

Brears Road, Yarrowonga

Native Vegetation Assessment

Prepared for Urbis

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Report No. 23166.01 (1.3)



**Nature
Advisory**

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1. Executive summary

Nature Advisory Pty Ltd undertook a native vegetation assessment of an approximately 12-hectare area of land along the eastern side of Brears Road in Yarrawonga. Residential development is proposed for the majority of the study area, excluding a portion of land in the north to be maintained as open space.

The study area, including adjacent roadside land, comprised ten patches of native vegetation comprising Riverine Swamp Forest (EVC 814) and Plains Woodland (EVC 803). This totalled an area of 3.239 hectares of native vegetation in patches and included 21 large trees in patches. Scattered trees recorded in the study area would once have comprised the canopy component of Riverine Swamp Forest (EVC 814) and Plains Woodland (EVC 803). Fifty-two scattered trees occurred in the study area (Figure 1), including the following:

- 10 large scattered trees (≥ 60 -centimetre DBH for EVC 803 or ≥ 90 -centimetre DBH for EVC 814); and
- 42 small scattered trees (< 60 -centimetre DBH for EVC 803 or < 90 -centimetre DBH for EVC 814).

No listed flora species or ecological communities were recorded in the study area during the initial field survey. Due to the moderate quality of native vegetation along the northern boundary of the study area, there is potential for threatened flora species to occur here. Threatened flora species are considered unlikely to be impacted by this proposal as this area (Habitat Zone C) is to be retained, with the exception of large trees (291, 310 and 312) being deemed lost due to TPZ encroachment from the construction of the wetland. Threatened species were considered unlikely to occur elsewhere within the study area due to the historical and current disturbance of the majority of the study area, the prevalence of high threat weeds as well as the low flora diversity in patches of vegetation.

Development in the study area will result in impacts to native vegetation throughout the study area, excluding where native vegetation is being retained in the north, along Brears Road and the retention of high value trees within the development area. The following impacts to native vegetation will result from the current layout:

The proponent proposes to remove 3.504 hectares of native vegetation requiring a permit under Clause 52.17, comprising:

- 2.476 hectares of native vegetation in patches (including 3 large trees in patches); and
- 41 scattered trees (namely 3 large scattered trees and 38 small scattered trees).

The application site lies within Location 2. Based on the extent of native vegetation and the number of large trees being impacted, as well as the location category, the proposal must be assessed under the **Detailed** assessment pathway. This **would** trigger a referral to the Department of Energy, Environment and Climate Action (DEECA).

A *Native Vegetation Removal* (NVR) report for this proposal is provided in Appendix 5.

Offsets required to compensate for the proposed removal of native vegetation from the study area are:

- 1.137 general habitat units, with following offset attribute requirements:
 - A minimum strategic biodiversity value (SBV) of 0.581
 - Located within the Goulburn Broken CMA boundary or the Moira Shire Council municipal district.
 - Include protection of at least 6 large trees.

Under the Guidelines all offsets must be secured prior to the removal of native vegetation. The offset target for the current proposal will be achieved via a third-party offset. An online search of the Native Vegetation Credit Register (NVCR) has shown that the required offset is currently available for purchase from a native vegetation credit owner (DEECA 2023c). Evidence that the required offset is available is provided in Appendix 6. The required offset would be secured following approval of the application to remove native vegetation.

Implications under the EPBC and FFG Act have not been comprehensively addressed in this report as it was beyond the scope of this investigation. A Protected Flora Permit is not required for the current project as no FFG Act-listed protected species were recorded on public land.

The tables below summarise the compliance of the information in this report with the application requirements of the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017).

| Application requirement | | Response |
|-------------------------|--|------------------------------------|
| 1. | Information about the native vegetation to be removed. | See Section 5.2 and Section 7.1.2. |
| 2. | Topographic and land information relating to the native vegetation to be removed. | See Section 5.1. |
| 3. | Recent, dated photographs of the native vegetation to be removed. | See Section Appendix 4. |
| 4. | Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or contiguous land in the same ownership as the applicant, in the five-year period before the application for a permit is lodged. | Not applicable. |
| 5. | An avoid and minimise statement. | See Section 7.1.3. |
| 6. | A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the <i>Conservation, Forests and Lands Act 1987</i> that applies to the native vegetation to be removed. | Not applicable. |
| 7. | Where the removal of native vegetation is to create defensible space, a written statement explaining why the removal of native vegetation is necessary. This statement is not required when the creation of defensible space is in conjunction with an application under the Bushfire Management Overlay. | Not applicable. |
| 8. | If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations (at decision guideline 8). | Not applicable. |

| Application requirement | | Response |
|-------------------------|--|-----------------------------------|
| 9. | An offset statement providing evidence that an offset that meets the offset requirements for the native vegetation to be removed has been identified and can be secured in accordance with the Guidelines. | See Section 7.1.7 and Appendix 6. |

| Additional requirements for applications in the Detailed assessment pathway | | |
|---|---|--|
| Application requirement | | Response |
| 10. | <p>A site assessment report of the native vegetation to be removed, including the following:</p> <ul style="list-style-type: none"> ▪ A habitat hectare assessment of any patches of native vegetation, including the condition, extent (in hectares), Ecological Vegetation Class and bioregional conservation status. ▪ The location, number, circumference (in centimetres measured at 1.3 metres above ground level) and species of any large trees within patches. ▪ The location, number, circumference (in centimetres measured at 1.3 metres above ground level) and species of any scattered trees, and whether each tree is small or large. | <p>See Section 5.2.1 and Appendix 1.</p> <p>See Appendix 2.</p> <p>See Appendix 2.</p> |
| 11. | <p>Information about impacts on rare or threatened species habitat, including the following:</p> <p>The relevant section of the Habitat importance map for each rare or threatened species requiring a species offset.</p> <p>For each rare or threatened species that the native vegetation to be removed is habitat for, according to the Habitat importance maps:</p> <ul style="list-style-type: none"> ▪ the species' conservation status; ▪ the proportional impact of the removal of native vegetation on the total habitat for that species; and ▪ whether the habitats are highly localised habitats, dispersed habitats, or important areas of habitat within a dispersed species habitat. | Not applicable – no threatened species habitat impacts identified in the NVR Report at Appendix 5. |

2. Introduction

Urbis engaged Nature Advisory Pty Ltd to conduct a native vegetation assessment of an approximately 12-hectare area of land in Yarrawonga, approximately 80 kilometres west-northwest of Wodonga. The specific area investigated, referred to herein as the ‘study area’, comprised the whole of the properties at 38 Brears Road, 22 Brears Road, 5 Jacqueline Court, 4 Jacqueline Court, and 10 Brears Road, as well as the easternmost corner of 52 Brears Road. Adjacent road reserves were also included in the study area. A residential village is proposed for the study area, with an approximately 2.4-hectare area of open space in the north of the study area.

This investigation was commissioned to provide information on the extent and condition of native vegetation in the study area according to Victoria’s *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017), and any potential impacts on flora and fauna matters listed under the state *Flora and Fauna Guarantee Act 1988* (FFG Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This report outlines any implications under relevant national, state and local legislation and policy frameworks.

Specifically, the scope of the investigation included the following:

- A review of existing information on the flora and native vegetation of the study area and surrounds including the following:
 - DEECA’s Native Vegetation Information Management system (NVIM); and
 - DEECA’s NatureKit.
- A site survey involving the following:
 - Characterisation and mapping of native vegetation on the site, as defined in Victoria’s *Guidelines for the removal, destruction or lopping of native vegetation* (the ‘Guidelines’);
 - Assessment of native vegetation in accordance with the Guidelines, including habitat hectare assessment and/or scattered tree assessment; and
 - Compilation of a flora species list for the site.

This investigation was undertaken by a team from Nature Advisory comprising Tessa Doherty (Botanist) and Chris Armstrong (Senior Botanist & Project Manager).

3. Planning and legislative considerations

This investigation and report address the application on the site of relevant legislation and planning policies that protect biodiversity. Local, state and Commonwealth controls are summarised below.

3.1. Planning provisions

The study area is located within the Moira Shire local government area and is currently zoned Low Density Residential Zone (LDRZ) and Rural Living Zone (RLZ) in the Moira Planning Scheme. Most of the study area lies within the LDRZ, with only a small section in the northeast corner covered by the RLZ.

There are no implications for the current proposal under the LDRZ. Implications of the RLZ are discussed in Section 7.2.2.

Planning provisions are established under the *Victorian Planning and Environment Act 1987* and are incorporated into all Victorian Planning Schemes. Relevant planning provisions are discussed below.

3.1.1. Planning Policy Framework

Clause 12.01 of Victorian planning schemes provides an overarching framework to protect and enhance Victoria's biodiversity.

A response of how this application addresses this policy is provided in Section 7.1

3.1.2. Overlays

No overlays which cover the study area are relevant to this investigation. The study area is recognised as a Bushfire Prone Area (BPA).

A Bushfire Management Overlay (BMO) covers the north of the study area, however this does not have any implications for the current investigation and is not discussed further in this report.

3.1.3. Particular provisions – Native Vegetation (Clause 52.17)

The content of this report aims to address the requirements under Clause 52.17 – *Native Vegetation*.

The purpose of Clause 52.17 is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017), herein referred to as 'the Guidelines'.

1. Avoid the removal, destruction or lopping of native vegetation.
2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

This provision states that permit is required to remove, destroy or lop native vegetation, including dead native vegetation. This does not apply to the following:

- If an exemption in Table 52.17-7 specifically states that a permit is not required.
- If a native vegetation precinct plan corresponding to the land is incorporated into the planning scheme and listed in the schedule to Clause 52.16.
- The native vegetation is specified in a schedule to Clause 52.17.

Application requirements

Any application to remove, destroy or lop native vegetation must comply with the application requirements specified in the Guidelines (DELWP 2017).

When assessing an application, Responsible Authorities are also obligated to refer to Clause 12.01-2 (Native vegetation management) in the Planning Scheme that, in addition to the Guidelines, refers to the following:

- *Assessor's handbook – applications to remove, destroy or lop native vegetation (Version 1.1)* (DELWP 2018a).
- Statewide biodiversity information maintained by DEECA.

Referral to DEECA

Clause 66.02-2 of the planning scheme determines the role of DEECA in the assessment of native vegetation removal permit applications. If an application is referred, DEECA may make certain recommendations to the responsible authority in relation to the permit application.

Any application to remove, destroy or lop native vegetation must be referred to DEECA if any of the following apply:

- The impacts to native vegetation fall within the Detailed Assessment Pathway;
- A property vegetation plan applies to the site; or
- The native vegetation is on Crown land that is occupied or managed by the responsible authority.

Implications under this particular provision are discussed in Section 7.1.

3.2. EPBC Act

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects a number of threatened species and ecological communities that are considered to be 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).

Implications under the EPBC Act for the current proposal are discussed in Section 7.3.

