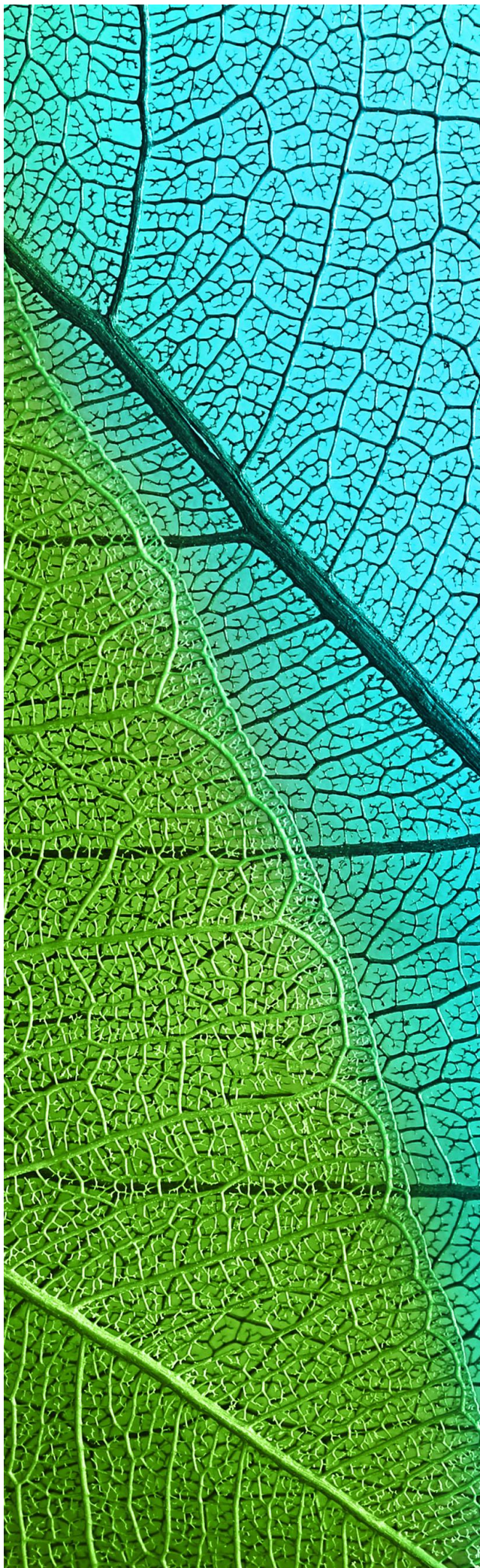




Manzeene Avenue, Lara Warrambeen Offset Site

Offset Monitoring Report

Stage 3 – Year 5

**Prepared for Manzeene Avenue
Development Project Trust**

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Report No. 11212.7 (13.0)



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1. Introduction

Manzeene Avenue Development Project Trust Pty Ltd engaged Nature Advisory Pty Ltd (formerly Brett Lane & Associates) to conduct an annual offset monitoring survey of a native vegetation offset site at Warrambeen Estate, Shelford. This area is used as an offset for the permitted native vegetation removal at Manzeene Village, Lara and is subject to an offset monitoring plan prepared by Brett Lane & Associates (BL&A 2015).

Baseline monitoring of the offset site was undertaken in December 2015 for a 30-hectare area used as an offset in three stages.

This investigation was commissioned to collect year-five monitoring data for Stage Three of the offset site.

It includes the condition of native vegetation, extent of weed cover in the offset site and the adequacy of fencing, grazing and other biomass and weed control regimes. The data will be used in the monitoring and adaptive management of the offset site consistent with the Offset Management Plan (OMP) for this site (BL&A 2015).

Specifically, the scope of the investigation included:

- Estimation of overall weed cover and cover of each high threat [woody] weed species (refer to Table 11 of the OMP);
- Taking photographs at fixed photo point locations;
- Assessment of the integrity of offset zone fencing;
- Assessment of the level of grazing pressure;
- Monitoring of compliance with land-use commitments and other management commitments; and
- Monitoring of the quality of NTGVVP.

This report is divided into the following sections:

Section 2 provides an overview of the characteristics of the study area and describes the sources of information including the background of the project.

