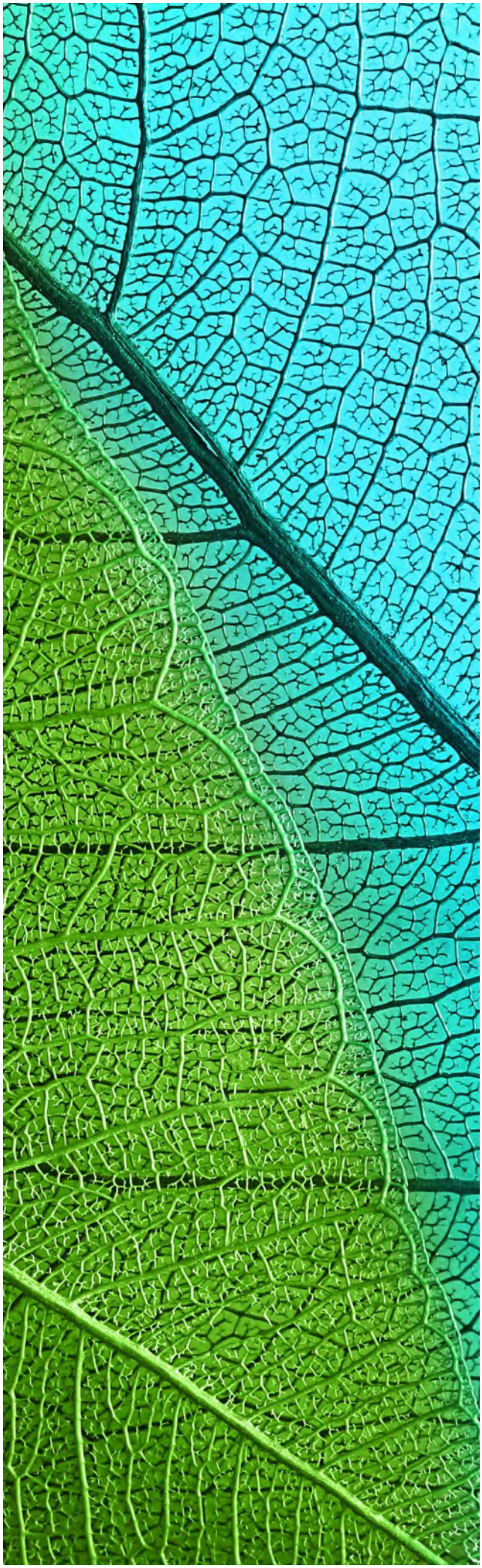

Industrial Facility, 276 Rex Road, Campbellfield, Victoria (EPBC 2021/8934)

EPBC Act Preliminary Documentation

Prepared for

Bamford Management Pty Ltd

April 2026

Report No. 20045.04 (2.2)

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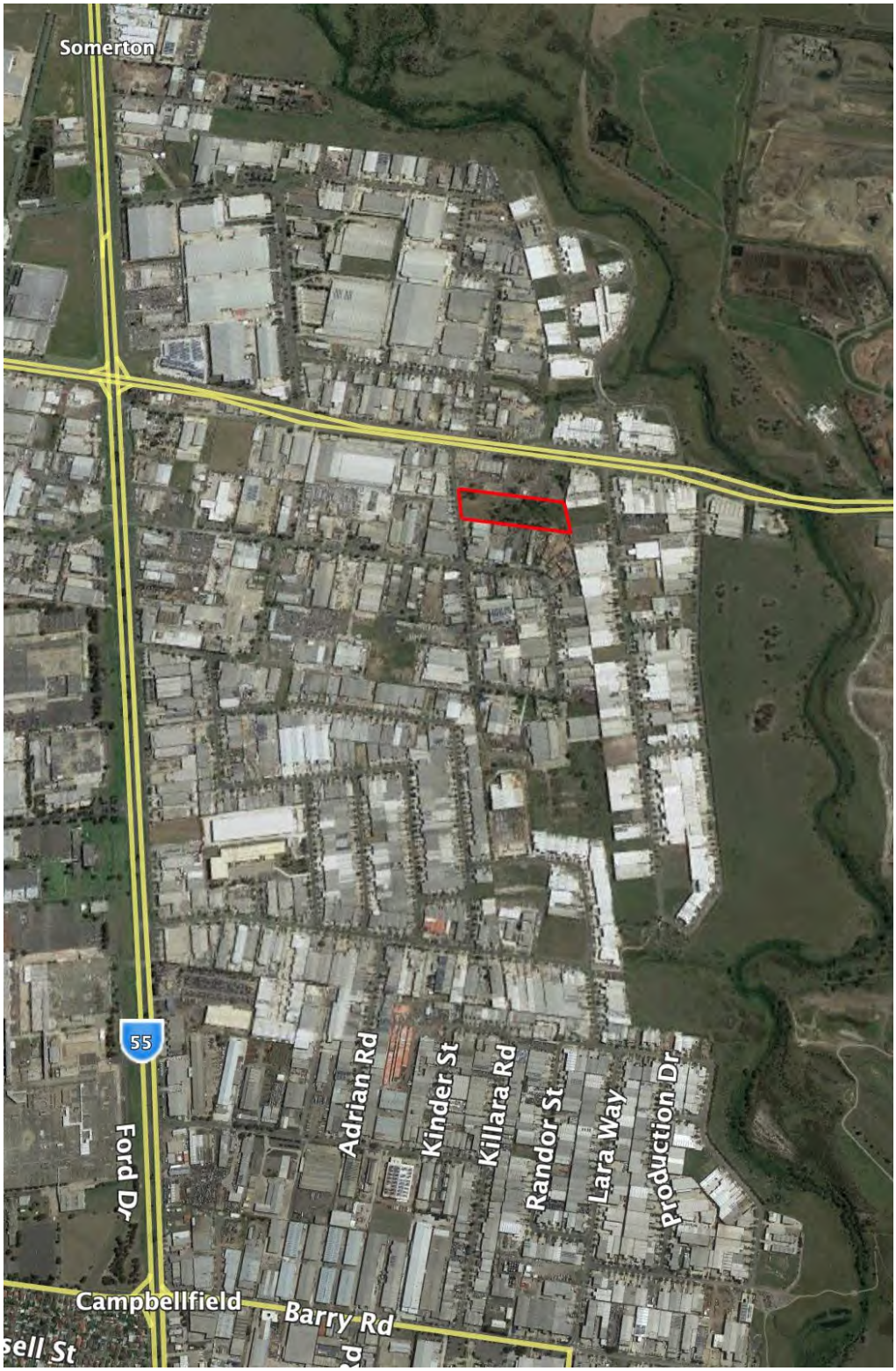
1. Description of the Action

This section provides information on the proposed action. The proposed action is the construction of an industrial facility at 276 Rex Road, Campbellfield, Victoria (see Figure 1).

Figure 1: Project locality map



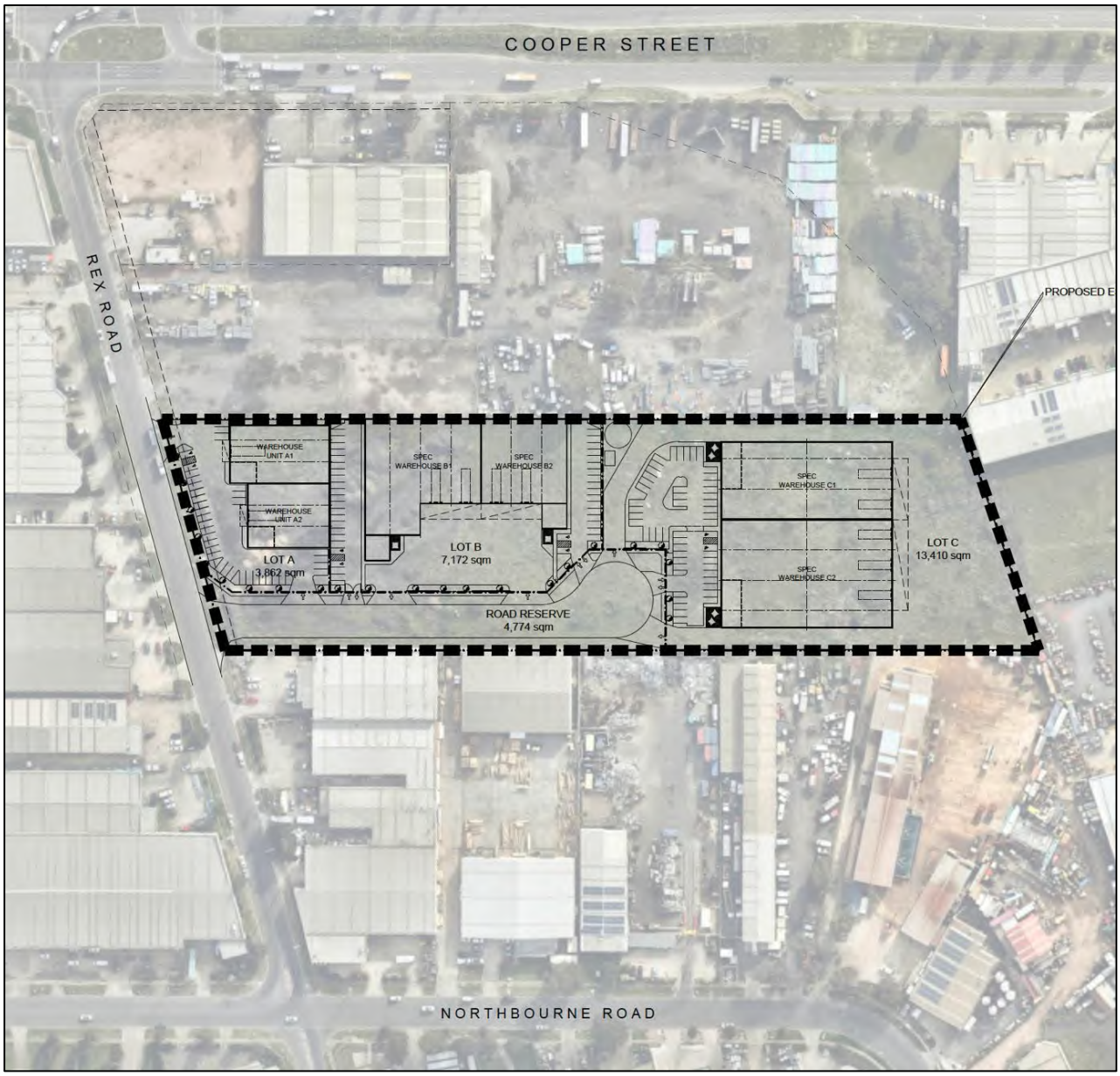
1.1. Project Objectives

The study area is located within the Hume local government area and is currently zoned Industrial 1 Zone (IN1Z) in the Hume Planning Scheme. The intention is to construct an industrial facility, which is envisaged to include:

- A three-lot subdivision;
- Development of six industrial warehouses; and
- Reduction of car parking.

An outline concept plan summarising the land use mix is shown in Figure 2.

Figure 2: Outline of proposed land uses at 276 Rex Road, Campbellfield (prepared by EMKC)



1.2. Location of the Project

The site is located at 276 Rex Road, Campbellfield — a northern suburb of Melbourne. The site is approximately 19 kilometres north of Melbourne's CBD. It has a frontage of approximately 94 metres to Rex Road on the west of the site and is otherwise surrounded by industrial complexes to the north, east and south. The site and its surrounding land use make up a part of the largely industrial zonation of the Campbellfield suburb. The site has an area of 2.92 ha and is located within the North Growth Corridor, one of five designated urban growth corridor areas of metropolitan Melbourne. The site sits within an area designated as 'existing urban' in this plan (GAA 2012).

1.2.1. Land use history at proposed area

The site area has had limited land use when compared to the surrounding industrial facilities. The site has had no previous developments but was instead used for cultivation and pasture improvement to support its former historic use as a stock grazing property.

1.3. The Proposed Action

It is proposed to develop the site for industrial purposes, consistent with its zoning and designation for future 'employment' and 'urban' uses under approved regional and local strategic plans (Growth Corridor Plan, Growth Areas Authority). The development would comprise a variety of lot sizes varying between approximately 0.386 and 1.34 hectares, as well as six warehouse units, an internal road network and car parks. Lots will be serviced with electricity, communications, sewer, water and gas reticulation in accordance with regulatory requirements.

The disturbance footprint for the proposed action is the entire 2.92 ha site area. No adjoining areas are anticipated to be indirectly impacted by the proposed action.

No environmental values identified will be retained on the site.

1.3.1. Construction Methods and Techniques

It is proposed to subdivide and develop the land, and activities will include:

- Removal of all native vegetation, equating to a loss of 2.48 ha in patches, including five large trees;
- Removal of all introduced/ exotic vegetation;
- Removal of topsoil deposits for the construction of internal roads and infrastructure;
- Site levelling works;
- Sewer, water main and storm water drainage construction and associated trenching;
- Pavement works for roads and pathways; and
- Construction of buildings on the lots together with car parking, fencing and landscaping.

1.3.2. Proposed Timing of the Action

The anticipated timing of the 18 month construction period is as follows:

- Anticipated start date: July 2026
- Anticipated date of completion: December 2027

Furthermore, the operational timing of the development is expected to commence on completion of construction and will continue to operate in perpetuity.

1.4. Design Parameters

The facilities are designed to incorporate modern Environmentally Sustainable Design (ESD) requirements that will guide the development of facilities in line with modern sustainability and environmental practices that are also designed for maximum operational efficiency. The facilities have been designed with consideration for the surrounding local context, providing a high-quality urban design response that is coherent with the design of the surrounding industrial buildings, incorporating modern sustainable and environmentally friendly materials to increase the operational energy efficiency of the buildings. These measures have been taken to ensure the proposed development promotes the area as one of significant industrial value.

1.5. Alternatives to the Proposed Action

The site and surrounding area are designated for future 'employment' and 'urban' uses pursuant to relevant strategic plans approved by local and State authorities. Specifically, the site and surrounding area is earmarked for future industrial and related commercial uses and is zoned for industrial purposes. No alternative sites were considered for a future industrial development. Future development of the site will reflect a site responsive design which meets relevant environmental legislative requirements.

Furthermore, a Planning Permit (P23308.01) has been issued by Hume City Council for the industrial development, as described above.

The only alternative to the proposed action available would be to leave the site in its current form while the surrounding area is developed as intended in accordance with the designated industrial zoning.

1.6. Background to the development of the Project

Bamford Management Pty Ltd engaged Nature Advisory in 2025 to prepare preliminary documentation to support a proposed industrial development of the site.

Nature Advisory had previously conducted a Flora and Fauna Assessment of the site in 2020 and subsequent targeted surveys. The implications of the current proposal have therefore been informed by the results of these previous site assessments.

1.7. Consequences of not proceeding with the project

In accordance with the North Growth Corridor Plan (GAA 2012) and zoning of the site, the land is within an existing urban area and is identified for industrial development, which is consistent with the adjacent land parcels on all four sides of the property. Not proceeding with the project would reduce the amount of industrial land that has been assigned to the North Growth Corridor for industrial/commercial development purposes and reduce employment opportunities for new residential areas in the same Growth Corridor. Development of the property for employment related purposes is consistent with the broad strategic planning directions for the Growth Corridor, supported by the Victorian Government.

2. Description of the Environment and MNES

The proposed development at 276 Rex Road, Campbellfield was the subject of an EPBC Referral in 2021, with the Referral Decision designating the project as a 'Controlled Action' (EPBC 2021/8934). The relevant controlling provision is as follows.

- Listed threatened species and communities (sections 18 & 18A).

This Referral was informed by a range of ecological assessments of the site, as documented in Appendix 1. These included:

- A native vegetation survey;
- Flora assessment and targeted surveys for threatened flora species; and
- Targeted surveys for threatened fauna species.
    - The findings of these surveys are summarised in the following sections.

2.1. Native Vegetation surveys

A substantial proportion of the proposed development site has been altered significantly through cultivation and pasture improvement to support its former historic use as a stock grazing property. The property was subject soil disturbance (by previous owners) before the planning permit for the currently proposed industrial development was issued.

Within the subject property, one Ecological Vegetation Class remains in limited areas:

- Plains Grassy Woodland (EVC 55_61).

Vegetation surveys were undertaken using Victoria's habitat hectare assessment protocols (DSE 2004). Patches of native vegetation were identified and recorded using the Victorian definition (minimum 25% of the total perennial understorey plant cover is native, DELWP 2017). Native vegetation and removal values from the most recent survey are referred to in this report and were used to calculate offsets to meet planning permit requirements.

The location and extent of the native vegetation is shown in Figure 3.

Figure 3: Ecological Features

Project: 276 Rex Road, Campbellfield
Date: 27/01/2021

Study area
Plains Grassy Woodland (EVC 55)
Matted Flax-lily

N

Metres
0 25

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2.2. Ecological communities

The EPBC Protected Matters Search Tool (DAWE 2020a) indicated that five ecological communities listed under the EPBC Act had the potential to occur in the search region. One of these communities was found to potentially occur within the study area: *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* (GEWVVP), listed as critically endangered under the EPBC Act.

A targeted survey for GEWVVP was undertaken within the project area in accordance with the listing advice for GEWVVP (TSSC 2009), by DEECA accredited vegetation assessor Brett Macdonald, Senior Ecologist at Nature Advisory, on the 5 November 2020.

During the survey, all vegetation within the project area was visually assessed against the GEWVVP key diagnostic criteria and condition thresholds, provided on pages 6-8 of the listing advice (TSSC 2009). This involved approximately 6 hours of visual assessment of the composition, floristics and percentage cover of the vegetation, initially along transects of three metre spacing, and then in finer detail where the vegetation was, or was close to, meeting the GEWVVP qualifying criteria. Areas of vegetation found to meet the GEWVVP qualifying criteria were mapped using the GPS based ArcGIS Collector app.

The vast majority of the project area was dominated by perennial introduced species, i.e. more than 50% of the perennial vegetation cover comprised introduced species, predominantly Chilean Needle-grass *Nassella neesiana*. A 0.282-hectare area of vegetation in the east of the project area was dominated by indigenous ground layer perennial species, predominantly Kangaroo Grass *Themeda triandra* but also other indigenous grass and forb species. River Red-gum *Eucalyptus camaldulensis* was present as a clump of regenerating saplings, mostly less than 5 metre tall, in the east of the project area. These saplings represented less than 5% of the vegetation cover throughout the project area. Evidence of the former presence of larger River Red-gum trees was observed as closely cut tree stumps and scattered debris, including intact fruits. Mature specimens of River Red-gum were also observed in the adjoining property north of the project area. In accordance with page 4 of the listing advice, the 0.282-hectare area of vegetation which was dominated by indigenous perennial species (i.e. a derived grassland) would not qualify as the Natural Temperate Grassland of the Victorian Volcanic Plain community, given that it is well evident and well established that the site would once have been dominated by River Red-gum. The 0.282-hectare area of vegetation instead must be assessed as the derived grassland variant of the GEWVVP community. Given that the minimum size threshold for a patch of GEWVVP is 0.5 hectares (in accordance with page 7 of the listing advice [TSSC 2009]), the 0.282-hectare patch is too small to be considered the listed community.

