portion of the site allocated for Swift Parrot (Habitat Zones 1F and 1G), including the property boundary fences and adjoining areas of the total site:

- Habitat hectare assessment of each habitat zone;
- Site photographs; and
- Observations regarding fence condition, exclusion of stock, herbaceous and woody weed occurrences, signs of pest animals and signs of unauthorised access or activities.

2.3 Limitations

The site assessment was conducted in November 2019, following a period of relatively low rainfall. Despite this, the timing of the survey was suitable for assessing the general condition of the offset area and capturing photographs and observations for this audit report.



3 Findings

3.1 Site observations

The site inspection involved walking the site, inspecting the condition of fences and looking for signs of weeds, pest animals and signs of unauthorised access or activities. The inspection was limited to the Swift Parrot Offset Area (Habitat Zones 1F and 1G), although the property boundary fences were also checked and photographed. Specific observations are based on assessing compliance with the objectives and standards to be achieved for the site in accordance with Table 8 of the OMP (Biosis 2017b). Site observations are as follows:

3.1.1 Habitat Hectare Assessment

Habitat Hectare assessments were conducted in each Habitat Zone (refer to Section 3.2). Photographs of the zones are provided in Plates 1 (Plains Sedgy Woodland Habitat Zone 1F) and 2 (Shallow Sands Woodland Habitat Zone 1G). Locations of the assessment areas are shown in Figure 1.

The Habitat Hectare assessment method is specified in the Biosis OMP as the method of monitoring general vegetation condition, including tree and shrub regeneration and overstorey condition. The current assessment shows that there has been little change in the condition of vegetation on the site following the first year of offset site management. More detailed analysis of changes in tree and shrub condition will be undertaken in future monitoring reports.

3.1.2 Weed Infestations (Herbaceous, Woody and New and Emerging Species)

No woody weeds were observed within the Zones 1F (Plate 1) or 1G (Plate 2).

Herbaceous weeds noted when undertaking the habitat hectare assessments include:

- Plains Sedgy Woodland Habitat Zone 1F (Plate 1)
 - Stinkwort Dittrichia graveolens
 - Malta Thistle Centaurea melitensis
 - Lesser Quaking-grass Briza minor
 - Spear Thistle *Cirsium vulgare*
 - Common Sow-thistle Sonchus oleraceus
 - Onion Grass Romulea rosea
 - Clover *Trifolium* spp.
- Shallow Sands Woodland Habitat Zone 1G (Plate 2)
 - Lesser Quaking-grass Briza minor
 - Onion Grass *Romulea rosea*
 - Common Sow-thistle Sonchus oleraceus
 - Wild Oat Avena fatua
 - Squirrel-tail Fescue Vulpia bromoides
 - Hair Grass Aira spp.

Cover of herbaceous weeds appeared similar to levels observed prior to establishment of the offset site. The OMP requires management to ensure that weed cover does not exceed current (prior to commencement of



the OMP) levels. For habitat zones 1F and 1G, initial herbaceous weed levels were estimated at 20% and 25% respectively.

In the current assessment, it is estimated that herbaceous weed cover for zone 1G is approximately 20%. The smaller zone 1F has some dense patches (up to 40% cover) of Stinkwort *Dittrichia graveolens*, and control of this weed is required to keep total herbaceous weed cover in the zone at or under 20%.

3.1.3 Fence Boundaries - Exclusion of Stock, Unauthorised Activities and Vehicle Access

The boundary fences are in poor condition and are not being maintained (Plates 3, 4 and 5). Currently the fences do not meet the objective / standard requirements of the OMP, however there were no obvious signs of unauthorised or illegal activities, including access by stock or vehicles. Fencing is discussed further in Section 3.3.3.

3.1.4 Pest Animals – European Rabbit, Red Fox and European Hare

Signs of rabbit occupation were observed, including a warren (Plate 6) and latrine site (Plate 7). There are no signs of recent use of the warren. Leaf litter is present in the entrances, and no scats were observed in the immediate vicinity. Scats may have been deposited in the latrine site within 12 months of the site assessment, although it is difficult to be definitive regarding the age of the scats. Rabbit scats are known to persist for significant periods of time, potentially over 12 months in relatively dry environments (Mutze *et al.* 2014).