3.3. FFG Act

The Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act) includes:

- a *Threatened List* (DEECA 2023d); and
- a *Protected Flora List* (DELWP 2019).

This Act generally only has implications for impacts to FFG-listed values where they occur on Public Land.

Threatened List

The FFG Threatened List represents Victoria's single operational list of threatened flora, fauna and communities. Each species is assigned a threatened status which aligns with the listing categories and criteria for the International Union for the Conservation of Nature (IUCN) Red List.

Although there are no legislative implications for impacts to these species on private land under the FFG Act, these values should be avoided wherever possible, in recognition of their threatened status at a state level.

Any application for a planning permit may also be assessed by the responsible or referral authority for potential impacts to FFG threatened values as part of broader considerations of impacts to biodiversity.

Protected Flora List

The Protected Flora List includes plants from three sources:

- Plant taxa (species, subspecies or varieties) listed as threatened under the FFG Act,
- Plant taxa belonging to communities listed as threatened under the FFG Act, and
- Plant taxa which are not threatened but require protection for other reasons. For example, some species which are attractive or highly sought after, such as orchids, daisies, and grass trees, are protected so that the removal of these species from the wild can be controlled (DELWP 2019).

Under the Act, any removal of protected flora from public land requires a Protected Flora Permit, which must be obtained from the relevant regional DEECA officer. This can only be obtained after the removal of this flora is approved as part of a planning permit.

Implications under the FFG Act for the current proposal are discussed in Section 7.4.

3.4. CaLP Act

The *Catchment and Land Protection Act 1994* (CaLP Act) requires that landowners (or a third party to whom responsibilities have been legally transferred) must eradicate regionally prohibited weeds and prevent the growth and spread of regionally controlled weeds.

Weed species listed under the CaLP Act that have been recorded in the study area are discussed in Section 7.5.

4. Existing information and methods

4.1. Existing information

Existing information used for this investigation is described below.

4.1.1. Existing reporting and documentation

The existing documentation below, relating to the study area, was reviewed.

- Moira Planning Scheme; and
- Yarrawonga LLC Masterplan – Option 11 DA002 (development plan dated 4th October 2023).

4.1.2. Native vegetation

Pre-1750 (pre-European settlement) vegetation mapping administered by DEECA was reviewed to determine the type of native vegetation likely to occur in the study area and surrounds. Information on Ecological Vegetation Classes (EVCs) was obtained from published EVC benchmarks. These sources included the following:

- Relevant EVC benchmarks for the Murray Fans bioregion¹ (DSE 2004a); and
- *NatureKit* (DEECA 2023a).

4.2. Field methods

The field assessment was conducted across two days on the 26th and 27th of July 2023. During this assessment, the study area was surveyed on foot.

Sites in the study area found to support native vegetation were mapped through a combination of aerial photograph interpretation and ground-truthing using ArcGIS Field Maps® (Esri).

4.2.1. Native vegetation

Native vegetation is currently defined in Clause 73.01 of all Victorian planning schemes as ‘plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses’. The Guidelines (DELWP 2017) further classify native vegetation as belonging to two categories:

- Patch; or
- Scattered tree.

4.2.2. Flora species and habitats

Records of flora species were made in conjunction with sampling methods used to undertake habitat hectare assessments of the native vegetation described above. Specimens requiring more detailed identification were collected and identified with additional resources.

Species protected under the FFG Act were determined by crosschecking species recorded against the FFG Act *Protected Flora List* (DELWP 2019).

¹ A bioregion is defined as “a geographic region that captures the patterns of ecological characteristics in the landscape, providing a natural framework for recognising and responding to biodiversity values”. In general, bioregions reflect underlying environmental features of the landscape (DNRE 1997).

4.2.3. *Threatened ecological communities*

The likelihood of EPBC and FFG listed threatened ecological communities occurring in the study area was considered by checking general field observations against published descriptions of the listed communities.

4.2.4. *Limitations*

The short duration and seasonal timing of field assessments can result in some species not being detected when these may occur at other times. Additionally, some flora species and lifeforms may be undetectable at the time of survey or unidentifiable due to a lack of flowers or fruit.

The study area contained many planted eucalypts interspersed with remnant eucalypt species. Where planted species are indigenous to the local area, it can be difficult to determine whether an individual has been planted or established naturally. A conservative approach was used, and any eucalypt species known to occur naturally around the region (River Red-gum and Grey Box) were assumed to be remnant and recorded as native vegetation. Other species of eucalypt recorded amongst planted trees (namely Red Box and Blakely's Red-gum) were considered to be planted as the study area was not considered to be suitable for these species to have established naturally (i.e., slope and aspect do not meet the requirements of these species).

The site assessment was conducted during winter. Dense growth of winter-growing annual weeds such as pasture grasses and Onion Grass limited visibility of native ground cover in some patches. Where this is the case, a conservative approach has been taken with mapping native vegetation extent. As such, the extent of patches delineated using native grass cover would likely vary slightly if sampled at different times of year. Despite this, timing of the survey and condition of vegetation were otherwise considered suitable to ascertain the extent and condition of native vegetation.

5. Assessment results

5.1. Site description

The study area (Figure 1) supported brown clay loam on a relatively flat landscape with a slight slope down towards the Murray River in the north. Some small wetlands occur just north of the study area. An old dam occurred in the north of the study area but did not contain water at the time of the field survey.

The study area is currently used for low-density residential blocks and a holiday park. Surrounding land predominantly supported low-density dwellings and stock grazing to the east and west. South of the study area was primarily cropping, and the Yarrawonga Regional Park occurs directly to the north.

Vegetation within the holiday park portion of the study area contained a mixture of both planted and remnant canopy trees with a generally disturbed and non-native ground cover. Vegetation in the north of the study area consisted of Riverine Swamp Forest (EVC 814) in proximity to lower-lying areas associated with the Murray River. Patches varied in quality, with those further from the river generally being lower quality due to an absence of indigenous understorey elements and large trees as well as the prevalence of non-native grassy weeds. These patches were all dominated by River Red-gum with occasional indigenous graminoids and herbs including Rush, Warrego Summer-grass and Buttercup. Vegetation further from the river comprised Plains Woodland (EVC 803) and was generally dominated by Grey Box, with the occasional River Red-gum. Understorey was variable in these patches and ranged from a few indigenous grass species to a range of indigenous herbs and graminoids dominated by Red-leg Grass, Spider-grass, Rigid Panic and Wallaby-grass.

The study area lies within the Murray Fans bioregion, within the North East catchment management area and on Yorta Yorta Country.

5.2. Native vegetation

5.2.1. Patches of native vegetation

Pre-European EVC mapping (DEECA 2022a) indicated that the study area and surrounds would have supported Riverine Swamp Forest (EVC 814), Plains Woodland (EVC 803), Riverine Grassy Woodland (EVC 295), Floodplain Grassy Woodland (EVC 809) and Sedgy Riverine Forest (EVC 816) prior to European settlement based on modelling of factors including rainfall, aspect, soils and remaining vegetation.

Evidence on site, including floristic composition and soil characteristics, suggested that Plains Woodland (EVC 803) occurred in the south of the study area and Riverine Swamp Forest (EVC 814) was present in the north (Figure 1).

Ten patches (referred to herein as habitat zones) comprising the abovementioned EVCs, were identified in the study area (Table 1). This totalled an area of 3.239 hectares of native vegetation in patches and included 21 large trees.

Table 1: Description of habitat zones in the study area

| Habitat Zone | EVC | Description |
|----------------|---------------------------------|---|
| A, B, C, D & J | Riverine Swamp Forest (EVC 814) | <p>These habitat zones were all located towards the north of the study area and associated with the damp areas in proximity to the Murray River. Habitat Zones C and J were dominated by a healthy canopy of River Red-gum to 25 metres tall, whereas Habitat Zones A, B and D comprised mostly immature River Red-gum.</p> <p>Understorey species diversity varied considerably between patches but comprised predominantly non-native annual grasses and pasture weeds. Scattered native graminoids and herbs were present, with the highest cover and diversity in Habitat Zone C. Dominant native understorey species included Warrego Summer-grass and various species of Rush.</p> |
| E, F, G, H & I | Plains Woodland (EVC 803) | <p>These habitat zones were all located on the plains away from the Murray River. Habitat Zones E, H and I were dominated by Grey Box to 20 metres tall, while Habitat Zones F and G were dominated by River Red-gum. The presence of a grassy and chenopod-dominated understorey suggested these areas were best described as Plains Woodland.</p> <p>Understorey species diversity varied between patches, but was mostly dominated by non-native annual grasses and pasture weeds. A range of native graminoids were present and comprised mostly Red-leg Grass, Rigid Panic, Spider Grass and Wallaby Grass. A range of native herbs were present at low cover including Swamp Crassula, Variable Sida, Nodding Saltbush and New Holland Daisy.</p> |

The habitat hectare assessment results for these habitat zones are provided in Table 2. More detailed habitat scoring results are presented in Appendix 1. Details of large trees in patches are provided in Appendix 2.

Table 2: Summary of habitat hectare assessment results

| Habitat Zone | EVC | Area (ha) | Condition score (out of 100) | No. of large trees in HZ |
|--------------|---------------------------------|-----------|------------------------------|--------------------------|
| A | Riverine Swamp Forest (EVC 814) | 0.019 | 16 | 0 |
| B | Riverine Swamp Forest (EVC 814) | 0.107 | 29 | 0 |
| C | Riverine Swamp Forest (EVC 814) | 0.550 | 46 | 14 |
| D | Riverine Swamp Forest (EVC 814) | 0.095 | 22 | 0 |
| E | Plains Grassland (EVC 803) | 0.330 | 26 | 1 |
| F | Plains Grassland (EVC 803) | 0.068 | 19 | 0 |
| G | Plains Grassland (EVC 803) | 0.374 | 25 | 2 |

| Habitat Zone | EVC | Area (ha) | Condition score (out of 100) | No. of large trees in HZ |
|--------------|---------------------------------|--------------|------------------------------|--------------------------|
| H | Plains Grassland (EVC 803) | 0.064 | 30 | 1 |
| I | Plains Grassland (EVC 803) | 1.578 | 27 | 2 |
| J | Riverine Swamp Forest (EVC 814) | 0.054 | 24 | 1 |
| Total | | 3.239 | | 21 |

5.2.2. Scattered trees

Scattered trees recorded in the study area would once have comprised the canopy component of Riverine Swamp Forest (EVC 814) and Plains Grassland (EVC 803).

Fifty-two scattered trees occurred in the study area (Figure 1), including the following:

- 10 large scattered trees (≥ 60 -centimetre DBH for EVC 803 or ≥ 90 -centimetre DBH for EVC 814); and
- 42 small scattered trees (< 60 -centimetre DBH for EVC 803 or ≥ 90 -centimetre DBH for EVC 814).

Details of all scattered trees recorded are listed in Appendix 2.