Therefore, GEWVVP does not occur in the study area. Indeed, no ecological communities listed under the EPBC Act occurs within the study area.

2.3. Flora species

The VBA search (DELWP 2020) and EPBC Act Protected Matters Search Tool (PMST) (DAWE 2020a) indicated that the property potentially supported 15 threatened flora species listed under the EPBC Act. The likelihood of occurrence for these species is outlined in Table 2. This assessment determined that suitable habitat exists for eight EPBC Act listed species (Table 2). These are:

- Button Wrinklewort
- Basalt Peppercress
- Clover Glycine
- Large-headed Fireweed

- Matted Flax-lily
- Spiny Rice-flower
- Trailing Hopbush
- White Sunray

Targeted surveys for those listed flora species for which suitable habitat was found in the study area were undertaken in the autumn, spring and summer of 2020 (8th July 2020, 5th November 2020 and 16th December 2020), to coincide with the flowering period for all target species (Table 1).

Table 1: Optimal survey period for listed flora species

Common Name	Scientific Name	Optimal survey (flowering) time											
		J	F	M	A	M	J	J	A	S	O	N	D
Button Wrinklewort	Rutidosis leptorrhynchoides											X	X
Basalt Peppercress	Lepidium hyssopifolium s.s.												X
Clover Glycine	Glycine latrobeana											X	
Large-headed Fireweed	Senecio macrocarpus											X	
Matted Flax-lily	Dianella amoena												X
Spiny Rice-flower	Pimelea spinescens subsp. spinescens							X					
Trailing Hopbush	Dodonaea procumbens											X	X
White Sunray	Leucochrysum albicans subsp. tricolor											X	X

One EPBC Act-listed species was detected within the study area during these surveys — Matted Flax-lily. A total of 40 individuals were recorded in the habitat zone occupying an area less than 20m wide x 50m (0.1 ha). None of the other targeted species were recorded during the targeted surveys. Therefore, the remainder of threatened flora species are now considered unlikely to occur in the study area.

The location of Matted Flax-lily and native vegetation within the study area is shown in Figure 3.

2.4. Flora surveys

A flora assessment of the site was undertaken on the 26th March 2020 (see Appendix 1 for further details). In addition, targeted surveys for threatened flora species were conducted and are described below.

2.4.1. Matted Flax-lily

Targeted surveys were conducted on site to locate the EPBC Act listed species, Matted Flax-lily on 16th December 2020 (see Appendix 1). The surveys were undertaken in accordance with DAWE's

survey guidelines for this species (DAWE 2021) and the Victorian survey guidelines (DSE 2010), including undertaking surveys during the flowering period for Matted Flax-lily (November to February) and walking transects spaced a maximum of three metres apart. GPS was used to record occurrences of the species.

2.4.2. Other listed flora species

Three targeted flora surveys were undertaken in 2020 on the dates listed below, targeting the species listed in Section 2.3.

- 8 July 2020;
- 5 November 2020; and
- 16 December 2020.

During each survey, transects spaced no more than three metres apart were visually searched throughout all suitable habitat in the study area, for the target species. This survey effort is consistent with Commonwealth Department Agriculture, Water and the Environment (DAWE) and State (DEECA) standards.

Table 2. Flora likelihood of occurrence table

Common Name	Scientific name	EPBC	Habitat	Number of records	Date of last record	Likelihood of occurrence
River Swamp Wallaby-grass	Amphibromus fluitans	VU	River Swamp Wallaby-grass grows mostly in permanent swamps and also lagoons, billabongs, dams and roadside ditches. The species requires moderately fertile soils with some bare ground; conditions that are caused by seasonally-fluctuating water levels (DAWE 2020b).	5	14/11/2006	No suitable habitat. **Unlikely to occur.**
Matted Flax-lily	Dianella amoena	EN	Lowland grassland and grassy woodlands on well-drained to seasonally waterlogged fertile sandy loams to heavy cracking soils derived from sedimentary or volcanic Geology. It is widely distributed from eastern to south-western Victoria (DAWE 2020b).	336	30/11/2018	40 plants recorded on site during targeted surveys zone occupying an area less than 20m wide x 50m (0.1 ha). **Known to occur.**
Small Golden Moths	Diuris basaltica	EN	Grows in herb-rich native grasslands, dominated by Kangaroo Grass (Themeda triandra) on heavy basaltic soils, often embedded with basalt boulders. All locations that the species is known to occur form part of the 'Natural Temperate Grassland of the Victorian Volcanic Plain' (DAWE 2020b).	1	19/09/1902	No suitable habitat. **Unlikely to occur.**
Trailing Hop-bush	Dodonaea procumbens	VU	Grows in low lying, often winter wet areas in woodland, low open-forest heathland and grasslands on sands and clays. Largely confined to SW of Victoria (DAWE 2020b).	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Clover Glycine	Glycine latrobeana	VU	Found across south-eastern Australia in native grasslands, dry sclerophyll forests, woodlands and low open woodlands with a grassy ground layer. In Victoria, populations occur in lowland grasslands, grassy woodlands and sometimes in grassy heath (DAWE 2020b).	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Adamson's Blown-grass	Lachnagrostis adamsonii	EN	Confined to slow moving creeks, swamps, flats, depressions or drainage lines that are seasonally inundated or waterlogged and usually moderately to highly saline. Appear to favour sites that have some shelter from the wind (DAWE 2020b).	4	1/01/1990	No suitable habitat. **Unlikely to occur.**
Basalt Peppercress	Lepidium hyssopifolium s.s.	EN	Known to establish on open, bare ground with limited competition from other plants. Previously recorded from Eucalypt woodland with a grassy ground cover, low open Casuarina woodland with a grassy ground cover and tussock grassland. Now generally found amongst exotic pasture grasses and beneath exotic trees (DAWE 2020b).	3	30/11/2017	Suitable habitat, and recent records. Not recorded during targeted surveys. **Unlikely to occur.**
White Sunray	Leucochrysum albicans subsp. tricolor	EN	Occurs in a wide variety of grassland, woodland and forest habitats, generally on relatively heavy soils. Plants can be found in natural or semi-natural vegetation and grazed or ungrazed habitat. Bare ground is required for germination. The unpalatability of this species is likely to protect it in heavily grazed areas where patches of bare ground are likely to develop, favouring recruitment (DAWE 2020b).	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Spiny Rice-flower	Pimelea spinescens subsp. spinescens	CR	Occurs in grassland or open shrubland on basalt derived soils, usually comprising black or grey clays. Plants from more northerly populations occur on red clay complexes, while plants from southern populations occur on heavy grey-black clay loams. Topography is generally flat but populations may occur on slight rises or in slightly wettish depressions.	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Maroon Leek-orchid	Prasophyllum frenchii	EN	Grows mainly in open sedge swampland or in wet grassland and wet heathland generally bordering swampy regions. Sites are generally low altitude, flat and moist. Soils are generally moderately rich damp sandy or black clay loams. Climate is mild, with an annual rainfall of 600–1100 mm, occurring predominantly in winter and spring (DAWE 2020b).	None	N/A	No suitable habitat. **Unlikely to occur.**
Leafy Greenhood	Pterostylis cucullata	VU	Tea-tree scrubs on tall sandy and calcareous dunes, in moist, open or even deep shaded locations (Jones 1994).	None	N/A	No suitable habitat. **Unlikely to occur.**

Common Name	Scientific name	EPBC	Habitat	Number of records	Date of last record	Likelihood of occurrence
Button Wrinklewort	Rutidosis leptorhynchoides	EN	In Victoria restricted to open stands of plains grassland and grassy woodlands, on fertile clays to clay loams, usually in areas where the grass cover is more open, either as a result of recurrent fires or grazing by native macropods or stock. It also occurs on low rises with shallow, stony soils at less than 100 m above sea level.	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Large-headed Fireweed	Senecio macrocarpus	VU	In Victoria, Large-fruit Fireweed occurs most commonly in grasslands on red-brown earth soils. It may also occur in grassy woodlands and open woodlands predominantly in the Western (Basalt) Plains grassland on red brown earth soils found on recent Quaternary (basalt) deposits (DAWE 2020b).	None	N/A	Suitable habitat, but no records within 10 km. Not recorded during targeted surveys. **Unlikely to occur.**
Swamp Fireweed	Senecio psilocarpus	VU	Herb-rich winter-wet swamps on volcanic clays or peaty soils (Walsh 1999). Known from approximately 10 sites between Wallan, about 45 km north of Melbourne, and Honans Scrub in south-eastern South Australia (TSSC 2008).	None	N/A	No suitable habitat. **Unlikely to occur.**
Spiral Sun-orchid	Thelymitra matthewsii	VU	Slightly elevated sites to 300m in well-drained soils (sandy loams to gravelly limestone soils) in light to dense forest; sometimes in coastal sandy flats (Weber & Entwisle 1994).	None	N/A	No suitable habitat. **Unlikely to occur.**
Swamp Everlasting	Xerochrysum palustre	VU	Grows in wetlands including sedge-swamps and shallow freshwater marshes, often on heavy black clay soils. Commonly associated genera include Amphibromus, Baumea, Carex, Chorizandra, Craspedia, Eleocharis, Isolepis, Lachnagrostis, Lepidosperma, Myriophyllum, Phragmites australis, Themeda triandra and Villarsia (DAWE 2020b).	1	29/11/2005	No suitable habitat. **Unlikely to occur.**

2.5. Fauna species

The EPBC Act PMST (DAWE 2020a) and VBA search (DELWP 2020) identified that 32 fauna species listed under the EPBC Act could potentially occur in the study area. The likelihood of occurrence table (Table 3) determined that there is suitable habitat for five of these species. These are:

- Fork-tailed Swift;
- White-throated Needletail;
- Golden Sun Moth;
- Grassland Earless Dragon; and
- Striped Legless Lizard.

Fork-tailed Swift and White-throated Needletail may occasionally fly over the study area but habitats there are unlikely to support these species for more than a short period of time while moving through the area. These species are therefore considered unlikely to be impacted by development in the area.

A small population of **Golden Sun Moth** was found to inhabit the site. A maximum of nine individuals were recorded on the wing during a single day (14 December 2020) and a total of 12 throughout the four-day survey. Only male GSM were recorded, but females were likely to have been overlooked due to their more cryptic habits (adult females rarely fly [DEWHA 2009]). GSM were mainly seen in areas of dense Chilean Needlegrass on the site. In addition to being of small extent (3 ha) this site is already isolated from other areas of GSM habitat, surrounded on all sides by factories, a road, car yards or warehouses.

Follow up surveys of GSM were undertaken in December 2025 and January 2026. No GSM were recorded during these recent surveys. On this basis, the study area is still considered to support marginal or degraded GSM habitat, with the species potentially persisting at low abundance likely only within areas supporting native grassy vegetation on undisturbed soil. The area supporting native vegetation within the study area totals 1.028 hectares

The recorded locations of GSM are shown in Figure 4.

Despite intensive survey effort, no individuals of the **Striped Legless Lizard** or **Grassland Earless Dragon** were observed. In view of this finding and the isolated nature of this site, surrounded on all sides by unsuitable habitat (warehouses, car yard, a road, and no links to other potentially suitable habitat), and — having been regularly mowed — it is now considered unlikely that Striped Legless Lizard and Grassland Earless Dragon occur within the site. There are therefore no regulatory implications for these reptile species on the site.

2.6. Fauna surveys

2.6.1. Golden Sun Moth

Targeted surveys for Golden Sun Moth were undertaken in accordance with DAWE's Survey Guidelines for this species (DEWHA 2009). The site was covered in its entirety by one or two observers walking parallel transects on four separate occasions. All surveys were conducted under conditions that were most conducive to the species' flight. Accordingly, surveys occurred on days with sunny conditions with light to moderate winds and ambient or shade temperature of 26 degrees or above.

The initial survey was a low intensity survey with transects at 50 metres apart. The second survey was completed with transects 25 metres apart. The third and fourth surveys used transects of 10 metres separation between observers. Golden Sun Moths on the wing are readily detectable up to 5 metres either side of a walked transect line.

Dates of the surveys aligned with the species' flying season. Survey dates were as follows:

- 25 November 2020
- 14 December 2020
- 30 December 2020
- 08 January 2021
- 19th December 2025
- 28th December 2025
- 2nd January 2026
- 8th January 2026

In addition, incidental observations were recorded while an observer was decommissioning the Striped Legless Lizard survey grid:

- 09 December 2020

The location of GSM recorded within the study area is shown in Figure 4.

2.6.2. Striped Legless Lizard and Grassland Earless Dragon

Targeted surveys for Striped Legless Lizard and Grassland Earless Dragon were undertaken in accordance with DAWE's *Survey Guidelines for Australia's Threatened Reptiles* (DSEWPaC 2011a).

One grid of house tiles was laid out in winter 2020 at the eastern end of the site in an area dominated by Kangaroo Grass. The use of house tiles is identified as a suitable method for both Striped Legless Lizard and Grassland Earless Dragon, as per their survey guidelines (DSEWPaC 2011b; DCCEEW 2024). The winter timing for tile laying is also consistent with survey guidelines, which specifies that tiles must be laid out at least one month/several weeks prior to the species' active period, which occurs during the warmer months (DSEWPaC 2011b; DCCEEW 2024).

The location of the tile grid is shown in Figure 4.

As per the array formation and tile density specified in the survey guidelines, a grid of 50 tiles was laid out 5 metres apart in a 10 x 5 grid formation (i.e. covering 20 x 45 metres extent). This was considered suitable for the site, given the site is approximately 3-hectares and the guidelines specify the requirements of one array per 3-hectares (DSEWPaC 2011b). This grid covered most of the Kangaroo Grass-dominated habitat remaining on the site (i.e. remaining suitable habitat) and thus maximised the chances of detecting SLL.

Each tile was checked fortnightly over the three-month period in the morning, when it is expected that temperatures under the tiles are optimum for SLL, i.e. between 15 and 25 degrees C. Although the Department of Energy, Environment and Climate Action (DEECA, formerly DSE) suggests surveys occur over six months, the guidelines specify that surveys can occur over several weeks (DSEWPC 2011b). Given the limited size of the site, a three-month survey period was considered appropriate.

Any SLL observed were to be counted and GPS co-ordinates of any observation taken. Other species of reptile or small mammal were documented if found under the tiles.

Dates of the surveys were as follows:

- 18 September 2020
- 02 October 2020
- 16 October 2020
- 27 October 2020
- 12 November 2020
- 25 November 2020
- 09 December 2020

Figure 4: GSM records and tile grid survey locations

Project: 276 Rex Road, Campbellfield
Date: 14/01/2021

- Study area
- Plains Grassy Woodland (EVC 55)
- GSM records
- SLL grid

N

Metres
0 25

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2.7. Adequacy of assessment

Surveys for all MNES values were conducted in accordance with the methods prescribed for each target species' published guidance (DAWE 2021; DEWHA 2010; DSEWPaC 2011a; Robertson P & Cooper P 2000).

It is understood that targeted surveys are valid for a five-year period and are required to be up to date upon submission of documentation. As such GSM targeted surveys were repeated in 2025/2026. Upon discussion with the relevant authority, it was concluded that no further targeted surveys for MNES values would be required. This conclusion was reached due to the understanding that all values are to be salvaged and translocated to accommodate the proposed action. As such, a pre-clearance survey will be undertaken in which all individual values observed will be salvaged and translocated to the designated translocation site.

All relevant databases were examined. VBA records within 5km are shown in Figure 5.

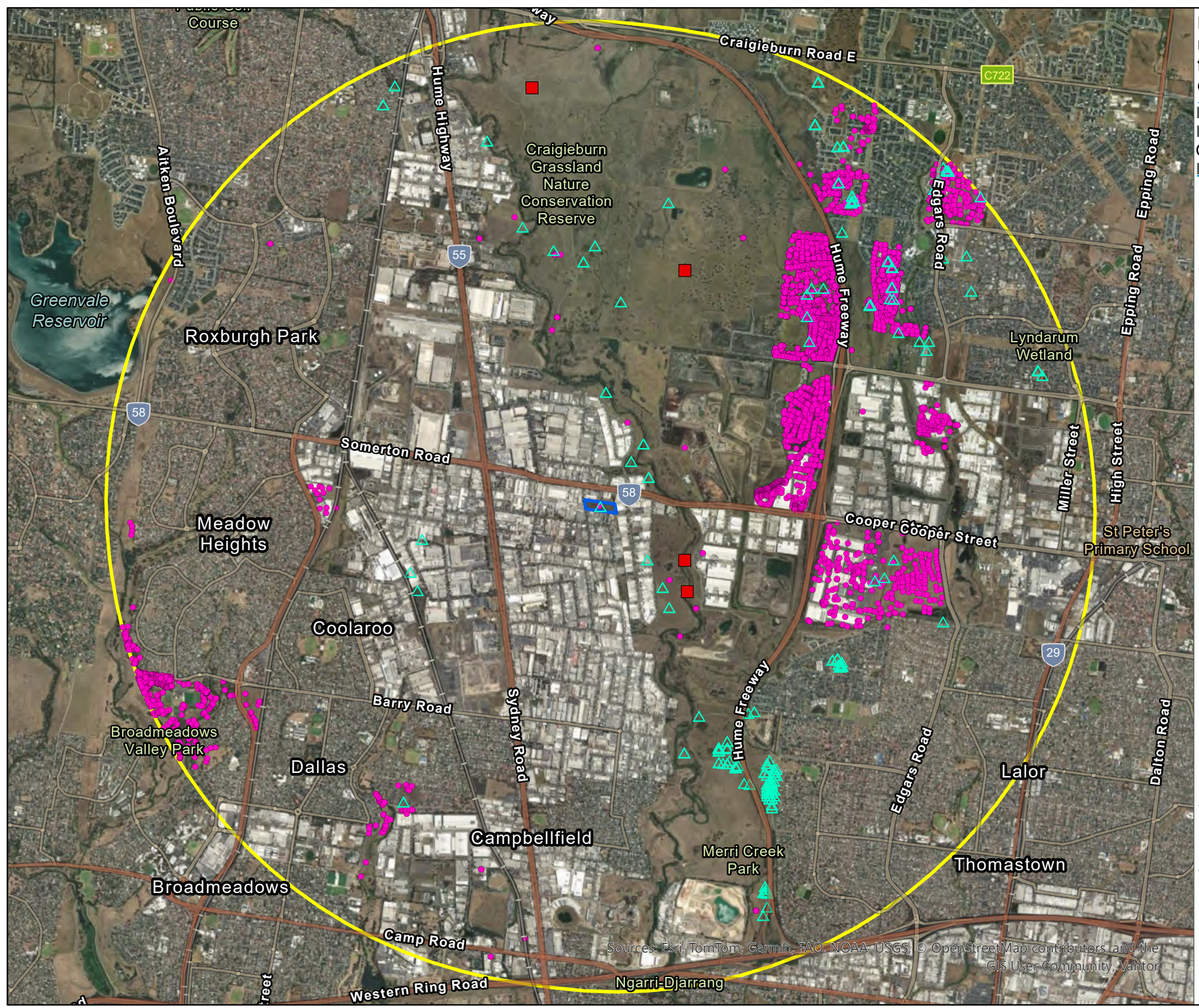

Figure 5: Historical VBA records of target flora and fauna species within 5km of the proposed action area