Section 3 describes the methods used for the field survey and monitoring.

Section 4 presents the investigation results, describing the vegetation of the study area.

Section 5 discusses the implications of the management plan implementation, analysis of results and recommendations to improve the management process.

This investigation was undertaken by a team from Nature Advisory comprising Dean Karopoulos (Botanist), James Bennie (GIS Analyst) and Inga Kulik (Senior Ecologist and Project Manager).

2. Site Description and Background

2.1. Site Description

Stage Three (13.5 ha) of the offset site (Figure 1) is located in the northern part of a large property along the Rokewood-Shelford Road, in Shelford. Together with Stage One (4.9 ha) and Stage Two (11.6 ha), they form a 30-hectare area set aside for offsets associated with the development of Manzeene Avenue in Lara, and are encompassed within a 195-hectare paddock.

The offset property, Warrambeen Gumley Land Trust, is located approximately 50 kilometres northwest of Geelong. The property is bordered by Rokewood Shelford Road to the south, Lonies Road to the east and Gumley Mount Mercer Road to the west. It has a long history of grazing by livestock (sheep), which remains active.

Large areas of native grassland exist in the area. The landowner of the property has indicated that there are over 500 hectares (including the offset site) of native grassland within the Warrambeen Gumley Land Trust alone (Landowners, *pers. comm.* 2010).

The offset site lies within the Victorian Volcanic Plain bioregion and falls within the Corangamite catchment.

2.2. Background

This project was commissioned by Manzeene Avenue Development Project Trust Pty Ltd to provide annual data for the study area, which is being used for native vegetation offset credits. These credits are a requirement under the Victorian *Biodiversity assessment guidelines* (DEPI 2013) and *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* for the construction of the Manzeene Village Development, Lara. The offset monitoring includes assessment against the requirements detailed by the Offset Management Plan produced by Brett Lane & Associates (BL&A 2015).

The offset site within the Warrambeen property is secured as an offset by Manzeene Avenue Development Project Trust Pty Ltd under Section 173 of the *Planning and Environment Act 1987*. The requirement of the Offset Security Agreement between Manzeene Avenue Development Project Trust Pty Ltd, the City of Greater Geelong and the Landowners, is to undertake annual monitoring in accordance with the approved Offset Management Plan (OMP).

Offset Management Plan

The following assessments were undertaken to gather monitoring data under the OMP:

- Flora surveys by a qualified botanist, documenting the overall vegetation condition and percentage cover of weed species;
- Assessment of mapped vegetation against the criteria for the EPBC Act-listed community *Natural Temperate Grasslands of the Victorian Volcanic Plain* (NTGVVP).

The Offset Management Plan outlined the following management actions which need to be undertaken:

- Pest Plant Control: Herbaceous weed control to be undertaken regularly throughout the year using spot spraying technique, focusing on elimination of woody weeds and high-threat herbaceous weeds;
- Pest Animal Control: Monitor for signs of pest animal activity, taking action where required;
- Access: Regularly check integrity of fencing throughout the life of the management plan;

- **Biomass Control:** Strategically graze the study area (in winter if dry), generally spelling in spring/summer to maintain and enhance a herb-rich, open ground cover and populations of significant species every year. Avoid grazing in any ephemerally wet areas.
- **Monitoring:** Regularly monitor composition and trends of vegetation to assess management effectiveness and guide future management actions. Monitoring will occur in years 1, 2, 3, 5 and 10, with a brief report prepared for years 1 and 2, and a more detailed monitoring report at the end of year five and year 10. This report establishes year five data for the Stage 3 monitoring program.

Methods employed to address the Offset Management Plan requirements are presented in Table 2.

3. Methods

3.1. Field methodology

Habitat hectare, weed-cover assessments and photo point monitoring was conducted on 11th January 2023. During this assessment, Stage Three of the offset area was inspected on foot.

Incidental records of threatened flora species were taken within all vegetation types and landforms whilst undertaking the habitat hectare and weed cover assessments.

Photos were taken at pre-established photo points. Notes from photo points taken during the current survey are provided below in Table 1. Photos taken in these locations are provided in Appendix 1.