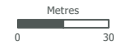
Figure 1: Study area and native vegetation

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- Study area
- Plains Woodland (EVC 803)
- Hollow-bearing tree
- Riverine Swamp Forest (EVC 814)
- DEECA mapped wetland

Native vegetation

- Large tree in patch
- Large scattered tree
- Small scattered tree



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5.3. Flora species

5.3.1. Species recorded

During the field assessment, 56 plant species were recorded, of which 26 (46%) were indigenous and 30 (54%) were introduced or non-indigenous native in origin (Appendix 3).

5.3.2. Listed species

No FFG Act or EPBC Act-listed flora species were recorded during the field survey.

The study area has the potential to support species listed under the EPBC Act and/or the FFG Act, within areas of high-quality habitat, namely Habitat Zone C. This habitat zone contained a diverse array of native species and was not subject to historical disturbance. However, a likelihood of occurrence assessment would be required to identify such species.

Threatened species were considered unlikely to occur elsewhere within the study area due to the historical and current disturbance of the majority of the study area, the prevalence of high threat weeds as well as the low flora diversity in patches of vegetation. Additionally, non-cryptic species such as Buloke would have been readily identifiable during the site assessment and no such species were recorded.

5.4. Listed ecological communities

EPBC Listed communities

No EPBC Listed communities were recorded or considered to have the potential to occur within the study area due to an absence of suitable floristic indicators and dominance of weeds.

FFG Listed communities

No FFG Listed communities were recorded or considered to have the potential to occur within the study area due to an absence of suitable floristic indicators.

6. Impact assessment

6.1. Proposed development

The proposal involves a multi-staged residential development of the entirety of the study area, with the exception of an open space area in the far north abutting the riparian vegetation. This reserve partially retains Habitat Zone C as well as the entirety of Habitat Zones D and J, as shown in Figure 2.

6.1.1. Impacts to native vegetation

The proponent proposes to remove 3.504 hectares of native vegetation requiring a permit under Clause 52.17, comprising:

- 2.476 hectares of native vegetation in patches (including 3 large trees in patches); and
- 41 scattered trees (namely 3 large scattered trees and 38 small scattered trees), equating to an area loss of 1.028 hectares.

To determine impacts to native vegetation, the proposed development plan was overlaid with the native vegetation mapped as part of this investigation. Where mapped native vegetation intersects with the development layout, this was considered to be impacted. In addition to this, the following instances of consequential removal were accounted for:

- Trees with the more than 10% of their TPZ encroached, unless otherwise deemed retained by the arborist.
- A 2 metre construction buffer around the wetland to be constructed in the north of the site.
- Given that underneath the retained canopy trees was generally weedy in nature and only transitioned to native ground cover beyond the canopy, where a canopy tree was deemed retained, its dripline was excluded from the offset area.

Impacts to trees

In accordance with the *Assessor's Handbook* (DELWP 2018a), a tree is deemed lost when earthworks encroach on more than 10% of the Tree Protection Zone (TPZ), unless deemed otherwise by an arborist.

However, trees which form part of a 'patch' of native vegetation are not required to be individually mapped in accordance with the habitat hectare assessment method, unless they meet the minimum DBH of a large tree under the relevant EVC Benchmark.

6.1.2. Impacts to listed flora species

The proposed development is unlikely to impact on any listed flora values due to the retention of the majority of Habitat Zone C, with the exception of Trees 291, 310 and 312, which were deemed lost due to TPZ encroachment resulting from the construction of the wetland. Habitat Zone C has been identified as the only area with the potential to support such values as discussed in Section 5.3.2.

Implications under the EPBC Act are discussed in Section 7.3, while implications under the FFG Act are detailed in Section 7.4.

6.1.3. Impacts to listed communities

The study area is unlikely to support any EPBC or FFG listed communities as discussed in Section 5.4, therefore there are no anticipated impacts to listed communities from the proposal.

7. Implications under legislation and policy

7.1. Implications under Clause 52.17

A permit for the proposed removal of native vegetation is required under Cl. 52.17 of the Moira Planning Scheme.

7.1.1. Exemptions to Clause 52.17

Native Vegetation - Clause 52.17-7

Exemptions listed in Cl. 52.17-7 relevant to the study area are:

- *Planted vegetation:* Native vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding. This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity.

A variety of planted eucalypts (namely Lemon-scented Gum, Spotted Gum and Ironbark) and shrubs (Paperbarks and Bottlebrushes) were recorded throughout the study area. These were mainly located throughout the holiday park and in the property at 10 Brears Road. These trees and shrubs were recognised as planted due to their linear nature, even spacing, similar age class, and location within garden beds amongst non-native plants.



Photo 1: A variety of planted trees within the Holiday Park

7.1.2. Impacts to native vegetation

The proposed development will result in the loss of a total extent of 3.504 hectares of native vegetation under the Guidelines as represented in Figure 2 and documented in the *Native Vegetation Removal (NVR)* report provided by DEECA (Appendix 5).

This comprised the following:

- 2.476 hectares of native vegetation in patches (including 3 large trees in patches); and

- 41 scattered trees (namely 3 large scattered trees and 38 small scattered trees), equating to an area loss of 1.028 hectares.

The native vegetation to be removed is in an area mapped as an endangered Ecological Vegetation Class. It has been advised that no native vegetation has been removed on the properties under investigation within the last five years.

Photographs of native vegetation proposed for removal are provided in Appendix 4.

7.1.3. Avoid and minimise statement

In accordance with the Guidelines, all applications to remove native vegetation must provide an avoid and minimise statement that describes any efforts undertaken to avoid the removal of, and minimise the impacts to biodiversity and other values of native vegetation, and how these efforts were focused on areas of native vegetation with the highest value. Efforts to avoid and minimise impacts to native vegetation in the current application are presented as follows:

- Site level planning – The following changes to the development plan have been undertaken to consider the avoid and minimise principles:
 - The design has been sited to avoid the majority of the highest quality native vegetation in the study area, being Habitat Zone C, which is contiguous with the Yarrawonga Regional Park and is considered to be the area with the highest potential to contain listed matters.
 - The development layout has been redesigned in consultation with an Ecologist and an Arborist which has sought to retain trees identified as containing the highest ecological values within the site, namely large trees, 1,16,20,21,27,30, 117, 452, 522, 537 and 572. The previous design impacted on all of these trees.
 - Tree 380 (a large dead hollow bearing tree) is proposed to be relocated to the wetland area to create fauna habitat as it is not deemed safe to retain within the development area.
 - The majority of impacts are to low quality patches of vegetation that are deemed a patch due to meeting the minimum condition threshold (>25% perennial native cover). These patches generally comprise of one or two dominant native grass species, lack diversity and contain a high weed cover.

Further opportunities exist to avoid and minimise impacts to native vegetation and these are recommended in Section 7.6.

7.1.4. Modelled species important habitat

The current proposal footprint will not have a significant impact on habitat for any rare or threatened species as determined in the NVR Report (Appendix 5).

7.1.5. Assessment pathway

The assessment pathway is determined by the location category and extent of native vegetation as detailed for the study area as follows:

- **Location Category:** Location 2
- **Extent of native vegetation:** A total of 3.504 hectares of native vegetation (including 6 large trees).

Based on the extent of native vegetation removal being ≥ 0.5 hectares, the Guidelines stipulate that the proposal is to be assessed under the **Detailed** assessment pathway, as determined by the following matrix:

Table 3: Assessment pathway matrix

| Extent of native vegetation | Location Category | | |
|--|-------------------|-----------------|------------|
| | Location 1 | Location 2 | Location 3 |
| < 0.5 hectares and not including any large trees | Basic | Intermediate | Detailed |
| < 0.5 hectares and including one or more large trees | Intermediate | Intermediate | Detailed |
| ≥ 0.5 hectares | Detailed | Detailed | Detailed |

This proposal **would** trigger a referral to DEECA based on the above criteria.

7.1.6. Offset requirements

Offsets required to compensate for the proposed removal of native vegetation from the study area are as follows:

- 1.137 general habitat units and must include the following offset attribute requirements:
 - Minimum strategic biodiversity value (SBV) of 0.581.
 - Occur within the Goulburn Broken Catchment CMA boundary or the Moira Shire Council municipal district.
 - Include protection of at least 6 large trees.

Under the Guidelines all offsets must be secured prior to the removal of native vegetation.

7.1.7. Offset statement

The offset target for the current proposal will be achieved via a third-party offset.

An online search of the Native Vegetation Credit Register (NVCR) has shown that the required offset is currently available for purchase from a native vegetation credit owner (DEECA 2023c).

Evidence that the required offset is available is provided in Appendix 6. The required offset would be secured following approval of the application to remove native vegetation.

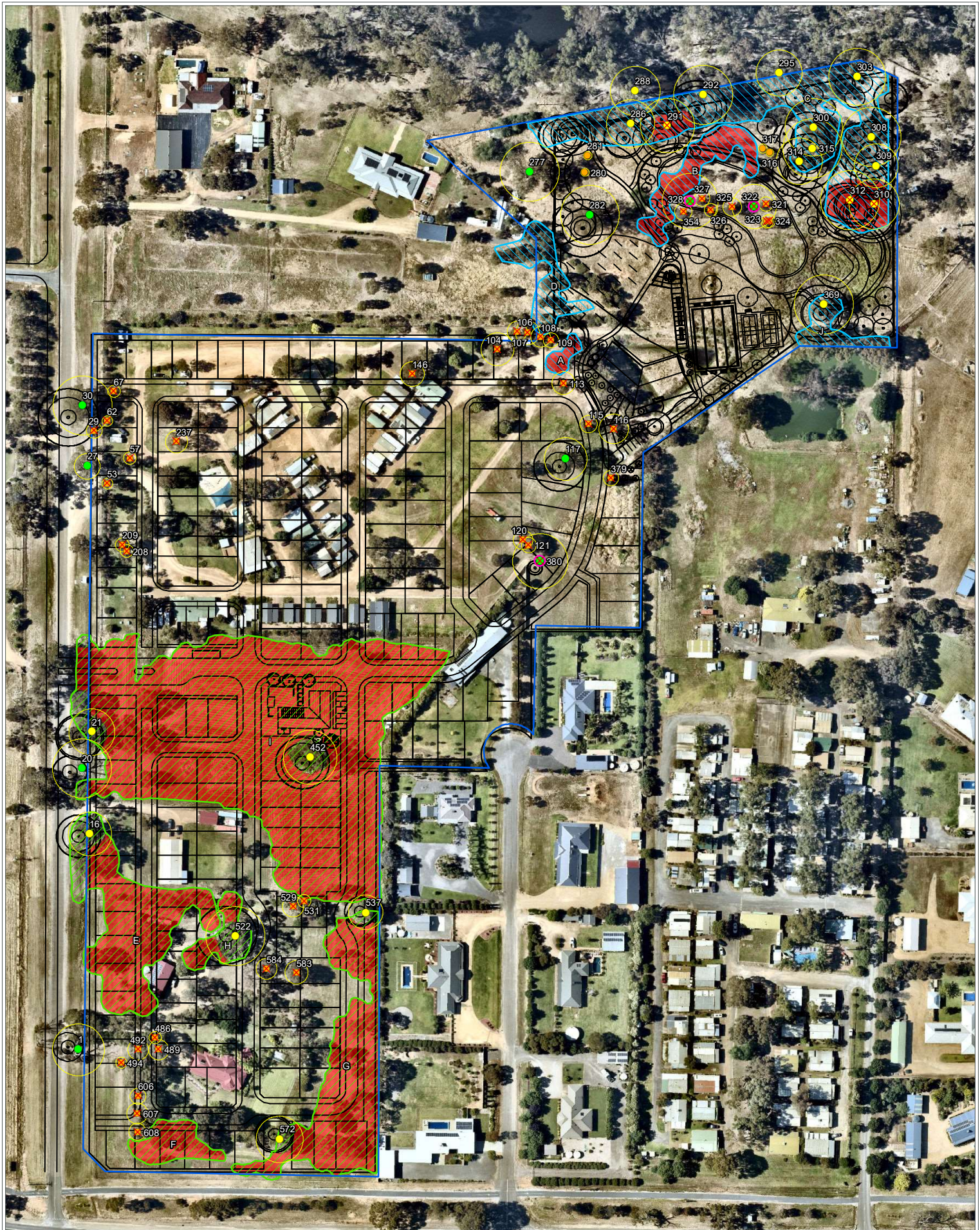
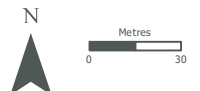