Project No: 20045.04
Project: 276 Rex Road, Campbellfield, VIC
Date: 14/01/2026

Study area

Search region (5km buffer of study area)

Threatened species records

- Golden Sun Moth
- Matted Flax-lily
- Striped Legless Lizard

N

Kilometers

0 1 2

GDA2020 Vicgrid

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Table 3. Fauna likelihood of occurrence

Common Name	Scientific name	EPBC-T	EPBC-M	Habitat	Number of records	Date of last record	Likelihood of occurrence
Birds							
Australasian Bittern	Botaurus poiciloptilus	EN		Terrestrial wetlands, including a range of wetland types but prefers permanent water bodies with tall dense vegetation, particularly those dominated by sedges, rush, reeds or cutting grass (Marchant & Higgins 1990).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Australian Painted-snipe	Rostratula australis	EN		Generally inhabits shallow terrestrial freshwater wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire; often with scattered clumps of lignum Muehlenbeckia or canegrass or sometimes tea-tree (Melaleuca). Sometimes utilises areas that are lined with trees, or that have some scattered fallen or washed-up timber (DAWE 2020b).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Black-faced Monarch	Monarcha melanopsis		M (Bonn A2H)	Rainforests, eucalypt woodlands, coastal scrub and damp gullies (Higgins et al. 2006)	None	N/A	No suitable habitat. **Unlikely to occur.**
Curlew Sandpiper	Calidris ferruginea	CR	M (Bonn A2H, ROKAMBA, JAMBA, CAMBA)	Inhabits wide range of coastal or inland wetlands with varying levels of salinity; mainly muddy margins or rocky shores of wetlands (Higgins & Davies 1996).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Eastern Curlew	Numenius madagascariensis	CR	M (Bonn A1, ROKAMBA, JAMBA, CAMBA)	Inhabits sheltered coasts, especially estuaries, embayment, harbours, inlets and coastal lagoons with large intertidal mudflats or sandflats, often with beds of sea grass (Higgins & Davies 1996).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Fork-tailed Swift	Apus pacificus		M (CAMBA, ROKAMBA, JAMBA)	The species can occur in wet sclerophyll forest but mainly prefers open forest or plains. It is almost exclusively aerial and feeds up to hundreds on metres above the ground, but can feed among open forest canopy. The species breeds internationally and seldom roosts in trees (Higgins 1999).	None	N/A	Aerial insectivore with large foraging areas. **Potential to occur.**
Hooded Plover	Thinornis cucullatus	VU		Inhabits sandy ocean beaches, especially those that are broad and flat, with a wide wave-wash zone for feeding. Widespread and scattered across coastal Victoria. Numbers reduced due to disturbance by recreational activities on beaches (Marchant & Higgins 1993).	None	N/A	No suitable habitat. **Unlikely to occur.**
Painted Honeyeater	Grantiella picta	VU		Inhabits box-ironbark forests and woodlands and mainly feeds on the fruits of mistletoe. Strongly associated with mistletoe around the margins of open forests and woodlands. Can also be found in farmland containing remnant treed vegetation. Occurs at few localities. Uncommon breeding migrant from further north, arriving in October and leaving in February (Higgins et al. 2001; Tzaros 2005).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**

Common Name	Scientific name	EPBC-T	EPBC-M	Habitat	Number of records	Date of last record	Likelihood of occurrence
Plains-wanderer	Pedionomus torquatus	CR		This species is highly sensitive to changes in grassland cover and density. Typically inhabits treeless native grasslands with sparse cover, with a preference for grasslands composed of wallaby grass and spear grass (Marchant & Higgins 1993). Habitat becomes unsuitable when grassland becomes dense (CA 2016). Evidence suggests it avoids areas of tree cover, with no records of the species within 300m of trees (>10m high) in their strongholds in New South Wales or Victoria (DoE 2016).	8	9/04/2019	Habitat in the study area is small and isolated by urban development. **Unlikely to occur.**
Regent Honeyeater	Anthochaera phrygia	CR		Inhabits dry box-ironbark eucalypt forests near rivers and creeks on inland slopes of the Great Dividing Range. Can also occur in small remnant patches or in mature trees in farmland or partly cleared agricultural land (Higgins et al. 2001).	3	9/04/2019	No suitable habitat. **Unlikely to occur.**
Rufous Fantail	Rhipidura rufifrons		M (Bonn A2H)	In east and south-east Australia, mainly inhabits tall wet sclerophyll forests, often in gullies. When on passage in warmer months, they are sometimes recorded in drier sclerophyll forests and woodlands, as well as parks and gardens (Higgins et al. 2006). Virtually absent from south-eastern Australia during winter (Higgins et al. 2006).	None	N/A	No suitable habitat. **Unlikely to occur.**
Satin Flycatcher	Myiagra cyanoleuca		M (Bonn A2H)	Mostly found in eucalypt forest, particularly tall wet forests and woodland within gullies (Higgins et al. 2006). Also inhabits eucalypt woodland comprising an open understorey and a grassy ground layer (Higgins et al. 2006). Generally absent from rainforest (Higgins et al. 2006).	None	N/A	No suitable habitat. **Unlikely to occur.**
Superb Parrot	Polytelis swainsonii	VU		Occurs in eucalypt dominated forests and woodlands, namely comprised of River Red-gum, Yellow Box and Grey Box, with seasonal occurrences in box-pine and Boree woodland (Baker-Gabb 2011). The species range extends along major riverine systems and the inland slopes of the Great Divide, stretching from central Victoria to north of Tamworth in NSW. Breeds in hollow branch or trunk of tall eucalypts within 9 km of feeding areas. Mostly feeds in box woodlands and wooded farmlands; less often in riparian forests (Higgins 1999).	2	1/01/1940	No suitable habitat. **Unlikely to occur.**
Swift Parrot	Lathamus discolor	CR		Prefers a select range of eucalypts in Victoria, including Yellow Gum, Grey Box, White Box, Red Ironbark and Yellow Box, as well as River Red-gum when this species supports abundant 'lerp' (Saunders & Tzaros 2011). The species is also known to forage within planted stands of Spotted Gum and Sugar Gum (Nature Advisory; unpublished data). Breeds in Tasmania and migrates to the mainland of Australia for the autumn, winter and early spring months. It lives mostly north of the Great Dividing Range, passing through two areas of Victoria on migration: the Port Phillip district and Gippsland (Emison et al. 1987; Higgins 1999; Kennedy & Tzaros 2005). Though it is also not uncommonly sighted in urban areas (Nature Advisory; unpublished data). Occurrence of this species on the mainland can substantially change from year to year depending on food availability, giving potential for this species to occur almost anywhere throughout its range (Emison et al. 1987).	16	9/04/2019	No suitable habitat. **Unlikely to occur.**
White-throated Needletail	Hirundapus caudacutus	VU	M (CAMBA, ROKAMBA, JAMBA)	Aerial, over all habitats, but probably more over wooded areas, including open forest and rainforest. Often over heathland and less often above treeless areas such as grassland and swamps or farmland (Higgins 1999).	11	9/04/2019	Aerial insectivore with large foraging areas. **Potential to occur.**

Common Name	Scientific name	EPBC-T	EPBC-M	Habitat	Number of records	Date of last record	Likelihood of occurrence
Yellow Wagtail	Motacilla flava		M (CAMBA, JAMBA, ROKAMBA)	Regular non-breeding visitor in northern Australia mainly spring-summer, vagrant to the south. Occupies a wide range of habitats, usually open areas with low vegetation such as crop, grassland and even parkland. Often recorded near water (Higgins, Peter & Cowling 1999)	None	N/A	No suitable habitat. **Unlikely to occur.**
Fish							
Australian Grayling	Prototroctes maraena	VU		Large and small coastal streams and rivers with cool, clear waters with a gravel substrate and altering pools and riffles (Cadwallader & Backhouse 1983).	None	N/A	No suitable habitat. **Unlikely to occur.**
Dwarf Galaxias	Galaxiella pusilla	VU		Ranges from the far west of the state through to the Mitchell River basin in central Gippsland. Vegetated margins of still water, ditches, swamps and backwaters of creeks, both ephemeral and permanent (Allen et al. 2002). Some wetlands where it occurs may partially or completely dry up during summer, with such wetlands reliant on seasonal flooding plus linkages to other sites where the species occurs, for habitat and population replenishment (Saddlier, Jackson & Hammer 2010). Dwarf Galaxias is also often found in association with burrowing freshwater crayfish (Engaeus spp.), with the crayfish burrows reportedly providing refuge from predators and dry conditions for the species (Saddlier, Jackson & Hammer 2010).	None	N/A	No suitable habitat. **Unlikely to occur.**
Macquarie Perch	Macquaria australasica	EN		Cool, clear water of rivers and lakes. Favours slower moving water (Allen et al. 2002).	8	1/01/1970	No suitable habitat. **Unlikely to occur.**
Murray Cod	Maccullochella peelii	VU		Slow flowing turbid water of rivers and streams of low elevation; also fast flowing clear upland streams (Allen et al. 2002).	1	20/06/2012	No suitable habitat. **Unlikely to occur.**
Yarra Pygmy Perch	Nannoperca obscura	VU		Streams and small lakes, prefers flowing water with abundant aquatic vegetation (Allen et al. 2002).	None	N/A	No suitable habitat. **Unlikely to occur.**
Frogs							
Growling Grass Frog	Litoria raniformis	VU		Permanent, still or slow flowing water with fringing and emergent vegetation in streams, swamps, lagoons and artificial wetlands such as farm dams and abandoned quarries (Clemann & Gillespie 2004).	293	31/12/2019	No suitable habitat. **Unlikely to occur.**
Invertebrates							
Eltham Copper Butterfly	Paralucia pyrodiscus lucida	EN		Its occurrence is dependent upon a close association between a dwarfed form of the Sweet Bursaria and colonies of a Notoncus sp. of ant, with the species unable to survive without the presence of the Notoncus ant (SWIFFT 2019). In the Eltham area of its range, this Butterfly appears to require well-drained gentle slopes, with a north to west aspect. Its known habitat is sparse dry woodland (Webster 2003).	2	9/04/2019	No suitable habitat. **Unlikely to occur.**

Common Name	Scientific name	EPBC-T	EPBC-M	Habitat	Number of records	Date of last record	Likelihood of occurrence
Golden Sun Moth	Synemon plana	CR		Areas that are, or have been native grasslands or grassy woodlands. It is known to inhabit degraded grasslands with introduced grasses being dominant, with a preference for the native wallaby grass being present (DEWHA 2009). Also known to be closely associated with exotic grass species, with populations found in grassland almost entirely composed of Chilean needlegrass (Richter et al. 2013).	4070	17/12/2019	Recorded on site. **Known to occur.**
Mammals							
Eastern Barred Bandicoot	Perameles gunnii	VU		The habitat of the Eastern Barred Bandicoot (mainland) is perennial tussock grassland and eucalypt woodland with a grassy ground layer (Dufty 1994b; Seebeck 1995a, 2001). Drainage lines and areas of high vegetative cover have been identified as prime habitat. The key determining factor for persistence of this species appears to be high structural complexity and heterogeneity within the environment, reflected in its absence from agricultural areas but persistence in rubbish dumps and other variable habitats.	10	3/06/2018	Habitat within the study area is isolate from known population by extensive urban development. **Unlikely to occur.**
Eastern Quoll	Dasyurus viverrinus	EN		Probably extinct in mainland Australia. Inhabits a range of open forest, scrubland and heath (Menkhorst 1995).	4	1/01/1910	No suitable habitat. **Unlikely to occur.**
Grey-headed Flying-fox	Pteropus poliocephalus	VU		Brisbane, Newcastle, Sydney and Melbourne are occupied continuously. Elsewhere, during spring, they are uncommon south of Nowra and widespread in other areas of their range. Roosts in aggregations of various sizes on exposed branches. Roost sites are typically located near water, such as lakes, rivers or the coast. Roost vegetation includes rainforest patches, stands of Melaleuca, mangroves and riparian vegetation, but colonies also use highly modified vegetation in urban and suburban areas (DAWE 2020b).	16	18/02/2020	No suitable habitat. **Unlikely to occur.**
Southern Greater Glider	Petauroides volans	VU		In Victoria, this species inhabits forest habitats dominated by peppermint, stringybark, ash and gum eucalypts (Menkhorst 1995). Restricted to the central highlands and eastern Victoria, and common in areas of high rainfall. Rare in dry stringybark-box and Snow Gum forest, and does not occur in the box-ironbark or River Red-gum dominated riverina regions (Menkhorst 1995).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Spot-tailed Quoll	Dasyurus maculatus maculatus	EN		Rainforest, wet and dry forest, coastal heath and scrub and River Red-gum woodlands along inland rivers (Menkhorst 1995).	3	9/04/2019	No suitable habitat. **Unlikely to occur.**
Reptiles							
Grassland Earless Dragon	Tympanocryptis pinguicolla	EN		The species is confined to native tussock grassland on basalt plains north and west of Melbourne, with no confirmed sightings in Victoria since the 1960's (Robertson & Cooper 2000).	None	N/A	Suitable habitat. Not recorded during targeted surveys. Now considered **unlikely to occur.**

Common Name	Scientific name	EPBC-T	EPBC-M	Habitat	Number of records	Date of last record	Likelihood of occurrence
Pink-tailed Worm-Lizard	Aprasia parapulchella	VU		Sites where the species is found generally include rocky outcrops or scattered partly buried rocks. This species is diurnal and largely fossorial, sheltering under rocks and vegetation, and in the burrow passages of small ants and termites within grassland and woodland habitats of south-eastern Australia (Robertson & Coventry 2019). It feeds primarily on the larvae and eggs of ants. In Victoria, the species is largely restricted to box-ironbark woodland in the greater Bendigo region, though it may also persist elsewhere in the state (Robertson & Coventry 2019).	1	9/04/2019	No suitable habitat. **Unlikely to occur.**
Striped Legless Lizard	Delma impar	VU		Grassland specialist. Known to occur in some areas dominated by introduced species such as Harding Grass Phalaris aquatica, Serrated Tussock *Nassella trichotoma* and Flatweed *Hypochaeris radicata* and at sites with a history of grazing and pasture improvement. shelter in grass tussocks, thick ground cover, soil cracks, under rocks, spider burrows, and underground debris such as timber. The majority of sites in Victoria and NSW occur on cracking clay soils with some surface rock which provide shelter for the species (DAWE 2020b).	5	9/04/2019	Suitable habitat. Not recorded during targeted surveys. Now considered **unlikely to occur.**

3. Relevant Impacts

The impacts of the project on MNES are described below. Figure 3 shows the ecological features within the development layout, including Matted Flax-lily locations while Figure 4 shows the location of Golden Sun Moth records.

3.1. Direct impacts to MNES

The proposed development will directly impact on two MNES — Matted Flax-lily and Golden Sun Moth. These impacts are described below. No other MNES will be directly impacted by the proposed development.

3.1.1. Matted Flax-lily

The proposed development will result in the loss of a small population of Matted Flax-lily from the study area, consisting of 40 confirmed individuals. A total of 0.1 ha of Matted Flax-lily habitat, comprising Plains Grassy Woodland (EVC 55), will be impacted by the proposed action.

Matted Flax-lily habitat was variable throughout the site and was overall of moderate quality. The canopy component of the Plains Grassy Woodland EVC was absent within the mapped habitat zone, and understorey structure and species richness were sub-optimal. A number of lifeforms were present; however, cover and species richness were below the prescribed benchmark for the EVC. The habitat zone comprised a total area of 1.03 ha of native vegetation.

3.1.2. Habitat for Golden Sun Moth

The proposed development will result in the loss of approximately 1.03 hectares of confirmed Golden Sun Moth habitat from the study area. This habitat comprises native vegetation. This area of habitat supports a small population of Golden Sun Moth, with a total of 12 individuals having been recorded over a four-day survey undertaken during November and December 2020, and January 2021. GSM was not recorded in four-day surveying in 2025/2026. GSM is now considered unlikely to occur in the disturbed portion of the site.

3.2. Indirect impacts on MNES

The proposed development is not expected to indirectly impact on any MNES, as the site is isolated from other areas of similar habitat in the surrounding landscape, and surrounded on all sides by industrial development (factories/warehouses, a road, car yards).

However, habitat fragmentation is a known and increasing issue in the broader landscape context. Though the removal of MNES values from the site may have minimal indirect impacts to the site area itself, throughout the wider landscape habitat is becoming increasingly scarce for these values due to the mosaic like removal of environmental values.

Due to the site area's location being within a well-established industrial zone, it is unlikely that the proposed action will further fragment important habitat, particularly for Matted Flax-lily, as the site is completely isolated from any environmental corridors or biolinks.

3.3. Duration of impact

As the proposed action will see the entirety of the site developed, duration of impacts will be in perpetuity. Impacts to Matted Flax-lily and Golden Sun Moth habitat will be permanent and irreversible due to the nature of the proposed action. However, impacts to Matted Flax-lily will be minimised through salvage and translocation of individuals, and they will continue to subsist at the

translocation site. In addition, the translocation site will be managed as an offset site to compensate for impacts to MFL.

The proposed action is unlikely to result in repeated impacts to MNES values as once the proposed action has been completed no MNES values will exist within the site. As such, any further works or maintenance will not re-impact these values.

3.4. Risks to MNES during construction

Construction of any development has the potential to introduce and spread weeds and disease. The proposed action is *unlikely* to introduce these risks to MNES values.

Risks to Matted Flax-lily during construction will be largely avoided through the salvage and translocation of individual specimens on site. As the proposed action will develop the entire site, risks to MNES values are minimal as these values will no longer exist in the site during and post construction.

Furthermore, construction is unlikely to pose any risks to Golden Sun Moth due to the species mobile nature and the relatively limited amount of habitat present, which is to be removed as a result of the proposed action.

3.5. Predicting potential unknown impacts

Due to the scope of the proposed action, any residual or unpredictable impacts to MNES values are unlikely to occur at the subject site.

There is the potential for population mortality to occur to translocated individuals of Matted Flax-lily if mismanagement or a stochastic event were to arise. However, Matted Flax-lily individuals will be propagated, cloned, and cared for by the approved nursery (Nature Advisory 2025), to ensure the ongoing survival of the population in the case of an unpredictable event.

In addition, the translocation site will be managed as an offset site to compensate for impacts to MFL (Nature Advisory 2026).

4. Proposed Avoidance and Mitigation Measures

4.1. Avoidance of impacts

Efforts to avoid and minimise impacts to native vegetation are presented as follows:

Strategic level planning

The parcel of land located at 276 Rex Road, Campbellfield is one of the only remaining sites within the Hume City Council LGA which is appropriately zoned with close access and connectivity to the freeway, making this parcel of land highly desirable from logistics and similar use industrial tenants.

