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Biodiversity Assessment Report

501-515 Police Road, Mulgrave

Proposed multi-lot subdivision and development

Version 1 - June 2022

1. Introduction and purpose

Millar Merrigan have been engaged to prepare a Biodiversity Assessment Report as part of the preparation of a multi-lot subdivision and development application for the subject land.

The purpose of this report is to cover off on the applicable requirements of Clause 12.01 Biodiversity, Clause 22.05- Tree Conservation Policy and Clause 52.17 Native Vegetation of the Monash Planning Scheme. The report will also assess the impacts of the proposal and justify why all vegetation within the site has been planted and a permit is not required under Clause 52.17 for the removal of native vegetation.

Important documentation/reports which should be read in conjunction with this report include:

- Proposed Subdivision Plan;
- Planning Report; and
- Arborists report and Tree Protection Management report by Arboricultural Consultants (June 2020).

2. Site and surrounding area

2.1 Site description

The subject land comprises of two separate titles, resulting in a total area of 13,239sqm and located on the north side of Police Road. Each of the properties contain a dwelling and outbuildings. The site is largely modified and contains an array of planted exotic and native species.



Figure 1: Aerial photograph of study area

There are no patches of remnant native vegetation onsite due to the fact that it has been extensively cleared. Previous owners have planted an array canopy trees, shrubs and fruit trees across the site for screening or amenity purposes. This is apparent in the location of the vegetation along boundaries, or the co-location of different species in a linear arrangement within the site. In addition to this, a large proportion of the species identified in arborist report do not occur naturally in the local area, therefore it is fair to suggest that these have been planted.

An extensive list of species was identified within the site and these include:

- Sweet Pittosporum *Pittosporum undulatum* (weed)
- Cotoneaster *Cotoneaster frigidus* (weed)
- Bottle Brush *Callistemon sp.*
- Protea *Protea obfisticata*
- Loquat *Eriobotrya japonica*
- Golden Ash *Fraxinus excelsior* 'Aurea'
- Camellia *Camellia japonica*
- Golden Monterey *Cupressus macrocarpa* 'Aurea saligna'
- Japanese Maple *Acer palmatum*
- Oleander *Nerium oleander*
- Bottle Brush *Callistemon sp.*
- Rhododendron *Rhododendron sp.*
- Bracelet Honey-myrtle *Melaleuca armillaris* (weed of concern)
- Prickly-leaved Paperbark *Melaleuca styphelioides*
- Silver Tarata *Pittosporum eugenioides* 'Variegatum'
- Saw Banksia *Banksia serrata*
- Gossamer Wattle *Acacia floribunda*
- English Box *Buxus sp.*
- Chinese Elm *Ulmus parvifolia*
- Lemon *Citrus limon*
- Orange Bells *Tecoma alata*
- Bay Laurel *Laurus nobilis*
- Leylandi Cypress *Cupressocyparis leylandii*
- Silver Sheen Pittosporum *Pittosporum tenuifolium* 'Silver Sheen'
- Canary Island Date Palm *Phoenix canariensis*
- Manchurian Pear *Pyrus usuriensis*
- Cherry Plum *Prunus cerasifera*
- Apple *Malus domestica*
- Box Elder *Acer negundo*
- Olive *Olea europaea*
- Spotted Gum *Corymbia maculate*
- Southern Mahogany *Eucalyptus botryoides*
- Willow Myrtle *Agonis flexuosa*
- Cape Broom *Genista monspessulana*
- Buddleia (Butterfly Bush) *Buddleja davidii*
- Blue Gum *Eucalyptus globulus*
- Snow in Summer *Melaleuca linariifolia*
- Argyle Apple *Eucalyptus cinerea*
- Weeping Lilly Pilly *Waterhousea floribunda*
- Monterey Cypress *Cupressus macrocarpa*
- Eastern Cottonwood *Populus deltoides*
- Norfolk Island Pine *Araucaria heterophylla*
- Golden Elm *Ulmus glabra* 'Lutescens'
- Broad Leaf Privet *Ligustrum lucidum*

As evident in the list above, there are few species that are native to Victoria and the majority are non-native specimens.

As shown in the photographs below, the ground cover is dominated by exotic grasses. The arborist's report indicated that there are a few scattered large, good quality, canopy trees that are worthy of retention within the site.

There are no other natural features within the site which requires consideration.

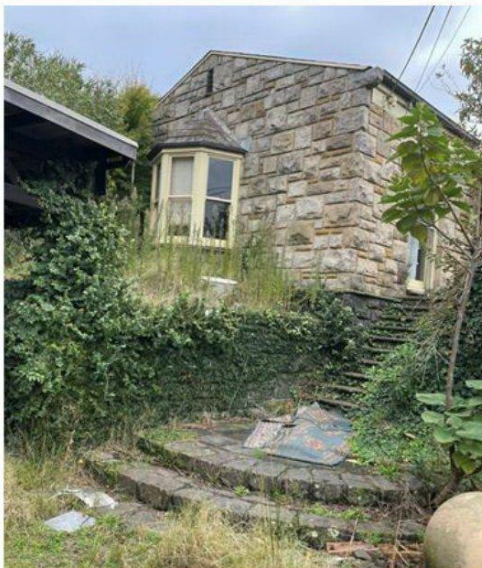
The site has a gradual decline in a easterly direction across the site.

2.2 Site photographs



Photograph 1: Balance on lot 1 comprising of lawn areas and planted shrubs (left)

Photograph 2: Existing carport Lot 1 (right)



Photograph 3: Existing building on Lot 1



Photograph 4: Looking towards Lot 2 from Police Road



Photograph 5: Current access to Lot 1

2.3 Surrounding area

A vegetated corridor and trail are present to the west of the site where it has immediate abuttal to Eastlink Freeway, and the remaining surrounding area is dominated by residential development. Dandenong Creek is located to the far east which contains a high cover of remnant vegetation and significant biodiversity value (see diagram below).

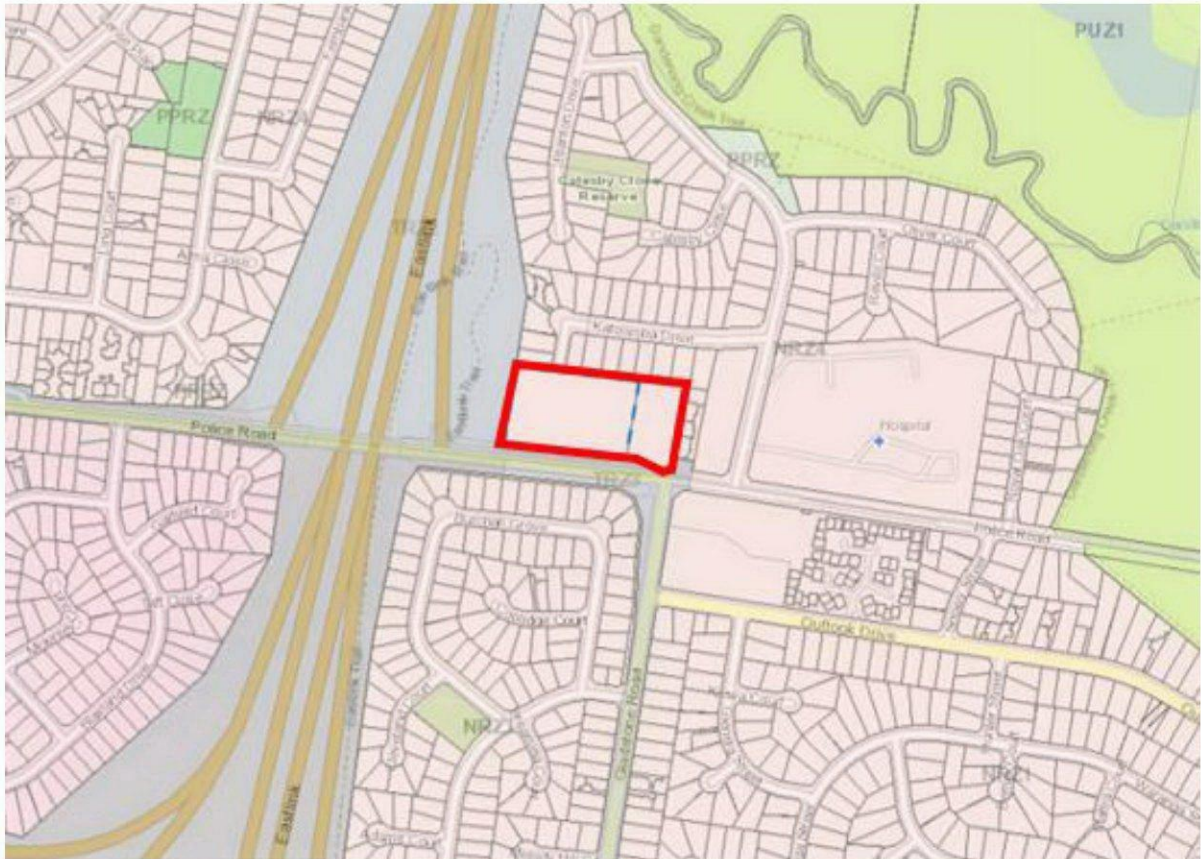


Figure 2: Current land use pattern in the surrounding area

3. Applicable legislation and other planning considerations

Planning Scheme

The Monash Planning Scheme is the principal subordinate legislation (created under the Planning and Environment Act 1987) for which land-use and development policies, such as those pertaining to permitted vegetation removal, are implemented within the Shire.

In accordance with the Monash Planning Scheme, the land is located within the Neighbourhood Residential Zone (NRZ).

Environmental Protection and Biodiversity Conservation (EPBC) Act (1999)

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance.

Flora and Fauna Guarantee Act (FFG) (1988)

The FFG Act provides a legal framework to enable and promote the conservation of Victoria's native flora and fauna and to provide for a choice of procedures which can be used for the conservation, management or control of flora and fauna and the management of potentially threatening processes.

Planning and Environment (PE) Act (1987)

As detailed under the PE Act, every municipality has a planning scheme which sets out the objectives, policies and controls for use, development and protection of land. The subject site falls under the control of the Monash Planning Scheme. The following planning provisions are relevant to biodiversity and thus are applicable to the proposed development of land.

Planning Policy Framework

Clause 12.01-1 Biodiversity

The objective of this clause is:

- *To assist the protection and conservation of Victoria's biodiversity.*

Strategies for achieving this include (relevant points only):

- *Use statewide biodiversity information to identify high value biodiversity and consider the impact of land use and development on these values.*
- *Ensure strategic planning:*
- *Avoids and minimises significant impacts, including cumulative impacts, of land use and development on Victoria's biodiversity; and*
- *Assists in the re-establishment of links between isolated habitat remnants that contain high value biodiversity.*
- *Ensure that decision making takes into account the impacts of land use and development on Victoria's high value biodiversity.*

Clause 12.01-1S Native vegetation management

The objective of this clause is:

- *To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation.*

Clause 12.05-1S Environmentally sensitive areas

The objective of this clause is:

- *To protect and conserve environmentally sensitive areas.*

Clause 22.05 Tree conservation policy

The objectives of this clause is:

- *To maintain, enhance and extend the Garden City Character throughout Monash by ensuring that new development and redevelopment is consistent with and contributes to the Garden City Character as set out in the Municipal Strategic Statement.*
- *To promote the retention of mature trees and encourage the planting of new canopy trees with spreading crowns throughout Monash.*

Policies include:

- *Existing semi-mature and mature canopy trees be retained wherever possible to ensure maintenance of the tree canopy.*
- *Existing street trees be retained and protected.*
- *Semi-mature canopy trees with spreading crowns be planted as part of any new development, in open space areas, along boundaries adjacent to neighbouring open space and in front setback areas to reinforce the Garden City Character of the area.*

Clause 52.17 Native Vegetation

Clause 52.17 of the Monash Planning Scheme detail considerations pertaining to permitted vegetation removal. A permit is required to remove, destroy or lop native vegetation.

The relevant purposes of the clause are:

To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity. This is achieved through the following approach:

- *Avoid the removal of native vegetation that makes a significant contribution to Victoria's biodiversity;*
- *Minimise impacts on Victoria's biodiversity from the removal of native vegetation; and*
- *Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria's Biodiversity that is equivalent to the contribution made by the native vegetation to be removed.*

An exemption applies under this Clause for 'planted' vegetation.

The clearing of vegetation must follow the assessment process detailed under *the Guidelines for the removal, destruction or lopping of native vegetation* (The Guidelines, DELWP 2017).

4. Proposal

This application seeks to subdivide the land and develop a single dwelling on each lot, as shown in the diagram below. While the majority of vegetation is proposed for removal, some significant trees worthy of retention have been retained.

Trees proposed for retention are:

- Tree 68 - Bracelet Honey-myrtle *Melaleuca armillaris*
- Tree 80 - Prickly-leaved Paperbark *Melaleuca styphelioides*
- T137 - Spotted Gum *Corymbia maculata*
- T145 - Blue Gum *Eucalyptus globulus*
- T150 - Argyle Apple *Eucalyptus cinerea*
- T187 - Bottle Brush *Callistemon sp*
- T175 - Golden Elm *Ulmus glabra 'Lutescens'*

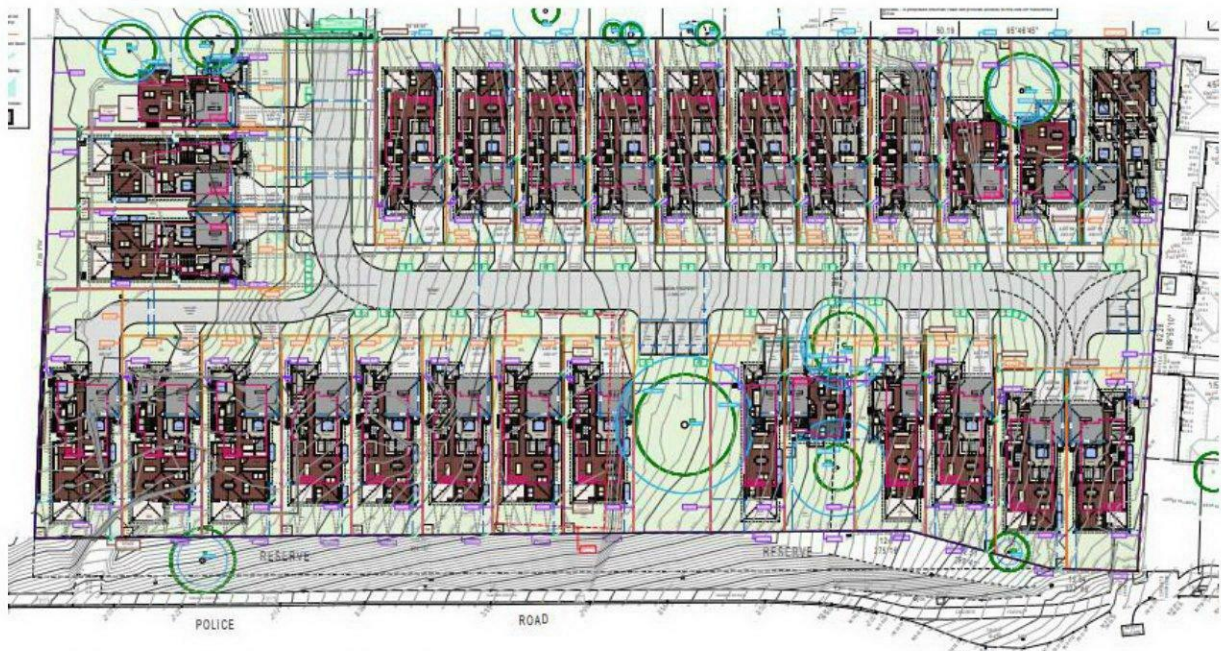


Figure 3: Proposed development layout

Tree protection zones have been applied to retained trees, and development has been designed to accommodate this and ensure their ongoing viability. The retention of significant trees throughout the development, adequately responds to Clause 22.05 Tree Conservation Policy,

5. Desktop assessment

5.1 Ecological vegetation class

Bioregion: Gippsland Plain

Bioregional conservation status: Endangered

EVC: Grassy Woodland (EVC 175)

The western portion of the study area was historically covered by Grassy Woodland (EVC 175) in the Gippsland Plain Bioregion. This EVC is described as:

A variable open eucalypt woodland to 15 m tall or occasionally Sheoak woodland to 10 m tall over a diverse ground layer of grasses and herbs. The shrub component is usually sparse. It occurs on sites with moderate fertility on gentle slopes or undulating hills on a range of geologies

Bioregion: Gippsland Plain

Bioregional conservation status: Endangered

EVC: Grassy Forest (EVC 128)

The eastern portion of the study area was historically covered by Grassy Forest (EVC 23) and this EVC is described as:

Low growing forest to 20 m tall with an understorey of small and medium shrubs and a rich diversity of herbs. Large shrubs and understorey trees may also be conspicuous. Often grows in areas transitional between drier box stringybark forests and taller, herb-rich forests typical of more favourable environments.

The 2005 mapping of EVCs and arborist report, indicate that there is little vegetation on site that reflect the ecological characteristics of the original EVC (refer to Figure 4 and Appendix 1) and the site has been largely cleared and vegetation replaced with an array of exotic and native plantings.



Figure 4: 1975 (top) and 2005 (bottom) mapping of EVC 23 (source: Naturekit)

6. Applying 'Planted' exemption rule under Clause 52.17

Historically the site contained vegetation typical of EVC 128 Grassy Forest & EVC 175 Grassy Woodland, within the Gippsland Plains Bioregion in Victoria. According to the EVC benchmarks, the following canopy species are typical of these communities:

- *Eucalyptus radiata* s.l. Narrow-leaf Peppermint
- *Allocasuarina verticillata* Drooping Sheoak
- *Eucalyptus goniocalyx* s.l. Bundy
- *Acacia mearnsii* Black Wattle

The arborist report indicates that none of these species are occurring within the site. A *single Acacia mearnsii* (Tree 1) was identified on the road reserve, however this would not be impacted by works.

The overall site appears to be highly modified with a mix of native and exotic species. The understorey is unlikely to contain native species due to its disturbed nature. A few of the identified species are Victorian natives, they are not locally indigenous and are likely to have been planted for screening or amenity purposes.

Under *Clause 52.17* a permit is not required to remove vegetation that has been planted.

In accordance with the arborist report, the following trees were identified as being 'native,' and we provide the following justification as to why these are planted vegetation and exempt from requiring a permit for removal:

- **Sweet Pittosporum *Pittosporum undulatum*** – These do not occur naturally in the local area and is a recognised weed species.
- **Giant honey-myrtle *Melaleuca armillaris*** - These do not occur naturally in the local area and is a 'weed of concern' in Monash.
- **Saw Banksia *Banksia serrata*** – These do not occur naturally in the local area. There is only one located within the site. Due to its small stature and alignment with T51, it is likely to have been planted.
- **Western Honey-myrtle *Melaleuca nesophila*** - These occur naturally in Western Australia.
- **Prickly Paperbark *Melaleuca styphelioides*** – Three of these trees are scattered separately within the site. T43 occurs along the southern boundary (within proposed lot 7); T80 is located north of proposed Lot 8; and T54 is located on the northern boundary in proposed Lot 1. These species are native to eastern Australia (NSW/Queensland) however isolated populations occur naturally in Victoria. Given the location of two of the trees along a boundary, it is likely that they were planted for screening/amenity purposes. T54 occurs centrally on site, however it is small in stature (20cm DBH) therefore it is likely to have been planted alongside T55 (Western honey-Myrtle).
- **Gossamer wattle *Acacia floribunda*** – These occur in random locations onsite. These are cultivated extensively and naturalised in Victoria, however it is not locally indigenous. It is likely these have been planted also as part of the landscape treatment.
- **Spotted gum *Corymbia maculata*** – A single tree (T137) occurs onsite. These do not occur naturally in the local area and has been planted.
- **Southern Mahogany *Eucalyptus botryoides*** - A single tree (T138) occurs onsite. These do not occur naturally in the local area. This is located alongside other planted vegetation T137 – Spotted Gum and T138 – Willow Myrtle, therefore it is likely this has been planted too.
- **Willow Myrtle *Agonis flexuosa*** - These occur naturally in Western Australia.
- **Southern Blue Gum *Eucalyptus globulus*** – A single tree (T145) located in line with other planted vegetation including T150 – Argyle Apple. This is likely to have been planted.
- **Argyle Apple *Eucalyptus cinerea*** – A single tree (T150) is located within the site. This does not occur naturally locally. It is located in line with other planted vegetation including T145.
- **Willow bottlebrush *Callistemon salignus*** – This has been planted as it occurs linearly with other planted vegetation.
- **Apple *Malus domestica*** – Non-native species occurs outside of australia.
- **Snow in Summer *Melaleuca linariifolia* & *Melaleuca sp*** – Occurs linearly with other planted vegetation (T148 & 182)

6.1 Table of native species

The following table lists the trees identified as 'native' within the arborist report. Many of these do not occur naturally within Victoria and are introduced species, the following provides clarity to what is native to Victoria, as required by Clause 52.17.

Tree ID & Species	Origin	Remove/retain?	DBH (cm)	Permit required under 52.17?
T1 <i>Acacia mearnsii</i>	Indigenous	Retain	32	No. Located outside property boundary (Street tree)
T35 <i>Melaleuca armillaris</i>	Weed of concern	Remove	Multi-stemmed	No. Non-native species.
T43 <i>Melaleuca styphelioides</i>	Native	Remove	50/70	No. Planted species
T50 <i>Banksia serrata</i>	Native	Remove	n/a	No. Planted species
T53 <i>Acacia floribunda</i>	Native	Remove	n/a (3m high)	No. Planted species
T54 <i>Melaleuca styphelioides</i>	Native	Remove	20	No. Planted species
T68 <i>Melaleuca armillaris</i>	Weed of concern	Retain		No. Non-native species.
T78 <i>Acacia floribunda</i>	Native	Remove	8cm	No. Planted species
T79 <i>Acacia floribunda</i>	Native	Remove	16cm	No. Planted species
T80 <i>Melaleuca styphelioides</i>	Native	Retain	Multi-stemmed	No. Planted species
T83 Eucalyptus	Native	Remove	14	No. Planted species
T84 <i>Melaleuca armillaris</i>	Weed of concern	Remove	24	No. Non-native species.
T86 <i>Melaleuca armillaris</i>	Weed of concern	Remove	23	No. Non-native species.
T87 <i>Melaleuca armillaris</i>	Weed of concern	Remove	n/a	No. Non-native species. Lying on ground.
T89 <i>Melaleuca armillaris</i>	Weed of concern	Remove	11	No. Non-native species.
T90 <i>Melaleuca armillaris</i>	Weed of concern	Remove	25	No. Non-native species.
T91 <i>Melaleuca armillaris</i>	Weed of concern	Remove	22	No. Non-native species.
T92 <i>Melaleuca armillaris</i>	Weed of concern	Remove	18	No. Non-native species.
T93 <i>Melaleuca armillaris</i>	Weed of concern	Remove	23	No. Non-native species.

T94 <i>Melaleuca armillaris</i>	Weed of concern	Remove	27	No. Non-native species.
T95 <i>Melaleuca armillaris</i>	Weed of concern	Remove	15	No. Non-native species.
T98 <i>Melaleuca armillaris</i>	Weed of concern	Remove	n/a	No. Non-native species. Collapsed and disintegrated.
T100 <i>Acacia floribunda</i>	Native	Remove	6	No. Planted species
T137 <i>Corymbia maculata</i>	Native	Retain	88	No. Planted species.
T138 <i>Eucalyptus botryoides</i>	Native	Remove	37/38	No. Planted species.
T139 <i>Agonis flexuosa</i>	Introduced	Remove	28/30	No. Native to Western Australia
T145 <i>Eucalyptus globulus</i>	Native	Retain	62	No. Planted species.
T148 <i>Melaleuca linariifolia</i>	Native	Remove	30	No. Planted species
T150 <i>Eucalyptus cinerea</i>	Native	Retain	37/42	No. Planted species
T153 <i>Callistemon salignus</i>	Native	Remove	12/13/15	No. Planted species
T160 <i>Malus domestica</i>	Native	Remove	n/a	No. Planted species
T165 <i>Agonis flexuosa</i>	Introduced	Remove	12/16/20	No. Native to Western Australia
T182 <i>Melaleuca sp</i>	Native	Remove	-	No. Planted species
T183 <i>Malus floribunda</i>	Native	Remove	-	No. Planted species

Trees 175 & 187 are also to be retained, however have been identified as exotic species or commercial cultivar in the arborist report.

7. Conclusion

As detailed in this report, it is our submission that all vegetation within the site has been planted, and therefore is exempt from requiring a permit for removal under Clause 52.17.

This assessment also deems that development of the nature and scale proposed will not adversely impact on the ecological characteristics of the site, provided that an extensive landscape plan is provided to offset the removal of vegetation.

Millar | Merrigan

T (03) 8720 9500	Millar & Merrigan Pty Ltd CAN 005 541 668
F (03) 8720 9501	Office 2/126 Merrindale Drive, Croydon, Victoria
admin@millarmerrigan.com.au	Mail PO Box 247 Croydon, Victoria 3136
millarmerrigan.com.au	Ausdoc DX 13608 Croydon

8. References

DELWP, 2022a, Naturekit, <https://maps2.biodiversity.vic.gov.au/Html5viewer/index.html?viewer=NatureKit> [online] Department of Environment, Land, Water and Planning [Accessed Jun 2022]

DELWP, 2022b, Native Vegetation Information Management Tool, <https://nvim.delwp.vic.gov.au/> [online] Department of Environment, Land, Water and Planning [Accessed Jun 2022]

DELWP, 2022c, Bioregions and EVC Benchmarks, <https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks> [online] Department of Environment, Land, Water and Planning [Accessed Jun 2022]

DELWP, 2022d, VicPlan, <https://mapshare.vic.gov.au/vicplan/> [online] Department of Environment, Land, Water and Planning [Accessed Jun 2022]

DELWP, 2022e, Planning Schemes Online, <https://www.planning.vic.gov.au/schemes-and-amendments/browse-planning-schemes> [online] Department of Environment, Land, Water and Planning [Accessed Jun 2022]

Nearmaps, 2022, <https://www.nearmap.com/au/en> [online] [Accessed Jun 2022]

APPENDIX 1 – EVC BENCHMARK

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Gippsland Plain bioregion

EVC 128: Grassy Forest

Description:

Low growing forest to 20 m tall with an understorey of small and medium shrubs and a rich diversity of herbs. Large shrubs and understorey trees may also be conspicuous. Often grows in areas transitional between drier box stringybark forests and taller, herb-rich forests typical of more favourable environments.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	4	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	2	5%	PS
Large Herb	1	1%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	3	45%	MTG
Ground Fern	1	1%	GF
Scrambler or Climber	3	5%	SC
Bryophytes/Lichens	na	10%	BL

EVC 128: Grassy Forest - Gippsland Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Bursaria spinosa ssp. spinosa</i>	Sweet Bursaria
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Acacia stricta</i>	Hop Wattle
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Hovea heterophylla</i>	Common Hovea
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Acaena agripila</i>	Hairy Sheep's Burr
MH	<i>Ranunculus lappaceus</i>	Australian Buttercup
SH	<i>Oxalis corniculata s.l.</i>	Yellow Wood-sorrel
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa morrisii</i>	Soft Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
SC	<i>Glycine clandestina</i>	Twining Glycine
SC	<i>Comesperma volubile</i>	Love Creeper

Recruitment:

Continuous

Organic Litter:

40 % cover

Logs:

20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus fruticosus spp. agg.</i>	Blackberry	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Gippsland Plain bioregion

EVC 175: Grassy Woodland

Description:

A variable open eucalypt woodland to 15 m tall or occasionally Sheoak woodland to 10 m tall over a diverse ground layer of grasses and herbs. The shrub component is usually sparse. It occurs on sites with moderate fertility on gentle slopes or undulating hills on a range of geologies.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina</i> spp.	40 cm	

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Allocasuarina verticillata</i>	Drooping Sheoak

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	6	15%	MS
Small Shrub	2	5%	SS
Prostrate Shrub	2	1%	PS
Large Herb	2	5%	LH
Medium Herb	8	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	10%	BL

EVC 175: Grassy Woodland - Gippsland Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
T	<i>Allocasuarina littoralis</i>	Black Sheoak
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Acacia paradoxa</i>	Hedge Wattle
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Xanthorrhoea minor</i> ssp. <i>lutea</i>	Small Grass-tree
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Comesperma volubile</i>	Love Creeper
SC	<i>Billardiera scandens</i>	Common Apple-berry

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

15 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Pinus radiata</i>	Radiata Pine	high	high
T	<i>Pittosporum undulatum</i>	Sweet Pittosporum	high	high
MS	<i>Chrysanthemoides monilifera</i>	Boneseed	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment April 2004

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