



ÖKOLOGIE CONSULTING

Flora and Fauna Survey and Vegetation Assessment

460 Grossmans Road, Bellbrae, Victoria


**Prepared for:
St Quentin Consulting**

PLANNING DEPARTMENT ACT 150
SURF COAST SHIRE COUNCIL

This plan/proposal complies with the requirements of Clause
.....43.04..... of the Surf Coast Planning Scheme.

Approval No: 14/043

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Signature for the Responsible Authority

THIS IS NOT A BUILDING APPROVAL





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Document Information

Flora and Fauna Survey and Vegetation Assessment
460 Grossmans Road, Bellbrae, Victoria

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Document Control

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Summary

Okologie Consulting was engaged by St Quentin Consulting Pty Ltd to prepare a flora and fauna survey and vegetation assessment for the property at 460 Grossmans Road, Bellbrae, Victoria.

The site is proposed for residential subdivision, and the assessment forms part of the approval requirements under the Development Plan Overlay – Schedule 11 of the Surf Coast Planning Scheme.

The majority of the site has been modified from agricultural activities (grazing) and was dominated by introduced pasture. Native vegetation was limited to a highly modified cover of Grassy Woodland and several scattered indigenous trees. Planted native (non-indigenous) and exotic trees and shrubs were present within shelterbelts and around parts of the property boundary. The road reserve along Grossmans Road contains a modified cover of Grassy Woodland and Heathy Woodland.

No listed threatened flora or fauna species were recorded within the site during the field assessment, and none are considered likely to occur due to the absence of suitable habitat.

The development plan indicates the proposed works will require the removal of five scattered indigenous trees (one living and four dead) within residential lots, and 0.01 hectares of Grassy Woodland in the road reserve for site access requirements. However, two scattered trees and 0.03 hectares of Grassy Woodland will be retained in the western section of the site.

The proposed removal of native vegetation requires a permit under Clause 52.17 of the Surf Coast Planning Scheme. A low risk-based pathway application has been prepared to meet the requirements of the *Permitted clearing of native vegetation – Biodiversity assessment guidelines*.

The biodiversity impact and offset requirements report identified a general offset of 0.026 General Biodiversity Equivalence Units is required. The offset must have a minimum strategic biodiversity score of 0.186 and be within the Corangamite Catchment Management Authority boundary.

Preparation of a Construction Environment Management Plan is recommended to mitigate the potential impacts of the proposed works on ecological values within and adjacent to the site (i.e. the road reserve).



1 Introduction

1.1 Project Background

Okologie Consulting was engaged by St Quentin Consulting Pty Ltd to prepare a flora and fauna survey and vegetation assessment for the property at 460 Grossmans Road, Bellbrae, Victoria.

The site is proposed for residential subdivision, and this assessment forms part of the approval requirements under the Development Plan Overlay – Schedule 11 (DPO11) of the Surf Coast Planning Scheme (DELWP 2015a).

The flora and fauna survey and vegetation assessment was required to ascertain the presence of indigenous flora and fauna and associated habitats, and determine the extent of native vegetation within the site. Ecology Partners (2010) previously prepared a 'Flora and Fauna Assessment' and provided preliminary advice on potential ecological constraints.

This report has been prepared to respond to the application requirements under the *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (the Guidelines) (DEPI 2013a).

1.2 Objectives

The objectives of the assessment were to:

- Identify and assess terrestrial ecological values (i.e. vegetation communities, flora and fauna species and associated habitats) within the site and surrounding areas (i.e. road reserves).
- Ensure ecological values are identified in the early development phase.
- Identify environmental legislation and policy requirements in relation to the proposed works.
- Provide advice on mitigation measures that may reduce the potential impacts of the proposed works on ecological values within the site.

1.3 Site Description

The site is located at 460 Grossmans Road, Bellbrae, Victoria (Lot 2 PS 614103). The area within the property proposed for development covers approximately 31 hectares (Figure 1). It is bound by Grossmans Road to the south and private property to the north, east and west. The majority of land within the surrounding area has been subject modification through agricultural use.

The site occurs within the Otway Plain bioregion, the Corangamite Catchment Management Authority area and the Surf Coast Shire municipality. The Native



Vegetation Location Risk mapping shows the site occurs within Location A (DELWP 2015a).

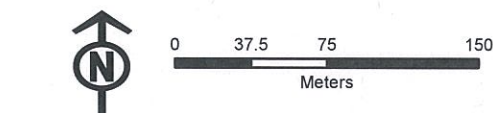
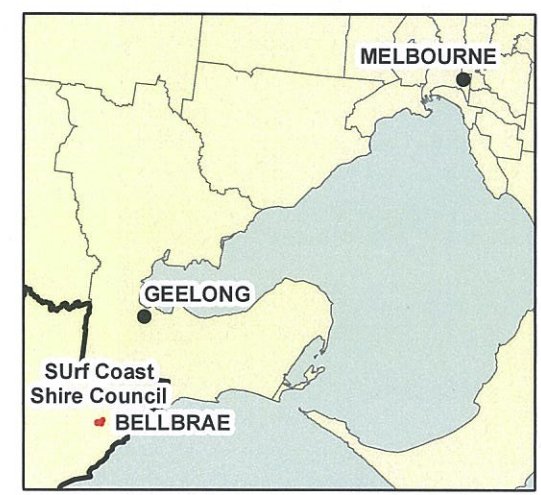
The site is zoned Low Density Residential Zone (LDRZ) and is subject to DPO11 under the Surf Coast Planning Scheme (DELWP 2015b).



Figure 1
Site Location Plan
460 Grossmans Road, Bellbrae

Legend

-  Subject Site
-  Contour Lines





2 Methodology

2.1 Species Information

Scientific and common names of flora species follow the Australian Plant Census (Australian National Botanic Gardens 2015). The names of terrestrial vertebrate fauna follow the Victorian Biodiversity Atlas (VBA) (DELWP 2015c). Vegetation community names follow the Ecological Vegetation Class (EVC) bioregion benchmarks (DEPI 2014a).

Native flora and fauna species referred to as 'threatened' refers to:

- Conservation status in Australia: listed as critically endangered, endangered or vulnerable under the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act).
- Conservation status in Victoria: listed as critically endangered, endangered, vulnerable or rare on Victoria's rare or threatened flora and fauna advisory lists (DEPI 2015; 2013).
- Listed as Threatened under the *Flora and Fauna Guarantee Act 1988* (FFG Act).

2.2 Desktop Assessment

A desktop assessment was undertaken of relevant databases and other resources, including:

- The Biodiversity Interactive Map for modelled biodiversity data (DELWP 2015a).
- Planning Schemes Online for planning information (DELWP 2015b).
- The VBA for threatened flora and fauna species records (DELWP 2015c).
- The Protected Matters Search Tool (PMST) for information relating to matters of National Environmental Significance (NES) (listed species and communities) under the *Environment Protection and Biodiversity Conservation Act 1999* (DOE 2015).
- Relevant environmental legislation, policies and strategies.
- Previous ecological reports for the site.

2.3 Field Assessment

The field assessment was undertaken on 9 May 2014. The weather was cool and overcast, with a temperature of 18°C (BOM 2014). The assessment involved traversing the entire site and surrounding areas on foot to identify ecological values. A list of all observed flora and fauna species, and associated habitats were documented during the assessment.

Vegetation mapping of the site included mapping the extent of native vegetation onto an aerial photograph, as well as mapping polygons with a hand-held GPS (accuracy \pm five metres), with coordinates recorded to GDA 94 (WGS 84). EVCs were determined by





reference to the relevant bioregion pre-1750 and extant EVC mapping and benchmarks descriptions (DELWP 2015a), and review of remnant vegetation in the local area. Native vegetation in the area was classified and mapped according to the requirements of the Guidelines (DEPI 2013a).

2.4 Biodiversity Assessment Guidelines

The Guidelines outline how impacts on biodiversity should be considered when assessing a permit application to remove, lop or destroy native vegetation (DEPI 2013a).

The objective for permitted clearing of native vegetation is that it results in no net loss, or a neutral impact on Victoria's biodiversity. This is achieved in part by either avoiding or minimising native vegetation removal, so that all or some of the removal of native vegetation does not occur. 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 (DEPI 2013a).

The definition of native vegetation in Clause 72 of the Victoria Planning Provisions is *plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses* (DEPI 2013a).

Under the Guidelines native vegetation is classified as a *remnant patch* or *scattered tree*.