Site level planning

Given the central location of existing native vegetation on site and the required infrastructure to service each of the proposed lots, it is deemed very difficult to avoid or minimise any impact to the native vegetation. Any industrial use on the site, for which the property is zoned, typically requires c. 40 to 60% site coverage to make it feasible from an operational perspective, and due to the dimensions of the site and location of the vegetation it would not be possible to utilise the property for industrial purposes whilst retaining vegetation on site.

The proponent advises no feasible opportunities exist to avoid and minimise impacts on native vegetation without undermining the key objectives of the proposal.

Given the above consideration, Hume City Council has issued a planning permit (P23308.01) for the industrial development as proposed.

4.2. Mitigation of Impacts

4.2.1. Matted Flax-lily

A salvage and translocation plan for the 40 Matted Flax-lily plants from the study area has been developed (Nature Advisory 2025, Appendix 1), in accordance with the conditions of the Hume City Council-issued Planning Permit (P23308.01). The 40 Matted Flax-lily plants will be translocated to a secure council owned and managed reserve at Cunningham Chase, Burnside Heights (Lot S PS523266). This translocation will be undertaken in accordance with the *EPBC Act Translocation Policy* (DSEWPaC 2013). Sensitive management to support the success of translocation will subsequently occur over a five-year period. This management will be overseen by Melton City Council who are experienced in successfully managing translocations of *Dianella* and other endangered species.

Prior to the salvage and translocation of Matted Flax-lily plants, a pre-clearance survey will be conducted by a suitably qualified botanist to ensure all individuals are appropriately recorded and salvaged.

Furthermore, an offset management plan (OMP) has been developed to support the conservation management of the translocation site and its surrounding vegetation within 0.662 ha (Nature Advisory 2026, Appendix 2). This plan is to be implemented over a 10-year period.

Effectiveness of translocation

Several studies have been undertaken on plant translocation and its success in mitigating risk to threatened species. A literature review undertaken by Silcock J.L. *et al*. discusses that several factors can contribute to translocation success, including number of propagules, microsite selection, and long-term project commitment (2019). It is of particular importance to note that

habitats which have higher biomass levels tend to have less success due to a lack of inter-tussock space for propagules to germinate, whereas degraded sites may support better translocation success due to lower competition (2019). Furthermore, aftercare post translocation is critical to the success and survival of the translocation individuals. Most common aftercare techniques for success include reduced competition, plant protection, and water irrigation (Corli A *et al.* 2023).

The translocation site is of moderate quality and is currently managed by Melton City Council. The Salvage and Translocation Plan (Nature Advisory 2025, Appendix 1) and the Offset Management Plan (Nature Advisory 2026, Appendix 2) adequately address the above management measures to best ensure the success and survival of translocated Matted Flax-lily's. Based on ongoing research, published literature the semi-degraded nature of the translocation site, the proposed mitigation measures for Matted Flax-lily should be effective in its success.

5. Residual Impacts and Proposed Offsets

Bamford Management Pty Ltd are committed to managing the risks on MNES through significant commitments to adequately offsetting impacts.

5.1. Golden Sun Moth

A total of 1.028 ha of native vegetation being confirmed Golden Sun Moth habitat (that being the habitat zone) in the development site will be impacted. As GSM was not recorded during targeted surveys during 2025/2026, it is unlikely that these impacts will be significant. As such, no offset in accordance with DAWE's *EPBC Act Environmental Offsets Policy* (DSEWPaC 2012) should be required.

5.2. Matted Flax-Lily

The salvage and translocation plan prepared by Nature Advisory (Appendix 1) has been informed by the expert advice of suitably-qualified ecologists, as well as government guidelines for the translocation of threatened flora species and with input from Environment Officers at both Hume City Council and Melton City Council.

The plan proposes translocation of 120 plants, propagated from the original 40 plants, to Lot S PS523266, Cunningham Chase, Burnside Heights, within a management area of approximately one hectare. This site that has been actively managed as a grassland reserve by Melton City Council and currently supports high-quality native grassland and has prior records of Matted Flax-lily. Based on these characteristics, this represents an ideal site for translocation and will be conducive to successful establishment.

The plan also considers a five-year timeframe, during which sensitive ecological management measures will be implemented to support successful establishment of translocated individuals. These measures address key threats, such as weed pressures, pest animals, macropod herbivory and inappropriate access. Should mortality occur over this period, a security population derived from translocated plants will enable further infill plantings and ensure that there is no net loss of Matted Flax-lily from this proposal. On this basis, there is a high probability of successful salvage and translocation of Matted Flax-lily.

It should also be noted that the management of the translocation site will appropriately compensate for impacts to Matted Flax-lily habitat arising from this proposal. The extent of habitat removed has been determined as the area occupied by the 40 plants, as 0.1 ha (20m x 50m). The translocation plan requires management of an approximately 1900m^2 area, given the required 2m separation for each of the 120 translocated plants. The offset site, totalling 0.662 ha, is also of significantly greater quality, given it occurs within a large native grassland reserve managed by Melton City Council. Therefore, the habitat managed within the offset site equates to more than six times the extent of impacted habitat.

5.2.1. Offset site

A field assessment of the offset site (0.662 hectare in size) was undertaken on 12 January 2026, in which the study are was assessed for native vegetative values. Areas which were found to support such values were mapped, assessed, and scored using the Habitat Hectares Method (DSE 2004).

The offset site is of moderate quality and supports heavy red and brown basaltic soils. Vegetation comprised a variety of native grasses and herbs, as well as exotic grasses and broad-leaf herbaceous weeds. Dominant native species at the translocation site included Kangaroo Grass,

Spear Grass *Austrostipa spp*., Grassland Wood-sorrel *Oxalis perennans*, and Black Cotton-bush *Maireana decalvans*. Dominant weeds included Wild Oat *Avena fatua*, Ribwort *Plantago lanceolata*, and Ox-tongue *Helminthotheca echioides*.

The quality of the offset site is comparatively much higher than that of the impact site. Species diversity and richness was moderate-high throughout the offset site and provides adequate inter-tussock space for the recruitment of Matted Flax-lily and other native species.

Threats

The offset site is located within public land and is managed ongoingly by Melton City Council. Ongoing threats to the offset site include the browsing of vegetation by native herbivores, which is currently being managed. Other potential threats which may inhibit management success include access to the offset site from unauthorised peoples, specifically pedestrians, who live around the grassland. However, as detailed in the Offset Management Plan (Nature Advisory 2026), permanent fencing is to be installed around the MNES values where they abut walking tracks.

Weed competition may also pose a threat to MNES values in the offset site. Though weeds are regularly managed and controlled by Melton City Council, there is the potential for weedy biomass to accumulate and outcompete MNES values.

6. Other Approvals and Conditions

6.1. Zoning

The site is currently zoned Industrial 1 Zone (IN1Z) and abuts other IN1Z land to the north, south east and west.

The proposal to develop this property for industrial purposes is consistent with its zoning and the strategic planning direction for the North Growth Corridor (GAA 2012), which provides for additional urban areas and nearby employment activities to accommodate Melbourne's growing population.

6.1. State planning provisions

State planning provisions are established under the *Victorian Planning and Environment Act 1987*.

Clause 52.17 of all Victorian Planning Schemes states that:

- A permit is required to remove, destroy or lop native vegetation, including dead native vegetation.

A planning permit under Clause 52.17 of the Hume Planning Scheme has been issued by Hume City Council for the removal of native vegetation from the study area and the development of an industrial development, as proposed.

7. Social and Economic Benefits

The proposed development at 276 Rex Road, Campbellfield is a major employment-based development which is designed to be developed as an A-grade industrial estate, incorporating small-medium format industrial uses. This development will create employment opportunities to residents within the local council area (LGA) employment catchment while also providing a desirable location for new industrial enterprises to operate, facilitating economic growth and job diversity in the area. The project seeks to support provision of jobs during both construction and operational phases, with an anticipated 100 full time equivalent jobs during operation. The site benefits from being located in a highly desirable position within the wider metropolitan freight network, core industrial precinct and will contribute to the continued economic success of the LGA. The site benefits from direct connectivity to the Hume Highway, Hume Freeway, Melbourne Airport and the Craigieburn/Seymour train line, providing ease of access to key arterial networks for logistics and warehousing businesses and accessibility for employees, factors that will substantially contribute to the success of the development.

8. Environmental Record of Persons Proposing to Take the Action

The proponent has not been the subject of any environmental protection proceedings and has no history of breaches of any environmental legislation.

The subdivision works will be managed and overseen by competent Design Engineers, Landscape Architects and Project Managers, including a Site Environmental Manager.

Additionally, the applicant will retain the services of an Ecological Consultant for further advice, supervision and any reporting requirements that may arise.

The Contractors appointed to complete the Civil and Landscape works across the various stages will be bound to an Environmental Management Plan, prepared by the Engineering Consultant with inputs from the Ecological Consultant, which will be part of the Works Contract. This plan will include the mitigation measures detailed in Section 4.

9. Ecologically Sustainable Development

The facilities are designed to incorporate modern Environmentally Sustainable Design (ESD) requirements that will guide the development of facilities in line with modern sustainability and environmental practices that are also designed for maximum operational efficiency. The facilities have been designed with consideration for the surrounding local context, providing a high-quality urban design response that is coherent with the design of the surrounding industrial buildings, incorporating modern sustainable and environmentally friendly materials to increase the operational energy efficiency of the buildings. These measures have been taken to ensure the proposed development promotes the area as one of significant industrial value.

10. Conclusion

The proposed development of the site for industrial use is considered as appropriate, given the industrial context in which the site is located, the current industrial zoning of the land (IND1Z), and the sites disconnection from any similar habitat in the surrounding region. The development has been issued a planning permit by Hume City Council (P23308.01).

The site represents a very small fragment of habitat within a highly fragmented landscape that is simply not favourable for the persistence and protection of environmental values. Even if the site were to be set aside and managed for conservation, it is unlikely that the MNES in question (Matted Flax-lily and Golden Sun Moth) would be able to maintain population viability into the future, due to ongoing threats from industrial activity (such as dumping of fill and chemicals, overshadowing), lack of genetic diversity, disruption of plant-pollinator interactions, encroachment of weeds, and even management threats such as trampling, inappropriate disturbance regime and off-target herbicide damage.

While it is unfortunate that the small population of Matted Flax-lily will be directly impacted, a salvage and translocation plan for the 40 Matted Flax-lily plants has been developed by Nature Advisory, in accordance with the conditions of the Hume City Council-issued permit (P23308.01). This plan has been guided by expert advice, and it is expected that there will ultimately be a net gain to the population of Matted Flax-lily. Additionally, the extent of the habitat managed under this translocation plan is four times greater than the extent of impacted Matted Flax-lily habitat and it is of higher quality. Therefore, it is expected that this will also appropriately compensate for impacted Matted Flax-lily habitat onsite. In addition impacts to MFL will be offset via appropriately managing and securing in perpetuity a 0.662 ha area of suitable MFL habitat in the form of NTGVVP.

Moreover, the social and economic benefits of the proposed development will be substantial, creating employment opportunities for local residents while also providing a desirable location for new industrial enterprises to operate, facilitating economic growth and job diversity in the local council area..

In addition, the proposed development has been designed to incorporate modern Environmentally Sustainable Design (ESD) requirements that will guide the development of facilities in line with modern sustainability and environmental practices.

11. Information Sources Provided in the Preliminary Documentation

Sources of information on the MNES of the development site and its surrounds are provided below. This includes both existing information and on-site field surveys in the last five years. Reliability of the surveys is based on experienced, qualified botanists and zoologists finding the target species concerned.

Victorian Biodiversity Atlas (VBA): This database is administered by DELWP and holds a vast collection of records of flora and fauna species within Victoria. Data for these have been gathered from ecological surveys undertaken by DELWP, museum specimens, professional zoologists and botanists, competent amateur field naturalists and zoological and botanical literature. Records from these databases provide an indication of which species are present in an area and not an estimate of population size. The date of the most recent record of each species considered and the number of records in the VBA are provided in Table 2 and Table 3.

EPBC Act Protected Matters Search Tool: The Department of the Environment administers this online database. Information originates from AVW, VBA and FIS and Bioclim modelling of potential species occurrence.

12. References

Allen GR, Midgley SH & Allen M 2002, *Field Guide to the Freshwater Fishes of Australia*, Western Australian Museum, Perth

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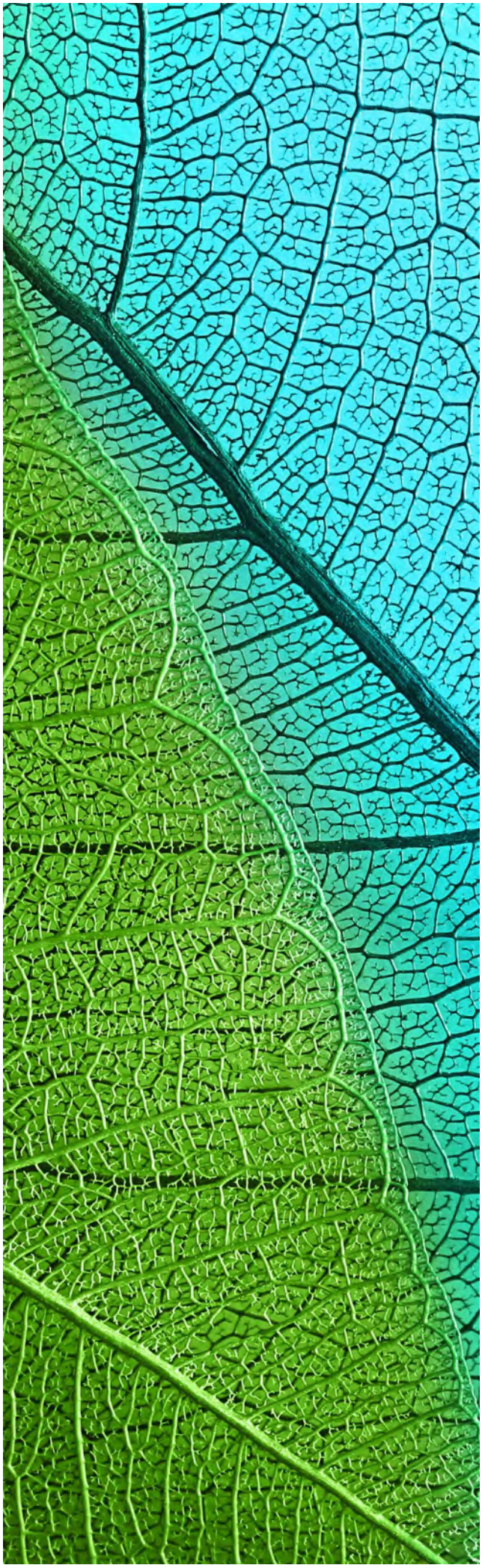
Appendix 1: Matted Flax-lily Salvage and Translocation Plan



276 Rex Road, Campbellfield

Salvage & Translocation Plan for Matted Flax-lily *Dianella amoena*

Prepared for
Bamford Management Pty Ltd

January 2026
Report No. 20045.07 (1.2)

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Nature Advisory acknowledges the traditional owners and sovereign custodians of the land on which we work from – the Wurundjeri people of the Woi Wurrung language group. We extend our respect to their Ancestors and all First Peoples and Elders past, present, and future.

Contents

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Appendices

1. Introduction

Bamford Management Pty Ltd engaged Nature Advisory Pty Ltd to design a salvage and translocation plan for Matted Flax-lily (*Dianella amoena*). This plan is a condition of a Hume City Council-issued permit (P23308.01) to take protected and threatened flora from private land and relocate it to a conservation reserve. The proponent, Bamford Management Pty Ltd, is responsible for implementing this plan. The aim of the plan is to provide a comprehensive guide for the salvage and translocation of 40 individuals of Matted Flax-lily (MFL) that currently occur within the property at 276 Rex Road, Campbelltown (herein referred to as the 'salvage site'). Details are also provided on the translocation of the 40 MFL to the recipient site, Lot S PS523266, Cunningham Chase, Burnside Heights. The EPBC approval from the Commonwealth for the salvage and translocation is yet to be obtained and this plan forms part of the required documentation to be submitted for approval.

This report includes the following sections:

- **Section 2** provides background biological information on Matted Flax-lily.
- **Section 3** provides the legislative context for this salvage and relocation plan.
- **Section 4** provides procedural guidelines for salvage of the Matted Flax-lilies.
- **Section 5** details the selection process for choosing a recipient site.
- **Section 6** provides guidelines for management of the recipient site.
- **Section 7** provides guidelines for ongoing monitoring.

This report was compiled by a team from Nature Advisory, comprising Kate Thurkle (Botanist) and Alan Brennan (Director).

1.1. Translocation definition

In the *Guidelines for the Translocation of Threatened Plants in Australia* (Commander *et al.* 2018), translocation is defined as the deliberate transfer of plant material from a natural population to a new location. In this case it will involve the salvage of MFL and introduction into a recipient site. The methods of translocation are diverse and may include seed collection and propagation, propagation via cuttings or tissue culture, planting of containerised plants, direct seeding, transplantation of whole plants from one site to another, and the transfer of soil, leaf litter, brush, or pollen (Commander *et al.* 2018).

1.2. Purpose of translocation

1.2.1. Matted Flax-lily individuals to be translocated

On 16 December 2020, Nature Advisory undertook a targeted survey to determine the presence of MFL and other threatened species within the salvage site. During the survey, 40 individuals of MFL were recorded within the salvage site on private land (see Figure 1).

1.2.2. Vegetation condition at the current location of Matted Flax-lilies

The 40 individuals of MFL, which are the subject of this investigation, occurred within a site located between Campbellfield and Somerton in Melbourne's northern suburbs. This constituted approximately 3 ha of private and public land east of Rex Road. MFL occurred within private land only. The site was assessed, and native vegetation mapped by Nature Advisory on 26 March 2020.

The site supported heavy soils of volcanic origin on a flat to gently undulating landscape with a moderate level of outcropping basalt rock. It was readily apparent that there had been very recent soil disturbance

(scraping) and stockpiling of soil and gravel in the west of the salvage site, and older soil stockpiling in the east.

The salvage site is situated within a well-established industrial precinct, in which native vegetation has long been cleared. An exception to this is the Cooper Street Grassland Nature Conservation Reserve, which is a moderate-sized area of remnant native vegetation, located some 400 m to the east of the salvage site and managed for biodiversity conservation purposes.

Vegetation in the salvage site consisted of a relatively degraded example of River Red-gum dominated Plains Grassy Woodland (Ecological Vegetation Class (EVC) 55_61), which occupied approximately half of the salvage site. This vegetation was dominated by a grassy ground cover of native Kangaroo Grass *Themeda triandra* and Weeping Grass *Microlaena stipoides var. stipoides*, with a large proportion of introduced high-threat Chilean Needle-grass *Nassella neesiana*. Interspersed throughout this vegetation were a mixture of indigenous and introduced shrubs and River red-gum *Eucalyptus camaldulensis* saplings and recent recruits, which were quite dense in places (Photo 1). There was a moderately high biodiversity of indigenous grasses and forbs present, although the percentage cover of forbs was very low. Introduced shrubs, grasses, and forbs (typical of the region) were also present and were most dominant around the periphery of the salvage site. Mostly, the salvage site was disturbed (Photo 2).