No Red Fox scats were observed during the site assessment. No signs of European Hares were observed.





Plate 1 Plains Sedgy Woodland Habitat Zone 1F



Plate 2 Shallow Sands Woodland Habitat Zone 1G





Plate 3 Fence condition along the eastern boundary with the rail reserve



Plate 4 Fence condition along the northern boundary





Plate 5 Fence along the western boundary with Old Glenorchy Road



Plate 6 Disused rabbit warren, with no signs of current occupation





Plate 7 Rabbit scats observed within Habitat Zone 1G

3.2 Habitat hectare assessment

A Habitat Hectare assessment was conducted by Biosis on 28/11/2019. The condition of the two habitat zones was assessed according to standard methods provided by DSE (2004) and pre-determined EVC benchmarks. The assessment is presented in Table 1. The purpose of this assessment is to provide a basis for comparison with the Habitat Hectare assessment conducted by Practical Ecology for the Year 1 annual report (Practical Ecology 2020), including establishing a vegetation condition baseline for future comparisons. The Year 1 Habitat Hectare Assessment is discussed in Section 3.3.6.

Habitat Zone 1G (Plate 2), which covers the majority of the offset area, represents an area of very high quality vegetation, achieving a Habitat Hectare score of 76. The number of large trees in this zone exceeds the EVC benchmark requirement. The understorey is in good condition, but there are two missing life-forms (understorey trees and medium non-tufted graminoids). Total weed cover is approximately 20%. A good cover of organic litter and logs is present.

Habitat Zone 1F (Plate 1) is in poorer condition (Habitat Hectare score of 54), as sections appear to have been cleared in the past. Few large trees are present and few fallen logs were observed. Weed cover is higher in this zone (estimated at 40%), resulting in a lower 'Lack of Weeds' score, although the understorey lifeform assessment indicates that the understorey is in relatively good condition. Several life-forms are missing (large herbs, large tufted graminoids and large non-tufted graminoids). The woody species recruitment score is also lower in this zone. No fallen logs were present in this zone.



Habitat Zone ID		IF	IG	
EVC #			283	882_61
EVC Nar	ne		Plains Sedgy Woodland	Shallow Sands Woodland
		Max Score	Score	Score
	Large Old Trees	10	0	9
	Canopy Cover	5	5	4
Ę	Lack of Weeds	15	7	9
te litio	Understorey	25	15	15
ond	Recruitment	10	3	10
U	Organic Matter	5	5	5
	Logs	5	0	5
	Total Site Score		35	57
e	Patch Size	10		
scap	Neighbourhood	10	19	19
Val	Distance to Core	5		
Total Landscape Score		19	19	
HABITAT SCORE 100		54	76	
Habitat points = #/100		1	0.54	0.76

Table 1 Habitat hectares of habitat zones 1F and 1G

3.3 Compliance with management actions

The schedule of management actions is provided in Table 8 (Section 4) of the Biosis OMP. Notes regarding compliance or non-compliance with these actions are addressed in Table 2 below. Where further information is required regarding compliance or non-compliance with OMP requirements, this is presented in the following sections.

3.3.1 Landholders annual report

The monitoring report is titled:

• Swift Parrot Offset Monitoring Year 1: Oct 18 – Oct 19. Old Glenorchy Road, Deep Lead (Practical Ecology 2020).

The report presents the findings of the monitoring and summarises inspections and works undertaken within the offset area.

The OMP requires that the Annual report is to be by October 4th each year.

The annual monitoring report was prepared by Practical Ecology, on behalf of the offset site owner. The report was submitted to the RRV on 23/01/2020. Biosis assisted the RRV to provide comments on the draft report, and these were incorporated into the final offset site monitoring report by Practical Ecology and submitted to RRV on 01/05/2020.



