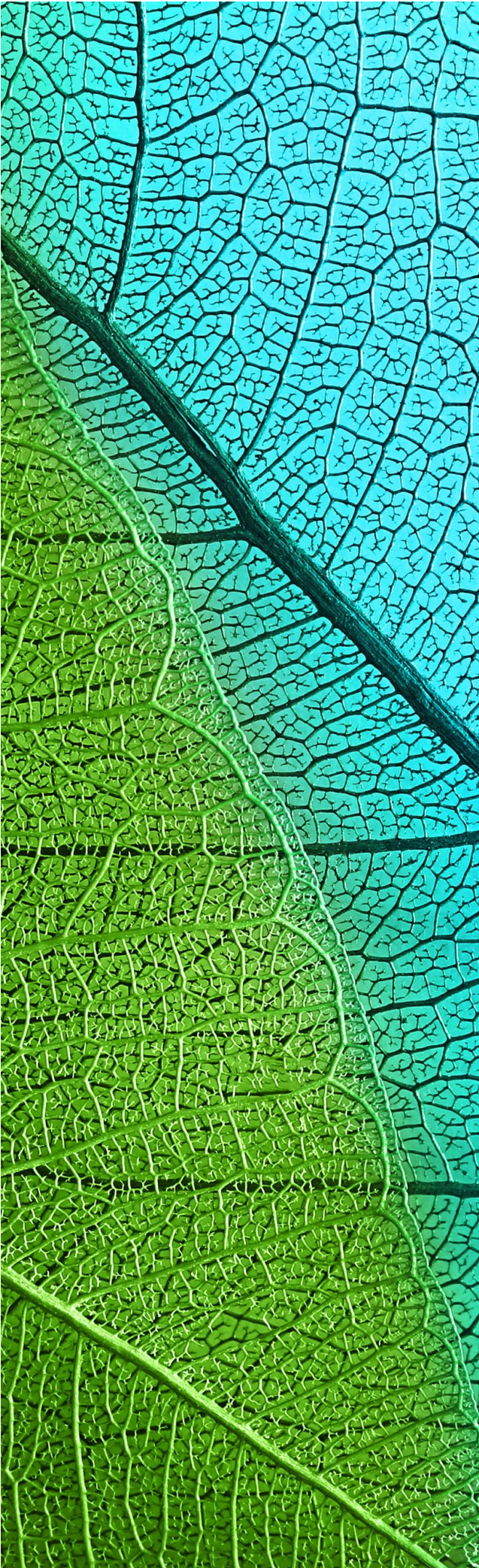




Manzeene Avenue, Lara Warrambeen Offset Site

Offset Monitoring Report

Stage 1 – Year 10

**Prepared for Manzeene Avenue
Development Project Trust**

December 2025
Report No. 11212.07 (14.0)



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1. Introduction

Manzeene Avenue Development Project Trust Pty Ltd engaged Nature Advisory Pty Ltd 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 report focuses on Stage 1 of the offset area.

This investigation was commissioned to collect:

- Year 10 data of the monitoring program for Stage 1 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 offset site in relation to compliance with the approved offset management plan and any further actions that are required to achieve compliance.

This investigation was undertaken by a team from Nature Advisory comprising Arend Kwak (Senior Botanist), Emma Wagner (GIS Analyst) and Jenna Barker (Project Manager & Zoologist).

2. Site description and background

2.1. Site Description

Stage 1 (4.9 ha) of the offset site (Figure 1) is located in the northern part of a large property along the Rokewood-Shelford Road, in Shelford. It forms part of a 30-hectare area set aside for offsets in association with Manzeene Avenue in Lara and is encompassed within a 195-hectare paddock.

The offset property, Warrambeen Gumley Land Trust, is located approximately 50 kilometres north-west 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 (i.e. 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 assessment was commissioned by Manzeene Avenue Development Project Trust Pty Ltd to provide year 10 monitoring 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 monitoring in accordance with the approved OMP (i.e. in years 1, 2, 5 and 10 from commencement of the plan).

Offset Management Plan

The following assessments were undertaken in order 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:* Weed control to be undertaken regularly throughout the year using spot spraying technique, focusing on elimination of woody weeds, high-threat herbaceous weeds and high-threat grassy 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 5 and year 10. This report establishes year 10 data for the annual monitoring program for Stage 1.

Methods employed to address the OMP requirements are presented in Table 2.

3. Methods

3.1. Field methodology

A Vegetation Quality Assessment (VQA), weed-cover assessment and photo point monitoring was conducted on 11 November 2025. During this assessment, Stage 1 of the offset site was inspected on foot.