The salvage site lies within the Victorian Volcanic Plain bioregion, within the Southern Volcanic Plain Interim Biogeographical Regionalisation for Australia (IBRA) bioregion, and within the Melbourne catchment management area. The salvage site is located on Wurundjeri Country.

Photo 1: River Red-gum recruits and vegetation characteristics of the salvage site

Photo 2: Disturbance and piled fill in the salvage site

1.2.3. Project summary

The site is proposed to be subdivided into three lots and a road reserve to construct six warehouses (two per lot). The 40 MFL recorded in the east of the salvage site are in the footprint of the proposed development.

This is a major development and the layout cannot be modified to retain the MFL. Therefore, impacts to MFL cannot be avoided by the development. Furthermore, there is no suitable area of the proposed subdivision to relocate the plants within the site. As such, they must be translocated to a new location. From here, the new location will be referred to as the 'recipient site', while the current location of the MFL will be referred to as the 'salvage site'.

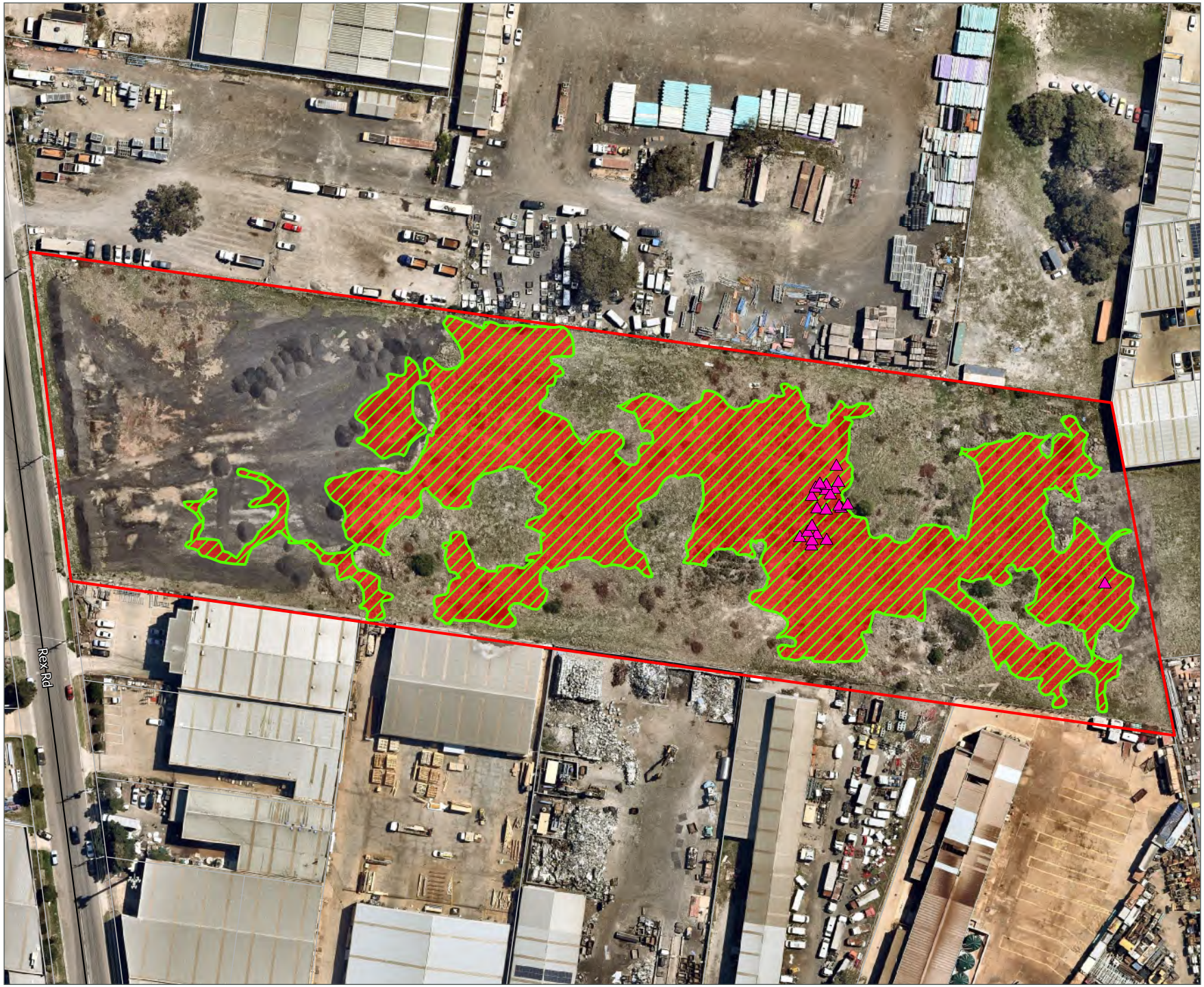

Figure 1: Location of Matted Flax-Lilies within impacted vegetation

Project No: EMKC
Project: 276 Rex Road, Campbellfield
Date: 1/05/2025

- Study area
- Matted Flax-lily
- Plains Grassy Woodland (EVC 55)
- Native vegetation to be removed

N

Metres
0 20

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2. Matted Flax-lily biology

2.1. Description

Matted Flax-lily (*Dianella amoena*) is a tufted perennial that typically grows in distinctive rhizomatous mats. Its grey-green leaves are softer, shorter, narrower and generally paler than those of most other species of *Dianella*. Additionally, the leaves are V-shaped in cross-section, with small serrations irregularly spaced along the margins and midrib, usually for the full length of the leaf including the sheath. Leaves grow to 45 cm long and 12 mm wide, and may die back during periods of significant water stress (summer dormancy; Carter 2010; RBGV 2023).

The inflorescence of Matted Flax-lily is upright and reaches 20–90 cm tall. Its nodding, star-shaped flowers are pale blue to blue-violet with yellow stamens (Photo 3), and produce a sweet, nutmeg-like fragrance. Flowering occurs from late spring to mid-summer (October–April), followed by fleshy, bluish-purple, globular fruits (Carter 2010; RBGV 2023).

Due to the matting habit, individual plants can occupy an area of up to 25 m^2, making population numbers difficult to estimate (Carter 2010).

Photo 3: Photograph of Matted Flax-lily flowers (Neville Walsh, CC BY-NC-SA 4.0 © Royal Botanic Gardens Board).

2.1.1. Habitat

The Matted Flax-lily typically grows within lowland grassland, herb-rich woodland, valley grassy forest and grassy woodland habitats. The soil is fertile, well-drained and seasonally wet. Soil types range from sandy loams to heavy cracking clays. The understory component of its habitat is typically dominated by native grass cover, with companion species including Kangaroo Grass (*Themeda triandra*), Weeping Grass (*Microlaena stipoides var. stipoides*), Common Tussock-grass (*Poa labillardierei*), Common Wheat Grass (*Anthosacne scabra*), Slender Wallaby-grass (*Rytidosperma racemosum var. racemosum*) and Grey Tussock-grass (*Poa sieberiana*). While not present across all Matted Flax-lily habitat, common companion trees comprise Blackwood (*Acacia melanoxylon*) and a range of eucalypt species, including River Red-gum (*Eucalyptus camaldulensis*), Swamp Gum (*Eucalyptus ovata*), Yellow Box (*Eucalyptus melliodora*), Red Box (*Eucalyptus polyanthemos*), Snow Gum (Eucalyptus pauciflora), Bundy (*Eucalyptus goniocalyx*) and Red Stringybark (*Eucalyptus macrorhyncha*). Introduced pasture species are also commonplace in much of the remaining Matted Flax-lily habitat (Carter 2010; RBGV 2023).

2.1.2. Distribution

The Matted Flax-lily occurs within Victoria, Tasmania and New South Wales. Within Victoria, it exhibits a patchy distribution ranging from the state's east to its south-west (Figure 2). The species most often occurs in patches of remnant vegetation on roadsides and beside railways, as well as within nature reserves. The surrounds are typically highly disturbed by agriculture and urban development (Carter 2010; RBGV 2023).

2.1.3. Threats

The habitat and distribution of Matted Flax-lily were drastically reduced following European settlement. Urbanisation and agriculture have led to the clearing and disturbance of vast tracts of habitat, resulting in populations becoming fragmented and introduced species further displacing remnants. At present, much of the remaining habitat of the Matted Flax-lily is restricted to roadsides, railway lines and reserves surrounded by urban development. Populations in these locations are particularly susceptible to herbicide use, slashing, weed invasion and damage via machinery and grazing (Carter 2010; RBGV 2023).

Major threats to the Matted Flax-lily include:

- Weed invasion
- Habitat destruction
- Population fragmentation
- Loss of pollinators

2.1.4. Legislative protection

Matted Flax-lily is currently listed as:

- Endangered under the EPBC Act
- Critically Endangered under the FFG Act

A national recovery plan for the species has been developed based solely on the Victorian population (Carter 2010).

Figure 2: Records of Matted Flax-lily in Victoria

Project No: 20045_07
Project location: 276 Rex Road, Campbellfield, VIC
Date: 5/05/2025

Victoria boundary

VBA records, Matted Flax-Lilies

N

Kilometres
0 30 60 90 120

GDA2020 Vicgrid

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3. Legislative context

3.1. EPBC Act Legislation

The EPBC Act is legislation designed to protect threatened species, habitats, listed migratory species and ecological communities of national conservation significance. Any significant impacts to these species require the approval of the Australian Minister for the Environment.

If there is a possibility of a significant impact on nationally threatened species, communities or listed migratory species, a Referral under the EPBC Act should be considered. The Minister will decide whether the project will be a 'controlled action' under the EPBC Act after 20 business days, in which case the project can only be undertaken with the approval of the Minister. This approval depends on a further assessment and approval process (lasting between three and nine months, depending on the level of assessment).

3.1.1. Permit conditions

On 02 May 2023, the proponent received a permit from Hume City council detailing the requirement to translocate 40 MFL, listed as **Critically Endangered** under the EPBC Act from private land to a conservation reserve. As part of the permit conditions, the following was required:

- Before commencement of works, a Translocation Plan for all Matted Flax-lily (*Dianella amoena*) on the Subject Land (being the salvage site) must be submitted to and approved by the Responsible Authority. This plan must be in accordance with any requirements, conditions and permissions required and obtained under the *Environment Protection (Biodiversity Conservation) Act 1999* (Cth) and be prepared by a suitably qualified and experience ecologist/ person. When approved, the Translocation Plan will then form part of this Permit.
- Prior to the commencement of works, the translocation process for all Matted Flax-lily (*Dianella amoena*) on the Subject Land (being the salvage site) must be complete by a suitably qualified person in accordance with the Translocation Plan approved under Condition 5, the satisfaction of the responsible authority.

These conditions are addressed within the following sections of this report.

Please note that approval from the Commonwealth for the salvage and translocation is yet to be obtained and this plan forms part of the required documentation to be submitted for approval.

4. Salvage

4.1. Salvage process

The salvage process must be undertaken before the commencement of construction works, which can be undertaken upon the approval of this Translocation Plan by the Responsible Authority and the Commonwealth.

Flowering of MFL occurs predominantly from November to January but the species can flower as early as October and as late as April (Carter 2010). As such, it is recommended that salvage takes place between late autumn to early spring (May- September) during stages of vegetative growth, as the species is more resilient to disturbance at this time (RGBV 2024; Bull 2014). Furthermore, undertaking salvage at this time ensures a greater rate of success as it allows for an extended period of favourable growing conditions before the drier months of summer arrive (GHD 2022).

During the process, all 40 MFL must be salvaged from their current location at Campbellfield. The entire plants are to be salvaged, including roots and associated soil. A qualified botanist or ecologist is required to supervise and complete salvage activities with the salvage being undertaken by an experienced bushland contractor approved by Melton City Council. The salvage must be undertaken appropriately to ensure that:

- The plants are handled, transferred into pots, and appropriately labelled.
- Where required, the trimming of leaf mass, flowers and fruit is undertaken to reduce transpiration and reduce stress of translocation to nursery.
- That plants are watered with a fertiliser suitable to the species (fish or seaweed emulsion) to assist recovery.
- That the risk of pests, pathogens, and diseases being transferred with the plants or associated soil is minimised i.e. tools and machinery hygiene protocols are implemented and weed material is removed as far as practicable.

The procedure will be as follows:

- The 40 MFL must be located prior to salvage and physically marked with readily visible stakes.
- If there is an absence of natural rainfall (>10 mm) in the 1-2 days leading up to the salvage event, the MFL must be watered 1-2 days prior to salvage to allow time for the water to soak in. As such, the plant must be saturated to root depth.
- During salvage, plants must be dug from the ground using clean and sanitised manual equipment. The whole plant and associated soil must be salvaged, and it is critical that the root system of the plant is not damaged during this process.
- Each plant must be labelled, for future reference.
- The root system of all salvaged plants must be kept moist during the salvage process, using either a wet hessian cloth or similar method.
- Upon completion of salvage, the 40 MFL must be potted in transportable containers and immediately transported to a suitably qualified indigenous plant nursery.
- Upon completion of salvage, the Department of Climate Change, Energy, and the Environment (DCCEEW), Melton City Council, and Hume City Council must be notified that it has occurred.

4.2. Salvaged plants

The MFL, post salvage, will need to be divided, propagated, and managed to reproduce vegetatively (cloned) to establish a security population of a sufficient/ viable number of individuals. This nursery population will not only be a source for supplementary planting, if plant mortality were to occur at the recipient site, but will also provide ample time for the recipient site to be prepared (i.e. weed control, fencing etc.) before receiving the salvaged individuals.

4.2.1. Nursery selection and capability

Upon the salvage of the 40 MFL, they must be transferred to a suitably qualified indigenous plant nursery for propagation, cloning and labelling of the 40 MFL. The plant nursery to undertake the work must be capable and experienced in propagating MFL and should have experience working with threatened flora species, preferably MFL. The nursery must also have knowledge and experience in propagation techniques to clone MFL, and space to maintain a healthy security population in the nursery throughout the 5-year duration of this plan.

4.2.2. Nursery obligations

An indigenous nursery approved by Melton City Council, such as Victorian Indigenous Nurseries Co-operative (VINC), must be used to undertake the following responsibilities:

- For each individual of MFL:
  - Propagation to produce at least three clones (four including the parent plant).
  - Labelling to ensure the clone of each is traceable back to its parent plant.
  - Growth of the salvaged and propagated clones to a stage when they have recovered from salvage and are ready for translocation (determined by the amount of new growth they have produced). 120 clones will be planted into the recipient site.

4.3. Propagation at the nursery

Upon arrival at the nursery, MFL plants must be potted in soil medium that is designed for propagation of native plants. When the nursery deems it appropriate, each of the 40 MFL must be propagated and cloned (this may be immediately).

Once each clone is potted, the nursery must undertake a care regime. This will involve watering, weeding, fertilisation where necessary, repotting, and monitoring of pathogens and diseases. This will continue perpetually over the 5-year duration of this plan.

To prepare plants for planting into the recipient site, they will need to be acclimatised to outdoor conditions. This will involve the slow introduction and exposure to ambient conditions, commonly referred to as ‘hardening off’. This will ensure that extra stress is not imposed on the plants when they are translocated to the recipient site. This process must only occur once an appropriate recipient site has been determined and a translocation date has been confirmed.

4.4 Indicative timeframe for salvage, propagation and translocation

The salvage of the MFL will occur in late October following acceptance of this translocation plan and when the MFL plants have started to grow. The salvage will take one day, and the plants will be transported directly to VINC nursery the same day. If required, watering will occur 1-2 days prior to the translocation.

Propagation will take place in an indigenous nursery approved by Melton City Council . Following salvage the plants will be divided where possible and planted into suitable medium and watered. The propagation

will be ongoing until the 40 plants have been created and each plant has had a chance to establish a good root network to be successfully translocated into the recipient site.

Translocation will ideally be in Aprill-May 2027 approximately two years after the plants are salvaged. This is to ensure that the recipient site is well prepared for their translocation and to ensure adequate time for propagation of the individual MFL's.

5. Recipient site selection

5.1. Selection criteria

The following criteria were referred to in order to guide selection of potential sites:

- The recipient site must be in the same or similar EVC to the salvage site. In this case Plains Grassy Woodland (EVC 55_61) or Plains Grassland (132_61).
- The recipient site must be actively managed, meaning that the translocated plants can be monitored, threats to them can be identified, and regular weed control is conducted.
- The recipient site should have records of MFL, whether or not a population currently occurs at the site. Past records indicate that a site is potentially suitable to support MFL.
- The recipient site should be in close proximity to the salvage site.

5.2. Recipient site

The chosen recipient site is located within Lot S PS523266, Cunningham Chase in Burnside Heights (-37.73621049509984, 144.76231128609112) and is in the Melton Council local government area.

A site assessment was undertaken on 1st April 2025 to ascertain the quality and extent of native vegetation present, as well as other characteristics, to determine the suitability of the site for MFL translocation.

5.2.1. Recipient site condition

The recipient site (Photo 4) supported heavy red and brown basaltic soils on a relatively flat landscape. Where the site extends further south, towards Kororoit Creek, the topography gently dips downwards. The recipient site receives approximately 500mm of rain annually.

The recipient site has been historically managed as a grassland reserve by Melton City Council, and surrounding land supports residential developments.

Vegetation in the recipient site consisted of a variety of native grasses and herbs as well as broad-leaf herbaceous weeds. The dominant species present were native Spear Grasses *Austrostipa spp.*, Kangaroo Grass *Themeda triandra*, Wallaby Grasses *Rytidosperma spp*. and Tussock Grass *Poa spp. Shrub* species Black Cotton-bush *Maireana decalvans* and Berry Saltbush *Atriplex semibaccata* were also scattered throughout.

Many of the weeds present within the recipient consisted of broadleaf herbaceous species with a handful of grass species. The dominant weeds present included Ribwort *Plantago lanceolata* and Ox-tongue *Helminthotheca echioides*, and particularly Toowoomba Canary-grass *Phalaris aquatica* in the southern half of the site (as it slopes towards the Creekline). Oat *Avena spp.* was also scattered throughout the site, as well as very small infestations of Cane Needle-grass *Nassella hyaline* and Chilean Needle-grass *Nassella neesiana*.

Photo 4: Representative photo of the recipient site, facing southeast.

Weed cover

Weed cover was low to moderate throughout and mostly comprised the aforementioned species. Table 1 below shows the prominent weed species recorded and the approximate percent covers for each.

Table 1: Prominent weed species and precent covers

Common name	Scientific name	Cover (%)
Oat	*Avena spp.*	1
Twiggy Turnip	*Brassica fruticulosa*	1
Great Brome	*Bromus diandrus*	+
Spear Thistle (C)	*Cirsium vulgare*	+
Ox-tongue	*Helminthotheca echioides*	10
Cane Needle-grass	*Nassella hyaline*	+
Chilean Needle-grass	*Nassella neesiana*	+
Toowoomba Canary-grass	*Phalaris aquatica*	15

Common name	Scientific name	Cover (%)
Ribwort	*Plantago lanceolata*	7
Black Nightshade	*Solanum nigrum s.s.*	+

Pest animals

Presence of pest animals within the recipient site was minimal. Evidence of grazing from Kangaroos was observed, however management who look after the recipient site (Melton City Council) are continually aiming to push the Kangaroos further west towards the Kororoit Creek corridor.