Figure 2: Native vegetation to be removed

Project number: 23166 Project: Brears Road, Yarrawonga Date: 06/11/2023

- ▭ Study area
- ▭ Plains Woodland (EVC 803)
- ▭ Riverine Swamp Forest (EVC 814)
- Proposed layout
- ▭ Tree Protection Zone (TPZ)
- Hollow-bearing tree
- ✕ Tree to be removed
- Native vegetation**
- Large tree in patch
- Native vegetation to be removed
- Large scattered tree
- Small scattered tree



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7.2. Implications under other planning provisions

7.2.1. Clause 12.01

The objectives of Clause 12.01 – *Biodiversity* are to protect and enhance Victoria’s biodiversity and to ensure that there is no net loss as a result of the removal, destruction or lopping of native vegetation. This is in general, achieved by the ‘Guidelines’ and the avoid, minimise and offset obligations as detailed within this report. However, this clause is also relevant to the application by considering the protection and enhancement of habitat for indigenous plants and animals in urban areas and avoiding fragmentation of habitat.

This application responds to these objectives by retention of the highest quality remnant native vegetation in the north of the study area (Habitat Zone C). These retained areas are also recommended to be enhanced as discussed in Section 7.6 to further strengthen the biodiversity corridor along the Yarra River.

7.2.2. Zoning

Rural Living Zone (RLZ) – Clause 35.03 (Northern portion of the study area)

Under the RLZ, a permit is required to construct a building or carry out works. Before deciding on an application, the responsible authority must consider decision guidelines relating to the environment. The following decision guideline is relevant to the current investigation:

- The need to protect and enhance the biodiversity of the area, including the need to retain vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.

The current proposal protects remnant riparian native vegetation in the north of the study area. Suggestions for additional retention of native vegetation and enhancement of retained areas are included in Section 7.6.

7.3. Implications under the EPBC Act

The EPBC Act protects a number of threatened species and ecological communities that are considered to be of national conservation significance. Any significant impacts on these species require the approval of the Australian Minister for the Environment.

Although a likelihood of occurrence analysis was not undertaken, the proposed development is unlikely to result in a significant impact on any EPBC Act-listed values based on general field observations as discussed in Section 6.1.2 and 6.1.3 as well as the avoidance of Habitat Zone C (besides deemed lost from TPZ encroachment) which is the only area considered to have the potential to support listed matters.

Therefore, there are no implications under the EPBC Act.

7.4. Implications under the FFG Act

The Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act) includes:

- a *Threatened List* (DEECA 2023d); and
- a *Protected Flora List* (DELWP 2019).

Impacts to FFG-listed values generally only has implications for where they occur on Public Land.

Threatened species

Although a likelihood of occurrence analysis was not undertaken, the proposed development is unlikely to result in a significant impact on any FFG Act-listed values. based on general field observations as discussed in Section 6.1.2 and 6.1.3 as well as the avoidance of Habitat Zone C which is the only area considered to have the potential to support listed mattered.

Although there are no legislative implications for impacts to these species on private land under the FFG Act, these values should be avoided wherever possible, in recognition of their threatened status at a state level.

Any application for a planning permit may also be assessed by the responsible or referral authority for potential impacts to FFG threatened values as part of broader considerations of impacts to biodiversity, irrespective of land tenure.

Protected Flora

No FFG Act values listed as protected are anticipated to be impacted from the proposed development on public land. Therefore, a Protected Flora Permit under the FFG Act would not be required for the current proposal.

7.5. CaLP Act

The *Catchment and Land Protection Act 1994* (CaLP Act) requires that landowners (or a third party to whom responsibilities have been legally transferred) must eradicate regionally prohibited weeds and prevent the growth and spread of regionally controlled weeds.

Property owners who do not eradicate Regionally prohibited weeds or prevent the growth and spread of Regionally controlled weeds for which they are responsible, may be issued with a Land Management Notice or Directions Notice that requires specific control work to be undertaken.

In accordance with the *Catchment and Land Protection Act 1994*, the noxious weed species listed below, that were recorded in the study area, must be controlled.

- Spear Thistle;
- Paterson's Curse; and
- Horehound.

Precision control methods that minimise off-target kills (e.g. spot spraying) should be used in environmentally sensitive areas (e.g. within or near native vegetation, waterways, etc.).

7.6. Design and Construction mitigation recommendations

The following design recommendations are provided to avoid/minimise impacts to native vegetation, and flora and fauna habitats. All of the following recommendations aim to address the relevant decision guidelines laid out in Section 7.2.2.

- It is recommended that an Arboricultural Impact Assessment report is undertaken to determine potential TPZ incursion of scattered trees and trees within mapped patches of native vegetation. An arborist is also qualified to deem trees retained, even if more than 10% of the TPZ is encroached if there is sufficient justification. While this investigation has deemed that trees surrounding the wetland proposed to be constructed are likely to be impacted based on TPZ, an arborist should be engaged to check if these trees can be feasibly protected and considered retained. Protection of these remnant trees would reduce the extent of native vegetation removal and further avoid and minimise impacts to native vegetation.

- Opportunities exist to enhance the retained native vegetation in the north of the study area (i.e., Habitat Zones B, C and J). Habitat Zones B and J are largely lacking any native understorey elements due to heavy weed invasion. It is recommended that weed control and EVC-appropriate understorey species revegetation works are undertaken to enhance the biodiversity values of this area and increase connectivity with adjacent high quality riparian vegetation. It is recommended that a Land Management Plan associated with the future construction of a retarding basin and adjacent retained native vegetation is developed. This would detail the management of retained native vegetation so as to protect and enhance its values during and after construction.

Recommendations to mitigate impacts to vegetation during construction are provided below:

- Establish appropriate vegetation protection zones around areas of native vegetation to be retained prior to works.
- Establish appropriate TPZs around scattered native trees to be retained prior to works.
- Ensure all construction personnel are appropriately briefed prior to works, and that no construction personnel, machinery or equipment are placed inside vegetation zones/TPZs.
- A suitably qualified zoologist should undertake a pre-clearance survey of planted trees to be removed during the week prior to removal to identify the presence of any nests or hollows.
- If considered necessary based on the results of the pre-clearance survey, a suitably qualified zoologist should be on site during any tree removal works to capture and relocate any misplaced fauna that may be present.

8. References

- DEECA 2023a, *NatureKit*, Department of Energy, Environment, and Climate Action, East Melbourne, Victoria, viewed 24th July 2023, <https://www.environment.vic.gov.au/biodiversity/naturekit>.
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- DEECA 2023d, *Flora and Fauna Guarantee Act 1988 – Threatened List, June 2023*, Department of Energy, Environment, and Climate Action, East Melbourne.
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- DELWP 2018a, *Assessor's Handbook – Applications to remove, destroy or lop native vegetation* (Version 1.1, dated October 2018), Department of Environment, Land, Water and Planning, East Melbourne.
- DELWP 2018b, *Native Vegetation – Flora and Fauna Guarantee Act Listed Communities* (Resource Name: NV2005_FFG_COMM, dated 1 February 2018), Department of Environment, Land, Water and Planning, East Melbourne.
- DELWP 2019, *Flora and Fauna Guarantee Act 1988 - Protected Flora List, November 2019*, Department of Environment, Land, Water and Planning, East Melbourne.
- Department of Sustainability and Environment (DSE) 2004a, *Ecological Vegetation Class (EVC) Benchmarks by Bioregion*, Department of Environment, Land, Water and Planning, East Melbourne.
- Department of Sustainability and Environment (DSE) 2004b, *Native Vegetation: sustaining a living landscape, Vegetation Quality Assessment Manual – guidelines for applying the Habitat Hectare scoring method (Version 1.3)*, Department of Environment, Land, Water and Planning, East Melbourne.
- Parkes D, Newell G & Cheal D 2003, *Assessing the Quality of Native Vegetation: The 'habitat hectares' approach*, *Ecological Management and Restoration* 4:29 – 38.

