135 Taits Road Barwon Heads

Vegetation Assessment

Prepared for

Prepared by

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CONTENTS

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1 Introduction

1.1 Project Background

This report was commissioned by to undertake a vegetation assessment for a proposed new dwelling at 135 Taits Road Barwon Heads.

1.2 Aims

The aims of the study are to -

- Determine the extent of any native vegetation that exists in the study area.
- Describe the vegetation of the study area.
- Determine the implications for any impacts from the proposal for the relevant legislation, including Clause 52.17, SLO16 and the Victorian Flora and Fauna Guarantee Act (1988).

1.3 Study Area

The study area is the property at 135 Taits Road Barwon Heads, an area of 1.22 ha.

The study area is located within the City of Greater Geelong. The study area is within the Otway Plain bioregion (DEECA Website ii), which is located within in the Corangamite Catchment Management Authority area. The study area is zoned Farming Zone (FZ) and is subject to Significant Landscape Overlay (SLO16) within the Geelong Planning Scheme. (DEECA website i).

The vegetation of the study area can be described as:

- Predominately exotic degraded vegetation.
- Planted non-native vegetation.

Significant native vegetation occurs adjacent to the study area on parts of Taits Road roadside reserve.

Refer to Figure 1 for the study area location. Refer to Figure 2 for the location of the proposed development.

Figure 1. Study area location shown in blue outline.

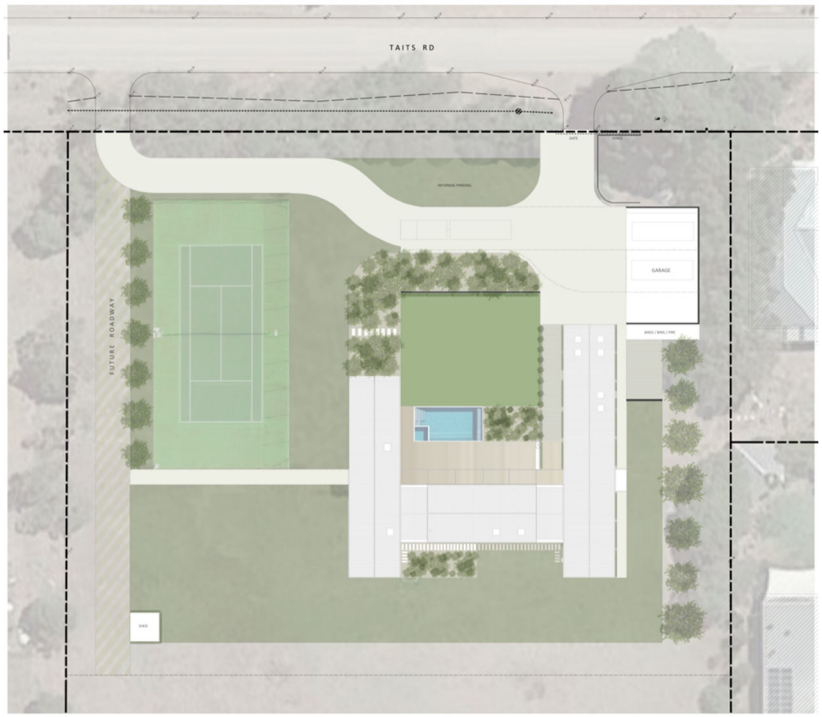

Figure 2. Proposed development.

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2 Methodology

2.1 Taxonomy

Scientific names for plants follows Vicflora (Royal Botanic Gardens website i). Common names for plants follow the Flora of Victoria Volumes 2-4 (Walsh and Entwisle 1994-1999).

2.2 Literature and Database Review

Relevant literature, online resources and databases were reviewed to provide an up-to-date assessment of ecological values associated with the study area and surrounds, including:

- The Victorian Department of Environment, Land, Water and Planning (DEECA) NVIM tool (DEECA website ii) for:
    - Modelled data for remnant vegetation patches
    - the extent of historic and current Ecological Vegetation Classes (EVC)s.
- Aerial photography of the study area (Google maps).

2.3 Field Survey

The study area was inspected on foot on the 22nd of May 2023 by the report author. General observations were made on the vegetation and habitat quality of the study area. A list of all indigenous and dominant exotic vascular plant species was compiled.

The location of indigenous vegetation and native vegetation communities was mapped.