3.3.2 Monitoring schedule by the landholders

Table 2 of the Practical Ecology (2020) report provides a schedule of property inspections, including photo point establishment, surveillance visits, weed inspections and vegetation monitoring. For most visits, the Swift Parrot offset area is observed during inspections of the broader property.

Inspections have been conducted at monthly or bi-monthly intervals. Inspections and monitoring have been conducted for all required components, however there are instances where monitoring has not been conducted within the timeframe required by the OMP. Further information is provided in the following sections.

3.3.3 Exclusion of stock, unauthorised activities and vehicle access

The OMP specifies that the offset area must be protected from stock, unauthorised activities and vehicle access, and that perimeter fencing of the property should be maintained to the standard detailed in BushBroker Information Sheet 12 (DSE 2012).

Plates 3, 4 and 5 clearly show that the site is not securely fenced, as the boundary fence is in a poor condition and is not being maintained and does not protect the site from access via surrounding land. Currently, none of the surrounding land is used for grazing and there has been no obvious signs of access by stock. Similarly, there is no evidence of illegal vehicle access / unauthorised activities for purposes such as rubbish dumping or firewood collection.

The property log book (Table 2 of Practical Ecology 2020) lists regular inspections of property boundaries, and notes that there have been no signs of incursions, disturbances or vehicle access. Section 3.3 of the Practical Ecology (2020) monitoring report acknowledges that fences are 'not currently maintained', and this is acknowledged as a 'non-compliance' in the discussion section. This is also specified as a 'non-compliance' in Table 2 and 3 of this report. The site has not been securely fenced, as required for compliance with the OMP.

3.3.4 Weed control

The property log book indicates that weeds were only assessed on one occasion, in July 2020. The site was inspected on multiple other occasions however, and it is expected that any emerging weed issues, or woody weeds, would have been noted on these occasions if observed. Similarly, woody and herbaceous weeds would have been assessed as part of the quadrat data collection in January 2020.

It is recommended that in future years a weed inspection should be conducted in early spring, to highlight areas where annual grassy weeds may require treatment. This is a requirement of the OMP. Weed control actions must be conducted as specified in Table 7 of the Biosis OMP (Biosis 2017a).

For woody weeds, the target in the OMP specifies elimination (< 1% cover). The Practical Ecology (2020) report states that there have been no woody weeds on the site. This is supported by the Biosis inspection in November 2019.

For herbaceous weeds, the target in the OMP specifies that cover should not exceed levels recorded at the beginning of the offset management period (December 2017), and that herbaceous weeds will not interfere with shrub and canopy recruitment. Section 3.5 of Practical Ecology (2020) describes the weeds management program, including:

- Spot spraying of annual grasses in September 2018.
- Site inspection with the weed management contractor in July 2019
- Spot spraying activities on three occasions in September 2019. These works included treatment of Soursob, Chickweed and Bridal Creeper.



No obvious signs of weed control were observed within the Swift Parrot offset area during the November 2019 site inspection.

Sections of Habitat Zone 1F is observed to have relatively high cover (40%) of Stinkwort *Dittrichia graveolens*. This infestation occurs on low-lying ground within the Plains sedge Woodland EVC, and extends beyond the Swift Parrot offset area into other adjacent habitat zones within the property. The cover and extent of the infestation is similar to that observed prior to commencement of offset site management, however control of this species is recommended for future weed management activities, to reduce overall weed cover within the offset area.

Monitoring of weeds is non-compliant with OMP requirements due to the timing of the monitoring, as outlined in Table 2.

3.3.5 Pest animal control

Section 3.6 of the Practical Ecology (2020) report states that observations of pest animals were recorded in the property log book, and that while there are signs of old Rabbit warrens, none are currently active. Pest animal control and management has been compliant with the requirements of the OMP.