Rubbish

Rubbish within the recipient site was moderate and mostly comprised litter, dumped household goods, and some construction materials (Photo 5). GreenLife Group, who are engaged by Melton City Council, is responsible party for collecting rubbish throughout the reserve, which they service on a 3-week basis.

Photo 5: Example of litter and general rubbish within the recipient site.

6. Translocation and recipient site management

6.1. Translocation

Translocation can take place once the MFL in the nursery have reached a stage when they are ready for translocation. This is subject to the judgment of the nursery, based on health of the plants and the amount of new growth that they have produced following propagation.

A total of 120 MFL will be translocated into the new recipient site (three clones from each parent plant). Remaining plant material will be used to create the security population at the nursery. Individuals from this population will be translocated into the recipient site to replace any of the 120 translocated plants, should they perish.

Translocation should occur in accordance with the Guidelines for the translocation of threatened plants in Australia (Commander et al.2018). Translocation also includes salvage which is detailed in the Guidelines. Translocation and ongoing maintenance must be undertaken by experienced bushland contractors approved by Melton City Council.

Prior to planting, the holes must be dug for the MFL and filled with water. The clones are to be mixed throughout the recipient holes (that is, three clones from the same parent plant should not be planted next to each other) and shouldn't be planted in the same recipient hole. Each plant should be planted at a minimum of 2 m apart and at least 5 m from any remnant MFL plant in the site. Therefore, there should be 120 separate holes for each plant propagated with the genetics mixed. Usually more than the minimum number of plants are planted on site to allow for natural attrition. However, replacement of perished plants is appropriate too.

All translocated plant must be identified with a unique metal ID tag. This tag will be securely pegged into the ground, adjacent to the relevant plant. Due to the dense matting habit of MFL and the potential for groundcovers to establish and obscure tags over time, the locations of each plant must also be recorded using a differential GPS.

6.2. Recipient site preparation

To ensure the best survival chance for translocated plants, some threats that are present at the translocation site must be managed before translocation can occur.

6.2.1. Weed control

Before translocation of MFL, weed control must occur at and adjacent to the location where they will be planted. Any high threat weeds must be controlled with appropriate methods by the land manager. It is understood that all proposed recipient sites are already managed for such species.

Before translocation, competition for MFL must be reduced by reducing cover of competitive grasses. This should primarily involve weeds, but may also include native grasses. Competition to MFL will be reduced by cutting down biomass and cover of grasses at the planting location. Control methods are to be determined by the responsible land manager, and may include small burns, slashing, hand weeding, or spraying of weeds.

6.2.2. Pest animal control

If rabbits are considered a threat at the site, then they must be managed prior to translocation. This may include warren fumigation and destruction. It may also include baiting, should the land manager determine that this is a necessary measure.

Additionally, contractors are required to incidentally monitor kangaroo activity throughout the life of this plan, to assess any herbivory pressures associated with this threat.

Fencing

To best protect MFL from herbivory pressures associated with rabbits and kangaroos, fencing must be established around the translocated plants and maintained for the first five years following their translocation. This will allow the plants to sufficiently establish and mature to a point in which they can better resist herbivory pressures.

Fencing must be constructed to the following standards to exclude these herbivory threats:

- Use chain-link (cyclone) fencing, ringlock fencing or deer mesh (also known as K wire).
- Be high-tensile, heavy galvanised wire.
- Be at least 1.8 m high.

To prevent rabbit entry via gaps at the base of the fencing, the following design must also be implemented:

- Fencing must have a secured mesh apron.
- Fencing (including the mesh apron) must be embedded into the ground.

6.3. Enhancement planting

Upon discussion with Melton City Council, herb enrichment planting will take place within the recipient site, with an aim to restore the site area to an herb-rich native grassland. This will be done in a way that will ensure no impacts to MFL occur, whilst boosting the biodiversity outcomes within the site.

6.4. Ongoing management

Management of the translocated MFL must continue for five years, to ensure successful establishment. Management will be most intense during the first six months after translocation. One year following translocation, management will occur monthly, unless more frequent management is deemed necessary by the land manager.

6.4.1. Matted Flax-lily management

A watering regime for the MFL must be adhered to throughout the 5-year monitoring period. Watering will be most intense in the months following translocation, as the plants establish their root systems. By the end of the monitoring period, watering should only be necessary if plants appear stressed or if drought occurs. Below is an indicative schedule. However, this may be modified as necessary by the responsible land manager.

- For the first six months after translocation, watering should occur on a weekly basis. However, this will only be necessary in the absence of significant rainfall.
- For 6 – 12 months after translocation, water should occur fortnightly in the absence of significant rainfall.
- For 1 – 2 years after translocation, watering should occur monthly in the absence of significant rainfall.
- For 2 – 5 years after translocation, watering should only occur when plants show signs of stress, or in drought events.

Significant rainfall is defined as >10mm within a period of 7 days.

If MFL mortality occurs at the recipient site, it must be replaced from the security population from the same parent plant. Whenever this occurs, the same watering regime as above will be implemented for that one individual.

Each time the MFL are monitored, the fencing is to be inspected, be that tree guards or permanent fencing. They must be checked for structural integrity and for any signs of breaches by herbivores.

6.4.2. Site management

Throughout the 5-year management period, all threats to the MFL must be managed. This includes weed invasion, herbivory threats, disease and any other threats that occur.

The MFL should be monitored for any signs of herbivory. If it appears that herbivory has occurred, preventative measures must be put in place to ensure it does not continue. This may include upgrades to existing tree guards, additional fencing other forms of physical protection. If herbivory is occurring due to a pest animal such as rabbits, population control should also be considered.

Weed management must occur throughout the 5-year period. Within a 5 m radius of any MFL, high threat weeds must be kept to less than 1% cover. Weeding nearby the MFL must be completed manually, to ensure they are not damaged by any chemical or mechanical weed control. In the broader recipient site, weed infestations should be monitored to ascertain any threats they pose to MFL, and controlled accordingly. It is understood that the recipient site will be managed for such threats as part of the broader ongoing management of the reserves.

7. Monitoring and reporting obligations

7.1. Schedule

Throughout the 5-year management period, monitoring must be completed by a suitably qualified person who is familiar with the biology and ecology of MFL. The proponent must contract a suitably qualified botanist to complete this work. Health, size, offspring and reproduction, and survival must be monitored. Monitoring will be most intense following translocation and gradually become less intensive. Planted material is considered established if it has survived for a period of five years (GHD 2022).

A recommended timeline for monitoring is outlined below:

- During the first month after translocation, monitoring should occur weekly.
- For months 2 – 6 after translocation, monitoring should occur monthly.
- For 6 – 24 months after translocation, monitoring should occur quarterly.
- For 2 – 5 years after translocation, monitoring should occur bi-annually.

7.2. Objectives

The objective is to have 85% of clones survive following translocation. This means that at a minimum 102 of the 120 MFL must survive. If, at the end of five years, this is the case, then MFL will be considered established at its recipient site (Commander *et al.* 2018). Another aim is that the plants are able to flower and fruit, in order to reproduce. Monitoring should also establish plant growth and levels of reproduction, as well as condition of the recipient site.

Proposed indicators for assessing the successful establishment of translocated individuals are as follows;

- Plant growth and survival
- Recruitment availability
- Competition from weeds
- Pest management
- Population growth
- Genetic diversity

7.3. Monitoring obligations

Each time monitoring is completed, the following must be recorded:

- The condition and health of each MFL, based on the following criteria:
    - Plant health (ranging from poor, moderate and good)
    - Number of inflorescences (<5, 5-10, 10-15, etc.)
    - Number of leaf tufts (<5, 5-10, 10-15, etc.)
    - Width of plant (cm) at its widest point
    - Other management notes (e.g. signs of herbivory, need for weeding, water stress, presence of fruit, etc.)
- Survival rate of the translocated MFL. If any of the translocated MFL have experienced mortality, a replacement must be made available by the nursery.

- A photo should be taken at a set photo point.
- Record any MFL recruits in the area and take their location.
- Monitor the site for any threats to the MFL such as pest animals/ plants.

Furthermore, the following points should be considered during MFL monitoring to inform environmental and management objectives:

- If there are sufficient numbers to avoid both demographic and environmental stochasticity.
- If there is evidence of reproduction and natural recruitment; and,
- If there is sufficient genetic diversity to retain its evolutionary potential to adapt to long-term environmental change.

Monitoring must occur in November or December when MFL is known to flower so that species identification can be confirmed.

7.4. Reporting

The proponent will be responsible for annual reporting to DCCEEW, Melton City Council, and Hume City Council on the population of MFL. The reporting is to be provided by the 31st of December each year, following the salvage. Monitoring must be undertaken by a suitably qualified independent botanist.

Reports must contain information on the health, reproduction, survival rates, size and growth rates of the population of MFL. It must also report on the condition of the recipient site and detail any threats present. Annual reports must include the locations of any translocated plants or clones, which should be uploaded to the Victorian Biodiversity Atlas (VBA).

8. References

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Commander LE, Coates D, Broadhurst L., Offord CA, Makinson RO and Matthes M 2018. *Guidelines for the translocation of threatened plants in Australia*. Third Edition. Australian Network for Plant Conservation, Canberra, Australian capital Territory.

Department of Environment, Land, Water and Planning (DELWP) 2021, *Threatened Species Assessment for* Dianella longifolia var. grandis *Flax-lily*, Department of Energy, Environment and Climate Action Department of Environment, Land, Water and Planning, Melbourne, Victoria.

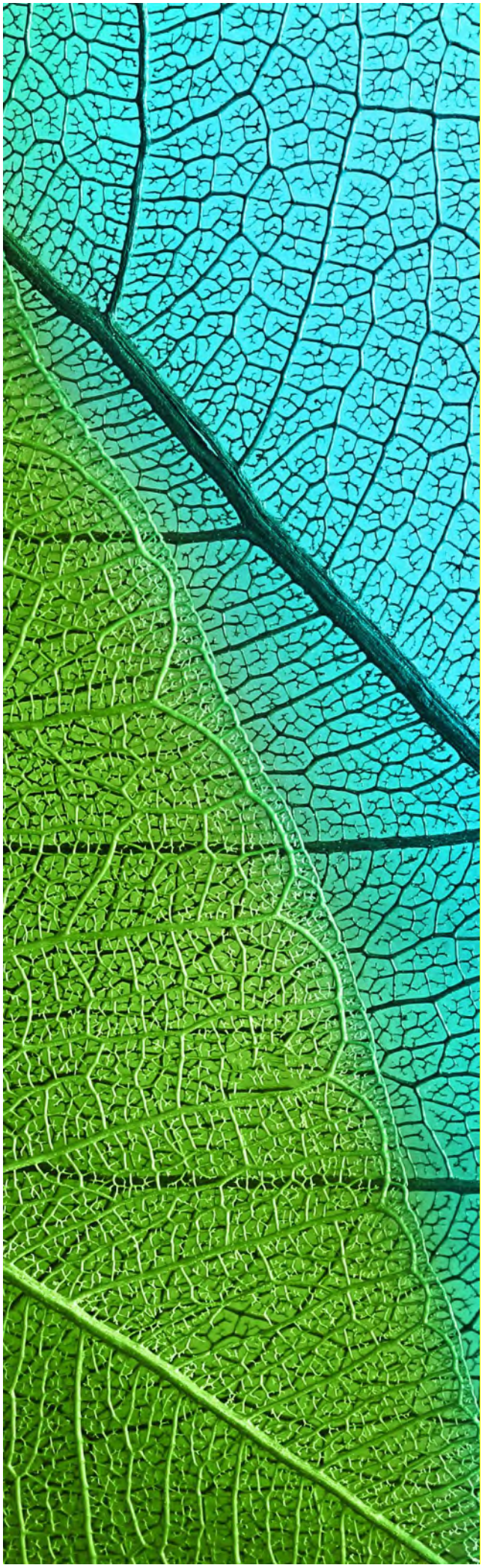
GHD 2022. *Matted Flax-lily: Salvage and Translocation Plan: Revision 5.* Consultant report prepared for North-east Link project. GHD, Melbourne, Victoria.

Royal Botanic Gardens Victoria (RBGV) 2023, *VicFlora*, viewed 7 January 2025, https://vicflora.rbg.vic.gov.au/.

Appendix 1: Table of responsibilities

Task	Responsibility
Pre-salvage identification of Matted Flax-lily locations at the salvage site.	Nature Advisory on behalf of the proponent.
Salvage procedure.	Nature Advisory on behalf of the proponent.
Propagation and cloning of salvaged Matted Flax-lily.	An indigenous nursery such as VINC on behalf of the proponent.
Establishment of a security population of Matted Flax-lily in the nursery.	An indigenous nursery such as VINC on behalf of the proponent.
Translocation of Matted Flax-lily.	Experienced bushland contractors approved by Melton City Council.
Management of recipient site.	Experienced bushland contractors approved by Melton City Council.
Management of Matted Flax-lily in recipient site.	Experienced bushland contractors approved by Melton City Council.
Monitoring of Matted Flax-lily in recipient site.	Experienced bushland contractors approved by Melton City Council.
Incidental monitoring of kangaroo activity.	Experienced bushland contractors approved by Melton City Council.
Reporting on condition of Matted Flax-lily in recipient site.	DEECA accredited botanist on behalf of the proponent.

Appendix 2: Offset Management Plan for Matted Flax Lily *Dianella amoena*



276 Rex Road, Campbellfield

Offset Management Plan for Matted Flax-lily *Dianella amoena* Habitat

Prepared for
Bamford Management Pty Ltd

April 2026
Report No. 20045.09 (1.0)

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Nature Advisory acknowledges the traditional owners and sovereign custodians of the land on which we work from – the Wurundjeri people of the Woi Wurrung language group. We extend our respect to their Ancestors and all First Peoples and Elders, past and present.

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1. Introduction

Bamford Management Pty Ltd engaged Nature Advisory Pty Ltd to prepare an Offset Management Plan (OMP) for a portion of land located within Lot S PS523266, Cunningham Chase, Burnside Heights (the offset site), occurring approximately 2.6 km north-east of Caroline Springs 19 km north-west of Melbourne CBD. The offset site is within a conservation reserve managed by Melton City Council.

The Offset Management Plan (OMP) is required to compensate for impacts associated with the proposed development at 276 Rex Road, Campbellfield (EPBC 2021/8934) under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth; EPBC Act).

The Matters of National Environmental Significance (MNES) listed under the EPBC Act to be impacted by the proposed works at 276 Rex Road Campbellfield comprise 40 individuals of Matted Flax-lily *Dianella amoena*. These impacted plants are subject to a salvage and translocation plan (Nature Advisory 2025). The translocation site is within the offset site.

This OMP aims to inform management requirements of threats including weeds, pests, habitat decline, fencing and lack of natural regeneration at the offset site.

This OMP prescribes management actions to be undertaken over a 10-year period and includes the following:

- A statement of methods used and sources of information consulted for the investigation, including any limitations, where applicable
- Results of the review of existing information documenting biodiversity, ecological values and management requirements of the site and study area
- A list of weed/flora species and habitat values identified during the site survey and identification of key threats to ecological values in the study area
- Maps of the study area showing the ecological values to be conserved, threats and relevant management measures
- Table of appropriate management actions required

The implementation of this OMP must commence immediately upon its approval by the Responsible Authority.

2. Methods

2.1. Site survey of offset site

The initial site assessment was undertaken by Nature Advisory on 12 January 2026. During the site survey, the study area for the investigation was assessed in detail on foot to determine cover and extent of native vegetation values. Sites in the study area found to support native vegetation in the form of *Heavier-soils* Plains Grassland (EVC 132_61, DSE 2004a) or with potential to support listed matters were mapped through a combination of aerial photograph interpretation and ground-truthing using ArcGIS Field Maps® (Esri) on a hand-held GPS device.

Vegetation Quality Assessments (VQA) were undertaken for all patches of native vegetation identified in the study area and determination of EVCs in the field was based on DEECA's pre-European modelled native vegetation (DSE 2004a), within or in close proximity to the study area. EVC determination was further based on the methodology outlined in the VQA method (DSE 2004b).

Furthermore, the *Heavier-soils* Plains Grassland (EVC 132_61, DSE 2004a) vegetation was assessed against the key diagnostic criteria and condition thresholds ('qualifying criteria') from the EPBC Act Policy Statement (TSSC 2008) for the EPBC Act-listed community *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP).

Areas that qualified as this community were mapped. It should be noted that the vegetation mapped during this survey is vegetation that qualifies as NTGVPP, not necessarily native vegetation as defined under Victoria's *Guidelines for the removal, destruction or lopping of native vegetation* ('the Guidelines', DELWP 2017).

2.1.1. Site survey limitations

The site assessment was conducted during summer. The short duration and seasonal timing of site assessments can result in certain species remaining undetected despite their occasional presence at other times of year. Additionally, some flora species and lifeforms may be undetectable at the time of survey or unidentifiable due to a lack of flowers or fruit. Due to the variable nature of grasslands across the year and seasons, assessments at a different time of year may result in a slightly different extent. Summer is an adequate survey time for the assessment as many native grasses on the site have seed heads present which make them easily identifiable.

Dominant native species (Kangaroo Grass *Themeda triandra* and Spear Grass *Austrostipa spp.*) and the dominant perennial weedy species (Oat *Avena spp.* and Ribwort *Plantago lanceolata*) were readily identifiable due to their habit, distinctive colour and the occasional presence of seed heads. As such, the above-mentioned factors are not considered to be limitations to the extent of grassland recorded within the site.

3. Offset site

3.1. Description of offset site

The offset site totals 1.044 hectares and is comprised of a single conservation management zone (CMZ), containing one patch of *Heavier-soils* Plains Grassland (EVC 132_61; 0.662 ha) as outlined in Figure 1. The patch (herein referred to as the 'habitat zone') will be managed to protect the native grassland values *and* the translocated Matted Flax-lily's.

The habitat zone qualified as EPBC Act-listed community *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP), listed as Critically Endangered under the EPBC act (refer to Table 1 for detailed assessment). The associated management zone occurred on public property amongst a range of exotic grasses, such as Toowoomba Canary-grass *Phalaris aquatica,* Wild Oat *Avena fatua* and herbaceous weeds, particularly Ribwort *Plantago lanceolata* and Ox-tongue *Helminthotheca echiodes*.

Cover of native values was moderate to high, with high graminoid and herbaceous diversity. Native grasses such as Kangaroo Grass *Themeda triandra*, Spear Grass *Austrostipa spp.*, Velvet Tussock-grass *Poa rodwayi*, and Silky Blue-grass *Dichanthium sericeum subsp. sericeum* were present across the habitat zone. Bidgee-widgee *Acaena novae-zelandiae*, Lemon Beauty-heads *Calocephalus citreus* and Spur Goodenia *Goodenia paradoxa* comprised part of the diverse herbaceous ground cover.