2.4 Limitations

The survey was conducted in autumn, a time of year that is suitable for the detection of most flora species likely to occur on site. The site inspection is considered to be adequate to assess the ecological values of the site. Consequently, for the purposes of this assessment, there are not considered to be any significant limitations to findings of this study.

The survey includes only vascular flora. Fauna assessments were not undertaken.

2.5 Defining and Assessing Native Vegetation

Native vegetation in Victoria has been defined by DEECA as belonging to two categories. These are:

Patch native vegetation

Patch native vegetation is either:

- any area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native
- any area with three or more native canopy trees where the canopy foliage cover is contiguous.
- any mapped wetland included in the *Current wetlands map* (DEECA systems and tools).

Scattered Tree native vegetation

Scattered tree native vegetation is:

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

(DEECA Website ii).

3 Results

3.1 Ecological Vegetation Classes (EVC)

EVCs are the primary level of classification of vegetation communities within Victoria. An EVC contains one or more plant (floristic) community and represents a grouping of vegetation communities with broadly similar ecological attributes. Classification of EVCs in this report follows Oates and Taranto (2001).

The pre-1750 EVC mapping of the study area undertaken by DEECA (DEECA website i) indicates that the study area and immediate surrounds were comprised of EVC 858 Coastal Alkaline Scrub. The bioregional conservation status of EVC 858 Coastal Alkaline Scrub is 'endangered'. Endangered is defined as an EVC where 'between <10% of pre-european extent remains within the bioregion' (DEECA website i).

This report finds that the study area is comprised of degraded exotic vegetation that does not accord with EVC 858 Coastal Alkaline Scrub.

Native vegetation that does accord with EVC 858 Coastal Alkaline Scrub was recorded on Taits Road roadside reserve.

Refer to Figure 3 for the distribution of year pre-1750 EVCs.

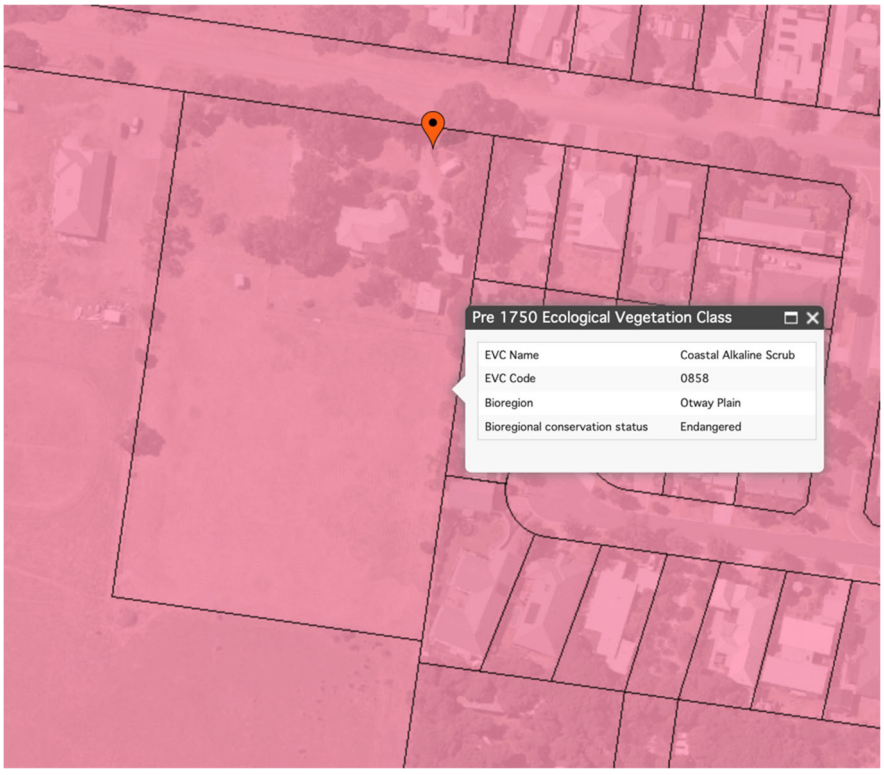

Figure 3. Distribution of year pre-1750 EVCs (DEECA data).

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3.2 Condition of the Vegetation

The current survey results show that no areas of 'natural' native vegetation are present.

The vegetation of the study area is described as follows:

- Degraded predominantly exotic vegetation including planted vegetation, non-native trees, gardens and exotic lawns occurring across the study area.
- Native vegetation dominated by Coast Tea-tree that accords with EVC 858 Coastal Alkaline Scrub was recorded on the adjacent Taits Road roadside reserve.