Appendix 1: Detailed habitat hectare assessment results

Appendix 1: Detailed habitat hectare assessment results

| Habitat Zone | A | B | C | D | E | F | G | H | I | J |
|---------------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Bioregion | MuF | MuF | MuF | MuF | MuF | MuF | MuF | MuF | MuF | MuF |
| EVC Number | 814 | 814 | 814 | 814 | 803 | 803 | 803 | 803 | 803 | 814 |
| Total area of Habitat Zone (ha) | 0.019 | 0.107 | 0.55 | 0.095 | 0.33 | 0.068 | 0.374 | 0.064 | 1.578 | 0.054 |
| Site Condition | Large Old Trees | /10 | 0 | 0 | 3 | 0 | 4 | 10 | 3 | 7 |
| | Tree Canopy Cover | /5 | 0 | 5 | 4 | 5 | 3 | 5 | 3 | 4 |
| | Lack of Weeds | /15 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 0 |
| | Understorey | /25 | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 5 |
| | Recruitment | /10 | 0 | 5 | 10 | 0 | 0 | 0 | 0 | 0 |
| | Organic Matter | /5 | 3 | 3 | 3 | 5 | 5 | 5 | 3 | 3 |
| | Logs | /5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Site condition standardising multiplier* | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Site Condition subtotal | | | | | | | | | | |
| Landscape Context | Patch Size | /10 | 1 | 8 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Neighbourhood | /10 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 1 |
| | Distance to Core | /5 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Condition Score | /100 | 16 | 29 | 46 | 22 | 26 | 19 | 30 | 27 | 24 |

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

Appendix 2: Large trees in patches and scattered trees recorded in the study area

| Tree No. | Common Name | Scientific Name | DBH (cm) | Circumference | Habitat Category | Radius of TPZ (m) | Remove/Retain | Notes |
|----------|---------------|---------------------------------|----------|---------------|-----------------------|-------------------|---------------|-----------|
| 1 | Grey Box | <i>Eucalyptus microcarpa</i> | 29 | 91 | Small Scattered Tree | 3.48 | Removed | |
| 2 | Grey Box | <i>Eucalyptus microcarpa</i> | 27 | 85 | Small Scattered Tree | 3.24 | Removed | |
| 3 | Grey Box | <i>Eucalyptus microcarpa</i> | 32 | 101 | Small Scattered Tree | 3.84 | Removed | |
| 4 | Grey Box | <i>Eucalyptus microcarpa</i> | 41 | 129 | Small Scattered Tree | 4.92 | Removed | |
| 5 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 117 | 368 | Large Scattered Tree | 14.04 | Removed | Dead |
| 6 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 32 | 101 | Small Scattered Tree | 3.84 | Removed | |
| 7 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 90 | 283 | Large Scattered Tree | 10.8 | Removed | |
| 8 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 62 | 195 | Small Scattered Tree | 7.44 | Removed | |
| 9 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 37 | 116 | Small Scattered Tree | 4.44 | Removed | |
| 10 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 49 | 154 | Small Scattered Tree | 5.88 | Removed | |
| 11 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 42 | 132 | Small Scattered Tree | 5.04 | Removed | |
| 12 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 32 | 101 | Small Scattered Tree | 3.84 | Removed | |
| 13 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 51 | 160 | Small Scattered Tree | 6.12 | Removed | |
| 14 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 42 | 132 | Small Scattered Tree | 5.04 | Removed | |
| 15 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 70 | 220 | Small Scattered Tree | 8.4 | Removed | Estimated |
| 16 | Grey Box | <i>Eucalyptus microcarpa</i> | 132 | 415 | Large Tree in Patch J | 15 | Retained | Hollows |
| 17 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 26 | 82 | Small Scattered Tree | 3.12 | Retained | |
| 18 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 27 | 85 | Small Scattered Tree | 3.24 | Retained | |
| 19 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 30 | 94 | Small Scattered Tree | 3.6 | Retained | |
| 20 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 94 | 295 | Large Scattered Tree | 11.28 | Retained | Dead |
| 21 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 39 | 123 | Small Scattered Tree | 4.68 | Retained | |

| Tree No. | Common Name | Scientific Name | DBH (cm) | Circumference | Habitat Category | Radius of TPZ (m) | Remove/Retain | Notes |
|----------|---------------|---------------------------------|----------|---------------|-----------------------|-------------------|---------------|-------|
| 22 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 28 | 88 | Small Scattered Tree | 3.36 | Retained | |
| 23 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 33 | 104 | Small Scattered Tree | 3.96 | Retained | |
| 24 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 118 | 371 | Large Scattered Tree | 14.16 | Retained | Dead |
| 25 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 36 | 113 | Small Scattered Tree | 4.32 | Retained | |
| 26 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 11 | 35 | Small Scattered Tree | 2 | Retained | |
| 27 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 19 | 60 | Small Scattered Tree | 2.28 | Retained | |
| 28 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 98 | 308 | Large Tree in Patch C | 11.76 | Retained | |
| 29 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 121 | 380 | Large Tree in Patch C | 14.52 | Retained | |
| 30 | Grey Box | <i>Eucalyptus microcarpa</i> | 136 | 427 | Large Tree in Patch C | 15 | Retained | |
| 31 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 169 | 531 | Large Tree in Patch C | 15 | Retained | |
| 32 | Grey Box | <i>Eucalyptus microcarpa</i> | 93 | 292 | Large Tree in Patch C | 11.16 | Retained | |
| 33 | Grey Box | <i>Eucalyptus microcarpa</i> | 107 | 336 | Large Tree in Patch C | 12.84 | Retained | |
| 34 | Grey Box | <i>Eucalyptus microcarpa</i> | 142 | 446 | Large Tree in Patch C | 15 | Retained | |
| 35 | Eucalypt | <i>Eucalyptus sp.</i> | 120 | 377 | Large Tree in Patch C | 14.4 | Retained | Dead |
| 36 | Eucalypt | <i>Eucalyptus sp.</i> | 120 | 377 | Large Tree in Patch C | 14.4 | Retained | Dead |
| 37 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 97 | 305 | Large Tree in Patch C | 11.64 | Retained | |
| 38 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 155 | 487 | Large Tree in Patch C | 15 | Retained | |
| 39 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 115 | 361 | Large Tree in Patch C | 13.8 | Retained | |
| 40 | Grey Box | <i>Eucalyptus microcarpa</i> | 102 | 320 | Large Tree in Patch C | 12.24 | Retained | |
| 41 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 105 | 330 | Large Tree in Patch C | 12.6 | Retained | |
| 42 | Grey Box | <i>Eucalyptus microcarpa</i> | 139 | 437 | Large Scattered Tree | 15 | Retained | |
| 43 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 166 | 522 | Large Scattered Tree | 15 | Retained | |

| Tree No. | Common Name | Scientific Name | DBH (cm) | Circumference | Habitat Category | Radius of TPZ (m) | Remove/Retain | Notes |
|----------|---------------|---------------------------------|----------|---------------|-----------------------|-------------------|--------------------------------|-------|
| 44 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 5 | 16 | Small Scattered Tree | 2 | Retained | |
| 45 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 6 | 19 | Small Scattered Tree | 2 | Retained | |
| 46 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 52 | 163 | Small Scattered Tree | 6.24 | Removed | |
| 47 | Grey Box | <i>Eucalyptus microcarpa</i> | 26 | 82 | Small Scattered Tree | 3.12 | Removed | |
| 48 | Grey Box | <i>Eucalyptus microcarpa</i> | 22 | 69 | Small Scattered Tree | 2.64 | Removed | |
| 49 | Grey Box | <i>Eucalyptus microcarpa</i> | 27 | 85 | Small Scattered Tree | 3.24 | Removed | |
| 50 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 47 | 148 | Small Scattered Tree | 5.64 | Removed | |
| 51 | Grey Box | <i>Eucalyptus microcarpa</i> | 23 | 72 | Small Scattered Tree | 2.76 | Removed | |
| 52 | Grey Box | <i>Eucalyptus microcarpa</i> | 55 | 173 | Large Scattered Tree | 6.6 | Retained but deemed to be lost | |
| 53 | Grey Box | <i>Eucalyptus microcarpa</i> | 127 | 399 | Large Scattered Tree | 15 | Retained but deemed to be lost | |
| 54 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 33 | 104 | Small Scattered Tree | 3.96 | Removed | |
| 55 | Grey Box | <i>Eucalyptus microcarpa</i> | 125 | 393 | Large Scattered Tree | 15 | Retained but deemed to be lost | Dead |
| 56 | Grey Box | <i>Eucalyptus microcarpa</i> | 98 | 308 | Large Tree in Patch I | 11.76 | Retained but deemed to be lost | |
| 57 | Grey Box | <i>Eucalyptus microcarpa</i> | 92 | 289 | Large Tree in Patch E | 11.04 | Retained but deemed to be lost | |
| 58 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 26 | 82 | Small Scattered Tree | 3.12 | Removed | |
| 59 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 44 | 138 | Small Scattered Tree | 5.28 | Removed | |
| 60 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 43 | 135 | Small Scattered Tree | 5.16 | Removed | |
| 61 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 34 | 107 | Small Scattered Tree | 4.08 | Removed | |
| 62 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 44 | 138 | Small Scattered Tree | 5.28 | Removed | |
| 63 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 36 | 113 | Small Scattered Tree | 4.32 | Removed | |
| 64 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 99 | 311 | Large Tree in Patch G | 11.88 | Removed | |

| Tree No. | Common Name | Scientific Name | DBH (cm) | Circumference | Habitat Category | Radius of TPZ (m) | Remove/Retain | Notes |
|----------|---------------|---------------------------------|----------|---------------|-----------------------|-------------------|--------------------------------|---------|
| 65 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 73 | 229 | Large Tree in Patch G | 8.76 | Removed | |
| 66 | Grey Box | <i>Eucalyptus microcarpa</i> | 49 | 154 | Small Scattered Tree | 5.88 | Removed | |
| 67 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 44 | 138 | Small Scattered Tree | 5.28 | Removed | |
| 68 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 45 | 141 | Small Scattered Tree | 5.4 | Removed | |
| 69 | River Red-gum | <i>Eucalyptus camaldulensis</i> | 28 | 88 | Small Scattered Tree | 3.36 | Removed | |
| 70 | Grey Box | <i>Eucalyptus microcarpa</i> | 110 | 346 | Large Scattered Tree | 13.2 | Retained but deemed to be lost | |
| 71 | Grey Box | <i>Eucalyptus microcarpa</i> | 23 | 72 | Small Scattered Tree | 2.76 | Removed | |
| 72 | Grey Box | <i>Eucalyptus microcarpa</i> | 114 | 358 | Large Tree in Patch I | 13.68 | Removed | Hollows |
| 73 | Grey Box | <i>Eucalyptus microcarpa</i> | 125 | 393 | Large Tree in Patch H | 15 | Removed | |