Incidental records of threatened flora species were taken within all vegetation types and landforms whilst undertaking the VQA and weed cover assessments. Specimens requiring identification using laboratory techniques were collected.

Photos were taken in pre-established photo points within Stage 1. Notes from photo points taken during the 2025 survey are provided below in Table 1. Photos taken in these locations are provided in Appendix 1.

Table 1: Photo point notes

Stage 1		
Pole No.	Photo direction	Notes
142	S	-
143	S	-
144	W	-
145	S	-
146	S	New stake established

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:

- Vegetation Quality Assessment (including documentation of the introduced flora species occurring in the offset site); and
- Photography at fixed photo points.

Table 2: Monitoring methods

Monitoring actions	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 VQA
	No new weed species introduced	Visual inspection of site and through VQA
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. Vegetation Quality Assessment and Weed Cover

In Victoria, native vegetation is assessed using the VQA 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 DELWP systems and tools.

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.

Patch condition is assessed using the VQA 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.

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 late spring, which is appropriate to assess most of the features of this community.

4. Assessment results

4.1. Vegetation Quality Assessment

Evidence on site, including floristic composition and soil characteristics, suggested that *Heavier-soils* Plains Grassland Heavier Soils (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”.

One remnant patch referred to herein as Offset Zone Stage 1 (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 1	VVP	<i>Heavier-soils</i> Plains Grassland (EVC 132_61)	Tussock Grass, Wallaby Grass, Kangaroo Grass and Spear Grass were co-dominant across the area, with native herbs such as Scaly Buttons, Prickfoot and Poison Lobelia being common and widespread throughout the entire site. Several FFG Act-listed Small Scurf-pea individuals were also observed. Recruitment potential was moderate, with limited litter cover present. Introduced species were present, with Flatweed, Soft Brome and Oat having the highest cover. Additionally, this offset zone qualifies as the EPBC Act-listed threatened ecological community NTGVVP.

The VQA results for this offset zone are provided below in Table 4. More detailed habitat scoring results are presented in Appendix 2. The habitat score for the 2025 assessment (58/100) was slightly higher than the score obtained in December 2021 (52/100). This increase in score was primarily attributed to a greater diversity and cover of understorey lifeforms. This is indicative of an improvement in the grassland structure, as a result of successful implementation of management actions as outlined in the OMP.

Table 4: Summary of VQA results

Offset Zone	EVC	Area (ha)	Habitat Score (out of 100)
Stage 1	<i>Heavier-soils</i> Plains Grassland (EVC 132_61)	4.9	58

4.2. Threatened species

Targeted surveys for threatened species were not included in the OMP. Nonetheless, two FFG Act-listed threatened flora species have previously been recorded incidentally during offset site

monitoring. These comprise Small Milkwort (FFG Act: Critically Endangered) and Small Scurf-pea (FFG Act: Endangered).

One Small Milkwort individual was recorded in Stage 1 in February 2019, and two were recorded during the 2021 survey. However, no individuals were observed during the 2025 surveys.

Small Scurf-pea has also been frequently identified in the broader offset site since 2017, forming large mats in association with rock outcropping. Several were recorded in the Stage 1 offset site during the 2025 assessment, and these were primarily situated along the northern boundary.

Spiny Rice Flower, listed as critically endangered under the EPBC Act, has been previously recorded within Stage 1 during offset site monitoring. Two individuals were identified (and their locations recorded with GPS) during February 2019. However, these individuals were not observed during the 2025 assessment.

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:

- Clover Glycine (EPBC Act: Vulnerable).

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

4.3. Access control and fencing

A fence surrounds the 195-hectare offset paddock, of which the Stage 1 site forms a portion, and no additional fence between different offset parties is deemed necessary (as per BL&A 2015). During the 2025 assessment, fencing was found to be in good condition, with no breaches or damage identified.

Vehicle access appears to be restricted to a small track along the northern boundary of the Stage 1 offset site. This track demonstrated minimal ground disturbance and supported an abundance of native herbs and graminoids. Therefore, there appeared to be very little impact from vehicle access through the Stage 1 offset site.

4.4. Biomass reduction

Based on the observed cover of bare ground (10% cover) and the strong recruitment of native herbs and graminoids (Photo 1), biomass reduction appears to have been very successful over the previous management period.

However, biomass was comparatively higher in the western quarter of the Stage 1 offset site. This area occurs westward of Photo point 142 and approximately correlates with the identified Oat and Soft Brome infestations. As a result of this higher weedy biomass, native floral diversity was notably lower and native herbs demonstrated a more limited cover in this area. It is anticipated that grassland condition in this portion of the offset site may decline further, unless biomass management measures are implemented.