Refer to Plates 1 to 6 for photographs of the study area existing conditions.

3.3 Plant Species

No native vascular plant species were recorded for the study area. A total of 7 native vascular plant species were recorded for the adjacent area of Taits Road roadside reserve. This vegetation is not proposed to be impacted on as the existing access is to be retained and utilised.

Refer to Table 1 for a list of all recorded native vascular plant species, including conservation status.

Refer to Table 2 for a list of dominant exotic vascular plant species recorded within the study area.

Table 1 Indigenous vascular plant species recorded within the adjacent area of Taits Road roadside reserve (Figure 4).

Botanical Name	Common Name	Status
Acacia longifolia ssp. sophorae	Coaast Wattle	L
Acacia paradoxa	Hedge Wattle	L
Clematis microphylla	Small-flower Clematis	L
Leptospermum laevigatum	Coast Tea-tree	L
Leucopogon parviflorus	Copast Beard-heath	L
Rhagodia candoll;eana	Seaberry Saltbush	L
Tetragonia implexicoma	Bower Spinach	L

Status: L- Local Conservation Significance

Table 2 Exotic vascular plant species recorded within the study area

Botanical Name	Common Name
Bromus diandrus	Brome Grass
Catapogon rigidum	Fern Grass
Cenchrus clandestinus	Kikuyu
Cotoneaster sp	Cotoneaster
Cynodon dactylon	Couch Grass
Dactylis glomeratus	Cock's-foot Grass
Galenia pubescens	Blanket Weed
Hypochaeris radicata	Flatweed
Lagurus ovatus	Hare's-tail Grass
Meliotus indicus	Meliot
Rhamnus alaternus	Italian Buckthorn
Stenotaphrum secundatum	Buffalo Grass

3.4 Significant Plant Species

The seven recorded native species are assessed to be of Local conservation significance.

Refer to Table 1 for a list of significant plant species. Refer to Figure 4 for the location of native vegetation recorded this assessment on Taits Road roadside Reserve. Refer to Appendix 1 for a rationale for assessing conservation significance.

Figure 4. Location of native vegetation on Taits Road roadside reserve recorded this assessment. There are no implications for this vegetation.

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4 State

4.1 Native Vegetation Permitted Clearing Regulations

Under Particular Provision (Native Vegetation Clause 52.17) the State has gazetted the Native Vegetation Permitted Clearing Regulations (the 'Regulations'), revised in December 2017. The reforms introduce a risk-based approach to assessing applications to remove native vegetation.

The objective for the permitted clearing of native vegetation is that it results in no net loss. This means permitted clearing has a neutral impact on Victoria's biodiversity.

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* (Department of Environment, Land, Water and Planning, 2017) 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.

To manage the removal, destruction or lopping of native vegetation to minimise land and water degradation. (DEECA Website i).

When native vegetation removal is permitted, an offset must be secured which achieves a no net loss outcome for biodiversity. To achieve this the offset makes a contribution to Victoria's biodiversity that is equivalent to the contribution made by the native vegetation that was removed. The type and amount of offset required depends on the native vegetation being removed and the contribution it makes to Victoria's biodiversity.

Implications for the current proposal are discussed as follows. Refer to Figure 5 for Location mapping (DEECA data).

4.1.1 Patch Native Vegetation

Under the Regulations, any areas of patch native vegetation that are proposed to be removed are subject to protection/and or recruitment offsets, depending upon the characteristics of the site.

No patch native vegetation was recorded for the study area.

4.1.2 Scattered Tree Native Vegetation

Under the Regulations, any scattered native canopy trees that are proposed to be removed are subject to protection/and or recruitment offsets, depending upon the characteristics of the site. For practicality, a standard extent amount has been developed for scattered trees, based on the habitat hectare assessment method. Within the Otway Plain bioregion, EVC 858 has no canopy trees.

No scattered tree native vegetation was recorded for the study area.

4.1.3 Current Survey Results

The results show that the study area carries no native vegetation:

The site is not subject to DEECA current wetlands mapping overlay.

Consequently, there are no implications for the removal of native vegetation under the Planning Scheme Clause 52.17 Regulations.