Table 1: Photo point notes

Stage 3		
Pole No.	Photo direction	Notes
369	S	
370	W	
371	S	
372	N	
373	S	No stake
374	E	No stake

3.2. Offset management actions

Nature Advisory have reviewed the Offset Management Plan to ensure that the proposed methods, discussed below, correspond to the requirements of the Offset Management Plan.

The management actions include:

- Access control and fencing;
- Biomass reduction;
- Pest plant control;
- Pest animal control; and
- Protection of significant flora and fauna.

Table 2 details the methods used for the offset site monitoring. Based on the above methodology, the following surveys were undertaken, discussed in the sections below:

- Habitat hectare assessment (including documentation of the introduced flora species occurring in the offset site); and
- Photography at fixed photo points.

Table 2: Monitoring methods

Management action	Relevant performance measures (as per OMP)	Monitoring method
Access control and fencing	Maintenance of existing fencing	Visual inspection to determine the condition of the fence
Biomass reduction	Appropriate stock grazing	Discussions with the landowner as to how stock was managed throughout the year (including when the grassland was rested from grazing)
	Maintenance of NTGVVP	Monitoring of vegetation to determined qualification as NTGVVP
Pest plant control	No increase in cover of any weed species	Visual inspection of site and through habitat hectare assessment
	No new weed species introduced	Visual inspection of site and through habitat hectare assessment
Pest animal control	Reduce the number of rabbits	Discussions with landowner as to how pest animals have been controlled
	Identify all rabbit warrens	Visual Inspection

3.2.1. Habitat hectare and weed cover assessment

In Victoria, native vegetation is assessed using the habitat hectare method, which is a DEECA approved vegetation quality assessment method. Native vegetation is currently defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'. The *Guidelines for the removal, destruction or lopping of native vegetation* define native vegetation as belonging to two categories (DELWP 2017):

- Patch; or
- Scattered tree.

The definitions of these categories are provided below, along with the prescribed DEECA methods to assess them.

In Victoria, native vegetation is assessed using the habitat hectare method, which is a vegetation quality assessment method prescribed by the Department of Energy, Environment and Climate Action (DEECA). Native vegetation in Victoria is defined as belonging to two categories (DELWP 2017):

- Patch; or
- Scattered tree.

A description of these is provided below.

Patch

A patch of native vegetation is either:

- An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native; or

- Any area with three or more native canopy trees¹ where the drip line² of each tree touches the drip line of at least one other tree, forming a continuous canopy; or
- Any mapped wetland included in the *Current wetlands map*, available in DEECA systems and tools.

Patch condition is assessed using the habitat hectare method (Parkes *et al.* 2003; DSE 2004) whereby components of the patch (e.g. tree canopy, understorey and ground cover) are assessed against an EVC benchmark. The score effectively measures the percentage resemblance of the vegetation to its original condition.

Scattered tree

A scattered tree is:

- A native canopy tree² that does not form part of a patch.

Scattered trees are counted and mapped, the species identified and their circumference at 1.3 m above the ground is recorded.

3.2.2. Photography at photo points

Photographs were taken at photo monitoring points (see Figure 1) to get a representation of the vegetation types and condition within the study area. Photos were taken at pre-established photo monitoring points. Photo monitoring points 373 and 374 within Stage 3 need to be marked with permanent posts, as was done for all other photo points.

3.3. Limitations of field assessment

The temporally constrained nature of the field assessments can result in a failure to record all species and life-forms because of the seasonal absence of some species. This investigation was designed to provide an indicative assessment of site condition, rather than an exhaustive inventory of species in the study area.

The survey was undertaken in mid-summer after a wet winter and spring due to inundation of the site preventing access in spring and early summer. This timing is considered appropriate timing to assess most of the features of this community, but may result in under-representation of annual species and overall biomass in comparison to previous surveys which were undertaken in early summer.

¹ A native canopy tree is a mature tree (i.e. it is able to flower) that is greater than 3 metres in height and is normally found in the upper layer of the relevant vegetation type.

² The drip line is the outermost boundary of a tree canopy (leaves and/or branches) where the water drips on to the ground.

4. Assessment Results

4.1. Habitat hectare assessment

Evidence on site, including floristic composition and soil characteristics, suggested that *Heavier-soils* Plains Grassland (EVC 132_61) was present within the study area (Figure 1).