Photo 1: Open grassland structure, observed throughout the majority of Stage 1.
Native herbs were prominent in inter-tussock spaces.

4.5. Pest animal monitoring

No evidence of the presence of European Rabbit was detected at the offset site in 2025. However, discussions with the landowner indicated that European Rabbits were still present and possibly sheltering in rock walls adjacent to the site. A Red Fox had also been observed by the landowner on the day of the assessment, which may have been attracted to the area by a rabbit population. Therefore, European Rabbit poses an ongoing risk to native vegetation and ongoing control is required.

Additionally, a single European Hare was directly observed in the Stage 1 site during the 2025 assessment. Though this species is unlikely to cause the same level of ground disturbance as European Rabbits, it nonetheless poses a particular risk to native herbs. However, given this species has otherwise not been observed in past assessments, it is expected that the population is limited and effective control can be achieved.

4.6. Pest plant monitoring

Weed species currently contribute to 10% of the vegetative cover in Stage 1. This is a notable reduction in the extent of pest plant presence onsite, when compared to the 15% cover observed in the previous monitoring assessment. The composition of this weed cover has also changed and is now mostly attributed to high-threat grassy weeds, primarily comprising Soft Brome and Oat (Photo 2). Additionally, high-threat Flatweed remains a prominent weed throughout the site.

Yorkshire Fog and Toowoomba Canary-grass were previously identified as dominant weed species onsite. Although covers have been reduced for both species, their prior dominance has likely contributed to a large seedbank. Therefore, both species are considered to also pose an ongoing

risk to native vegetation and are expected to increase in cover with the late-spring rains experienced in 2025.

Furthermore, a single Serrated Tussock plant was identified in the west of the study area (Figure 1; Photo 3). This species has not been previously identified within Stage 1, though it was noted in Stages 2 and 3 during the 2019 surveys. It constitutes a high priority, given its competitive potential and the significant risk the species is known to pose to native grasslands. Given only a single plant was identified, its control is also deemed to be readily achievable at this stage.

Evidence of spot spraying of Spear Thistle was also observed, although follow up control is required as many recruits were found to be establishing at the time of the assessment.

The pest plant species recorded on-site and their percentage cover at the time of the Year 10 survey are included in Table 5.



Photo 2: Oat and Soft Brome infestations, present in the far west of Stage 1.



Photo 3: A single Serrated Tussock plant, observed in the west of Stage 1.

Table 5: Pest plant data from 2016 to 2020

Common Name	Scientific name	Weed Category	Control under offset plan – Ensure cover does not increase beyond current level	Stage 1 (YR 1) – 2016	Stage 1 (YR 2) – 2017	Stage 1 (YR 3) – Feb 2019	Stage 1 (YR 5) – Oct 2020	Stage 1 (YR 6) – Dec 2021	Stage 1 (YR 10) – Nov 2025
Barley Grass	<i>Hordeum vulgare</i>	Low-threat	X	-	<1%	<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%	<1%	<1%	<1%	<1%	1%
Capeweed	<i>Arctotheca calendula</i>	Low-threat	X	<1%	<1%	<1%	1%	-	<1%
Clover	<i>Trifolium</i> spp.	Low-threat	X	15%	2%	2%	<1%	<1%	<1%
Cocksfoot	<i>Dactylis glomerata</i>	Low-threat	X	-	-	-	<1%	-	-
Flatweed	<i>Hypochaeris radicata</i>	High-threat	X	1%	1%	1%	1%	2%	2%
Hair Grass	<i>Aira</i> sp.	Low-threat	X	1%	<1%	<1%	-	<1%	<1%
Large Quaking-grass	<i>Briza maxima</i>	High-threat	X	-	<1%	1%	-	<1%	-
Lesser Hawkbit	<i>Leontodon saxatilis</i>	Low-threat	X	-	-	<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	4%	20%	10%	2%	1%	3%
Onion Grass	<i>Romulea rosea</i>	High-threat	X	-	<1%	<1%	3%	<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%	<1%	-	<1%
Saffron Thistle	<i>Carthamus lanatus</i>	Low-threat	X	<1%	<1%	<1%	-	-	<1%
Serrated Tussock	<i>Nassella trichotoma</i>	High-threat	X	-	-	-	-	-	<1%
Sheep Sorrel	<i>Acetosella vulgaris</i>	Low-threat	X	-	-	-	<1%	<1%	-
Soft Brome	<i>Bromus hordeaceus</i>	High-threat	X	3%	<1%	<1%	<1%	<1%	2%
Spear Thistle	<i>Cirsium vulgare</i>	High-threat	X	<1%	<1%	1%	1%	<1%	<1%
Squirrel-tail Fescue	<i>Vulpia bromoides</i>	High-threat	X	<1%	5%	5%	-	<1%	-
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%	<1%	1%	<1%
Wimmera Rye-grass	<i>Lolium rigidum</i>	High-threat	X	1%	1%	1%	2%	1%	<1%
Wood-sorrel	<i>Oxalis</i> sp.	Low-threat	X	<1%	<1%	<1%	-	-	-
Yorkshire Fog	<i>Holcus lanatus</i>	High-threat	X	1%	5%	5%	1%	2%	<1%
Small Quaking-grass	<i>Briza minor</i>	Low-threat	X	-	-	-	-	<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 Stage 1 photo points are shown in Appendix 1. This provides a visual representation of any notable changes in the site's vegetation since the previous monitoring assessment.