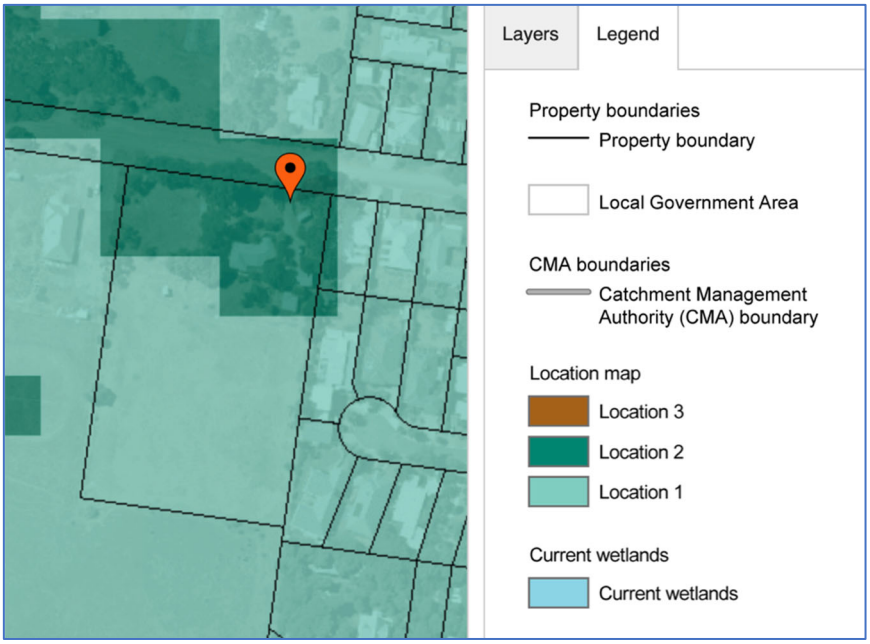

Figure 5. DEECA Location Mapping. The study area is located in Locations 1 and 2.

4.2 State Flora and Fauna Guarantee Act

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes.

The flora and fauna conservation and management objectives, as outlined under the *Flora and Fauna Guarantee Act 1988*, are:
(a) to guarantee that all taxa of Victoria's flora and fauna can survive, flourish and retain their potential for evolutionary development in the wild
(b) to conserve Victoria's communities of flora and fauna
(c) to manage potentially threatening processes
(d) to ensure that any use of flora or fauna by humans is sustainable
(e) to ensure that the genetic diversity of flora and fauna is maintained
(f) to provide programs:
(i) of community education in the conservation of flora and fauna
(ii) to encourage co-operative management of flora and fauna through, amongst other things, the entering into of land management co-operative agreements under the *Conservation, Forests and Lands Act 1987*
(iii) of assisting and giving incentives to people, including landholders, to enable flora and fauna to be conserved
(g) to encourage the conserving of flora and fauna through co-operative community endeavors.

The surrounds are a major conservation and ecological resource containing a number of communities and taxon listed under the *Flora and Fauna Guarantee Act 1988* including*;*

- The ‘Coastal Moonah Woodland’ community (Threatened community).
- The Rufous Bristlebird (Vulnerable).
- Coast Wirilda (Endangered)
- Dune Poa (Endangered).
- Acacia species (Wattles) are a listed taxon. (DEECA website iv).

4.2.1 Implications

No FFG Act listed taxon or communities were recorded for the study area.

Consequently, there are no implications for the current proposal under the FFG Act.

4.3 SLO16

RIVERS OF THE BARWON: BARWON RIVER (PARWAN) CORRIDOR ENVIRONS
Statement of nature and key elements of landscape

The Barwon River (Parwan) forms part of the connected system of rivers within the Barwon catchment (Barre Warre Yulluk). The river has intrinsic spiritual connections and living cultural heritage significance to Traditional Owners and is of high natural and landscape value.

From the Lake Connewarre system, the river is fringed by mangroves and the beaches of Barwon Heads and Ocean Grove. The final section of the river is characterised by river channelling through sandbars and mudflats, and views of Barwon Bluff, Ingamells Bay and Bass Strait beyond.

Landscape character objectives to be achieved

To enhance the continuous riparian corridor landscape.

To retain canopy trees as a dominant landscape feature and vegetation that contributes to landscape character, heritage values and neighbourhood character, ensuring it responds to the bushfire risk of a location.

To ensure buildings and works are not visually dominant when viewed from the waterway corridor.

To encourage buildings and works to be set back from the banks of the river to avoid overshadowing and visual intrusion within the landscape and maintain an open waterway corridor.

To ensure the location and size of earthworks minimises alterations to natural topography and is consistent with the landscape character.

Permit requirement

A permit is required to:

- *Remove, destroy, or lop native vegetation.*

(DEECA website i).