Appendix 3: Flora species recorded in the study area

| Origin | Common name | Scientific name | EPBC | FFG-T | FFG-P | CaLP Act |
|--------|------------------------|---|------|-------|-------|----------|
| * | Brown-top Bent | <i>Agrostis capillaris</i> | | | | |
| * | Cape Weed | <i>Arctotheca calendula</i> | | | | |
| | Sprawling Saltbush | <i>Atriplex suberecta</i> | | | | |
| | Knotty Spear-grass | <i>Austrostipa nodosa</i> | | | | |
| | Spear Grass | <i>Austrostipa spp.</i> | | | | |
| | Red-leg Grass | <i>Bothriochloa macra</i> | | | | |
| * | Kikuyu | <i>Cenchrus clandestinus</i> | | | | |
| * | Spear Thistle | <i>Cirsium vulgare</i> | | | | C |
| | Swamp Crassula | <i>Crassula helmsii</i> | | | | |
| * | Paddy Melon | <i>Cucumis myriocarpus subsp. myriocarpus</i> | | | | |
| * | Couch | <i>Cynodon dactylon</i> | | | | |
| * | Drain Flat-sedge | <i>Cyperus eragrostis</i> | | | | |
| * | Cocksfoot | <i>Dactylis glomerata</i> | | | | |
| * | Paterson's Curse | <i>Echium plantagineum</i> | | | | C |
| | Nodding Saltbush | <i>Einadia nutans</i> | | | | |
| | Spider Grass | <i>Enteropogon acicularis</i> | | | | |
| * | Fleabane | <i>Erigeron spp.</i> | | | | |
| * | Musky Heron's-bill | <i>Erodium moschatum</i> | | | | |
| | River Red-gum | <i>Eucalyptus camaldulensis</i> | | | | |
| | Grey Box | <i>Eucalyptus microcarpa</i> | | | | |
| † | Eucalypt | <i>Eucalyptus spp.</i> | | | | |
| | Flat spurge | <i>Euphorbia dallachyana</i> | | | | |
| * | Ox-tongue | <i>Helminthotheca echioides</i> | | | | |
| * | Flatweed | <i>Hypochaeris radicata</i> | | | | |
| | Rush | <i>Juncus spp.</i> | | | | |
| * | Hairy Toadflax | <i>Kickxia elatine</i> | | | | |
| | Jersey Cudweed | <i>Laphangium luteoalbum</i> | | | P | |
| * | Common Peppergrass | <i>Lepidium africanum</i> | | | | |
| | Small Loosestrife | <i>Lythrum hyssopifolia</i> | | | | |
| | Wingless Bluebush | <i>Maireana enchylaenoides</i> | | | | |
| | Bluebush | <i>Maireana spp.</i> | | | | |
| * | Small-flower Mallow | <i>Malva parviflora</i> | | | | |
| * | Horehound | <i>Marrubium vulgare</i> | | | | C |
| | Yam Daisy | <i>Microseris spp.</i> | | | P | |
| | Grassland Wood-sorrel | <i>Oxalis perennans</i> | | | | |
| * | Soursob | <i>Oxalis pes-caprae</i> | | | | R |
| | Warrego Summer-grass | <i>Paspalidium jubiflorum</i> | | | | |
| * | Paspalum | <i>Paspalum dilatatum</i> | | | | |
| * | Toowoomba Canary-grass | <i>Phalaris aquatica</i> | | | | |
| * | Ribwort | <i>Plantago lanceolata</i> | | | | |
| * | Annual Meadow-grass | <i>Poa annua s.l.</i> | | | | |
| | Buttercup | <i>Ranunculus spp.</i> | | | | |
| * | Onion Grass | <i>Romulea rosea</i> | | | | |
| | Slender Dock | <i>Rumex brownii</i> | | | | |
| * | Curled Dock | <i>Rumex crispus</i> | | | | |
| | Wallaby Grass | <i>Rytidosperma spp.</i> | | | | |

| Origin | Common name | Scientific name | EPBC | FFG-T | FFG-P | CaLP Act |
|--------|-------------------|----------------------------|------|-------|-------|----------|
| | Prickly Saltwort | <i>Salsola tragus</i> | | | | |
| * | Pepper Tree | <i>Schinus molle</i> | | | | |
| | Copperburr | <i>Sclerolaena spp.</i> | | | | |
| | Variable Sida | <i>Sida corrugata</i> | | | | |
| * | Black Nightshade | <i>Solanum nigrum s.l.</i> | | | | |
| * | Rough Sow-thistle | <i>Sonchus asper s.l.</i> | | | | |
| * | Clover | <i>Trifolium spp.</i> | | | | |
| * | Common Vetch | <i>Vicia sativa</i> | | | | |
| | New Holland Daisy | <i>Vittadinia spp.</i> | | | P | |
| | Rigid Panic | <i>Walwhalleya proluta</i> | | | | |

Notes: EPBC = Threatened species status under the EPBC Act; FFG-T = Threatened species status under the FFG Act; FFG-P = Listed as protected (P) under the FFG Act; CaLP Act: Declared noxious weeds under the CaLP Act (S = State Prohibited Weeds – any infestations must be reported to DEECA that is responsible for control of these; P = Regionally Prohibited Weeds – landowners must eradicate these; C = Regionally Controlled Weeds – landowners must prevent the growth and spread of these; R = Restricted Weeds – trade in these weeds and propagules, either as plants, seeds or contaminants in other materials is prohibited).

* = introduced to Victoria

† = planted

Appendix 4: Photographs of native vegetation proposed for removal

All photographs were taken on the 26th or 27th of July 2023.



Photo 1: Habitat Zone A in the north of the study area, which is to be impacted by the development.



Photo 2: Habitat Zone E on the western edge of the study area, which is to be impacted by the development.



Photo 3: Habitat Zone F on the southern edge of the study area, which is to be impacted by the development.



Photo 4: Habitat Zone G on the south-eastern edge of the study area, which is to be impacted by the development.



Photo 5: Habitat Zone H in the south of the study area, which is to be impacted by the development.



Photo 6: Habitat Zone I in the south of the study area, which is to be impacted by the development.



Photo 7: Scattered trees 3, 4 & 5 to be impacted by the development.



Photo 8: Scattered trees 11, 12, 13 & 14 to be impacted by the development.



Photo 9: Scattered Tree 51 to be impacted by the development (image representative of other small Grey Box trees being impacted nearby).



Photo 10: Scattered Tree 50 to be impacted by the development (image representative of other small River Red-gum trees being impacted nearby).



Photo 11: Scattered trees 11, 12, 13 & 14 to be impacted by the development.



Photo 12: Scattered trees 58, 59, 60, 61, 62 & 63 to be impacted by the development.

[Appendix 5: Native Vegetation Removal \(NVR\) report](#)

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation*. The report **is not an assessment by DELWP** of the proposed native vegetation removal. Native vegetation information and offset requirements have been determined using spatial data provided by the applicant or their consultant.

Date of issue: 07/10/2023

Report ID: NAA_2023_134

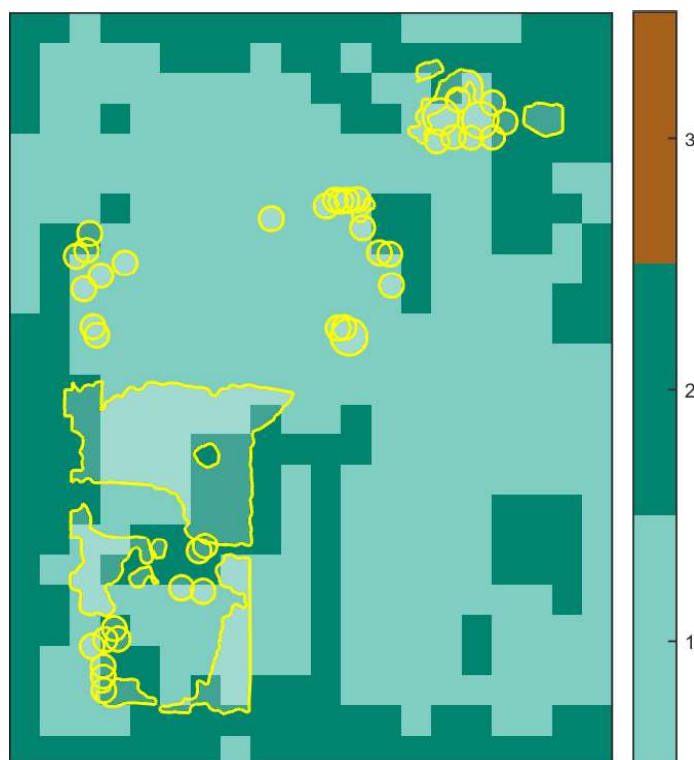
Time of issue: 9:44 am

| | |
|------------|---|
| Project ID | 23166_Brears_Road_Yarrawonga_removal_231005 |
|------------|---|

Assessment pathway

| Assessment pathway | Detailed Assessment Pathway |
|--|---|
| Extent including past and proposed | 3.504 ha |
| Extent of past removal | 0.000 ha |
| Extent of proposed removal | 3.504 ha |
| No. Large trees proposed to be removed | 6 |
| Location category of proposed removal | Location 2 The native vegetation is in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map). Removal of less than 0.5 hectares of native vegetation in this location will not have a significant impact on any habitat for a rare or threatened species. |

1. Location map



Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

| | |
|---|---|
| General offset amount¹ | 1.137 general habitat units |
| Vicinity | Goulburn Broken Catchment Management Authority (CMA) or Moira Shire Council |
| Minimum strategic biodiversity value score ² | 0.581 |
| Large trees | 6 large trees |

NB: values within tables in this document may not add to the totals shown above due to rounding

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

¹ The general offset amount required is the sum of all general habitat units in Appendix 1.

² Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

Any proposal to remove native vegetation must meet the application requirements of the Detailed Assessment Pathway and it will be assessed under the Detailed Assessment Pathway.

If you wish to remove the mapped native vegetation you are required to apply for a permit from your local council. Council will refer your application to DELWP for assessment, as required. **This report is not a referral assessment by DELWP.**

This *Native vegetation removal report* must be submitted with your application for a permit to remove, destroy or lop native vegetation.

Refer to the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines) for a full list of application requirements. This report provides information that meets the following application requirements:

- The assessment pathway and reason for the assessment pathway
- A description of the native vegetation to be removed (partly met)
- Maps showing the native vegetation and property (partly met)
- Information about the impacts on rare or threatened species.
- The offset requirements determined in accordance with section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

- Topographical and land information
- Recent dated photographs
- Details of past native vegetation removal
- An avoid and minimise statement
- A copy of any Property Vegetation Plan that applies
- A defensible space statement as applicable
- A statement about the Native Vegetation Precinct Plan as applicable
- A site assessment report including a habitat hectare assessment of any patches of native vegetation and details of trees
- An offset statement that explains that an offset has been identified and how it will be secured.

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Obtaining this publication does not guarantee that an application will meet the requirements of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes.

Appendix 1: Description of native vegetation to be removed

The species-general offset test was applied to your proposal. This test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the species offset threshold. The threshold is set at 0.005 per cent of the mapped habitat value for a species. When the proportional impact is above the species offset threshold a species offset is required. This test is done for all species mapped at the site. Multiple species offsets will be required if the species offset threshold is exceeded for multiple species.

Where a zone requires species offset(s), the species habitat units for each species in that zone is calculated by the following equation in accordance with the Guidelines:

$$\text{Species habitat units} = \text{extent} \times \text{condition} \times \text{species landscape factor} \times 2, \text{ where the species landscape factor} = 0.5 + (\text{habitat importance score}/2)$$

The species offset amount(s) required is the sum of all species habitat units per zone

Where a zone does not require a species offset, the general habitat units in that zone is calculated by the following equation in accordance with the Guidelines:

$$\text{General habitat units} = \text{extent} \times \text{condition} \times \text{general landscape factor} \times 1.5, \text{ where the general landscape factor} = 0.5 + (\text{strategic biodiversity value score}/2)$$

The general offset amount required is the sum of all general habitat units per zone.