Figure 1: Stage 1 - Year 10 Monitoring

Project No: 11212.07

Project: Warrambeen Offset Site, VIC

Date: 2/12/2025

 Property boundary

 Offset site

 Stage 1

 Photopoint

Threatened flora species

 Small Scurf Pea

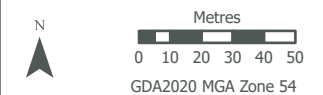
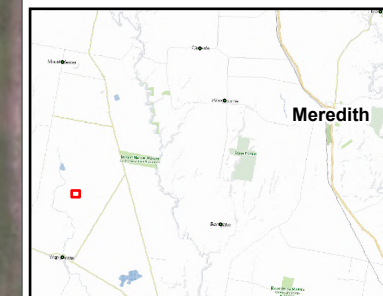
Weed species

 Serrated Tussock

 Spear Thistle

 Wild Oat, Soft Brome

Stage 1
(4.9ha)



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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

5. OMP compliance and further actions

5.1. Compliance with OMP

The Stage 1 offset site is compliant with all the required management actions detailed within the offset plan (BL&A 2015) as outlined below:

- Ensuring that weed cover does not increase beyond the level it was prior to the inception of this plan: Compliant.
 - Weed cover within the offset site was “approximately 20%” during the baseline assessment (BL&A 2015) and has now been reduced to 10% across the entire Stage 1.
- Monitoring any new and emerging weeds and eliminating to <1% cover: Compliant.
 - Toowoomba Canary-grass is the only species currently present that was recorded as a new and emerging weed since it was not observed during the baseline assessment (BL&A 2015). As the current cover of Toowoomba Canary-grass is <1% management is compliant with the OMP. The cover of Toowoomba Canary-grass must not exceed 1% cover to remain compliant with the OMP.
 - All other new and emerging weeds that were recorded throughout the OMP period were not detected during the Year 10 assessment suggesting they have been effectively eliminated.
- Eliminating all woody environmental weeds to <1% cover: Compliant.
 - “No woody environmental weeds were present within the offset zone” during the baseline assessment (BL&A 2015) and similarly no woody environmental weeds were present within the offset zone during the Year 10 assessment.
 - Briar Rose was previously recorded within the offset zone from 2019 – 2021 (Table 5) but has since been effectively eradicated as it was not detected during the Year 10 assessment.
- Controlling rabbits: Compliant.
 - “Rabbit numbers [in] the offset site [were] limited” during the baseline assessment (BL&A 2015) and no evidence of the presence of European Rabbit was detected during the Year 10 assessment.
- Implementing a periodic biomass management strategy at an agreed timing and frequency: Compliant.
 - Biomass levels are at an acceptable level due to the implementation of a periodic biomass management strategy since the inception of the OMP.

5.2. Ongoing land-use commitments

Under the offset plan (BL&A 2015), the landowner has the obligation to maintain, in perpetuity, the improvement gain achieved at the completion of the 10-year offset plan:

- Retain all native vegetation, dead or alive.
- Maintain the improvement gain achieved at the completion of the offset plan such that:

- Weed cover does not increase beyond the level attained at the completion of Year 10.
- Pest animals are controlled to the level attained at the completion of Year 10.

To maintain this gain, the following sections outline the recommended management actions to be implemented at the offset site to meet the ongoing land-use commitments, in addition to existing requirements for ongoing monitoring, fencing maintenance and pest animal control.

5.2.1. Biomass management

Further biomass reduction is likely to be required in the far western portion of the Stage 1 site. This area occurs westward of photo point 142 and approximately correlates with the identified Oat and Soft Brome infestations.