A remnant patch of native vegetation (measure in hectares) is either:

- An area of native vegetation¹, with or without trees, where at least 25 per cent of the total perennial understorey plant cover is native plants.
- An area with three or more indigenous canopy trees where the tree canopy cover is at least 20 per cent.

A scattered tree is defined² as

- An indigenous canopy tree that does not form part of a remnant patch (DEPI 2013a).

There are three risk-based pathways for assessing an application to remove native vegetation: low, medium and high. The risk-based pathway is determined by considering the extent and location risk of the vegetation to be removed (DEPI 2013a).

¹ An area of native vegetation is defined as *continuous and unbroken native vegetation*. A break in remnant patch will occur where the definition of remnant patch has not been met for a continuous width of at least 10 metres (DEPI 2013a).

² DEPI also defines a scattered tree as 'A canopy tree is a mature tree that is greater than three metres in height and is normally found in the upper layer of a vegetation type' (DEPI 2013c).



Table 1: Risk-based pathways for remnant patches and scattered trees

For remnant patch	Location		
Extent*	Location A	Location B	Location C
< 0.5 hectares	Low	Low	High
≥ 0.5 hectares and < 1 hectare	Low	Moderate	High
≥ 1 hectare	Moderate	High	High
For scattered trees	Location		
Extent*	Location A	Location B	Location C
< 15 scattered trees	Low	Moderate	High
≥ 15 scattered trees	Moderate	High	High

Source: DEPI (2013a)

Review of the Native Vegetation Information Management (NVIM) system identified the application is under the low risk-based pathway (DELWP 2015d). The information and data provided with this report follows the requirements of the *Permitted clearing of native vegetation - Meeting the low risk-based pathway applications requirements* (DEPI 2013b).

2.5 Limitations

The preferred survey period for undertaking vegetation assessments in Victoria is spring, which maximises the likelihood of detecting all flora species within a site. While autumn is still considered adequate for a general vegetation survey, the limitations of seasonal influence on the presence/absence of flora species (particularly annuals) must be considered. The short duration of the assessment limited the opportunity to observe migratory, transitory or uncommon fauna species.

A flora and fauna assessment is generally not required as part of an application under the Guidelines, as impacts on biodiversity have been considered within the Native Vegetation Location Risk mapping (DELWP 2015a). However, the likelihood of occurrence of listed threatened species recorded within the local area has been considered (Appendix 1).

The information outlined in this report relies on the accuracy of ecological database information, GIS layers and spatial imagery. To minimise potential errors, the most current available data was obtained from relevant sources.

The DEPI bioregion and EVC mapping are subject to inherently broad environmental and ecological parameters used in the mapping process. Where the observed EVC was not reflective of what would be expected from EVC mapping and classification, it was attributed to the most appropriate EVC based on combination of its floristic, life form and ecological characteristics, and particular environmental conditions.





3 Results

3.1 Ecological Vegetation Classes

The Biodiversity Interactive Map modelling indicates that pre-1750 EVC mapping for the site and immediate surrounds would have predominantly comprised Heathy Woodland/Sand Heathland Mosaic (EVC 892) with Grassy Woodland (EVC 175) in the surrounding area. Extant EVC mapping shows the site is mostly devoid of native vegetation, with patchy cover of Heathy Woodland/Sand Heathland Mosaic and Grassy Woodland in the surrounding area (DELWP 2015a).

The site supports one small remnant patch of Grassy Woodland in the western section of the site. The road reserve along Grossmans Road contains a modified cover of Grassy Woodland and Heathy Woodland (EVC 48) (Figure 2).

3.2 Vegetation Condition

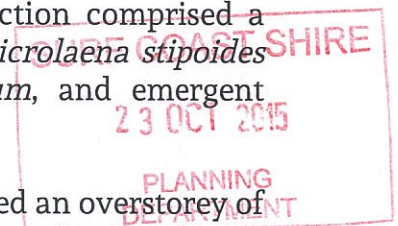
The majority of the site has been modified from agricultural activities (grazing) and was dominated by introduced pasture. Planted native (non-indigenous) and exotic trees and shrubs were present within shelterbelts and around parts of the property boundary. Native vegetation was limited to a highly modified cover of Grassy Woodland and scattered indigenous trees, the majority of which were dead. The road reserve along Grossmans Road contains a modified cover of Grassy Woodland and Heathy Woodland (Figure 2).

Areas of open pasture were generally dominated by exotic species such as Perennial Ryegrass *Lolium perenne*, Soft Brome *Bromus hordeaceus*, Barley Grass *Hordeum vulgare*, Cape Weed *Arctotheca calendula*, Cat's Ear *Hypochoeris radicata*, Toowoomba Canary Grass *Phalaris aquatica*, Cocksfoot *Dactylis glomerata*, Brown-top Bent *Agrostis capillaris* and Spear Thistle *Cirsium vulgare*. Indigenous species present included a sparse cover (~1%) of Pale Rush *Juncus pallidus*, Finger Rush *Juncus subsecundus* and Clammy Goosefoot *Chenopodium pumilio*. These areas have been mapped as Predominantly Introduced Vegetation (PIV) (Figure 2).

Dead trees throughout the site were attributed to Grassy Woodland EVC. The majority of these trees were considered canopy trees, based on the Diameter at Breast Height.

The small remnant patch of Grassy Woodland in the western section comprised a modified cover (>25%) of native grasses such as Weeping Grass *Microlaena stipoides* var. *stipoides* and Stiped Wallaby-grass *Rytidosperma racemosum*, and emergent Narrow-leaf Peppermint saplings (Figure 2).

Areas of Grassy Woodland within the road reserve (Figure 2) contained an overstorey of Messmate Stringybark *Eucalyptus viminalis* and Narrow-leaf Peppermint *Eucalyptus radiata* (canopy cut back for maintenance works). The understorey was generally a sparse cover of Prickly Tea-tree *Leptospermum continentale*, Hedge Wattle *Acacia paradoxa* and Myrtle Wattle *Acacia myrtifolia*. The ground layer contained Black-













anther Flax-lily *Dianella admixta*, Kangaroo Grass *Themeda triandra*, Thatch Saw-sedge *Gahnia radula* and Wattle Mat-rush *Lomandra filiformis*. Exotic species present included Toowoomba Canary Grass *Phalaris aquatica*, Cocksfoot *Dactylis glomerata*, Brown-top Bent *Agrostis capillaris*, Ribwort *Plantago lanceolata* and Small Quaking-grass *Briza minor*.

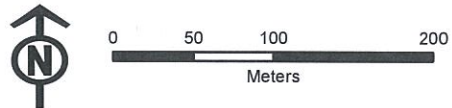
Areas of Heathy Woodland within the road reserve (Figure 2) contained an overstorey of Swamp Gum *Eucalyptus ovata*, with Brown Stringybark *Eucalyptus baxteri* also present in some areas (canopy cut back for maintenance works). The understorey consisted of Prickly Tea-tree, Drooping She-oak *Allocasuarina littoralis*, Golden Wattle *Acacia pycnantha* and Blackwood *Acacia melanoxylon*. The ground layer comprised Thatch Saw-sedge, Wire Rapier-sedge *Lepidosperma semiteres*, Common Rapier-sedge *Lepidosperma filiforme*, Common Raspwort *Gonocarpus tetragynus* and Honey Pots *Acrotriche serrulata*. Exotic species included Gorse *Ulex europaeus*, Yorkshire Fog-grass *Holcus lanatus*, Bucks-horn Plantain *Plantago coronopus*, Toowoomba Canary Grass and Cocksfoot.



Figure 2
Ecological Values
460 Grossman Road, Bellbrae

Legend

-  Subject Site
-  Live Scattered Tree
-  Dead Scattered Tree
-  Dead Trees < 3m Tall
-  Grassy Woodland
-  Heathy Woodland
-  Predominantly Introduced Vegetation (PIV)
-  Contour Lines



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3.3 Flora

Seventy eight flora species, comprising 36 indigenous, 40 exotic and two planted native species were recorded during the field assessment (Appendix 2). No listed threatened flora species were recorded within the site or surrounding area (i.e. road reserve) during the field assessment.

3.4 Threatened Flora Species

No listed threatened flora species were recorded within the site during the field assessment. Ecology and Heritage Partners (2010) previously recorded several Bellarine Yellow-gum *Eucalyptus leucoxylon* subsp. *bellarinensis* trees within the site (listed as Threatened under the FFG Act and endangered in Victoria; DEPI 2015). However, this species was incorrectly identified, and is the locally common Narrow-leaf Peppermint.