Heavier-soils Plains Grassland (EVC 132_61) is described in the benchmark as “treeless vegetation mostly less than 1 m tall dominated by largely graminoid and herb life forms. Occupies fertile cracking basalt soils prone to seasonal waterlogging in areas receiving at least 500 mm annual rainfall” (see Appendix 3).

One remnant patch covers the extent of Offset Zone Stages One, Two & Three (see Figure 1) comprising the abovementioned EVC is pertinent to this report (Table 3).

Table 3: Description of offset zone

Offset Zone	Bioregion	EVC	Description
Stage Three	VVP	<i>Heavier-soils</i> Plains Grassland (EVC 132_61) NTGWVP	This zone supports a gently undulating plain with several basalt rocky rises. Tussock Grass, Spear Grass and Wallaby Grass were dominant across the zone. Tussock Grass and Spear Grass formed dense clusters in low-lying areas and on drier rises, respectively. Gold Rush was also common throughout the zone. Kangaroo Grass occurred sporadically at very low density. The zone supports a large diversity of native herbs including Scaly Buttons, Lemon Beauty-heads, Poison Lobelia, Austral Hound's Tongue and Blue Bells, but these occur sporadically and at very low density, other than Blue Devil and Prickfoot, which were common and widespread. Small Scurf Pea was also found in this zone. Recruitment opportunities were high, with large amounts of bare ground, particularly in the center and south of the zone where bare ground often comprised over half of total ground cover. Introduced species were abundant throughout the zone, varying in cover from 20% of vegetative cover in the west to roughly half of vegetative cover along the eastern boundary and in the southeast of the zone. Exotic species in the west of the zone largely comprised annuals such as Squirrel-tail Fescue, Quaking Grass and Hair Grass, while the east of the zone was dominated by high-threat perennial species such as Yorkshire Fog, Flatweed and Toowoomba Canary-grass.

The habitat hectare assessment results for this habitat zone are provided below in Table 4. More detailed habitat scoring results are presented in Appendix 2. The habitat score for the current

assessment (54 for Stage 3) was substantially higher than the score obtained in December 2021 (44 for Stage 3).

Table 4: Summary of habitat hectare assessment results

Offset Zone	EVC	Area (ha)	December 2021 Habitat Score (out of 100)	January 2023 Habitat Score (out of 100)
Stage 3	Heavier-soils Plains Grassland (EVC 132_61)	13.5	44	54

4.2. Threatened species

Targeted surveys for threatened species were not included in the OMP. Nonetheless, one state-listed threatened flora species, Small Scurf-pea, was recorded in Stage 3 during the 2021 survey. Small Scurf-pea is listed as Endangered under the FFG Act.

The following listed flora species have previously been recorded in Stages One and Two of the site:

- Clover Glycine (EPBC: Vulnerable; FFG: Vulnerable); and
- Small Milkwort (FFG: Critically Endangered).

The analysis within the OMP (BL&A 2015) indicated that the additional listed flora species are likely to occur or have the potential to occur:

- Spiny Rice Flower (EPBC: Critically Endangered; FFG: Critically Endangered).

This species is yet to be recorded anywhere within the offset site.

4.3. Access control and fencing

The fencing was found to remain appropriate, with no breaches of integrity, and is required to be maintained into the future to retain this standard. A fence surrounds the 195-hectare paddock, of which the offset site forms a portion, and no additional fence between different offset parties is required (as per BL&A 2015).

There appeared to be no impact from vehicle access through the offset site, and people are discouraged from accessing the area unless it is absolutely necessary (Landholder pers. com., Dec 2016).

4.4. Biomass reduction

Discussions with the landholder found that during the past year of management for the offset site the site was often too wet to graze effectively without damaging the native vegetation. It is understood that grazing was limited to the times below due to the high rainfall that occurred during the year and to prevent pugging of the site.

- 1st June – 1st July 2022
- 1st October – 1st November 2022
- 4th January 2023

Biomass across the site was moderate at the time of assessment (Photo 1). Some areas of dense Native Grass with minimal inter-tussock space occurred on rises (Photo 2), and some low-lying areas had low biomass with a high proportion of bare ground (Photo 3)



Photo 1: Moderate biomass observed throughout majority of the offset site, with inter-tussock space largely occupied by annuals.