Observations made within November 2019 by Biosis support this assessment. Old Warrens (eg. Plate 6) were observed, as were some latrine sites with scats present. As discussed in Section 3.1, it is difficult to estimate the age of the scats, and while there were no signs of recent scats (< 6 months old), some of the scats are likely to indicate Rabbit activity since the commencement of the OMP management.

As required by the OMP, the property owner/manager should continue to monitor for fresh signs of rabbit activity and undertake management action if required. Pest animal control is currently assessed as compliant with the OMP requirements (Table 2).

3.3.6 Habitat hectare assessment

Practical Ecology (2020) conducted a Habitat Hectare Assessment of a range of plots in Plains Sedgy Woodland Habitat Zones 1F and Shallow Sands Woodland Habitat Zone 1G in January 2020. One plot was assessed in Habitat Zone 1F and five plots in Habitat Zone 1G.

Biosis conducted an assessment in both zones (single plots) in November 2019 (Section 3.2).

The habitat scores calculated by these assessments are relatively consistent, and are well within the range of variation normally expected when assessments are undertaken by different observers. For Habitat Zone 1F, Practical Ecology calculated a site score of 52, and Biosis calculated a site score of 54. For Habitat Zone 1G, Practical Ecology site scores ranged from 64 to 75, and Biosis calculated a site score of 76.

Both the Practical Ecology and Biosis Habitat Hectare assessments indicate that the condition of the vegetation within the site has not increased or decreased measurably following the first 12 months of site management.

3.3.7 Tree and shrub regeneration and overstorey condition

Practical Ecology have undertaken the specified monitoring of tree and shrub regeneration and overstorey condition. The assessment was undertaken in January 2020 which was not within the year 1 monitoring period and not the recommended time (Autumn) for the monitoring. The monitoring should have been undertaken in Autumn 2019, and therefore this item is non-compliant with OMP requirements.

Practical Ecology (2020) have suggested that the monitoring methods specified in the OMP do not provide sufficient resolution or appropriate information to guide on-ground management. Additional monitoring methods are proposed in Section 5 of Practical Ecology (2020), as described below.



3.3.8 Proposed additional monitoring methods

The Practical Ecology (2020) Year 1 monitoring report also makes recommendations for additions to the methods for assessment of tree cohorts and understorey shrubs. The proposed methods provide additional detail to the methods specified in the OMP, and are considered to add value to the monitoring activities. This information will be valuable for guiding on-ground management of shrub and tree regeneration.

As the proposed methods are aimed at monitoring of the objectives and targets specified in the OMP, it is agreed that the inclusion of these methods does not require any alteration to the approved OMP.

The methods detailed in Practical Ecology (2020) include:

- Assessment of tree and shrub density information using points located at 20m intervals along a transect line.
- Clearly defined classification of tree cohorts / size classes, based on diameter at breast height (DBH) ranges.

Further detail is provided in Section 5 of the Practical Ecology (2020).



Table 2 Compliance with management actions

Note: Section, Table and appendix numbers referenced within the first four columns relate to the Biosis OMP (Biosis 2017).