The Vegetation Quality Field Assessment Sheets (DSE 2004b) for the offset site are provided in Appendix 1. Descriptions of the environmental values of the proposed offset management zones are provided below.

3.2. Conservation Management Zones

Management Zone (1.044 hectares)

Habitat Zone A (EVC 132_61) was assessed as having a habitat score of 43 out of 100. The management zone will comprise the study area which encompasses both Habitat Zone A and non-mapped exotic vegetation.

The dominant native species comprised Kangaroo Grass, Spear Grass, and Wallaby Grass *Rytidosperma spp.* Other prominent indigenous species present within the management zone included Grassland Wood-sorrel *Oxalis perennans*, Bidgee-widgee, and Black Cotton-bush *Maireana decalvans*.

Weed cover was high (80%) and was dominated by Wild Oat and Ribwort, with lesser covers of Toowoomba Canary-grass, Great Brome *Bromus hordeaceus*, and Ox-tongue.

Table 1: Assessment against NTGVVP listing advice (TSSC 2008)

Key diagnostic criteria / Condition thresholds	Assessment
Distribution is mainly limited to Quaternary basalt soils within the Victorian Volcanic Plain IBRA bioregion, sometimes extending into the adjacent Victorian Midlands and South-east Coastal Plain bioregions.	The study area occurs on basalt soils in the Victorian Volcanic Plain IBRA bioregion.
At least one of the following grass genera is the dominant native species in the ground layer:	The dominant native grass species in the ground layer was Kangaroo Grass with Spear Grass

▪ *Themeda* (Kangaroo-grass); ▪ *Austrodanthonia [Rytidosperma]* (Wallaby-grass); ▪ *Austrostipa* (Spear-grass); and/or ▪ *Poa* (Tussock-grass).	*Austrostipa* spp. and Wallaby Grass *Rytidosperma* spp. co-dominant in some areas.
The minimum size of the grassland patch and the maximum cover of woody vegetation depends on the native vegetation remnant within which the grassland patch occurs. ▪ For a native vegetation remnant ≤1 hectare in size, the minimum contiguous size of the grassland patch is 0.05 hectare and the crown cover of shrubs and trees over one metre tall within the grassland patch should not exceed 5%; 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	Habitat Zone A has a total area of 0.66 ha. Though small and prostrate shrubs were present, their total cover did not exceed 5% (~ 2% cover).
Either: ▪ The total perennial tussock cover represented by the native grass *genera Themeda*, *Austrodanthonia* [*Rytidosperma*], *Austrostipa* or *Poa* is at least 50%; and/or ▪ If the total perennial tussock cover represented by the above 4 native grass genera is less than 50%, then the ground cover of native forbs (wildflowers) is at least 50% of total vegetation cover during spring-summer (September to February); and/or ▪ The cover of non-grass weeds is less than 30% of total vegetation cover at any time of the year	Total cover of native vegetation within the habitat zone comprised a ≥50%. Cover of non-grass weeds within the habitat zone comprised <30%, with an approximate total cover of 15%.

Figure 1. Matted Flax-lily offset site

Project No: 20045.09
Project: 276 Rex Road, Campbellfield, VIC
Date: 21/01/2026

Study area

Management zone

Photopoint

EPBC Act listed community

Natural Temperate Grassland of the Victorian Volcanic Plain

FFG Act listed community

Western (Basalt) Plains Grasslands Community

Native vegetation

Plains Grassland (EVC 132)

Weed species

African Box-thorn

Sifton Bush

Sweet Briar

N

Meters

0 20

GDA2020 Vicgrid

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4. Management actions

The goal of management within the CMZ is to protect and enhance translocated Matted Flax-Lily individuals and NTGVVP, primarily by increasing recruitment area available for native species. Additionally, the area of NTGVVP will aim to be increased over time through management of the entire study area, beyond the current mapped extent of NTGVVP.

The following management actions are required to reduce threats within the proposed offset site to maintain the quality of the Matted Flax-Lily offset management zone and NTGVVP.

Management of the CMZ will be undertaken by Melton City Council, as part of their restoration and conservation efforts of the grassland reserve adjacent to Cunningham Chase.

4.1. Fencing

The approval holder has an obligation under this current plan to install, upgrade and maintain fencing to exclude threats for the duration of the plan. Fencing helps manage threats to native vegetation from overgrazing, as well as inappropriate or unauthorised access. In the context of this site, fencing is primarily required to prevent inappropriate access from pedestrians and native/ exotic herbivores in the CMZ. Accordingly, the establishment of simple fencing is recommended where the CMZ abuts access tracks.

Fences must be installed and upgraded (if required) within three months of this plan being approved by the responsible authority.

Standards for suitable permanent fencing are provided in Figure 2: Permanent perimeter fencing.

Construction details are presented below, as per *Management standards for native vegetation offset sites* (DEECA 2023):

- Posts are at least 1.8 metres high and of treated pine or steel, no more than 10 metres apart and with two droppers in between these.
- Strainers are 2.1-metre-high posts of either 150 mm wide treated pine, railway iron or large diameter steel.
- Stays are 3 metre treated pine.
- Wires are to be four strand plain wire, with rabbit-proof mesh affixed to the lower portion of the fence and pegged to the ground outside of the offset area

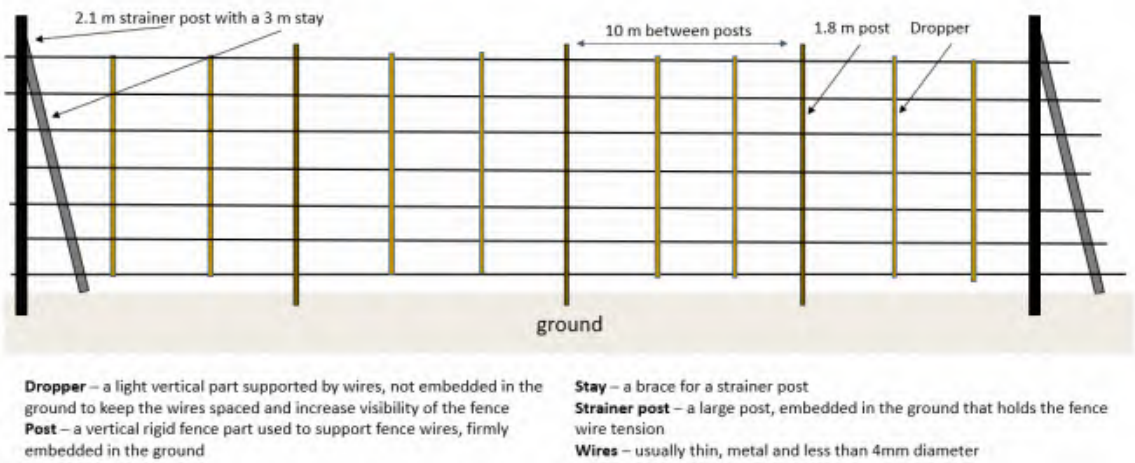

Figure 2: Permanent perimeter fencing

4.2. Weed control

A total of 11 priority weeds to be controlled were identified during the field assessment, which demonstrated a combined cover of approximately 40% within the extent of Habitat Zone A.

Weeds were assessed as being a priority for management based on the following criteria:

- All woody weeds;
- Declared noxious weeds under the CaLP *Act 1994*;
- Any other weed deemed to be high-threat due to the potential risk the species poses to the surrounding landscape; or
- Weeds not otherwise accounted for above that are on DELWP's *Advisory List of Environmental Weeds* and occurred above a negligible cover.

The aim of weed control is to prevent perennial and annual weed cover from increasing beyond its current levels and provide habitat improvement within buffer zones. Any new weed species recorded must be eradicated.

It should be noted that a baseline survey by a qualified botanist during late-spring to early-summer will be undertaken prior to the commencement of the OMP, to establish a more extensive weed species list and determine baseline covers. This baseline survey will be used to inform management targets.

Weed control will be undertaken at least quarterly each year for the duration of the OMP.

All weed control is to be carried out by a suitably qualified revegetation and/or weed control contractor, with experience in working in ecologically sensitive areas.

Woody weeds

The following high-threat woody weeds were recorded in the CMZ:

- Sifton Bush *Cassinia sifton*
- African Box-thorn *Lycium ferocissimum*
- Sweet Briar *Rosa rubiginosa*

All woody weeds are to be removed from the CMZ and disposed of appropriately. The 'cut-and-paint' method is the most effective means of controlling any woody weeds on the site. This entails a clean cut to the main stem/s of the plant followed by immediate application of a non-selective herbicide to the entire surface of the cut stem/s. The dead left over branches should be removed and immediately disposed of at a municipal landfill. Seedlings or woody weeds with a spreading habit must be sprayed with an appropriate herbicide during their active growth period.

High-threat herbaceous weeds

The following high-threat herbaceous weeds were recorded in the CMZ:

- Galenia *Aizoon pubescens*
- Ox-tongue
- Ribwort

These species can be treated with an appropriate broadleaf-selective herbicide. This must be timed during periods of active growth and early in the species' flowering period, to minimise the potential for seed set while also maximising the effectiveness of herbicide application.

High-threat grassy weeds

The following high-threat grassy weeds were recorded in the CMZ:

- Wild Oat
- Cane Needle-grass *Nassella hyalina*
- Chilean Needle-grass *Nassella neesiana*
- Serrated Tussock *Nassella trichotoma*
- Toowoomba Canary-grass

These species will be treated through a combination of herbicide application and ecological burns.

All other weeds

All other weeds will be controlled such that their combined cover does not exceed current levels.

The control method utilised will be subject to the species present and will ultimately be informed by the expert advice of a suitably qualified land care specialist.

4.2.1. Disposal of weed material

Any fertile weed material, especially that of any CaLP Act-listed weeds, **must** be legally disposed of using appropriate permits for disposal and transportation.

4.3. Pest control

Though no evidence of rabbit activity was observed in the study area, monitoring of presence should be conducted annually in autumn and/or whenever vegetation maintenance works are being undertaken. If rabbit activity and presence is observed, their control will be of particular importance as they as they could promote erosion and loss of native flora, which is detrimental to native grassland. Potential methods of rabbit control are summarised in Table 2.

Table 2: Summary of possible rabbit control methods

Method	Time	Cost	Advantages	Risks
1080 Baiting with carrot pieces	Late summer	Most cost-effective method	Large areas covered quickly. Foxes killed by eating poisoned rabbit. Most native animals at low risk from ingesting carrot bait.	Dry weather required. No effective antidote. Hazardous to livestock. Not suitable if stock grazing.
Pindone baiting	Late summer	Moderate cost	Less hazardous to domestic animals.	Hazardous to livestock. Not suitable in view of current land use (i.e., grazing land) Risk to some native animals.
Harbor removal	Any time	Labor-intensive	Good follow-up method to combine with other treatments.	Few where native vegetation not present

Method	Time	Cost	Advantages	Risks
Warren fumigation and ripping	After autumn rains when soil softens	Labor intensive	Removes shelter – effective when undertaken in combination with harbor removal.	Limited
Rabbit-proof fencing	Before planting/ seeding.	Very labour-intensive. High initial cost.	Long-term effect, stops reinvasion.	Need regular checking. May also stop native fauna dispersal and would require significant changes in stock management on the farms.
Shooting	All year round. Optimum late summer.	Low to Moderate cost.	Appropriate for low numbers.	Very labor-intensive and unlikely to exclude rabbits permanently

Source: adapted from Farrelly & Merks 2001.

Combining several control methods listed in Table 2 is more effective in controlling rabbit populations than limiting control to one method. Rabbit control, where required, should focus on harbour removal and warren destruction. Where numbers are high, baiting should be considered prior to warren ripping. Any baiting would require careful stock management to ensure they were not poisoned as well. Shooting can also be undertaken when numbers are low.

4.4. Biomass control

Biomass control will be necessary to maintain a healthy, open grassland structure. This will enable recruitment of native herbs in inter-tussock spaces and contribute to the overall species richness of NTGVVP onsite. Accordingly, biomass control should aim to achieve bare ground cover of 10-25%.

4.4.1. Ecological burning

Ecological burns may be implemented periodically for biomass control to promote inter-tussock spacing. The most appropriate time for burning is the end of autumn to early winter (February through May) or in early spring (September) as the weather is cooler and will result in a low intensity burn.

Only patch burns may be conducted, with no more than one third of the total offset site burnt in any one year so that unburnt areas provide areas of refuge for fauna. Burns will only be undertaken at a moderate frequency i.e., every 3 to 5 years.

Following burns, it is expected that exposed ground will be rapidly colonised by invasive weeds. Therefore, intensive weed control measures must be conducted in burn areas approximately one month after burns have occurred and will be ongoing every three months, until weed covers stabilise at target cover levels. These measures will be adaptive, and the frequency will ultimately be dependent on the rate of weed invasion and success of grassland enhancement.

Ecological burning requires bushland management contractors to have appropriate insurance to prepare for and implement such burns. They also need to have experience in undertaking burns and must prepare a burn plan that aims to ensure any burns are undertaken at the appropriate time of year, under correct weather conditions and in a mosaic fashion.

4.5. Monitoring

4.5.1. Ecological monitoring and reporting

The Approval Holder is responsible for engaging a suitably qualified ecologist to conduct baseline monitoring of habitat condition and weed cover estimates in Year 1, and annual monitoring thereafter for the 10-year period of this Plan. Monitoring will be undertaken to determine the following:

- Native vegetation condition and extent - i.e. VQA assessment;
- The percentage cover and abundance of high threat weeds;
- The combined percentage cover of all weeds;
- Pest animal activity;
- Condition and health of each Matted Flax-lily (as per the Salvage and Translocation Plan [Nature Advisory, 2025]); and
- Biomass levels – i.e., the percentage cover of bare ground/litter between native grass tussocks.

Photopoints have been established across the reserve, with the aim of providing a clear visual reference for the progress of management actions. This photographic evidence of monitoring must be included in all annual reporting.

The Approval Holder is responsible for engaging a suitably qualified ecologist to monitor the CMZ in Years 2, 4, 6, 8 and 10. The Approval holder-nominated ecologist is to prepare a report documenting the findings of habitat condition, photopoint photos and any resultant recommendations. The Approval holder will be responsible for forwarding the Ecological monitoring reports to Melton City Council and DCCEEW.

4.5.2. Contractor monitoring

Ten-year management period

Regular monitoring by suitably qualified land care contractors must include:

- Quarterly inspections for burrows and other harbour;
- General observations of problematic weed infestations; and
- Ongoing monitoring of fencing.

The approval holder will submit annual reports detailing the contractor monitoring efforts to Melton City Council two (2) months prior to each anniversary of registration of the offset covenant, over the 10-year period of this Plan. Annual reports will also be provided to the proponent.

4.6. Adaptive management

Adaptive management in the form of minor changes in management approach (e.g., grazing strategy or weed control methods) may occur in consultation with Melton City Council.

5. Management actions and timing

The following tables provide the management actions to be undertaken and proposed timelines.

Table 3: Management actions and timing year 1

Year 1						
Management Action	**Timing**	**Target to be achieved**	**Responsible person**	**OMP reference**	**Completed (Yes/No)**	**Month completed**
Establish offset site	Upon approval of this Plan	Defines the start of the prescribed management period under this Plan	Approval Holder	N/A		
Erect permanent fencing where the CMZ abuts access tracks	Upon implementation of this Plan	Permanent fencing to be established prior to management actions being undertaken.	Approval Holder	Section 4.1		
Baseline surveys	In the first spring of Year 1. Aim for spring surveys from October/November when the main flowering season is observed.	Habitat condition and ecological threats assessed and documented, such that the following is accounted for: ▪ The percentage cover and abundance of high threat weeds; ▪ The combined percentage cover of all weeds; ▪ Pest animal activity; ▪ Condition and health of each Matted Flax-lily (as per the Salvage and Translocation Plan [Nature Advisory, 2025]); and ▪ Biomass levels – i.e., the percentage cover of bare ground/litter between native grass tussocks.	Approval Holder	Section 4.2 & 4.5.1		
Pest animal monitoring and control (if required)	Monitored annually in autumn Control implemented as required	Pest animals controlled	Landholder	Section 4.3		
Weed monitoring and control (if required)	Quarterly monitoring Control as per optimal time for each species	Weed control targets for each species, as determined during baseline monitoring.	Landowner	Section 4.2		
Biomass control (if required)	Autumn to early winter, or early spring (ecological burns)	Bare ground cover of 10-25% achieved (ecological burns)	Landowner	Section 4.4		
Ecological reporting	Baseline Report due within two months of monitoring.	Ecologist to prepare and deliver a report documenting the findings of habitat monitoring and photopoints. Approval holder to forward the Ecological monitoring reports to Melton City Council and the landowner within 2 months of monitoring events.	Approval Holder	Section 4.2 & 4.5.1		

Table 4: Management actions and timing years 2–10

Year 2 – 10						
Management Action	Timing	Target to be achieved	Responsible person	Year		
				Location in Plan	Completed (Yes/No)	Month completed
Monitor fencing condition	Ongoing	Fencing maintained to exclude inappropriate vehicular access	Landowner	Section 4.1, Section 4.5.2		
Pest animal monitoring and control (if required)	Monitored annually in autumn Control implemented as required	Pest animals controlled	Landowner	Section 4.3		
Weed monitoring and control (if required)	Quarterly monitoring Control as per optimal time for each species	Weed control targets for each species, as determined during baseline monitoring.	Landowner	Section 4.2		
Biomass control (if required)	Autumn to early winter, or early spring (ecological burns)	Bare ground cover of 10-25% achieved (grazing and ecological burns)	Landowner	Section 4.4		
Landowner Reporting	Report due no later than two months prior to the anniversary of registration of deed of covenant.	Report delivered to Melton City Council 2 months prior to the anniversary of the registration of the deed of covenant. Annual reports also provided to proponent.	Landowner	Section 4.5.2		
Ecological reporting	Annual report due within two months of monitoring, in Years 2, 4, 6, 8 and 10	Ecologist to prepare and deliver a report documenting the findings of habitat monitoring and photopoints. Approval holder to forward the Ecological monitoring reports to Melton City Council and the landowner within 2 months of monitoring events.	Approval Holder	Section 4.5.1		

6. Risk assessment

Events may occur over time that have the potential to compromise the success of management of the offset site. Table 8 lists events that may occur, and assigns a risk rating to each event based on the likelihood of the event occurring and the consequence if it does occur using the criteria outlined in Table 5 and Table 6 and the risk matrix included in Table 7.