Photo 2: High biomass on drier stony rise, with resultant minimal inter-tussock space.



Photo 3: Low biomass observed in low-lying areas in the offset site, with high proportion of bare ground

4.5. Pest animal monitoring

No evidence of the presence of European Rabbit or other pest species such as Feral Pig was detected at the offset site.

4.6. Pest plant monitoring

Weed species currently contribute roughly 40% of the vegetative cover in Stage 3, compared with 30% cover in December 2021. This increase in weed cover is largely attributed to an increase in cover of annual weeds.

Under the offset plan (BL&A 2015), to achieve site gain all weeds are required to be controlled such that their cover does not increase beyond original levels. In addition to this, there are obligations for land managers under the *Catchment and Land Protection Act 1994* with respect to eradicating regionally prohibited weeds and preventing the growth and spread of regionally controlled weeds. The pest plant species recorded on-site and their percentage cover at the time of the current survey are included in Table 5.

The most abundant weeds within the offset site were Yorkshire Fog, Flatweed, Squirrel-tail Fescue and Toowoomba Canary-grass (Photo 4). The cover of Yorkshire Fog and Squirrel-tail Fescue have increased significantly since the December 2021 survey, while Flatweed and Toowoomba Canary-grass have seen significant decreases. In the context of the offset stage, Yorkshire Fog, Toowoomba Canary-grass and Flatweed are considered to be the highest threats due to their potential to severely limit recruitment due to the associated decline in bare ground cover.

Spear Thistle remains at a low abundance due to ongoing spot spraying. Several recruits of Spear Thistle were observed (Figure 1), although few were mature (Photo 5). Sweet Briar has been effectively controlled, with no individuals found in Stage 3.

One additional high-threat weed, Saffron Thistle, was recorded in this stage for the first time (Photo 6). This species is a restricted weed under the CaLP Act.



Photo 4: Dense growth of Yorkshire Fog and Toowoomba Canary-grass in southeast of Stage 3.



Photo 5: Spear Thistle growth, with recruits sheltered by dense grass and organic litter.



Photo 6: Saffron Thistle recruit.

Table 5: Pest plant data from 2016 to 2023 – Stage 3

Common Name	Scientific name	Weed Category	Control under offset plan - Ensure cover does not increase beyond current level	Year 1 - Feb 2019	Year 2 - Nov 2019	Year 3 - Oct 2020	Year 4 - Dec 2021	Year 5 - Jan 2023
Barley Grass	<i>Hordeum vulgare</i>	Low-threat	X	<1%	-	-	<1%	-
Briar Rose	<i>Rosa rubiginosa</i>	High-threat woody	X	1%	-	<1%	<1%	-
Brown-Top Bent	<i>Agrostis capillaris</i>	Low-threat	X	<1%	-	-	-	-
Buck's-horn Plantain	<i>Plantago coronopus</i>	Low-threat	X	<1%	-	-	-	-
Capeweed	<i>Arctotheca calendula</i>	Low-threat	X	<1%	<1%	<1%	<1%	-
Clover	<i>Trifolium</i> spp.	Low-threat	X	2%	2%	<1%	<1%	<1%
Cocksfoot	<i>Dactylis glomerata</i>	Low-threat	X	-	-	-	-	<1%
Flatweed	<i>Hypochaeris radicata</i>	High-threat	X	1%	1%	10%	15%	5%
Hair Grass	<i>Aira</i> sp.	Low-threat	X	<1%	<1%	-	<1%	<1%
Large Quaking-grass	<i>Briza maxima</i>	High-threat	X	1%	3%	-	<1%	<1%
Lesser Hawkbit	<i>Leontodon saxatilis</i>	Low-threat	X	<1%	-	<1%	-	-
Narrow-leaved Clover	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Low-threat	X	<1%	<1%	<1%	<1%	<1%
Oat	<i>Avena</i> spp.	High-threat	X	10%	15%	10%	<1%	<1%
Onion Grass	<i>Romulea rosea</i>	High-threat	X	<1%	2%	<1%	<1%	1%
Prickly Lettuce	<i>Lactuca serriola</i>	Low-threat	X	<1%	-	-	-	-
Rough Dog's-tail	<i>Cynosurus echinatus</i>	Low-threat	X	<1%	<1%	-	<1%	<1%
Rough Sow-thistle	<i>Sonchus asper</i> s.l.	Low-threat	X	<1%	-	-	<1%	<1%
Saffron Thistle	<i>Carthamus lanatus</i>	High-threat	X	<1%	<1%	-	-	<1%
Serrated Tussock	<i>Nassella trichotoma</i>	High-threat	X	-	<1%	-	-	-