4.3.1 Implications

No native vegetation is proposed to be removed. Therefore, there are no implications for the current proposal for SLO16 for native vegetation.

5 CONCLUSIONS

The study area all of the property at 135 Taits Road Barwon Heads, located within the City of Greater Geelong. This assessment considers the entire property as well as the adjacent area of Taits Road roadside reserve.

This report finds the study area to be heavily degraded and dominated by exotic weed species and planted non-native vegetation (trees and shrubs). No native vegetation is proposed to be removed.

The adjacent area of Taits Road roadside reserve was also assessed and was found to be, in part, comprised of native vegetation. This vegetation is not proposed to be impacted on.

There are no implications for the removal of native vegetation under the Planning Scheme Clause 52.17 Regulations

There are no implications for the current proposal under the FFG Act.

No native vegetation is proposed to be removed. Therefore, there are no implications for the current proposal for SLO16 for native vegetation.

There are not considered to be any significant limitations to the findings of this report.

Plates 1-6 Study area vegetation

Plate 1. Study area. Exotic degraded vegetation typical conditions.

Plate 2. Study area. Exotic degraded vegetation typical conditions.

Plate 3. Study area. Exotic vegetation typical conditions.

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Plate 4. Study area. Exotic vegetation typical conditions.

Plate 5. Native vegetation adjacent to study area, Taits Road roadside reserve.

Plate 6. Native vegetation adjacent to study area, Taits Road roadside reserve.

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6 References

Conn, B J (1993). Natural regions and vegetation of Victoria. Pp. 79-158 In Foreman, D B and Walsh, G (eds.) 'Flora of Victoria Volume 1: Introduction.' Inkata Press, Melbourne.

Corangamite Catchment Management Authority (2005). 'Corangamite Native Vegetation Plan' CCMA, Victoria.

DEECA Website i.
https://planning-schemes.app.planning.vic.gov.au/GREATER%20GEELONG/ordinance/8633195

DEECA Website ii.
https://www.environment.vic.gov.au/native-vegetation/native-vegetation

DEECA Website iii.
https://maps2.biodiversity.vic.gov.au/Html5viewer/index.html?viewer=NatureKit

DEECA Website iv.
https://nvim.DEECA.vic.gov.au/Biodiversity

DEECA Website v.
https://www.environment.vic.gov.au/conserving-threatened-species/flora-and-fauna-guarantee-act-1988

Oates, A. & Taranto, M. (2001). 'Vegetation Mapping of the Port Phillip &Westernport region' Arthur Rylah Institute for Environmental Research, DNRE, Victoria.

Parkes, D., Newell, G. & Cheal, D. (2003). 'Assessing the Quality of Indigenous Vegetation: The Habitat Hectares Approach' Parks, Flora & Fauna Division, DNRE, Victoria.

Walsh, N G & Entwisle, T (1994-1999). 'Flora of Victoria Vol 2-4' Inkata Press, Melbourne.

Vicflora online
https://vicflora.rbg.vic.gov.au

Appendix 1 Assessing conservation significance

Conservation significance is assessed at a range of scales, including national, state, regional and local. Criteria used for determining the conservation significance of flora at national to local scales are presented below for botanical conservation significance.

Botanical Significance

National botanical significance applies to an area when it supports one or more of the following attributes:

a population of at least one nationally threatened plant species listed by Briggs and Leigh (1996) or plant species listed on the schedules to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

A nationally threatened ecological community listed on the schedules of the *Environment Protection and Biodiversity Conservation Act 1999*.

State botanical significance applies to an area when it supports one or more of the following attributes:

A population of at least one plant species threatened in Victoria, as listed on the schedules to the Victorian *Flora and Fauna Guarantee Act 1988*.

An ecological community considered threatened in Victoria through its listing on the schedules of the *Flora and Fauna Guarantee Act 1988*.

Regional botanical significance applies to an area that supports one or more of the following attributes:

Supports a population of one or more regionally depleted species defined in a valid regional assessment of biodiversity (eg. Regional Native Vegetation Plan, Environment Conservation Council Report or Comprehensive Regional Assessment documents).

An ecological vegetation class that is considered endangered or vulnerable in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

An ecological vegetation class that is considered depleted in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

Local botanical significance applies to all remnant native vegetation that does not meet the above criteria. In much of Victoria native vegetation has been so depleted by past clearing and disturbance that all remaining vegetation must be considered to be of at least local conservation significance.