The VBA (DELWP 2015c) contains records of five listed threatened flora species in local area (within a five kilometre radius of the site) (Appendix 3). The PMST (DOE 2015) identified eight additional EPBC Act listed flora species or species habitats as likely to occur within the local area. There is a low likelihood of occurrence for any listed threatened species due to the modified condition of habitat within the site.

3.5 Significant Ecological Communities

Review of the PMST (DOE 2015) identified that three nationally listed ecological communities may occur within the local area. These communities include:

- Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically Endangered).
- Natural Temperate Grassland of the Victorian Volcanic Plain (Critically Endangered).
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered).

No listed threatened ecological communities were identified within the site or surrounding area (DOE 2015).

3.6 Fauna

Twenty four fauna species were recorded during the field assessment, comprising 21 native and three exotic species (all birds) (Appendix 4). No listed threatened fauna species were recorded within the site or surrounding area during the assessment.

The relatively low number of fauna species observed during the field assessment was attributed to the highly modified condition of habitat within the site. Common species present were those typically associated with modified habitats, including Welcome Swallow *Petrochelidon neoxena*, Australian Magpie *Gymnorhina tibicen*, Willie



Wagtail *Rhipidura leucophrys*, Welcome Swallow *Hirundo neoxena*, European Skylark *Alauda arvensis*, Common Blackbird *Turdus merula* and Common Starling *Sturnus vulgaris*.

A more diverse range of fauna was observed in adjacent areas of Grassy Woodland along the road reserve, including Grey Shrike-thrush *Colluricincla harmonica*, Brown Thornbill *Acanthiza pusilla*, New Holland Honeyeater *Phylidonyris novaehollandiae*, Eastern Rosella *Platycercus eximius* and Rainbow Lorikeet *Trichoglossus haematodus*.

A number of species were observed flying over the site and surrounding area, including Straw-necked Ibis *Threskiornis spinicollis*, Black-shouldered Kite *Elanus axillaris* and Galah *Eolophus roseicapilla*.

3.7 Threatened Fauna

No listed threatened fauna species or associated habitats were observed during the field assessment and none have previously been recorded within the assessment area (Ecology Partners 2010).

The VBA (DELWP 2015c) contains records of 27 listed threatened fauna species in the local area (within a 5 km radius of the site) (Appendix 5). The PMST (DOE 2015) identified 13 additional EPBC Act listed fauna species or species habitats as likely to occur within the local area. No listed threatened fauna species are considered likely to occur within the site due to the absence of suitable habitat.

3.8 Description of Vegetation Proposed for Removal

The development plan indicates the proposed works will require the removal of five scattered indigenous trees (one living and four dead) within residential lots, and 0.01 hectares of Grassy Woodland in the road reserve for site access requirements.

The road access will require the removal of 0.01 hectares of Grassy Woodland, which contains Drooping She-oak shrubs and native grasses and sedges in the understorey (Plate 1) (Figure 3).

The five scattered trees proposed for removal include one Narrow-leaf Peppermint tree (living tree) (Plate 2), and four dead scattered trees (Figure 3). An additional 11 dead trees identified for removal do not meet the classification as a scattered tree (DEPI 2013c), as the canopy has either fall down or they have been removed for firewood.













Plate 1: Grassy Woodland within the road reserve proposed for removal (Source: Okologie Consulting)

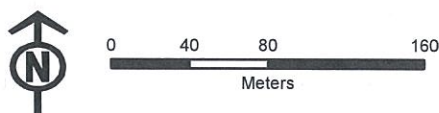


Plate 2: Scattered tree (Narrow-leaf Peppermint) proposed for removal (Source: Okologie Consulting)

Figure 3
Vegetation Proposed for Removal
460 Grossman Road, Bellbrae

Legend

-  Subject Site
-  Live Scattered Tree
-  Dead Scattered Tree
-  Dead Trees < 3m Tall for Removal
-  Trees to be Removed
-  Grassy Woodland
-  Heathy Woodland
-  Predominantly Introduced Vegetation (PIV)



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4 Environmental Legislation and Policy Implications

4.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act provides a process for assessment of proposed actions that may have a significant impact on a matter of NES, which includes listed threatened species and ecological communities.

The EPBC Act affects any group or individual (including companies) whose actions are assessed for environmental impacts under the EPBC Act. An action is broadly defined under the Act, and includes 'a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things' (Commonwealth of Australia 2009).

An action will require approval from the Commonwealth Environment Minister if the action has, will have, or is likely to have, a significant impact on a matter of NES.

Implications for the Proposed Development

No EPBC Act listed threatened flora or fauna species were recorded within the site during the field survey, and none are considered likely to occur as no suitable habitat is present. Native vegetation within the surrounding area does not meet the threshold requirements for any EPBC Act listed ecological communities.

A referral to the Commonwealth Environment Minister is not required, as no matters of NES are likely to be impacted by the proposed development.

4.2 Flora and Fauna Guarantee Act 1988

The FFG Act is the main Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes.

The FFG Act contains a list of threatened flora and fauna species and vegetation communities in accordance with Section 10 of the Act. In addition, 'Protected Flora' are species identified for protection under the Act, and includes species from three sources:

- Flora declared to be protected under section 46 of the FFG Act.
- Flora (species, subspecies or varieties) listed as threatened under section 10 the FFG Act.
- Flora belonging to communities listed as threatened under section 10 the FFG Act.

A permit is required from DSE to 'take' (kill, injure, disturb or collect) listed flora species, flora species that are members of listed communities or protected flora from public land. This includes any of the Asteraceae (Daisies), all orchids, ferns (excluding





Bracken) and Acacia species (excluding *Acacia dealbata*, *Acacia decurrens*, *Acacia implexa*, *Acacia melanoxylon* and *Acacia paradoxa*).

Implications for the Proposed Development

An FFG Act permit is generally not required for removal of protected flora species on private land. No listed threatened or protected flora species are located within the two proposed site access roads (i.e. in the road reserve) therefore an FFG Act permit is unlikely to be required.

4.3 Planning and Environment Act 1987

The purpose of the *Planning and Environment Act 1987* is to establish a framework for planning the use, development and protection of land in Victoria. Native vegetation clearance is managed under the Act and through municipal planning schemes (DSE 2010).

Under Clause 52.17 Native Vegetation, a permit is required to remove, destroy or lop native vegetation, including dead vegetation (on a site of more than 0.4 hectares) but this does not apply if the application is exempt under the schedule to Clause 52.17.

Planning schemes may contain other provisions in relation to the removal of native vegetation. For example several environment and land management overlays include requirements to obtain a planning permit to remove, destroy or lop any vegetation that are separate to the permit requirements in Clause 52.17 (DSE 2010).

The impact on Victoria's biodiversity associated with removal of native vegetation requires consideration under the Guidelines, when applying for a permit under Clause 52.17. An application is classified under the low, medium or high risk-based pathway as defined in the Guidelines (DEPI 2013). Each risk pathway has specific application requirements and decision guidelines that must be considered (DEPI 2013).

Clause 66.02-2 requires that the following applications to remove native vegetation, triggered under Clause 52.17, be referred to DEPI for assessment:

- Applications in the low risk-based pathway where the native vegetation to be remove is 0.5 hectares or more;
- All applications in the moderate risk-based pathway;
- All applications in the high risk-based pathway;
- Applications where a property vegetation plan applies to the site; and,
- Applications on Crown land that is occupied or managed by the responsible authority (DEPI 2013).

Implications for the Proposed Development

The proposed development has been designed to avoid and minimise the removal of native vegetation as much as practicable. The development plan indicates the proposed



works will require the removal of five scattered indigenous trees (one living and four dead) within residential lots, and 0.01 hectares of Grassy Woodland in the road reserve for site access requirements. However, two scattered trees and 0.03 hectares of Grassy Woodland will be retained in the western section of the site (Figure 3).

The site contains eleven dead trees that do not meet the classification as a scattered tree (DEPI 2013b); however, these trees are above 1.3 metres and have a Diameter at Breast Height of >40 cm (DTPLI 2014). The removal of these trees will require a permit under Clause 52.17; however, there is no offset requirement under the Guidelines (DELWP pers. comm.).

The proposed removal, destruction or lopping of native vegetation requires a permit under Clause 52.17 of the Surf Coast Planning Scheme (DELWP 2015b). A low risk-based pathway application has been prepared to meet the requirements of the Guidelines (DEPI 2013a) (Table 1). The Low risk-based pathway permit application form is provided in Appendix 6.

A planning permit is not to be required to remove planted native vegetation on the site (if required for removal).