Common Name	Scientific name	Weed Category	Control under offset plan - Ensure cover does not increase beyond current level	Year 1 - Feb 2019	Year 2- Nov 2019	Year 3 - Oct 2020	Year 4 - Dec 2021	Year 5 - Jan 2023
Sheep Sorrel	<i>Acetosella vulgaris</i>	Low-threat	X	-	-	-	-	-
Soft Brome	<i>Bromus hordeaceus</i>	High-threat	X	<1%	4%	-	<1%	<1%
Spear Thistle	<i>Cirsium vulgare</i>	High-threat	X	1%	3%	5%	-	1%
Squirrel-tail Fescue	<i>Vulpia bromoides</i>	High-threat	X	5%	7%	-	<1%	5%
Sweet Vernal Grass	<i>Anthoxanthum odoratum</i>	Low-threat	X	<1%	-	1%	-	<1%
Toowoomba Canary-grass	<i>Phalaris aquatica</i>	High-threat	X	<1%	1%	-	7%	5%
Wimmera Rye-grass	<i>Lolium rigidum</i>	High-threat	X	1%	1%	1%	1%	1%
Wood-sorrel	<i>Oxalis</i> sp.	Low-threat	X	<1%	-	-	-	<1%
Yorkshire Fog	<i>Holcus lanatus</i>	High-threat	X	5%	3%	2%	15%	20%
Small Quaking-grass	<i>Briza minor</i>	Low-threat	X	-	-	-	<1%	<1%

Bold % cover is where the cover of weed species has increased since the previous year of monitoring.

4.7. Qualification as NTGVVP

The entirety of the offset site qualified as *Natural Temperate Grasslands of the Victorian Volcanic Plain* (NTGVVP) at the time of the survey as it met all the diagnostic features and two of the three condition thresholds from the listing advice (TSSC 2008), as detailed in Table 6.

Table 6: Qualification of offset site at NTGVVP

NTGVVP key diagnostic features (must meet all)	
Quaternary basalt soils within the Victorian Volcanic Plain bioregion.	Yes
At least one of the following grass genera is the dominant native species in the ground layer: Kangaroo-grass, Wallaby-grass, Spear-grass and/or Tussock-grass.	Yes
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.	Yes
NTGVVP condition thresholds (must meet at least one)	
The total perennial tussock cover represented by the native grass genera Kangaroo-grass, Wallaby-grass, Spear-grass and/or Tussock-grass is at least 50%.	Yes
The ground cover of native forbs (wildflowers) is at least 50% of total vegetation cover during spring-summer (September to February).	No
The cover of non-grass weeds is less than 30% of total vegetation cover at any time of the year.	Yes

4.8. Photo points

A comparison of the photographs from the photo points from this monitoring assessment to the last monitoring assessment are shown in Appendix 1.

5. Recommendations

The following measures are recommended to be implemented at the offset site during 2023, in addition to existing requirements for ongoing monitoring, fencing maintenance and pest animal control.

5.1. Biomass management

Grazing is currently still the preferred approach for reducing biomass at the offset site. The offset site has a long history of grazing and the remnant species within the grassland are likely to be somewhat resilient to this kind of disturbance. Grazing is most useful where biomass reduction is primarily required for dominant species which are susceptible to a proportionally higher loss of foliage (Morgan *et al.* 2015), and this is the case at the offset site. Furthermore, grazing may be a more favourable biomass management regime than fire because of the prevalence of C3 grasses such as some spear grasses, which may be susceptible to fire in historically grazed and unburned grassland.

High rainfall was experienced throughout 2022, which reduced the time grazing was possible. However, a short period of grazing was implemented a week prior to the site assessment.