Given biomass control is currently only required over a relatively limited area, controlled burns may be more appropriate than grazing as a management method. This is due to the potential risk that grazing poses to the remainder of the Stage 1 native grassland, especially when considering the high cover of palatable native herbs relative to the cover of exotic weeds. To also address potential impacts to native C3 grasses (e.g. Spear-grass and Wallaby-grass) which may result from late-autumn burns, a cool burn in early spring is advised in this area.

However, it should also be noted that the high rainfall experienced in late spring of 2025 is likely to encourage the establishment of a greater cover of exotic weeds. As a result of these conditions, biomass levels may also increase across other areas of the Stage 1 site as the season progresses. Therefore, biomass management should ultimately be adaptive. The approach to management may include grazing if there is sufficient confidence that livestock will not significantly disturb native groundcovers, due to an adequate cover of alternative exotic food plants.

The 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 may be required. Conversely, 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.

5.2.2. Weed control

To ensure that weed cover doesn't increase beyond the level attained at Year 10, the following weed control recommendations are advised.

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

- Oat
- Soft Brome
- Yorkshire Fog
- Toowoomba Canary-grass
- Serrated Tussock

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

- Flatweed

- Spear Thistle

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

6. References

- Brett Lane & Associates (BL&A) 2015, *Manzeene Avenue, Lara – Offset Management Plan* Report No. 11212 (4.4), prepared for Manzeene Avenue Development Project Trust.
- Brett Lane & Associates (BL&A) 2016, *Manzeene Avenue, Lara – Warrambeen Baseline Offset Monitoring* Report No. 11212 (6.0), prepared for Manzeene Avenue Development Project Trust.
- Brett Lane & Associates (BL&A) 2019, *Manzeene Avenue, Lara – Warrambeen Offset Monitoring* Report No. 11212 (9.0), prepared for Manzeene Avenue Development Project Trust.
- Department of Environment, Land, Water and Planning (DELWP) 2017, *Guidelines for the removal, destruction or lopping of native vegetation*, Department of Environment, Land, Water and Planning, East Melbourne, Victoria.
- Department of Sustainability, Environment, Water, Populations and Communities (DSEWPaC) 2012, *Environmental Protection and Biodiversity Conservation Act 1999 – Environmental Offsets Policy*, Canberra, October 2012.
- Department of Sustainability and Environment (DSE) 2004, *Native Vegetation: sustaining a living landscape, Vegetation Quality Assessment Manual – guidelines for applying the Habitat Hectare scoring method (Version 1.3)*. Department of Sustainability and Environment, East Melbourne, Victoria.
- Nature Advisory 2020, *Manzeene Avenue, Lara – Warrambeen Offset Monitoring* Report No. 11212 (11.0), prepared for Manzeene Avenue Development Project Trust.
- Nature Advisory 2021, *Manzeene Avenue, Lara – Warrambeen Offset Monitoring* Report No. 11212 (12.0), prepared for Manzeene Avenue Development Project Trust.
- 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 1				
142		S 7/12/2021	37° 54' 09" S, 143° 51' 56" E	EVC: <i>Heavier Soils Plains Grassland</i> (132_61)
		S 11/11/2025		

Photo No.	Photograph	Photo direction and date	WP #	Notes
143		S 7/12/2021	37° 54' 09" S, 143° 52' 02" E	EVC: <i>Heavier Soils Plains Grassland</i> (132_61)
		S 11/11/2025		

Photo No.	Photograph	Photo direction and date	WP #	Notes
144		S 7/12/2021	37° 54' 09" S, 143° 52' 06" E	EVC: <i>Heavier Soils Plains Grassland</i> (132_61)
		S 11/11/2025		

Photo No.	Photograph	Photo direction and date	WP #	Notes
145		S 7/12/2021	37° 54' 10" S, 143° 52' 11" E	EVC: <i>Heavier Soils</i> Plains Grassland (132_61)
		S 11/11/2025		

Photo No.	Photograph	Photo direction and date	WP #	Notes
146		S 7/12/2021		EVC: <i>Heavier Soils</i> Plains Grassland (132_61)
		S 11/11/2025	37° 54' 14" S 143° 51' 52" E	

Appendix 2: Detailed VQA results

Habitat Zone			Stage 1
Bioregion			VVP
EVC Number			132_61
Total area of Habitat Zone (ha)			4.900
Site Condition	Large Trees	/10	N/A
	Tree Canopy Cover	/5	N/A
	Lack of Weeds	/15	7
	Understorey	/25	15
	Recruitment	/10	6
	Organic Litter	/5	3
	Logs	/5	N/A
	Site condition standardising multiplier*		1.36
	Site Condition subtotal		42
Landscape Context	Patch Size	/10	8
	Neighbourhood	/10	4
	Distance to Core	/5	4
Total Condition Score		/100	58

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