Year No	Objective – Habitat Zones 1G & 1F	Timing of activity – month(s)	Standard to be achieved	Compliance
1 and ongoing	 Exclusion of stock, unauthorised activities and vehicle access. Ensure the offset site is appropriately fenced from neighbouring land and road reserves. Fences to be monitored and maintained in functional condition. 	Within 1 month of commencement of agreement.	 Exclusion of domestic stock from offset area. Exclusion of vehicles from offset area. Exclusion of unauthorised access or unauthorised firewood collection. Maintain fencing around the perimeter of the property to the standard detailed in BushBroker Information Sheet 12 – Standards for Management – Fencing (DSE 2012c) (sheep fencing standard). Any new fences, if required to control threats to ecological values, will be constructed to this standard. 	The property boundary is not securely fenced, as the boundary fence is in a poor condition (Plates 3, 4 & 5) and is not being maintained and does not adequately protect the offset area from stock or unauthorised vehicle access. However, there were no signs of recent access by vehicles or stock. Non-compliant <i>Further detail provided in Section 3.3.3.</i>
1 and ongoing	2. Remove all woody weed infestations within the offset area Weeds to be managed in accordance with BushBroker Information Sheet 8 – Standards for Management – Weeds (DSE 2012b)	Within 1 month of commencement of agreement.	No woody weeds present within offset area (< 1% cover). Woody weeds not to interfere with shrub and canopy recruitment. Minimise off-target damage (avoid all native plants)	No woody weeds observed within the offset area by Practical Ecology (2020) or Biosis (this report). Compliant <i>Further detail provided in Section 3.3.4.</i>
Annual	3. Monitor and control herbaceous weeds. Control methods and timing specified in Table 6 and in accordance with DSE (2012b).	Refer to Table 6.	Herbaceous weed cover to not exceed current levels. Herbaceous weeds not to interfere with shrub and canopy recruitment. Minimise off-target damage (avoid all native plants)	No formal monitoring of herbaceous weeds within year 1. However, there were multiple site visits in which informal observations were noted. Herbaceous weed levels are relatively consistent with pre-OMP levels. Control of Stinkwort in Zone 1F is recommended. Non-compliant <i>Further detail provided in Section 3.3.4.</i>
Ongoing	4. Monitor and control new and emerging woody weeds	Ongoing	New outbreaks of woody weeds to be removed as soon as detected. No woody weeds present within offset area. Minimise off-target damage (avoid all native plants).	No new outbreaks of woody weed require treatment. Compliant <i>Further detail provided in Section 3.3.4.</i>



Year No	Objective – Habitat Zones 1G & 1F	Timing of activity – month(s)	Standard to be achieved	Compliance
Ongoing	5. Monitor and control Rabbits, Hares and Foxes. Rabbits to be managed in accordance with BushBroker Information Sheet 7 (DSE 2012a).	Ongoing	No fresh ground disturbance by pest animals (particularly rabbits) observed in the offset area. No active rabbit warrens within offset area, minimal surface harbour for rabbits and hares present (but excluding natural harbour such as logs and rocks). No active fox dens within offset area, if present they are to be destroyed through fumigation and hand collapse. Continue to monitor and control rabbits and foxes all year round.	No fresh signs of Rabbits or Foxes. No active Rabbit warrens or Fox dens. Compliant <i>Further detail provided in Section 3.3.5.</i>
Ongoing	6. Monitor and control all new and emerging pest animals.	Ongoing	Control numbers of any new and emerging pests.	No control of emerging pest animals required. Compliant
Annual	7. Monitor tree and shrub regeneration and overstorey condition and undertake supplementary planting or ecological thinning if required (section 3.6.6).	Autumn	Tree layer continues to regenerate and provide foraging habitat for Swift Parrot. Maintain cover of immature canopy trees and understorey trees or large shrubs to a level of not greater than 20% higher than the EVC benchmark (Appendix 6). If cover levels of the relevant species exceed 20% then they will be thinned to achieve a cover of approximately 5%. If the cover of either group is significantly less than 5% then action to encourage regeneration of Yellow Gum and other shrubs will be implemented by either addressing threats to regeneration or planting nursery stock to achieve a cover closer to 5%.	Monitoring undertaken in January 2020, which is not the specified time, and outside of the Year 1 period. Table 10 of the OMP (Biosis 2017b) specifies that monitoring must be undertaken in Autumn. Additional monitoring methods recommended by Practical Ecology (2020). Non-compliant <i>Further details provided in section 3.3.7 and 3.3.8.</i>
All (annually)	Prepare and submit an annual report.	Submit 2 months prior to agreement anniversary date. Annual reporting under this OMP will be aligned with the reporting requirements of the BushBroker Agreement.	Annual report is signed, dated and submitted by the landholder at least 2 months prior to the anniversary date of the agreement, as specified in the BushBroker agreement.	The year one monitoring report was due by 4 th October 2019. Draft report received in January 2020. Practical Ecology (2020). Swift Parrot Offset Monitoring. Year 1: Oct 18 – Oct 19. Non-compliant



4 Conclusion

Management and monitoring of the Old Glenorchy Road Offset site has been managed in accordance with most requirements of the OMP (Biosis 2017b), however there are several items of non-compliance or partial compliance highlighted in this report and the Practical Ecology year 1 monitoring report (Practical Ecology 2020). Items where action is required to ensure future compliance are noted in Table 3.