4.4 Catchment and Land Protection Act 1994

The *Catchment and Land Protection Act 1994* (CaLP Act) is the main legislation covering noxious weed and pest animal management in Victoria. Under this Act species of plants and animals can be declared as noxious weeds and pest animals.

Under the CaLP Act all landowners have legal obligations regarding the management of declared noxious weeds and pest animals on their land. In relation to his or her land a landowner must take all reasonable steps to:

- Eradicate regionally prohibited weeds.
- Prevent the growth and spread of regionally controlled weeds.
- Prevent the spread of regionally controlled weeds and established pest animals on a roadside that adjoins the landowner's land (DPI 2010).

Implications for the Proposed Development

The site contains several regionally controlled weeds (Appendix 2). To meet land management requirements under the CaLP Act, land managers are required to take all reasonable steps to prevent the growth and spread of regionally controlled weeds.



5 Biodiversity Assessment

5.1 Application Requirements

The low risk-based pathway application response follows the Guidelines (DEPI 2013a) and is outlined in Table 1. The Biodiversity impact and offset requirements report (DELWP 2015d) is provided as Appendix 7.

Table 1: Application requirements for applications for a permit to remove native vegetation

Number	Application Requirement	Response
1.	Location of the site of native vegetation to be removed, including the address.	The site is located at 460 Grossmans Road, Bellbrae, Victoria (Lot 2 PS 614103). It covers approximately 31 hectares and is bound by Grossmans Road to the south and private property to the north, east and west (Figure 1).
2.	A description of the native vegetation to be removed including: <ul style="list-style-type: none">whether the native vegetation is classified as a remnant patch or scattered treesthe area of any remnant patches of native vegetationthe number of any scattered trees.	<p>Native vegetation within the site is classified as a remnant patch and scattered trees under the Guidelines (DEPI 2013a). Vegetation proposed for removal comprises:</p> <ul style="list-style-type: none">One remnant patch of Grassy Woodland covering 0.01 hectares.Five scattered trees. <p>The location of native vegetation proposed for removal is shown in Figure 3.</p>
3.	Maps or plans containing the following information:	The location of native vegetation proposed for removal is shown in





	<ul style="list-style-type: none"> • north point and property boundaries • all areas of native vegetation, clearly showing the native vegetation to be removed (including any area that the Country Fire Authority has recommended for removal or management for fire protection purposes) • all scattered trees to be removed 	Figure 3. No vegetation is proposed for removal for fire protection. Five scattered trees are proposed for removal (one live and four dead) (Figure 3).
4.	Recent photographs of the native vegetation to be removed.	Photographs of native vegetation proposed for removal are shown Page 16).
5.	The risk-based pathway of the application to remove native vegetation.	Low risk-based pathway.
6.	Where the purpose of removal, destruction or lopping of native vegetation is to create defendable space, a statement is required that explains why removal, destruction or lopping of native vegetation is necessary. The statement must have regard to other available bushfire risk mitigation measures. This requirement does not apply to the creation of defendable space in conjunction with an application under the BMO.	The proposed vegetation removal does not relate to bushfire risk mitigation measures.
7.	A copy of any property vegetation plan that applies to the site.	A property vegetation plan does not apply to the site.
8.	Details of any other native vegetation that was permitted to be removed on the same contiguous parcel of land with the same ownership as the native vegetation to be removed, where the removal occurred in the five year	No permitted removal of other native vegetation has been undertaken on the same contiguous parcel of land within the past five years.





	period before the application to remove native vegetation is lodged.	
9.	The strategic biodiversity score of the native vegetation to be removed.	The strategic biodiversity score of native vegetation to be removed is 0.233
10.	The offset requirements should a permit be granted to remove native vegetation.	A general offset of 0.026 General Biodiversity Equivalence Units is required. The Offset must have a minimum strategic biodiversity score of 0.186 and be within the Corangamite Catchment Management Authority boundary.





6 Potential Impacts and Mitigation Measures

6.1 Potential Impacts

The majority of the development area is highly modified as a result of agricultural use of the site and does not support habitat for any listed threatened flora or fauna species. The proposed development will result in the loss of 0.01 hectares Grassy Woodland and five scattered trees. The road reserve contains areas of Grassy Woodland and Heathy Woodland that should be avoided during construction. Construction activities also have the potential to spread noxious and environmental weeds that occur within the site.

6.2 Mitigation Measures

Mitigation measures to reduce the potential impacts of the proposed works include preparation of a Construction Environment Management Plan (CEMP) prior to construction works. The CEMP should include:

- An induction for contractors regarding ecological values within the area.
- Designated 'no go' zones to avoid any disturbance or damage to native vegetation adjacent to construction areas (particularly along the road reserve).
- No go zones should be fenced with para-webbing or similar material prior to construction.
- Trees should be trimmed or pruned to the minimum extent necessary by a qualified Arborist.
- Standard best practice measures to minimise the spread of soil pathogens, and weeds from machinery or through movement of soil on and offsite.
- Best practice sedimentation and erosion control measures to minimise impacts to drainage lines.
- The location of construction stockpiles, machinery, and other infrastructure should be away from ecologically sensitive areas (i.e. the road reserve).



7 Conclusion

The majority of the development area is highly modified as a result of agricultural use of the site and does not support habitat for any listed threatened flora or fauna species. Native vegetation was limited to a highly modified cover of Grassy Woodland and several scattered indigenous trees, the majority of which were dead.

No listed threatened flora or fauna species were recorded within the site during the field assessment, and none are considered likely to occur due to the absence of suitable habitat

The development plan identifies five scattered indigenous trees (one living and four dead) and 0.01 hectares of Grassy Woodland will be required for removal. However, two scattered trees and 0.03 hectares of Grassy Woodland will be retained in the western section of the site.

7.1 Requirements

The following actions are required as part of future development of the site:

- A Planning Permit application is required under Clause 52.17 of the Surf Coast Planning Scheme for the removal of native vegetation (0.01 hectares of Grassy Woodland and five scattered trees).
- Secure a third party offset (i.e. through an offset broker) of 0.026 General Biodiversity Equivalence Units, with a minimum strategic biodiversity score of 0.186 and be within the Port Phillip and Westernport CMA area to meet the requirements of the Guidelines.
- Prepare a CEMP to mitigate the potential impacts of the proposed development works to ecological values within and adjacent to the site.





8 References

Australian National Botanic Gardens 2015. Australian Plant Census.

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DELWP 2015a. Biodiversity Interactive Map. Department of Environment, Land, Water and Planning: www.depi.vic.gov.au

DELWP 2015b. Victorian Biodiversity Atlas. Sourced from: VBA_FLORA25; VBA_FLORA100; VBA_FAUNA25 and VBA_FAUNA100. Department of Environment, Land, Water and Planning: <https://vba.dse.vic.gov.au>

DELWP 2015c. Planning Schemes Online. Department of Environment, Land, Water and Planning: <http://planningschemes.dpcd.vic.gov.au>

DELWP 2015d. Native Vegetation Information Management system. Department of Environment, Land, Water and Planning: <http://nvim.depi.vic.gov.au>

DOE 2015. Protected Matters Search Tool: <http://www.environment.gov.au/epbc/pmst/> Department of Environment.

DSE 2010. *Native Vegetation Policy and Planning – Technical Information Sheet* Department of Sustainability and Environment, Victoria.

Ecology and Heritage Partners 2010. 'Flora and Fauna Assessment for a Proposed Rezoning at Grossmans Road, Torquay, Victoria'. Report prepared for St Quentin Consulting Pty Ltd.





Appendix 1 – Likelihood of Occurrence

One or more of the following criteria was used to establish the likelihood of occurrence for threatened flora and fauna species within the subject site:

High likelihood:

- Previously recorded in the site.
- Likely to visit the site during seasonal movements.
- Frequently recorded within the local area.
- Known or likely to maintain resident populations in the local area.
- Presence of preferred habitat within the site.

Moderate likelihood:

- May regularly move through or visit the site as a seasonal visitor.
- Previous records within the local area.
- Some characteristics of a species preferred habitat is present although in a modified condition.
- Unlikely to maintain a population within the site.

Low Likelihood:

- Species likely to occur as a rare or opportunistic visitor.
- Few previous records within the local area.
- Habitat within the site is highly modified and does not represent the species preferred habitat.

Unlikely:

- No suitable habitat present on the site or in the surrounding area.
- No species records in the local area.
- Beyond the species natural distribution or considered locally extinct.



Appendix 2 – Flora Survey Results

Table 1: Recorded flora species

Scientific Name	Common Name
<i>Acacia melanoxylon</i>	Blackwood
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia myrtifolia</i>	Myrtle Wattle
<i>Acacia paradoxa</i>	Hedge Wattle
<i>Acacia pycnantha</i>	Golden Wattle
<i>Acaena novae-zelandiae</i>	Bidgee-widgee
<i>Acrotriche serrulata</i>	Honey Pots
<i>Agrostis capillaris</i>	Brown-top Bent*
<i>Allocasuarina verticillata</i>	Drooping Sheoak
<i>Arctotheca calendula</i>	Cape weed*
<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
<i>Avena fatua</i>	Wild Oat*
<i>Banksia marginata</i>	Silver Banksia
<i>Briza maxima</i>	Large Quaking-grass*
<i>Briza minor</i>	Lesser Quaking-grass*
<i>Bromus catharticus</i>	Prairie Grass*
<i>Bromus hordeaceus</i>	Soft Brome*
<i>Carduus tenuiflorus</i>	Winged Slender-thistle*
<i>Carex appressa</i>	Tall Sedge
<i>Chenopodium pumilio</i>	Clammy Goosefoot
<i>Cirsium arvense</i>	Perennial Thistle**
<i>Cirsium vulgare</i>	Spear Thistle**
<i>Cupresses macrocarpa</i>	Monterey Cypress*
<i>Cynodon dactylon</i> var. <i>dactylon</i>	Couch*
<i>Dactylis glomerata</i>	Cocksfoot*
<i>Deyeuxia quadriseta</i>	Reed Bent-grass
<i>Dianella admixta</i>	Black-anther Flax-lily
<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass*
<i>Ehrharta longiflora</i>	Annual Veldt-grass*
<i>Eucalyptus baxteri</i>	Brown Stringybark
<i>Eucalyptus obliqua</i>	Messmate Stringybark
<i>Eucalyptus ovata</i>	Swamp Gum
<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint
<i>Eucalyptus</i> spp.	Eucalypt#
<i>Gahnia radula</i>	Thatch Saw-sedge
<i>Galium aparine</i>	Cleavers*
<i>Gonocarpus tetragynus</i>	Common Raspwort
<i>Hakea sericea</i>	Silky Hakea



Scientific Name	Common Name
<i>Helminthotheca echioides</i>	Ox-tongue*
<i>Holcus lanatus</i>	Yorkshire Fog*
<i>Hordeum leporinum</i>	Barley-grass*
<i>Hypochaeris radicata</i>	Flatweed*
<i>Lachnagrostis billardierei</i> subsp. <i>billardierei</i>	Coast Blown-grass
<i>Juncus pallidus</i>	Pale Rush
<i>Juncus subsecundus</i>	Finger Rush
<i>Lagurus ovatus</i>	Hare's-tail Grass*
<i>Lepidosperma filiforme</i>	Common Rapier-sedge
<i>Lepidosperma semiteres</i>	Wire Rapier-sedge
<i>Leptospermum continentale</i>	Prickly Tea-tree
<i>Leptospermum lanigerum</i>	Wooly Tea-tree
<i>Lolium perenne</i>	Perennial Rye-grass*
<i>Lomandra filiformis</i>	Wattle Mat-rush
<i>Lythrum hyssopifolia</i>	Lesser Loosestrife*
<i>Malva nicaeensis</i>	Mallow of Nice*
<i>Melaleuca armillaris</i> subsp. <i>armillaris</i>	Giant Honey-myrtle#
<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
<i>Oxalis perennans</i>	Grassland Wood-sorrel
<i>Paspalum dilatatum</i>	Paspalum*
<i>Paspalum distichum</i>	Water Couch*
<i>Phalaris aquatica</i>	Toowoomba Canary Grass*
<i>Plantago coronopus</i>	Buck's-horn Plantain*
<i>Plantago lanceolata</i>	Ribwort*
<i>Poa annua</i>	Annual Meadow-grass*
<i>Poa sieberiana</i>	Grey Tussock-grass
<i>Pteridium esculentum</i>	Austral Bracken
<i>Rumex crispus</i>	Curled Dock*
<i>Rytidosperma caespitosum</i>	Common Wallaby-grass
<i>Rytidosperma racemosum</i>	Stiped Wallaby-grass
<i>Sonchus asper</i> s.l.	Rough Sow-thistle*
<i>Sonchus oleraceus</i>	Common Sow-thistle*
<i>Sporobolous africanus</i>	Rat-tail Grass*
<i>Themeda triandra</i>	Kangaroo Grass
<i>Trifolium fragiferum</i> var. <i>fragiferum</i>	Strawberry Clover*
<i>Trifolium repens</i> var. <i>repens</i>	White Clover*
<i>Trifolium subterraneum</i>	Subterranean Clover*
<i>Ulex europaeus</i>	Gorse**
<i>Vicia sativa</i>	Common Vetch*
<i>Watsonia meriana</i> 'Bulbillifera'	Wild Watsonia**

Notes: # Planted native species; *Exotic species; **Listed noxious weed



Appendix 3 – Threatened Flora Records

Table 2. Threatened flora records

Scientific Name	Common Name	Records	EPBC	FFG	DEPI	Likely Occurrence
<i>Poa billardiarei</i>	Coast Fescue	1	-	-	r	U
<i>Olearia pannosa subsp. cardiophylla</i>	Velvet Daisy-bush	1	-	L	v	U
<i>Thelymitra pallidiflora</i>	Pallid Sun-orchid	2	-	-	e	U
<i>Pomaderris apetala subsp. maritima</i>	Tasman Pomaderris	1	-	-	v	U
<i>Eucalyptus leucoxylon subsp. bellarinensis</i>	Bellarine Yellow-gum	257	-	L	e	U

Notes: Records were sourced from the VBA (DEPI 2014b), within a 5 km radius of the site.

EPBC Act listed species (DOE 2013)

Cr Critically Endangered
E Endangered
V Vulnerable

FFG Act listed species (DSE 2005)

L Listed as Threatened

DEPI listed species (DSE 2005):

cr Critically endangered
e Endangered
v Vulnerable
r Rare.

Likelihood of occurrence: H = High likelihood; M = Moderate likelihood; L = Low likelihood; U = Unlikely to occur (Appendix 1).



Appendix 4 –Fauna Species Results

Table 3. Recorded fauna species

Scientific Name	Common Name
<i>Acanthiza pusilla</i>	Brown Thornbill
<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill
<i>Acridotheres tristis</i>	Common Myna*
<i>Anas castanea</i>	Chestnut Teal
<i>Anas superciliosa</i>	Pacific Black Duck
<i>Anthochaera carunculata</i>	Red Wattlebird
<i>Chroicocephalus novaehollandiae</i>	Silver Gull
<i>Colluricincla harmonica</i>	Grey Shrike-thrush
<i>Cracticus torquatus</i>	Grey Butcherbird
<i>Elanus axillaris</i>	Black-shouldered Kite
<i>Eolophus roseicapilla</i>	Galah
<i>Grallina cyanoleuca</i>	Magpie-lark
<i>Gymnorhina tibicen</i>	Australian Magpie
<i>Malurus cyaneus</i>	Superb Fairy-wren
<i>Petrochelidon neoxena</i>	Welcome Swallow
<i>Phaps chalcoptera</i>	Common Bronzewing
<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater
<i>Platycercus eximius</i>	Eastern Rosella
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Sturnus vulgaris</i>	Common Starling*
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet
<i>Threskiornis spinicollis</i>	Straw-necked Ibis
<i>Turdus merula</i>	Common Blackbird*
<i>Vanellus miles</i>	Masked Lapwing

Notes: *Exotic species



Appendix 5 – Threatened Fauna Records

Table 4. Threatened fauna records

Scientific Name	Common Name	EPBC	FFG	DEPI	Records	Likely Occurrence
<i>Dromaius novaehollandiae</i>	Emu	-	-	nt	1	U
<i>Pedionomus torquatus</i>	Plains-wanderer	Vu	L	ce	1	U
<i>Lewinia pectoralis pectoralis</i>	Lewin's Rail	-	L	v	2	U
<i>Pachyptila turtur</i>	Fairy Prion	-	-	v	1	U
<i>Phalacrocorax varius</i>	Pied Cormorant	-	-	nt	2	U
<i>Chlidonias hybridus javanicus</i>	Whiskered Tern	-	-	nt	1	U
<i>Pluvialis squatarola</i>	Grey Plover	-	-	e	1	U
<i>Gallinago hardwickii</i>	Latham's Snipe	-	-	nt	5	U
<i>Platalea regia</i>	Royal Spoonbill	-	-	nt	7	U
<i>Ardea modesta</i>	Eastern Great Egret	-	L	v	8	U
<i>Nycticorax caledonicus hillii</i>	Nankeen Night Heron	-	-	nt	6	U
<i>Ixobrychus minutus dubius</i>	Little Bittern	-	L	e	1	U
<i>Anas rhynchotis</i>	Australasian Shoveler	-	-	v	1	U
<i>Aythya australis</i>	Hardhead	-	-	v	1	L
<i>Oxyura australis</i>	Blue-billed Duck	-	L	e	1	L
<i>Biziura lobata</i>	Musk Duck	-	-	v	2	L
<i>Accipiter novaehollandiae novaehollandiae</i>	Grey Goshawk	-	L	v	4	U
<i>Hirundapus caudacutus</i>	White-throated Needletail	-	-	v	10	U
<i>Pseudophryne bibronii</i>	Brown Toadlet	-	L	e	6	U
<i>Pseudophryne semimarmorata</i>	Southern Toadlet	-	-	v	1	U
<i>Litoria raniformis</i>	Growling Grass Frog	Vu	L	e	1	U
<i>Acrodipsas myrmecophila</i>	Small Ant Blue	-	L	ce	1	U
<i>Dasyornis broadbenti caryochrous</i>	Rufous Bristlebird (Otway)	-	L	nt	3	U
<i>Larus pacificus pacificus</i>	Pacific Gull	-	-	nt	6	L
<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot	En	-	nt	2	U

Notes: Threatened species records were sourced from the VBA (DEPI 2013), within a 5 km radius of the subject site.
Records from the PMST (DOE 2013).

EPBC Act listed species (DOE 2014)

Cr Critically Endangered
E Endangered
V Vulnerable
Mm Migratory Marine
Mt Migratory Terrestrial

FFG Act listed species (DSE 2005; 2013)

L Listed as Threatened

DEPI listed species (DSE 2005; 2013):

cr Critically endangered





e Endangered
v Vulnerable
r Rare
nt Near threatened

Likelihood of occurrence: H = High likelihood; M = Moderate likelihood; L = Low likelihood; U = Unlikely to occur (Appendix 1).



Appendix 6: Permit application form – low risk-based pathway

Is a planning permit required to remove native vegetation?

☒ Yes permit required

☐ No permit required

No application required

2. Risk-based pathway

What is the risk-based pathway of the application for a permit to remove native vegetation?

☒ Low risk-based pathway

☐ Moderate risk-based pathway

☐ High risk-based pathway

3. Biodiversity assessment report

☒ A biodiversity assessment report has been generated and is provided with this application

4. Additional application requirements

a. Photographs of the native vegetation to be removed

☒ Appropriate photographs are provided with the application

b. Defendable space statement (if applicable)

Where the purpose of removal, destruction or lopping of native vegetation is to create defendable space, a statement is required that explains why removal, destruction or lopping of native vegetation is necessary. The statement must have regard to other available bushfire risk mitigation measures. This requirement does not apply to the creation of defendable space in conjunction with an application under the Bushfire Management Overlay

☒ A statement is not required

☐ A statement is provided below that explains why removal, destruction or lopping of native vegetation is necessary to create defendable space, having regard to other available bushfire risk mitigation measures

c. Property vegetation plan (if applicable)

Does a property vegetation plan apply to the site?

☒ No

☐ Yes, a property vegetation plan applies to the site and is provided with this application

d. Details of previous clearing (if applicable)





In the past five years has any other native vegetation been permitted to be removed on the same property with the same ownership as the native vegetation to be removed in this application.

☒ No

☐ Yes, details of this removal of native vegetation and past permit(s) are provided with this application





Appendix 7 – Biodiversity impact and offset requirements report



Biodiversity assessment report

Biodiversity information for applications for permits to remove native vegetation under clause 52.16 or 52.17 of the Victoria Planning Provisions

Date of issue: 17 September 2015

Time of issue: 20:32:21

Property address	Address unknown 460 GROSSMANS ROAD BELLBRAE 3228
-------------------------	---

Summary of marked native vegetation

Risk-based pathway	Low
Total extent	0.365 ha
Remnant patches	
1	0.010 ha
Scattered trees	5 trees
Location risk	A

See Appendix 1 for risk-based pathway details

Offset requirements

If a permit is granted to remove the marked native vegetation, a requirement to obtain a native vegetation offset will be included in the permit conditions. The offset must meet the following requirements:

Offset type	General offset
Offset amount (general biodiversity equivalence units)	0.026
Offset attributes	
Vicinity	Corangamite Catchment Management Authority (CMA)
Minimum strategic biodiversity score	0.186
Strategic biodiversity score of marked native vegetation	0.233

See Appendix 2 for offset requirements details



Biodiversity assessment report

Next steps

This proposal to remove native vegetation must meet the application requirements of the low risk-based pathway and it will be assessed in the low risk-based pathway.

If you wish to remove the marked native vegetation you are required to apply for a permit from your local council.

The Biodiversity assessment report should be submitted with your application for a permit to remove native vegetation you plan to remove, lop or destroy.

The Biodiversity assessment report provides the following information that is required to be provided with your application for a permit to remove native vegetation:

- The location of the site where native vegetation is to be removed.
- The area of the patch of native vegetation and/or the number of any scattered trees to be removed.
- Maps or plans containing information set out in the *Permitted clearing of native vegetation - Biodiversity assessment guidelines*.
- The risk-based pathway of the application for a permit to remove native vegetation.
- The strategic biodiversity score of the native vegetation to be removed.
- The offset requirements should a permit be granted to remove native vegetation.

If you have undertaken any permitted clearing on your property within the last five years contact DEPI to confirm offset requirements.

Additional information is required when submitting an application for a permit to remove native vegetation. Refer to the *Permitted clearing of native vegetation - Biodiversity assessment guidelines* for a full list of application requirements.



Biodiversity assessment report

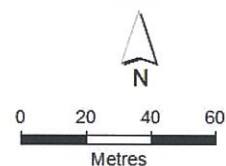
Maps of marked native vegetation

Marked native vegetation to be removed, lopped or destroyed



Legend

-  Marked native vegetation
-  Property boundary



Department of
Environment and
Primary Industries



SURF COAST SHIRE
23 OCT 2015
PLANNING
DEPARTMENT

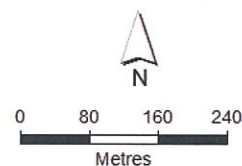
Biodiversity assessment report

Property view of marked native vegetation



Legend

- Marked native vegetation
- Property boundary



Department of
Environment and
Primary Industries



See Appendix 3 for biodiversity information maps

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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 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.

SURF COAST SHIRE
23 OCT 2015
PLANNING
DEPARTMENT

Department of
Environment and
Primary Industries



Biodiversity assessment report

Appendix 1 - Risk-based pathway details

Risk-based pathway	Low
Total extent	0.365 ha
Remnant patches	
1	0.010 ha
Scattered trees	5 trees
Location risk	A

Why is the risk-based pathway low?

The following table explains how the risk-based pathway is determined:

Extent	Location A	Location B	Location C
< 0.5 hectares	Low	Low	High
≥ 0.5 hectares and < 1 hectares	Low	Moderate	High
≥ 1 hectares	Moderate	High	High

The marked native vegetation is located entirely within Location A and has a total extent of less than 0.5 hectares.

At this location, native vegetation removal of this size is not expected to have a significant impact on the habitat of any rare or threatened species. As a result, an application for the removal of this native vegetation must meet the requirements of, and will be assessed in, the low risk-based pathway.

For further information on location risk please see *Native vegetation location risk map factsheet*. For information on the determination of the risk-based pathway see *Permitted clearing of native vegetation – Biodiversity assessment guidelines*.

Have you received a planning permit to remove native vegetation in the last five years?

If you have undertaken any permitted clearing on your property within the last five years, the extent of this past clearing must be included in the total extent of your current permit application. The risk-based pathway for your application requirements and assessment pathway is determined using the combined extent of permitted clearing within the last five years and proposed clearing.

If the risk-based pathway determined from this combined extent is low, contact DEPI to confirm offset requirements.



Biodiversity assessment report

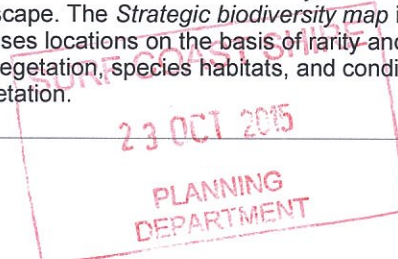
Appendix 2 - Offset requirements details

If a permit is granted to remove the marked native vegetation the permit condition will include the requirement to obtain a native vegetation offset. This offset must meet the following requirements:

Offset type	General offset
Offset amount (general biodiversity equivalence units)	0.026
Offset attributes	
Vicinity	Corangamite Catchment Management Authority (CMA)
Minimum strategic biodiversity score	0.186
Strategic biodiversity score of marked native vegetation	0.233

Native vegetation to be removed

Total extent (hectares) for calculating habitat hectares	0.365	<p>This is the total area of the marked native vegetation in hectares.</p> <p>The total extent of native vegetation is an input to calculating the habitat hectares of a site and in calculating the general biodiversity equivalence score. Where the marked native vegetation includes scattered trees, each tree is converted to hectares using a standard area calculation of 0.071 hectares per tree.</p>
Condition score*	0.200	<p>This is the weighted average condition score of the marked native vegetation. This condition score has been calculated using the <i>Native vegetation condition map</i>.</p> <p>The condition score of native vegetation is a site-based measure of how close the native vegetation is to its mature natural state, as represented by a benchmark reflecting pre-settlement circumstances. The <i>Native vegetation condition map</i> is a modelled layer based on survey data combined with a benchmark model and a range of other environmental data.</p>
Habitat hectares	0.073	<p>Habitat hectares is a site-based measure that combines extent and condition of native vegetation. The habitat hectares of native vegetation is equal to the current condition of the vegetation (condition score) multiplied by the extent of native vegetation.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Habitat hectares = total extent x condition</p> </div>
Strategic biodiversity score	0.233	<p>This is the weighted average strategic biodiversity score of the marked native vegetation. This strategic biodiversity score has been calculated using the <i>Strategic biodiversity map</i>.</p> <p>The strategic biodiversity score of native vegetation is a measure of the native vegetation's importance for Victoria's biodiversity, relative to other locations across the landscape. The <i>Strategic biodiversity map</i> is a modelled layer that prioritises locations on the basis of rarity and level of depletion of the types of vegetation, species habitats, and condition and connectivity of native vegetation.</p>



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General biodiversity equivalence score	0.017	<p>The general biodiversity equivalence score quantifies the relative overall contribution that the native vegetation to be removed (the marked native vegetation) makes to Victoria's biodiversity. It is calculated as follows:</p> <div> <p>General biodiversity equivalence score = habitat hectares × strategic biodiversity score</p> </div>
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* Offset requirements for partial clearing: If your proposal is to remove parts of the native vegetation in a remnant patch (for example only understorey plants) the condition score must be adjusted. This will require manual editing of the *condition score*, and an update to the following calculations that the biodiversity assessment tool has provided: *habitat hectares*, *general biodiversity equivalence score* and *offset amount*.

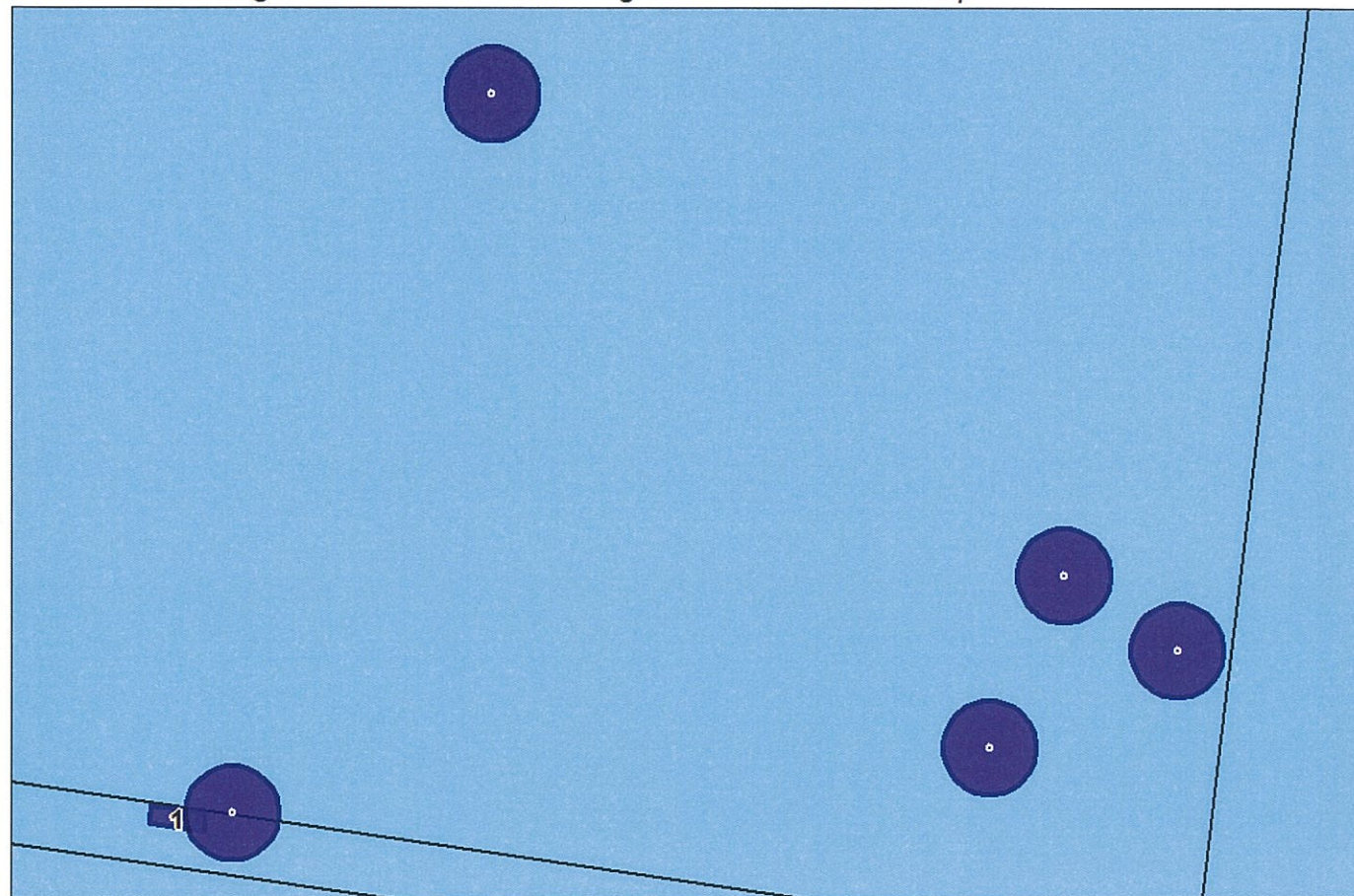
Offset requirements

Offset type	General offset	A general offset is required when a proposal to remove native vegetation is not deemed, by application of the specific-general offset test, to have a significant impact on habitat for any rare or threatened species. All proposals in the low risk-based pathway will require a general offset.
Risk factor for general offsets	1.5	<p>There is a risk that the gain from undertaking the offset will not adequately compensate for the loss from the removal of native vegetation. If this were to occur, despite obtaining an offset, the overall impact from removing native vegetation would result in a loss in the contribution that native vegetation makes to Victoria's biodiversity.</p> <p>To address the risk of offsets failing, an offset risk factor is applied to the calculated loss to biodiversity value from removing native vegetation.</p>
Offset amount (general biodiversity equivalence units)	0.026	<p>This is calculated by multiplying the general biodiversity equivalence score of the native vegetation to be removed by the risk factor for general offsets. This number is expressed in general biodiversity equivalence units and is the amount of offset that is required to be provided should the application be approved. This offset requirement will be a condition to the permit for the removal of native vegetation.</p> <div> <p>Risk adjusted general biodiversity equivalence score = general biodiversity equivalence score _{clearing} × 1.5</p> </div>
Minimum strategic biodiversity score	0.186	The strategic biodiversity score of the offset site must be at least 80 per cent of the strategic biodiversity score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic value that is comparable to, or better than, the native vegetation to be removed.
Vicinity	Corangamite CMA	The offset site must be located within the same Catchment Management Authority boundary as the native vegetation to be removed.



Appendix 3 - Biodiversity information maps

Marked native vegetation and the *Native vegetation location risk map*

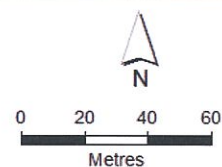


Legend

- Marked native vegetation
- Property boundary

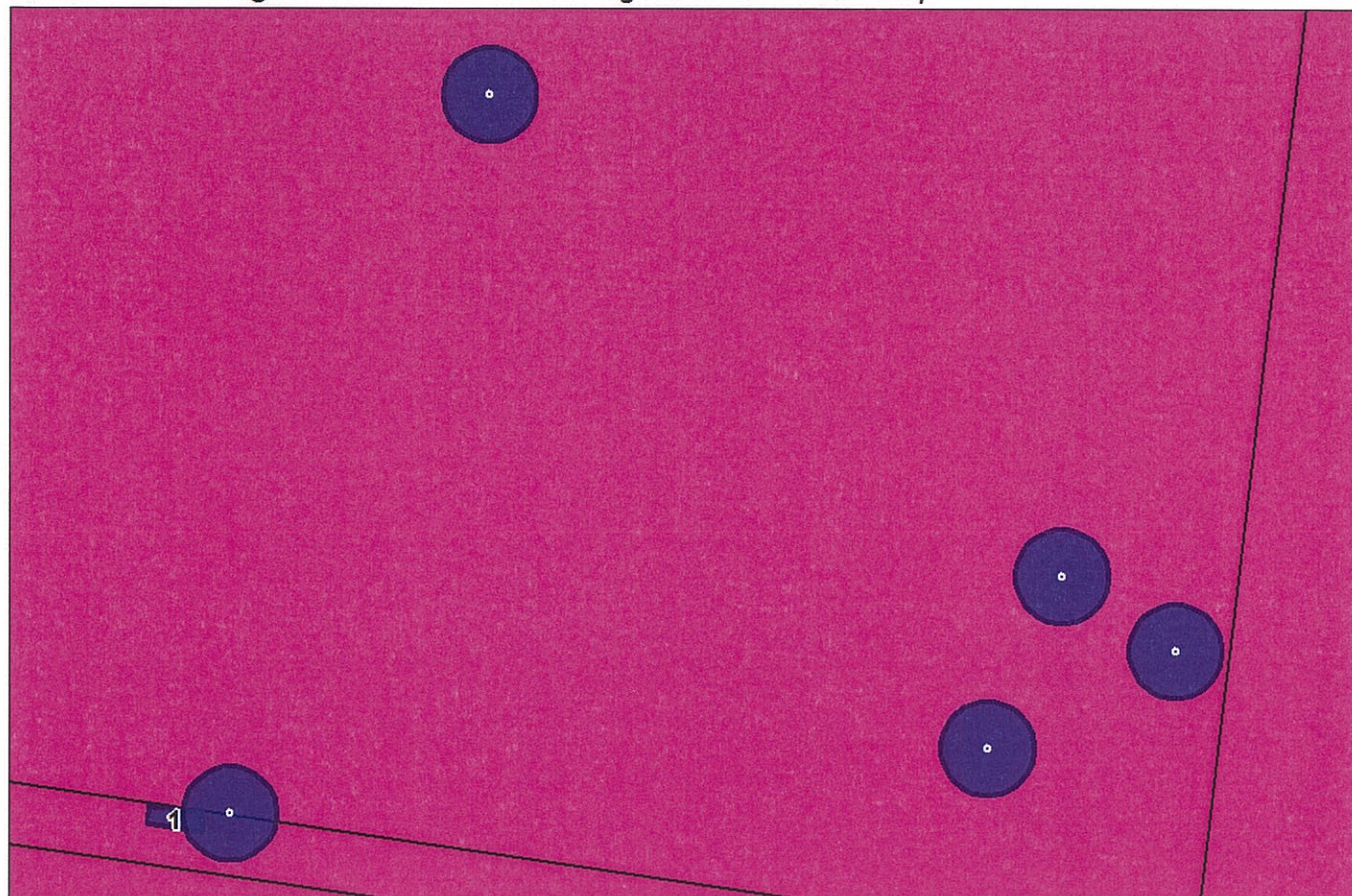
Native vegetation location risk

- Location C
- Location B
- Location A



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Marked native vegetation and the *Native vegetation condition map*



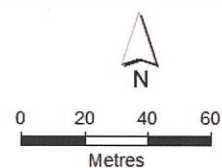
Legend

- Marked native vegetation
- Property boundary

Native vegetation condition*

- 0.81 - 1.00
- 0.61 - 0.80
- 0.41 - 0.60
- 0.21 - 0.40
- 0.00 - 0.20

* These classes are for display purposes only



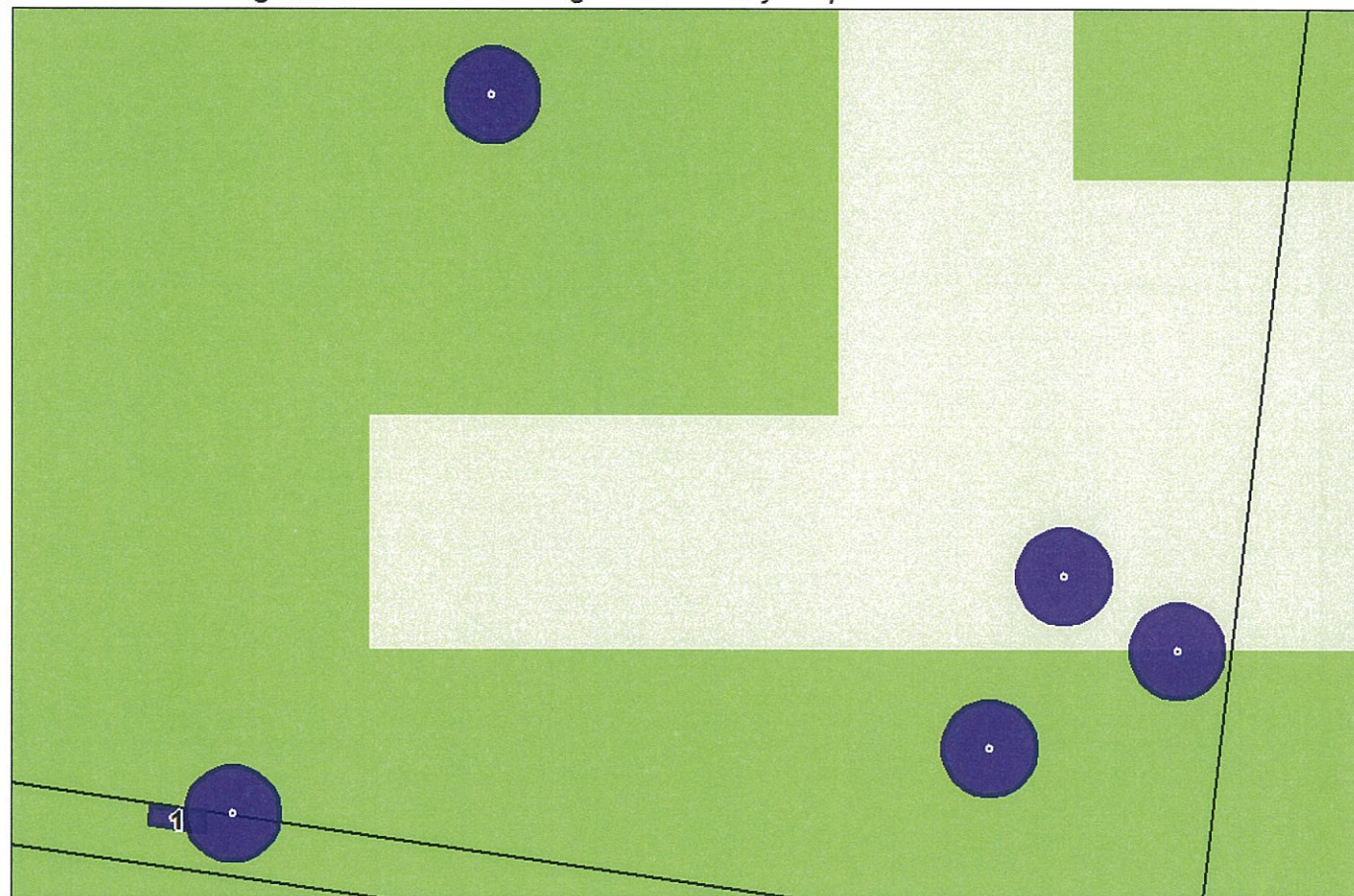
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Marked native vegetation and the *Strategic biodiversity map*



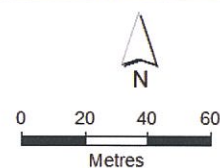
Legend

- Marked native vegetation
- Property boundary

Strategic biodiversity score*

- 0.81 - 1.00
- 0.61 - 0.80
- 0.41 - 0.60
- 0.21 - 0.40
- 0.00 - 0.20

* These classes are for display purposes only



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