Table 5: Likelihood criteria

Likelihood	Across the 10-year management period:	
	Description	*Approximate probability (%)*
Unlikely	Less probable than more probable that impact could occur	<5 to < 30
Possible	Equally probable that impact could or could not occur	30-70
Likely	More probable than not that impact could occur	>70 to 100

Table 6: Consequence criteria

Impact to NTGVVP	Consequence
Short-term; limited reduction in NTGVVP quality (<5% reduction); habitat quality is reduced for <1 year	**Minor**
Medium-term; moderate reduction in NTGVVP quality (≥5-25% reduction) habitat quality is reduced for >1 year but <10 years	**Moderate**
Long-term; significant reduction in NTGVVP quality (≥25% reduction), habitat quality is reduced >10 years	**Severe**

Table 7: Risk ratings

		Consequence		
		Minor	**Moderate**	**Severe**
Likelihood	**Unlikely**	**Low**	**Low**	**Medium**
	Possible	**Low**	**Medium**	**High**
	Likely	**Medium**	**High**	**High**

Table 8: Risk assessment

Event	Likelihood	Consequence	Risk rating	Trigger	Contingency measures
Uncontrolled access of pedestrians	Possible	Minor	Low	Unauthorised persons sighted in offset site	Repair fencing
Weed control targets not being met	Possible	Moderate	Medium	Weed targets not being met during ecologist or landowner monitoring	Increase weed control works
Pest animal presence in offset site increases	Possible	Moderate	Medium	Increase in fresh ground disturbance or scats Increase in active rabbit warrens Active fox dens observed Increase in pest animal numbers from baseline survey during monitoring	Increase pest animal control
Loss of species and structural diversity in vegetation	Possible	Moderate	Medium	Ecological monitoring detects decline in structural and species diversity in vegetation	Increase or alter biomass control Increase weed control works
Ground cover exceeds 90%, or falls below 75%	Possible	Moderate	Medium	Ground cover issues noted during ecological monitoring	Alter biomass control
Wildfire	Unlikely	Severe	Medium	Wildfire results in excessive burning of NTGVVP	Increase weed control, to address opportunistic weeds Conduct direct-seeding and/or tube stock planting to reinstate grassland
	Unlikely	Minor	Low	Loss of fences	Re-instate fences

7. References

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Appendix 1: Offset site Vegetation Quality Field Assessment Sheets (VQA Sheets) for NTGVVP

Treeless Vegetation Quality Field Assessment Sheet

Version 1.4 - July 2009

Department of Sustainability and Environment

Site Name/No. A Location Cunningham Chase Date 12/1/26

Assessor(s) KT Map Name/No. 20045 AMG / MGA

Tenure Pub. EVC 132-61 Bioregion VVP

'Site Condition Score'

Understorey Life forms

LF Code from EVC benchmark	# spp observed / Benchmark spp.	% cover observed / Benchmark % cover	Present (✓)	Modified (✓)
	/	/		
	/	/		
LH	2 /2	1 /5	✓	-
MH	8 /8	7 /20	✓	✓
SH	6 /3	2 /10	✓	✓
LTG	4 /1	5 /5	✓	-
MTG	10 /10	35 /30	✓	-
MNG	- /2	- /5	-	-
BL	- /no	+ /20	-	-
	/	/		
	/	/		
	/	/		
	/	/		
	/	/	5/7	2/5

Present
For life forms with benchmark cover of < 10%, considered 'present' if
- any specimens are observed.

For life forms with benchmark cover of ≥ 10%, considered 'present' if
- the life form occupies at least 10% of benchmark cover.

Modified (apply only where life form is 'present')
For life forms with benchmark cover of <10%, then considered substantially 'modified' if the life form has either:
- < 50% of the benchmark species diversity; or
- no reproductively-mature specimens are observed.

For life forms with benchmark cover of ≥ 10%, then considered substantially 'modified' if the life form has either:
- < 50% of benchmark cover; or
- < 50% of benchmark species diversity; or
- ≥ 50% of benchmark cover due largely to immature canopy specimens but the cover of reproductively-mature specimens is < 10% of the benchmark cover.

Understorey Score: -15

Category & Description		
All strata and Life forms effectively absent		0
Up to 50% of life forms present		5
≥ 50% to 90% of Life forms present	• of those present, ≥ 50% substantially modified	10
	• of those present, < 50% substantially modified	(15)
≥ 90% of Life forms present	• of those present, ≥ 50% substantially modified	15
	• of those present, < 50% substantially modified	20
	• of those present, none substantially modified	25

Lack of Weeds Score: -0

Category & Description	'high threat' weeds* None	≤ 50%	> 50%
> 50% cover of weeds	4	2	(0)
25 - 50% cover of weeds	7	6	4
5 - 25% cover of weeds	11	9	7
< 5% cover of weeds**	15	13	11

* proportion of weed cover due to 'high threat' weeds - see EVC benchmark for guide.

'High threat' weed species are defined as those introduced species (including non-indigenous 'natives') with the ability to out-compete and substantially reduce one or more indigenous life forms in the longer term assuming on-going current site characteristics and disturbance regime.

The EVC benchmark lists typical weed species for the EVC in the bioregion and provides an estimate of their 'invasiveness' and 'impact'. In general, those weed species considered to have a *high impact* are considered *high threat* regardless of their invasiveness.

** if total weed cover is negligible (<1%) and high threat weed species are present then score '13'.

Recruitment Score: -6

Percentage cover of recruitment area#	High native herb diversity*	Low native herb diversity*
0 to 5% cover	0	0
5% to 20% cover	(6)	3
> 20% to 40% cover	10	6
> 40% to 60% cover	6	3
> 60% to 90% cover	3	1
> 90% cover	0	0

\# cumulative % cover of bare ground, bryophytes/lichens and soil crust

* high native herb diversity defined as ≥ 50% of benchmark diversity within 'herb' life forms

Organic Litter Score: -4

Category & Description	Dominated by native organic litter	Dominated by non-native organic litter
< 10% of benchmark cover	0	0
< 50% or > 150% of benchmark cover	3	2
≥ 50% or ≤ 150% of benchmark cover	5	(4)

State Government Victoria

Treeless Vegetation Quality Field Assessment Sheet

Version 1.4 - July 2009

Department of Sustainability and Environment

Logs (where applicable+)

Score -n/a

Category & Description	Large logs present*	Large logs absent#
< 10% of benchmark length	0	0
< 50% of benchmark length	3	2
≥ 50% of benchmark length	5	4

Large logs defined as those with diameter ≥ 0.5 of benchmark large tree dbh.

+ Applicable to some shrublands and scrubs (refer to EVC benchmark as a guide). Where applicable assess in accordance with the habitat hectares method for logs in treed EVCs. Note that most shrublands and scrubs do not contain a large tree component and hence a large log assessment is not required (refer to EVC benchmark as a guide). Such EVCs should be scored as if 'large logs present'.

* present if large log length is ≥ 25% of EVC benchmark log length.

\# absent if large log length is < 25% of EVC benchmark log length.

'Landscape Context Score'

Patch Size

Score - 6

Category & Description	
< 2 ha	1
Between 2 and 5 ha	2
Between 5 and 10 ha	4
Between 10 and 20 ha	6
≥ 20 ha, but 'significantly disturbed'*	8
≥ 20 ha, but not 'significantly disturbed'*	10

* 'significantly disturbed' defined as per RFA 'Old Growth' analyses eg. roading, coupes, grazing etc. – effectively most patches within fragmented landscapes.

Neighbourhood

Score ~~0~~ 3

Radius from site	% Native vegetation*	Weighting	
100 m	- 80	0.03	~~0.00~~ 2.4
1 km	- 40	0.04	~~0.00~~ 1.6
5 km	- 40	0.03	~~0.00~~ 1.2
subtract 2 if the neighbourhood is 'significantly disturbed'			- 5.2 -2
		Add Values and 'round-off'	0 3.2

* to nearest 20%.

Multiply % native vegetation x Weighting for each radius from the zone (eg. 40% x 0.03 = 1.2); then add values to obtain final Neighbourhood Value.

Distance to Core Area

Score - 0

Distance	Core Area not significantly disturbed*	Core Area significantly disturbed*
> 5 km	0	0
1 to 5 km	2	1
< 1 km	4	3
contiguous	5	4

* defined as per RFA 'Old Growth' analyses.

Final Habitat Score

Component	'Site Condition Score'							'Landscape Context Score'			Total
	Understorey	Lack of Weeds	Recruitment	Organic Litter	Logs (*if applicable*)	Standardiser	Subtotal	Patch Size	Neighbourhood	Distance to Core Area	100
Score	15 0	0 0	6 0	4 0	- 0		34 0	6 0	3 0	0 0	43 0

- 1.36

Victoria

VVP Grassland Habitat Hectare Assessment (GC ≥25)

Size ranges: Canopy Tree (5m-min can); Understory Tree/Shrub (1-5m); Mallee (>3m); Epiphyte; Scrambler/Climber; Herb (5-50cm); TGram (10cm-1m); NGram (>/<1m); Misc: Hummock Grass; Ground Fern; Tree Fern. **Can. & LOTs** (<30/30-70/>70). **Weeds** (0/<50/>50). **UnC**=Uncontrollable.

Job: 20045 Surveyor: KT Date: 12/1/26

Bioreg: VVP EVC: 132 Epis recr_____ Y / N Seas LFs: P/A

HZ	A
WP	
Photo	✓
NH	
Tenure	

Indigenous			% Cover				Exotic			
Rec	Species	LF	L	M	S/T	P/ misc.	Species	HT	%C	UnC
	Acaena novae-zeal.	H		9			Avena	✓	20	
	Convolvulus spp.	H			2		Helminthotheca ech.		2	
	Senecio spp	H	1	↑			Aizoon pub.		+	
	Lythrum hyssop.	H			↑		Bromus diandrus		1	
	Oxalis perennans	H					Bromus hord		1	
	Calocephalus citreus	H					Nassella trich.	✓	1	
	Bulbine semibar.	H	↑	↑			Plantago lanceolata	✓	7	
	Maireana decalv.	S			1		Sonchus asp.		+	
	Enchylaena tom	S			↑	+	Sonchus oleraceus		+	
	Atriplex semib.	S				↑	Lolium		+	
	Austrostipa spp. 3	TG		35			Hordeum		1	
	Austrostipa spp. 2	TG	5	↑			Lachnea scriba		+	
	Themeda triandra	TG	↑				Phalaris aquatica	✓	5	
	Austrostipa l.	TG					Modiola caroli.		+	
	Rytidosperma spp. 1	TG		↑			Brassica fruticulosa		1	
	Dichanthium sec.	TG					Briza maxima		+	
	Eriochloa pseudoachot.	TG					Lycium ferocissimum		+	
	Walwhalleya proi.	TG					Cassinia sifton	✓	1	
	Enteropogon acicu.	TG					Rosa rubiginosa	✓	1	
	Rytidosperma 2	TG								
	Poa lab.	TG	↑							
	Poa rodwayi	TG								
	Dichondra repens	H			↑					
	Chrysocephalum apic.	H		↑						
	Podolepis jaceoides	H								
	Geranium spp.	H								
	Goodenia paradoxa	H			↑					
	Eryngium	H		✓						
	Brachyscome ?	H								

NTGVVP? ☐ Y / ☐ N

Must meet **all 4** diagnostic features:

- ☑ Basalt soils
- ☐ Natives comprise ≥ 50 % total veg cover
- ☑ Themeda, Rytid, Stipa or Poa is dom native sp
- ☑ Patch ≥ 0.05 ha (may vary if multiple patches)

Must meet **one** condition threshold:

- ☐ Native grass genera ≥ 50%
- ☐ Native wildflowers ≥ 50 %
- ☑ Non-grass weeds < 30%

WBPGC? ☐ Y / ☐ N

Bryophytes + Woody weeds 2 % Total Weeds 80 %(79 %HT) Description:

Soil Crusts 3 NonW. weeds ____ % planting of Burs. spinosa, Melicytus dent, Allocasuarina.

Litter (N/E) 5 GS targ.weeds ____ %

Bare Ground 5 Annual weeds ____ %

JSA COMPLETED?

Management notes & onsite threats (OPs only):

</>25% per. grass weed

NOTE SOILS

Appendix 2: Impact site Vegetation Quality Field Assessment Sheets (VQA Sheets)

Habitat Zone			A		
Bioregion			VVP		
EVC name			PGW		
EVC number			55_61		
Total area of habitat zone (ha)			1.030		
Site Condition	Large Old Trees	/10	0		
	Canopy Cover	/5	0		
	Lack of Weeds	/15	4		
	Understorey	/25	10		
	Recruitment	/10	6		
	Organic Matter	/5	5		
	Logs	/5	0		
Landscape Context	Patch Size	/10	1		
	Neighbourhood	/10	0		
	Distance to Core Area	/5	3		
Total habitat score		/100	29	0	0

0	0	0

Appendix 3: EPBC Act Offset Calculator for NTGVVP

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	MFL
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	**1.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes		**Area**	0.1	Hectares	PD, F&F
			Quality	**3**	Scale 0-10	
			Total quantum of impact	0.03	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	0.03	Adjusted hectares	0.662	**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	0.662	**Risk of loss (%) without offset**	0%	**Risk of loss (%) with offset**	0%	0.00	80%	0.00	0.00	0.09	313.37%	Yes	
									Future area without offset (adjusted hectares)	0.7	**Future area with offset (adjusted hectares)**	0.7								
					Time until ecological benefit	10	**Start quality (scale of 0-10)**	**4**	**Future quality without offset (scale of 0-10)**	**3**	**Future quality with offset (scale of 0-10)**	**5**	2.00	80%	1.60	1.42				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	Yes		Count										0		0.00	0.00	#DIV/0!	#DIV/0!		

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0	0.00	#DIV/0!	**#DIV/0!**	$0.00	#DIV/0!	#DIV/0!
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	0.03	0.09	313.37%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**#DIV/0!**	**#DIV/0!**

Appendix 4: EPBC Act Offset Calculators values table MFL

Impact calculator values table

Guide component	Assessed value	Discussion and justification
Impact calculator values		
Area (ha)	0.1 ha	The total area value represents the calculated area of loss of Matted Flax-lily habitat at the site of the proposed action. The total area of removal of habitat within the limit of works area is 0.1 ha (Nature Advisory 2026).
Quality (scale 0-10)	3/10	The quality rating of 3/10 was calculated as per the directions in the DCCEEW 'How to use the offsets assessment guide', where the site quality score was derived from the following three components: *site condition* and *site context*. The value for these components was entirely derived from *habitat score* obtained for the site, using the DEECA's Habitat Hectares methodology (DSE 2004). An explanation on how the habitat score was applied to each quality rating component was as follows: • *Site condition*: The site condition score was based directly on the weighted average of the site condition component of the habitat score comprising the impact area, which is 25 out of a maximum possible score of 75. Hence a site condition rating of 2.5 out of a possible 7.5. • *Site context*: The site context score was based directly on the site context component of the habitat score comprising the area of impact, which is 4 out of a maximum possible score of 25. Hence a site context rating of 0.2 out of a possible 2.5. • *Species stocking rate (SSR)*: Important habitat for threatened species at the site was identified as threatened species were recorded within the study area. SSR was scored out of 2, with a score of 1 indicating a single induvial has been recorded and a score of 2 indicating that multiple individuals have been recorded. As a total of 45 individuals of MFL were recorded, a total score of 2 has been assigned to this component. Therefore, the overall site quality rating of the NTGVVP at the site of the proposed action was calculated to be 2.5 + 0.4 + 0.2 = 3.1/10. When rounded this equates to 3/10.
Total quantum of impact (adjusted hectares)	0.03 ha	This value was derived directly from the Offset Calculator, provided in Appendix 3 of this OMS.
Offset calculator values		
Start area (hectares)	0.662	The offset site (comprising one conservation management zone) is represented below for the purposes of DCCEEW's consideration for the suitability of this offset site.

Guide component	Assessed value	Discussion and justification
		
Risk-related time horizon	20 years	As the mechanism for securing this offset is on-title and secured in perpetuity, the maximum value has been applied. We propose to secure this agreement with Melton City Council.
Risk of loss without offset: **(0 – 100%)**	0%	The DCCEEW have advised that this value should always be zero, in accordance with their current policy.
Risk of loss with offset **(0 – 100%)**	0%	The DCCEEW have advised that this value should always be zero, in accordance with their current policy.
Confidence in result (%) (risk related)	80%	While a value of 80% was entered in the Offset Guide, it has no relevance when risk of loss with and without an offset is at 0%.
Time until ecological benefit	10 years	This value reflects the duration it will take to achieve the management objectives of the OMP once it has been finalised. The OMP targets will be realised by the end of 10 years. The exact specifications on the OMP will require collaboration with Melton City Council and DCCEEW. The most significant target will be to control perennial grassy and herbaceous weeds and prevent further spread. A reduction in perennial weed cover would be expected to result in increases in bare ground, decreased weed cover and decreased exotic litter cover. All of these outcomes are expected to occur feasibility within the first 2-3 years of the OMP, but a precautionary duration of 10 years was used to ensure that once these targets are reached that they can be maintained at this level and that the ecological benefit is lasting.

Guide component	Assessed value	Discussion and justification
Start quality (1 – 10)	4/10	The start quality rating of 4/10 was calculated as per the directions in the DCCEEW 'How to use the offsets assessment guide', where the site quality score was derived from the following three components: *site condition, site context and species stocking rate.* The value for these components was entirely derived from *habitat score* obtained for the offset sites, using the DEECA's Habitat Hectares methodology (DSE 2004b). An explanation on how the habitat score was applied to each quality rating component was as follows: • *Site condition*: The site condition score was based directly on the average site condition component of the habitat score of the areas of NTGVVP proposed for this offset site, which is 34 out of a maximum possible score of 75. Hence a site condition rating of 3.4 was applied. • *Site context*: The site context score was based directly on the average site context component of the habitat score of the area of NTGVVP proposed for this offset site, which is 9 out of a maximum possible score of 25. Hence a site context rating of 0.9 was applied. • *Species Stocking Rate (SSR)*: No threatened species were recorded within the proposed offset site. The habitat hectare analysis considers not only native vegetation components, but also important fauna habitat features such as Large Tree density, log abundance and diversity of lifeforms. As such the habitat hectare score can be used as a surrogate for determining the SSR at the site, thus the SSR score is incorporated in the site condition component of the quality rating score. Therefore, the overall start site quality rating of the NTGVVP proposed for this offset site was calculated to be 3.4 + 0.9 = 4.3/10. When rounded, this equates to a rating of 4/10.
Future quality without offset (1 – 10)	3/10	A one-point decrease in the quality of the offset site could be expected without implementation of the offset, through increased weed cover and declining diversity resulting in decreased quality. Therefore, the start quality of 3/10 minus 1/10 equals a future quality score without the offset of 2/10.
Future quality with offset (1 – 10)	5/10	A one-point increase in the quality of the offset site could be expected without implementation of the offset, through weed control and grazing to improve diversity. Therefore, the start quality of 4/10 plus 1/10 equals a future quality score with the offset of 5/10.
Confidence (%) (quality related)	80%	This high value in confidence was applied to allow for limitations in predictions on vegetation quality, with and without the offset. However, the modest assumptions, i.e. ±1 quality value are considered precautionary and realistic outcomes especially given the moderate quality of vegetation present. It is considered highly likely that the vegetation quality will degrade without the offset and management due to high threat weed invasion (primarily Toowoomba Canary Grass) as well as the vulnerability of these values with a lack of security (may be proposed for development by future landowners). Conversely, if the site becomes an offset, the OMP and the associated weed control obligations will eliminate and prevent the spread of high threat weeds, facilitate native species colonisation and result in an improvement in the quality of the offset. Additionally, securing this offset on title will protect these values from any future development of the site leading to its degradation/removal.