OMP requirement	Compliance	Recommended action
Boundary fencing	Non-compliant	• Repair and maintain property boundary fencing in accordance with DSE 2012. The OMP required that secure boundary fencing be completed within one month of commencement of the management period.
Annual monitoring of woody weeds and herbaceous weeds	Non-compliant	 Undertake future weed monitoring within the correct monitoring timeframe. Make notes on weed occurrence during regular site surveillance visits and arrange weed management actions / treatment as required.
Monitor tree and shrub regeneration and overstory condition	Non-compliant	 Undertake future monitoring within the correct monitoring timeframe.
Prepare and submit an annual report	Non-compliant	 Submit future monitoring reports within the required timeframe

 Table 3
 Summary of non-compliance items and recommended action



References

Biosis 2017a. Pyrenees Highway Road Safety Works – Green Gully, Victoria. Preliminary Documentation (EPBC 2016/7809). Report prepared for the Department of the Environment and Energy on behalf of VicRoads. Authors: Gibson, M. & Stoot, L., Biosis Pty Ltd, Ballarat. Project no. 24012.

Biosis 2017b. Old Glenorchy Road, Deep Lead, Victoria: Offset Management Plan. Report for VicRoads. Authors: Gibson M & Stoot L, Biosis Pty Ltd, Ballarat. Project no. 24012.

Brett Lane & Associates 2017. Offset Management Plan for Credit Site BB-3018-LA01. Prepared for Deep Lead Property Pty Ltd.

DSE 2004. *Native Vegetation: Sustaining a living landscape. Vegetation Quality Assessment Manual – Guidelines for applying the Habitat hectares scoring method. Version 1.3.* Victorian Government Department of Sustainability & Environment, Melbourne.

DSE 2012. BushBroker information sheet number 12. Standards for management – Fencing. Department of Sustainability and Environment, Melbourne.

Mutze, G., Cooke, B., Lethbridge, M. & Jennings, S. 2014. A rapid survey method for estimating population density of European rabbits living in native vegetation. The Rangeland Journal 36, 239-247.

Practical Ecology 2020. Swift Parrot Offset Monitoring Year 1. Old Glenorchy Road, Deep Lead. Report prepared for Deep Lead Property Pty Ltd. Authors: Wilkin, E. & Kern, L. Practical Ecology Pty Ltd.



	800 PCreek	*			
	- Week				
6	ester	n Hwy	Deen	and	<i>*</i>
1			V Deep !	.euu	
Lake	7			And erson Cr	eek
Leg	end		~ (1		
	Study	area			
	BushB	roker C	redit Sit	e BB-30	18
	Swift P	arrot C	offset Ar	ea	
	Habita	t Hecta	re Asse	ssments	
Eco	logical \	/egetat	tion Cla	SS	
	Woodl	⁻ Rainfa and (EV	ii Shallo 'C 882 (w Sands 51) -	5
	Zone 1	G	_	,	
	Plains	Sedgy \	Vetland		
	(EVC 2	83) - 20	ne IF		
Fig	ure 1	Old G	lenorc	hy Roa	ad
Of	fset Sit	e			
0	25	50 75	5 100	125	N ∧
		Metres			\land
Coor	Scal dinate Syst	ie: 1:3,00 em: GDA	u @ A3 1994 MGA	Zone 55	
		Dic	si	5.	
				8	
Matter: 3 Date: 23 J Checked	0626, uly 2020, by: MSG, Drawn H	by: AEDM, Last	edited by: amu	irray	
Location:	P:\30600s\30626	Napping\306	26_F1_OffsetSit	te.m.xd	21