Native vegetation to be removed

| Zone | Information provided by or on behalf of the applicant in a GIS file | | | | | | Information calculated by EnSym | | | | | |
|------|---|----------|----------------------------|---------------|-----------------|-----------------|---------------------------------|------------------------|-----------|----------|---------------|-------------|
| | Type | BioEVC | BioEVC conservation status | Large tree(s) | Partial removal | Condition score | Polygon Extent | Extent without overlap | SBV score | HI score | Habitat units | Offset type |
| 1-1 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.023 | 0.800 | | 0.006 | General |
| 1-2 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.023 | 0.800 | | 0.006 | General |
| 1-3 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.002 | 0.650 | | 0.001 | General |
| 1-4 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.010 | 0.650 | | 0.003 | General |
| 1-6 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.650 | | 0.008 | General |
| 1-10 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.027 | 0.646 | | 0.007 | General |
| 1-11 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.013 | 0.630 | | 0.003 | General |
| 1-12 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.019 | 0.630 | | 0.005 | General |

| Information provided by or on behalf of the applicant in a GIS file | | | | | | | | | | Information calculated by EnSym | | | | |
|---|----------------|----------|----------------------------|---------------|-----------------|-----------------|----------------|------------------------|-----------|---------------------------------|---------------|-------------|--|--|
| Zone | Type | BioEVC | BioEVC conservation status | Large tree(s) | Partial removal | Condition score | Polygon Extent | Extent without overlap | SBV score | HI score | Habitat units | Offset type | | |
| 1-13 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.010 | 0.630 | | 0.002 | General | | |
| 1-14 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.013 | 0.630 | | 0.003 | General | | |
| 1-15 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.024 | 0.630 | | 0.006 | General | | |
| 1-46 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.635 | | 0.008 | General | | |
| 1-47 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.029 | 0.801 | | 0.008 | General | | |
| 1-48 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.022 | 0.800 | | 0.006 | General | | |
| 1-49 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.800 | | 0.008 | General | | |
| 1-50 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.800 | | 0.008 | General | | |
| 1-51 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.800 | | 0.008 | General | | |
| 1-54 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.025 | 0.800 | | 0.007 | General | | |
| 1-58 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.022 | 0.820 | | 0.006 | General | | |
| 1-59 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.019 | 0.820 | | 0.005 | General | | |
| 1-60 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.021 | 0.820 | | 0.006 | General | | |
| 1-61 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.024 | 0.820 | | 0.007 | General | | |
| 1-62 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.019 | 0.820 | | 0.005 | General | | |

| Information provided by or on behalf of the applicant in a GIS file | | | | | | | | | | Information calculated by EnSym | | | | |
|---|----------------|----------|----------------------------|---------------|-----------------|-----------------|----------------|------------------------|-----------|---------------------------------|---------------|-------------|--|--|
| Zone | Type | BioEVC | BioEVC conservation status | Large tree(s) | Partial removal | Condition score | Polygon Extent | Extent without overlap | SBV score | HI score | Habitat units | Offset type | | |
| 1-63 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.012 | 0.820 | | 0.003 | General | | |
| 1-66 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.610 | | 0.007 | General | | |
| 1-67 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.031 | 0.809 | | 0.008 | General | | |
| 1-68 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.022 | 0.637 | | 0.005 | General | | |
| 1-69 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.012 | 0.610 | | 0.003 | General | | |
| 1-71 | Scattered Tree | muf_0803 | Endangered | 0 | no | 0.200 | 0.031 | 0.027 | 0.820 | | 0.007 | General | | |
| 1-5 | Scattered Tree | muf_0803 | Endangered | 1 | no | 0.200 | 0.070 | 0.070 | 0.650 | | 0.017 | General | | |
| 1-8 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.024 | 0.650 | | 0.006 | General | | |
| 1-9 | Scattered Tree | muf_0814 | Depleted | 0 | no | 0.200 | 0.031 | 0.024 | 0.650 | | 0.006 | General | | |
| 1-A | Patch | muf_0814 | Depleted | 0 | no | 0.160 | 0.019 | 0.019 | 0.630 | | 0.004 | General | | |
| 1-F | Patch | muf_0803 | Endangered | 0 | no | 0.190 | 0.068 | 0.068 | 0.820 | | 0.018 | General | | |
| 1-E | Patch | muf_0803 | Endangered | 0 | no | 0.260 | 0.283 | 0.283 | 0.820 | | 0.100 | General | | |
| 1-I | Patch | muf_0803 | Endangered | 0 | no | 0.270 | 1.512 | 1.512 | 0.724 | | 0.528 | General | | |
| 1-G | Patch | muf_0803 | Endangered | 0 | no | 0.250 | 0.354 | 0.354 | 0.620 | | 0.108 | General | | |
| 1-H | Patch | muf_0803 | Endangered | 0 | no | 0.300 | 0.015 | 0.015 | 0.820 | | 0.006 | General | | |
| 1-H1 | Patch | muf_0803 | Endangered | 0 | no | 0.300 | 0.022 | 0.022 | 0.820 | | 0.009 | General | | |
| 1-C | Patch | muf_0814 | Endangered | 2 | no | 0.460 | 0.072 | 0.072 | 0.820 | | 0.045 | General | | |
| 1-C1 | Patch | muf_0814 | Endangered | 1 | no | 0.460 | 0.024 | 0.024 | 0.630 | | 0.013 | General | | |

| Information provided by or on behalf of the applicant in a GIS file | | | | | | | Information calculated by EnSym | | | | | |
|---|----------------|----------|----------------------------|---------------|-----------------|-----------------|---------------------------------|------------------------|-----------|----------|---------------|-------------|
| Zone | Type | BioEVC | BioEVC conservation status | Large tree(s) | Partial removal | Condition score | Polygon Extent | Extent without overlap | SBV score | HI score | Habitat units | Offset type |
| 1-B | Patch | muf_0814 | Endangered | 0 | no | 0.290 | 0.107 | 0.107 | 0.677 | | 0.039 | General |
| 1-322 | Scattered Tree | muf_0814 | Endangered | 1 | no | 0.200 | 0.070 | 0.070 | 0.820 | | 0.019 | General |
| 1-328 | Scattered Tree | muf_0814 | Endangered | 1 | no | 0.200 | 0.070 | 0.047 | 0.630 | | 0.012 | General |
| 1-354 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.025 | 0.630 | | 0.006 | General |
| 1-327 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.023 | 0.707 | | 0.006 | General |
| 1-326 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.021 | 0.636 | | 0.005 | General |
| 1-325 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.019 | 0.820 | | 0.005 | General |
| 1-321 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.022 | 0.820 | | 0.006 | General |
| 1-324 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.026 | 0.820 | | 0.007 | General |
| 1-323 | Scattered Tree | muf_0814 | Endangered | 0 | no | 0.200 | 0.031 | 0.022 | 0.820 | | 0.006 | General |

Appendix 2: Information about impacts to rare or threatened species' habitats on site

This table lists all rare or threatened species' habitats mapped at the site.

| Species common name | Species scientific name | Species number | Conservation status | Group | Habitat impacted | % habitat value affected |
|-----------------------|--|----------------|---------------------|-----------|------------------------|--------------------------|
| Small-leaf Bluebush | <i>Maireana microphylla</i> | 503865 | Endangered | Dispersed | Habitat importance map | 0.0011 |
| Yarran Wattle | <i>Acacia omalophylla</i> | 500069 | Endangered | Dispersed | Habitat importance map | 0.0004 |
| Superb Parrot | <i>Polytelis swainsonii</i> | 10277 | Endangered | Dispersed | Habitat importance map | 0.0003 |
| Silky Umbrella-grass | <i>Digitaria ammophila</i> | 501041 | Vulnerable | Dispersed | Habitat importance map | 0.0002 |
| Jericho Wire-grass | <i>Aristida jerichoensis</i> var. <i>subspinulifera</i> | 504631 | Endangered | Dispersed | Habitat importance map | 0.0002 |
| Pepper Grass | <i>Panicum laevinode</i> | 504808 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Bent-leaf Wattle | <i>Acacia flexifolia</i> | 500035 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Yellow-tongue Daisy | <i>Brachyscome chrysoglossa</i> | 503654 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Squirrel Glider | <i>Petaurus norfolcensis</i> | 11137 | Endangered | Dispersed | Habitat importance map | 0.0001 |
| Riverina Bitter-cress | <i>Cardamine moirensis</i> | 505032 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Blue Burr-daisy | <i>Calotis cuneifolia</i> | 500594 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Grey-crowned Babbler | <i>Pomatostomus temporalis temporalis</i> | 10443 | Endangered | Dispersed | Habitat importance map | 0.0001 |
| Northern Sandalwood | <i>Santalum lanceolatum</i> | 503005 | Endangered | Dispersed | Habitat importance map | 0.0001 |
| Umbrella Grass | <i>Digitaria divaricatissima</i> var. <i>divaricatissima</i> | 501045 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Silky Swainson-pea | <i>Swainsona sericea</i> | 504946 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Brolga | <i>Grus rubicunda</i> | 10177 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Dwarf Bitter-cress | <i>Rorippa eustylis</i> | 502944 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Broom Bitter-pea | <i>Daviesia genitifolia</i> s.s. | 503813 | Rare | Dispersed | Habitat importance map | 0.0001 |

| | | | | | | |
|-------------------------|---|--------|------------|-----------|------------------------|--------|
| Pale Flax-ily | <i>Dianella</i> sp. aff. <i>longifolia</i> (<i>Riverina</i>) | 507399 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Smooth Minuria | <i>Minuria integerrima</i> | 502201 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Long Eryngium | <i>Eryngium paludosum</i> | 501238 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Dark Wire-grass | <i>Aristida calycina</i> var. <i>calycina</i> | 503630 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Southern Swainson-pea | <i>Swainsona behriana</i> | 504944 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Dookie Daisy | <i>Brachyscome gracilis</i> | 505494 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Kamarooka Mallee | <i>Eucalyptus froggattii</i> | 501279 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Woolly Wattle | <i>Acacia lanigera</i> var. <i>lanigera</i> | 505093 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Small Scurf-pea | <i>Cullen parvum</i> | 502773 | Endangered | Dispersed | Habitat importance map | 0.0001 |
| Bush Stone-curlew | <i>Burhinus grallarius</i> | 10174 | Endangered | Dispersed | Habitat importance map | 0.0001 |
| Rosemary Grevillea | <i>Grevillea rosmarinifolia</i> subsp. <i>rosmarinifolia</i> | 504066 | Rare | Dispersed | Habitat importance map | 0.0001 |
| Late-flower Flax-ily | <i>Dianella tarda</i> | 505085 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Western Silver Wattle | <i>Acacia decora</i> | 500027 | Vulnerable | Dispersed | Habitat importance map | 0.0001 |
| Slender Club-sedge | <i>Isolepis congrua</i> | 501773 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Purple Diuris | <i>Diuris punctata</i> | 501084 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Fuzzy New Holland Daisy | <i>Vittadinia cuneata</i> var. <i>morrisii</i> | 505060 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Cottony Cassinia | <i>Cassinia ozothamnoides</i> | 501560 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Branching Groundsel | <i>Senecio cunninghamii</i> var. <i>cunninghamii</i> | 503104 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Veiled Fringe-sedge | <i>Fimbristylis velata</i> | 501369 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Ausfeld's Wattle | <i>Acacia ausfeldii</i> | 500013 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Dwarf Brooklime | <i>Gratiola pumilo</i> | 503753 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Waterbush | <i>Myoporum montanum</i> | 502240 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Hairy Tails | <i>Ptilotus erubescens</i> | 502825 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |

| | | | | | | |
|---------------------------|--|--------|-----------------------|-----------|------------------------|--------|
| Rye Beetle-grass | <i>Tripogon loliformis</i> | 503455 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Lanky Buttons | <i>Leptorhynchos elongatus</i> | 501941 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Painted Honeyeater | <i>Grantiella picta</i> | 10598 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Buloke Mistletoe | <i>Amyema linophylla subsp. orientalis</i> | 500217 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Floodplain Fireweed | <i>Senecio campylocarpus</i> | 507136 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Barking Owl | <i>Ninox connivens connivens</i> | 10246 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Black Falcon | <i>Falco subniger</i> | 10238 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Buloke | <i>Allocasuarina luehmannii</i> | 500678 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Bearded Dragon | <i>Pogona barbata</i> | 12177 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Delicate Crane's-bill | <i>Geranium sp. 6</i> | 505347 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Yellow Burr-daisy | <i>Calotis lappulacea</i> | 500598 | Rare | Dispersed | Habitat importance map | 0.0000 |
| Regent Honeyeater | <i>Anthochaera phrygia</i> | 10603 | Critically endangered | Dispersed | Habitat importance map | 0.0000 |
| Lewin's Rail | <i>Lewinia pectoralis pectoralis</i> | 10045 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Swift Parrot | <i>Lathamus discolor</i> | 10309 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Grey Grass-tree | <i>Xanthorrhoea glauca subsp. angustifolia</i> | 507229 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Lace Monitor | <i>Varanus varius</i> | 12283 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Square-tailed Kite | <i>Lophoictinia isura</i> | 10230 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |
| Growing Grass Frog | <i>Litoria raniformis</i> | 13207 | Endangered | Dispersed | Habitat importance map | 0.0000 |
| Small Burr-grass | <i>Tragus australianus</i> | 503418 | Rare | Dispersed | Habitat importance map | 0.0000 |
| White-throated Needletail | <i>Hirundapus caudacutus</i> | 10334 | Vulnerable | Dispersed | Habitat importance map | 0.0000 |

Habitat group

- Highly localised habitat means there is 2000 hectares or less mapped habitat for the species
- Dispersed habitat means there is more than 2000 hectares of mapped habitat for the species

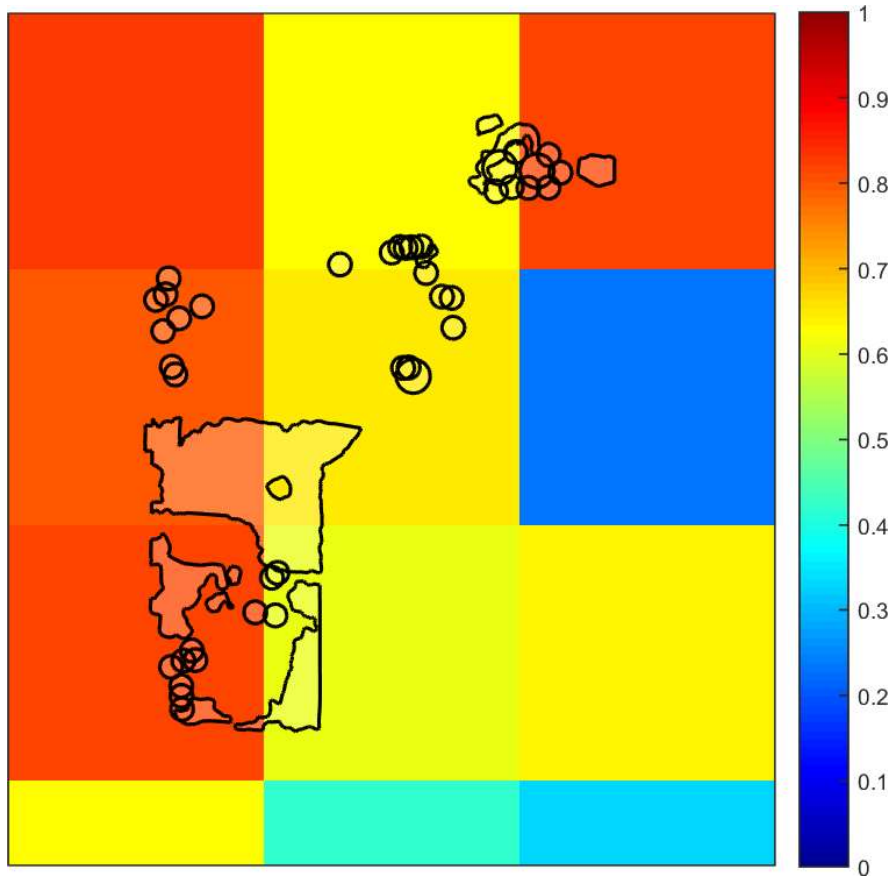
Habitat impacted

- Habitat importance maps are the maps defined in the Guidelines that include all the mapped habitat for a rare or threatened species

- Top ranking maps are the maps defined in the Guidelines that depict the important areas of a dispersed species habitat, developed from the highest habitat importance scores in dispersed species habitat maps and selected VBA records
- Selected VBA record is an area in Victoria that represents a large population, roosting or breeding site etc.

Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



↑ North

0 1 2
x100 metres

4. Map of the property in context



↑ North

0 2 4
x100 metres

Yellow boundaries denote areas of proposed native vegetation removal.

Appendix 6: Evidence that native vegetation offset requirement is available

Report of available native vegetation credits

This report lists native vegetation credits available to purchase through the Native Vegetation Credit Register.

This report is **not evidence** that an offset has been secured. An offset is only secured when the units have been purchased and allocated to a permit or other approval and an allocated credit extract is provided by the Native Vegetation Credit Register.

Date and time: 05/10/2023 05:30

Report ID: 21197

What was searched for?

General offset

| General habitat units | Strategic biodiversity value | Large trees | Vicinity (Catchment Management Authority or Municipal district) | |
|-----------------------|------------------------------|-------------|---|-----------------|
| 1.137 | 0.581 | 6 | CMA | Goulburn Broken |
| | | | or LGA | Moira Shire |

Details of available native vegetation credits on 05 October 2023 05:30

These sites meet your requirements for general offsets.

| Credit Site ID | GHU | LT | CMA | LGA | Land owner | Trader | Fixed price | Broker(s) |
|----------------|-------|----|-----------------|-------------------------|------------|--------|-------------|-----------|
| VC_CFL-2355_03 | 8.839 | 90 | Goulburn Broken | Greater Shepparton City | Yes | Yes | No | VegLink |
| VC_CFL-3790_01 | 5.120 | 65 | Goulburn Broken | Campaspe Shire | Yes | Yes | No | VegLink |

These sites meet your requirements using alternative arrangements for general offsets.

| Credit Site ID | GHU | LT | CMA | LGA | Land owner | Trader | Fixed price | Broker(s) |
|----------------|-----|----|-----|-----|------------|--------|-------------|-----------|
|----------------|-----|----|-----|-----|------------|--------|-------------|-----------|

There are no sites listed in the Native Vegetation Credit Register that meet your offset requirements when applying the alternative arrangements as listed in section 11.2 of the Guidelines for the removal, destruction or lopping of native vegetation.

These potential sites are not yet available, land owners may finalise them once a buyer is confirmed.

| Credit Site ID | GHU | LT | CMA | LGA | Land owner | Trader | Fixed price | Broker(s) |
|----------------|--------|-----|--------------------------------|----------------------|------------|--------|-------------|-------------|
| VC_CFL-3701_01 | 10.574 | 18 | Goulburn Broken, North Central | Greater Bendigo City | Yes | Yes | No | Bio Offsets |
| VC_CFL-3747_01 | 9.714 | 266 | Goulburn Broken | Mansfield Shire | Yes | Yes | No | VegLink |

Next steps

If applying for approval to remove native vegetation

Attach this report to an application to remove native vegetation as evidence that your offset requirement is currently available.

If you have approval to remove native vegetation

Below are the contact details for all brokers. Contact the broker(s) listed for the credit site(s) that meet your offset requirements. These are shown in the above tables. If more than one broker or site is listed, you should get more than one quote before deciding which offset to secure.

Broker contact details

| Broker Abbreviation | Broker Name | Phone | Email | Website |
|---------------------|-------------------------------------|--------------------------------|--|--|
| Abezco | Abzeco Pty. Ltd. | (03) 9431 5444 | offsets@abzeco.com.au | www.abzeco.com.au |
| Baw Baw SC | Baw Baw Shire Council | (03) 5624 2411 | bawbaw@bawbawshire.vic.gov.au | www.bawbawshire.vic.gov.au |
| Bio Offsets | Biodiversity Offsets Victoria | 0452 161 013 | info@offsetsvictoria.com.au | www.offsetsvictoria.com.au |
| Contact NVOR | Native Vegetation Offset Register | 136 186 | nativevegetation.offsetregister@delwp.vic.gov.au | www.environment.vic.gov.au/native-vegetation |
| Ecocentric | Ecocentric Environmental Consulting | 0410 564 139 | ecocentric@me.com | Not available |
| Ethos | Ethos NRM Pty Ltd | (03) 5153 0037 | offsets@ethosnrm.com.au | www.ethosnrm.com.au |
| Nillumbik SC | Nillumbik Shire Council | (03) 9433 3316 | offsets@nillumbik.vic.gov.au | www.nillumbik.vic.gov.au |
| TFN | Trust for Nature | 8631 5888 | offsets@tfn.org.au | www.trustfornature.org.au |
| VegLink | Vegetation Link Pty Ltd | (03) 8578 4250 or 1300 834 546 | offsets@vegetationlink.com.au | www.vegetationlink.com.au |
| Yarra Ranges SC | Yarra Ranges Shire Council | 1300 368 333 | biodiversityoffsets@yarraranges.vic.gov.au | www.yarraranges.vic.gov.au |

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For more information contact the DEECA Customer Service Centre 136 186 or the Native Vegetation Credit Register at nativevegetation.offsetregister@delwp.vic.gov.au

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This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Obtaining this publication does not guarantee that the credits shown will be available in the Native Vegetation Credit Register either now or at a later time when a purchase of native vegetation credits is planned.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes