

445 Carrs Road Anakie

## Flora and Fauna Assessment

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A report to  
Pavilion Farms

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Prepared by

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**Mark Trengove Ecological Services**

March 8 2022

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Draft for Client	February 8 2022	Natalie James	Mark Trengove
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# 1 INTRODUCTION

## 1.1 Project Background

This report was commissioned by Pavilion Farms to undertake a flora and fauna assessment at 445 Carrs Rd Anakie to assess the quantity and significance of any ecological value that might be present within the subject site.

Refer to Section 5 for conclusions.

## 1.2 Objectives

The objectives of this investigation are to:

- Describe any native vegetation present on site
- Describe the value of the land as it pertains to faunal habitat
- Evaluate the conservation significance of the land
- Assess any potential impacts of the proposed development
- Assess the implications of relevant government policy and legislation (EPBC Act, FFG Act, Clause 52.17 and ESO4, as required by the COGG)

## 1.3 Study Area

The project site is a proposed waste processing plant. It is an area of approximately 1ha, located within an existing paddock at part of 445 Carrs St, Anakie, within the City of Greater Geelong. The Assessment Study Area includes this site, plus the surrounding paddock area, access, as well as water and electricity supply easements.

The site is within the Victorian Volcanic Plain bioregion and is located within the Corangamite Catchment Management Authority area. Under the City of Greater Geelong Planning Scheme, the study area is zoned Farming (FZ) (VicPlan. 2022).

Vegetation on the proposed impact site can be described as follows:

- Heavily cropped land, dominated by Barley Grass (*Hordeum glaucum*) and common agricultural and ruderal weeds.
- No native vegetation was identified.

The larger property is subject to intensive agriculture (cropping and broiler sheds) and is largely devoid of native vegetation. Two degraded ephemeral drainage lines cross the site from west to east, one at the northern sector and one at the southern sector (both part of the Hovells Creek catchment). Neither of these drainage lines are implicated by the current proposal.

The location of the study area property and the area assessed by this survey (the proposed impact area) are both shown on Figure 1. The proposed impacts are shown on Figure 2.

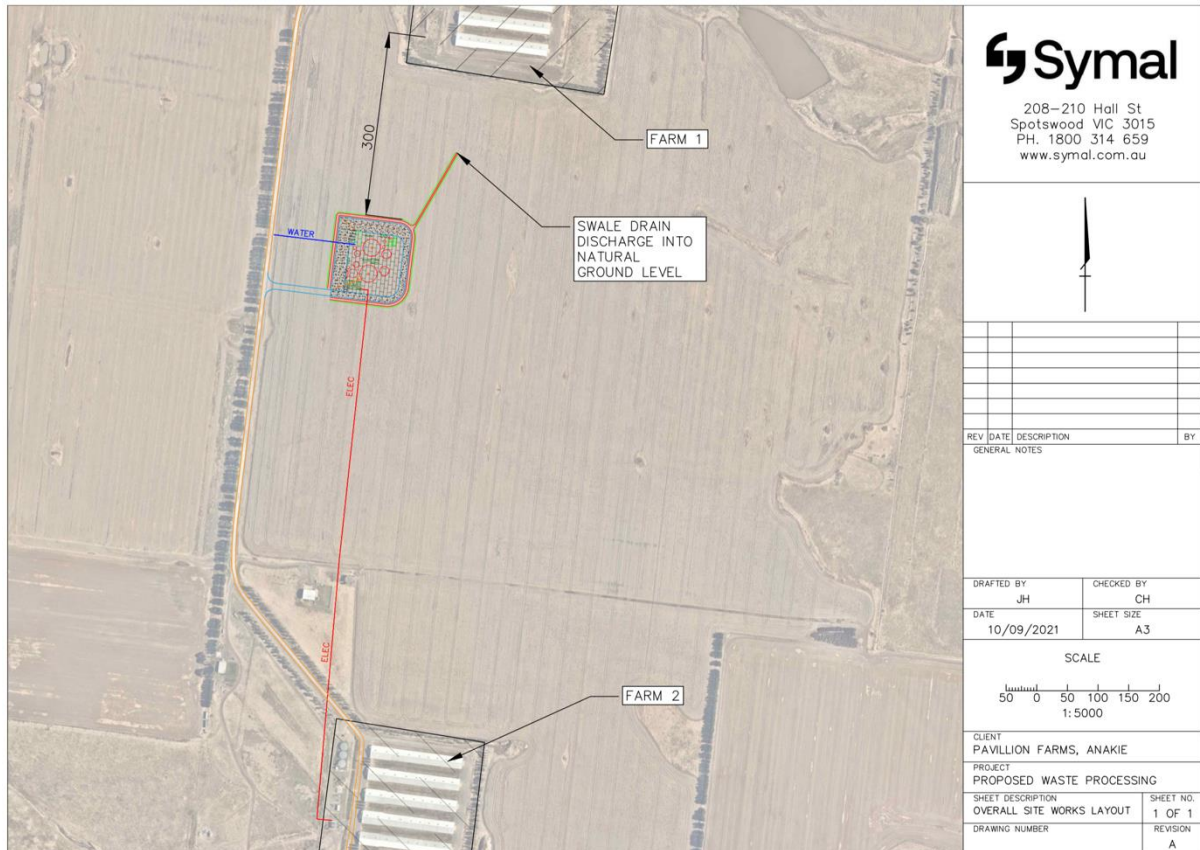
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**Figure 1.** 445 Carrs Rd Anakie in blue dashed line, and area of this study (proposed impact area) in blue rectangle. (DELWP, 2022a).



**Figure 2.** Study area, location of proposed impacts.

## 2 METHODS

### 2.1 Taxonomy

Scientific names for plants follow the Vicflora (RBG website i). Common names for plants follow the Flora of Victoria Vols 2-4 (Walsh and Entwisle 1994-1999).

### 2.2 Literature and Database Review

Relevant literature and databases, including data from the following sources were reviewed.

- NatureKit for modelled biodiversity data (DELWP, 2022a).
- The Victorian Biodiversity Atlas for threatened flora and fauna species records (DELWP, 2022b).
- The Protected Matters Search Tool (PMST) for information relating to matters of National Environmental Significance (listed species and communities) under the EPBC Act (DAWE, 2022).
- Relevant environmental legislation, policies, and strategies.

### 2.3 Field Survey

The site was inspected on foot on the 7th of February 2022. Records were taken of vascular plant species observed and notes made of the existing habitat values and dominant exotic vascular plant species. The study site was also assessed to determine the value of the site for terrestrial vertebrate fauna. All species of fauna observed during the assessment were noted and active searching for fauna was undertaken. This included direct observation, searching vegetations, examination for tracks and scats and identifying calls. Particular attention was given to searching for significant species and their habitats.

### 2.4 Limitations

The assessment was conducted at a time of year that is suitable for most flora and fauna species to be identified. Due to the existing condition of the site, the inspection was considered sufficient to assess the ecological and habitat significance of the site.

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

### 2.5 Defining Significance

A number of criteria are applied in order to assess the significance of flora species and vegetation communities. The definition of the criteria is detailed in Appendix 1.

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## **2.6 Defining and Assessing Vegetation**

Native vegetation in Victoria has been defined by DELWP 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 overlapping.
- Current wetlands as mapped by DELWP.

### **Scattered tree native vegetation**

Scattered tree native vegetation is:

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

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### 3 RESULTS

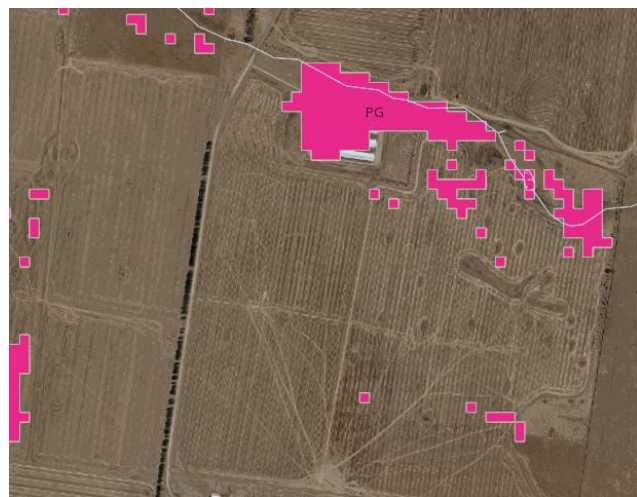
#### 3.1 Ecological Vegetation Class

Ecological Vegetation Classes (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 DELWP indicates that the study area was comprised of EVC 132 Plains Grassland. This EVC is currently listed as ‘Endangered’ in the Victorian Volcanic Plain (DELWP, 2022c)



**Figure 3.** Distribution of EVC pre-1750 (DELWP, 2022c).



**Figure 4:** Distribution of EVC 2005 (DELWP, 2022c)

The current study records no areas of naturally occurring native vegetation and none that accords with EVC 132 Plains Grassland (3.2 and Table 1).

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## 3.2 Flora

The entire study area is heavily degraded cropped land, dominated by crops and invasive weed species, with no native vegetation identified. Some native Ruby Saltbush (*Enchylaena tomentosa*) persists on the eastern side of the access road (outside the proposed impact area) but is in competition with several Pine trees (*Pinus sp.*) and Boxthorn (*Lycium ferocissimum*). Taking into consideration the landscape in which this parcel of land sits, surrounded by similarly degraded farming land, it is unlikely that this area provides any floral habitat value to local fauna. Refer to Table 1 for a list of vascular plant species identified during site inspection.

Refer to 7 for photographs of existing vegetation conditions.

**Table 1 Vascular plant species and conservation significance.**

Botanical Name	Common Name	Status
<i>Sonchus oleraceus</i>	Sow thistle	Non-native
<i>Physalis hederifolia</i>	Prairie Ground Cherry	Non-native
<i>Eragrostis curvula</i>	African lovegrass	Non-native
<i>Alternanthera pungens Kunth</i>	Khaki weed	Non-native
<i>Malva parviflora</i>	Small-flowered Mallow	Non-native
<i>Chamaesyce maculata</i>	Spotted spurge	Non-native
<i>Plantago lanceolata</i>	Ribwort	Non-native

## 3.2 Fauna

No National, State or Regional conservation significant species were recorded within the study area. Refer to table 2 for a list of fauna species identified during the site inspection.

**Table 2: Vertebrate species identified**

Scientific Name	Common Name	Origin	Observation
<b>Birds</b>			
<i>Gymnorhina tibicen</i>	Australian Magpie	Native	Sighted
<i>Grallina cyanoleuca</i>	Magpie lark	Native	Sighted
<i>Passer domesticus</i>	House sparrow	Introduced	Heard
<b>Mammals – nil identified</b>			

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## 4 LEGISLATION AND GOVERNMENT POLICY

### 4.1 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.

#### 4.1.1 Implications

No FFG Act listed ecological communities or flora or fauna species were identified.

Consequently, there are no implications relating to this proposal under the *Flora and Fauna Guarantee Act 1988* (FFG Act).

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## 4.2 Environment Protection and Biodiversity Conservation Act (1999)

The Environment Protection and Biodiversity Conservation (EPBC) Act (1999) was established to ‘promote the conservation of biodiversity by providing strong protection for listed species and communities in the Commonwealth and for protected areas, Ramsar sites, Commonwealth Reserves, conservation zones and World Heritage sites, etc.’.

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on matters protected under the Act. Under the Act, unless exempt, actions require approval from the Australian Government Minister for Environment and Heritage if they are likely to significantly impact on a ‘matter of national environmental significance’. There are currently seven matters of national environmental significance (NES):

- World Heritage properties;
- National Heritage properties;
- nationally listed threatened species and ecological communities;
- listed migratory species;
- Ramsar wetlands of international significance;
- Commonwealth marine areas; and
- nuclear actions (including uranium mining).

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Any person proposing to take an action that may, or will, have a significant impact on a matter of national environmental significance must refer the action to the Australian Government Minister for Environment and Water Resources for determination as to whether the action is a ‘controlled action’ or is not approved.

Natural Temperate Grassland of the Victorian Volcanic Plain is an ecological community that is listed as ‘Critically Endangered’ under the EPBC Act (EPBC Website i). The study area carries degraded vegetation that is assessed to not be part of this community.

Ramsar wetlands of international significance. Limeburners Bay RAMSAR site occurs downstream from the proposed plant.

### 4.2.1 Implications

No Natural Temperate Grassland of the Victorian Volcanic Plain ecological community was recorded. No flora or fauna species listed under the EPBC Act were identified.

Limeburners Bay RAMSAR site. It is assessed that there are no implications for the current proposal for the Limeburners Bay RAMSAR site.

It is assessed that there are no implications for the current proposal under the EPBC Act.

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## 4.3 Ecological Significance Overlay 4

The purpose of the Planning Scheme is:

- *To provide a clear and consistent framework within which decisions about the use and development of land can be made.*
- *To express state, regional, local and community expectations for areas and land uses.*

*To provide for the implementation of State, regional and local policies affecting land use and development.*

Within the City of Greater Geelong ESO4 has been established to protect environmentally significant values, specifically being native grassland values, within the area that it covers.

*Environmental objective to be achieved:*

- *To prevent a decline in the extent and quality of native vegetation and native fauna habitat of the Victorian Volcanic Plain.*
- *To enhance the environmental and landscape values of the area.*
- *To avoid the fragmentation of contiguous areas of native vegetation or native fauna habitat.*
- *To ensure that any use, development or management of the land is compatible with the long-term conservation, maintenance and enhancement of the grasslands.*
- *To avoid the destruction of habitat for native fauna resulting from the modification of land form and disturbance of surface soils and rocks.*
- *To enable areas of environmental significance, due to their native vegetation or habitat values, to be identified.*

The study area is subject to ESO4.

### 4.2.1 Implications

The study area is subject to ESO4. The results show that the proposed development area is comprised of exotic degraded vegetation that, if removed, will not impact upon the environmental values of the native vegetation and fauna habitat of the Victorian volcanic plain.

Consequently, there are no implications for the current proposal under ESO4.

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## 4.4 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 ‘introduce a risk based approach to assessing applications to remove native vegetation’ (DELWP website i). 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. (DELWP 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.

The proposed impacts are located within ‘Location 1’ (DELWP 2022d).

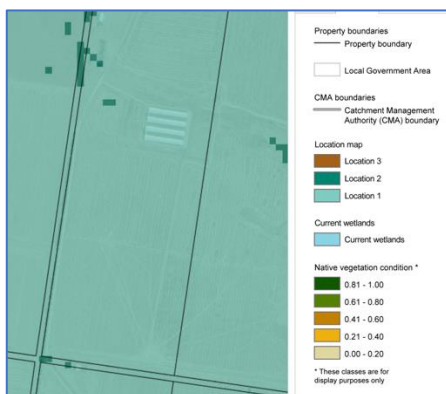


Figure 5. DELWP Location mapping.

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### 4.4.2 Implications

The results show that the current vegetation condition for the study area is 0% cover value of perennial native vascular understorey species for the proposed development sites. No basaltic rock or non-vascular flora was recorded. The study area is consequently assessed to be comprised of degraded exotic vegetation (i.e., non-patch or scattered tree native vegetation).

The proposal requires the removal of no ‘patch’ or ‘scattered tree’ native vegetation. Consequently, there are no implications for the removal of native vegetation under the Regulations.

## 5 CONCLUSIONS

An area of land, located at 445 Carrs Rd, Anakie is the subject of this report.

This report describes the flora and fauna present on site and the potential for this land to service local fauna populations for both habitat or as a movement corridor across the landscape.

The subject site is heavily degraded with historical cropping. No native vegetation was identified. The area is dominated by a variety of crops and common agricultural and ruderal weeds.

Three common bird species were identified during the assessment, two native and one non-native.

Faunal habitat value is assessed to be minimal within the study area and it is not expected that this area facilitates any faunal movement across the landscape.

No fauna species of National, State or Regional conservation significant were recorded.

It is assessed that there are no implications for the Victorian Flora and Fauna Guarantee Act.

It is assessed that there are no implications for the Federal Environment Protection and Biodiversity Conservation Act.

It is assessed that there are no implications under ESO4 of the CoGG Planning Scheme.

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

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## **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 and fauna at national to local scales are presented below for botanical and zoological 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 by 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 (e.g. 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 and the VVP bioregion 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.

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## 7 SITE PHOTOGRAPHS (Plates)



**Plate 1:** Existing vegetation condition – 445 Carrs Rd, Anakie



**Plate 2:** Existing vegetation condition – 445 Carrs Rd, Anakie



**Plate 3:** Existing vegetation condition – 445 Carrs Rd, Anakie

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## **Appendix 1 - ASSESSING CONSERVATION SIGNIFICANCE**

Conservation significance is assessed at a range of scales, including global, international, 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.

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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).

**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.

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