The current biomass across the site is moderate. In particular, the cover of robust C4 grasses such as Kangaroo Grass is minimal across the study area, with only a few scattered tussocks occurring. These species can outcompete other native species and limit bare ground and species recruitment, but are susceptible to grazing. As such, future grazing should be limited to short (1-2 days), intensive periods three to four times a year to prevent elimination of palatable native species. Grazing should be implemented when native species are dormant and not actively growing (i.e. late autumn and winter).

This grazing regime may be adapted based on knowledge obtained through ongoing monitoring of the site and the effectiveness of management actions. For example, if it appears grazing is having a minimal effect on biomass then more sheep should be added. On the contrary, if grazing is having an exaggerated and undesirable effect on biomass management then the number of sheep may be reduced or grazing ceased until otherwise advised.

If high rainfall prevents grazing in any year from 2023-2028, a cool burn should be implemented in early spring prior to exotic species setting seed. These burns should be targeted to the eastern third of the offset site, which is the most heavily invaded by weeds and has the highest biomass.

5.2. Weed control

The following perennial grassy weeds should be prioritised for control on the site via targeted herbicide application as well as controlled burns and/or grazing:

- Yorkshire Fog; and
- Toowoomba Canary-grass.

Additionally, the following herbaceous weeds should be prioritised for control on the site via the application of an appropriate broad-leaf herbicide:

- Flatweed;
- Saffron Thistle; and

- Spear Thistle.

Any emerging woody weeds must be immediately treated using the 'cut and paint' method of herbicide treatment.

6. References

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- Parkes D, Newell G, & Cheal D 2003, 'Assessing the Quality of Native Vegetation: The 'habitat hectares' approach'. *Ecological Management and Restoration*, 4:29-38
- Threatened Species Scientific Committee (TSSC) 2008, *Commonwealth Listing Advice on Natural Temperate Grassland of the Victorian Volcanic Plain*, Department of the Environment, Canberra.

Appendix 1: Photo-point monitoring photographs

Photo No.	Photograph		Photo direction and date	WP #	Notes
Stage 3					
369				S 7/12/2021	37° 54' 22" S 143° 52' 08" E EVC: <i>Heavier Soils</i> Plains Grassland (132_61)
				S 11/01/2023	
370				7/12/2020 (No photograph taken in 2021)	37° 54' 27" S 143° 52' 09" E EVC: <i>Heavier Soils</i> Plains Grassland (132_61)

Photo No.	Photograph		Photo direction and date	WP #	Notes
			W 11/01/2023		
371			S 7/12/2021	37° 54' 20" S 143° 52' 03" E	EVC: Heavier Soils Plains Grassland (132_61)
			S 11/01/2023		

Photo No.	Photograph		Photo direction and date	WP #	Notes
372			N 14/10/2020	37° 54' 24" S 143° 52' 01" E	EVC: <i>Heavier Soils</i> Plains Grassland (132_61)
			N 11/01/2023		
373			S 7/12/2021	37° 54' 02" S 143° 51' 59" E	EVC: <i>Heavier Soils</i> Plains Grassland (132_61)

Photo No.	Photograph			Photo direction and date	WP #	Notes
				S 11/01/2023		
374				E 14/10/2020	37° 54' 06" S 143° 51' 57" E	EVC: Heavier Soils Plains Grassland (132_61)
				E 11/01/2023		

Appendix 2: Detailed habitat hectare assessment results

Habitat Zone			Stage 3
Bioregion			VVP
EVC Number			132_61
Total area of Habitat Zone (ha)			13.500
Site Condition	Large Old Trees	/10	N/A
	No. large trees in habitat zone		N/A
	Tree Canopy Cover	/5	N/A
	Lack of Weeds	/15	4
	Understorey	/25	15
	Recruitment	/10	6
	Organic Matter	/5	2
	Logs	/5	N/A
	Site condition standardising multiplier*		1.36
	Site Condition subtotal		37
Landscape Context	Patch Size	/10	8
	Neighbourhood	/10	5
	Distance to Core	/5	4
Total Condition Score		/100	54

* Modified approach to habitat scoring - refer to Table 14 of DEECA's Vegetation Quality Assessment Manual (DSE, 2004).