Ballarto Road and Lyrebird Drive intersection upgrade: Flora and fauna assessment

FINAL REPORT

Prepared for Department of Transport

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- Sarah Hilliar & Zahlia Payne (assistance in the field)
- Daeyoo Kang (mapping)
- Matt Gibson and Mark Venosta (quality assurance).
- Gabrielle Head-Gray (project management and assistance with reporting)

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Summary

Biosis Pty Ltd was commissioned by Department of Transport (DoT) to undertake a flora and fauna assessment of an area of land proposed for a road safety intersection upgrade (the development). The study area is located along Ballarto Road and the intersection of Lyrebird Drive, and occurs in a built-up urban area approximately 1.8 kilometres south of the Carrum Downs central business district. The study area starts immediately west of the Carrum Downs police station and continues west along Ballarto Road for a distance of approximately 650 metres. The study area also extends approximately 180 metres down Lyrebird Drive from the intersection with Ballarto Road (Figure 1).

This flora and fauna assessment will assist DoT to undertake the project in a manner consistent with current legislation and policy, particularly in relation to matters of national environmental significant listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), state matters listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act) and Victoria's 'Guidelines for the removal, destruction or lopping of native vegetation' (the Guidelines) which are an incorporated document in the Victoria Planning Provisions under the *Planning and Environment Act 1987*.

Ecological values

Key ecological values identified within the study area are as follows:

- The southern part of the study area contains low to moderate quality patch native vegetation, with the highest value vegetation located along the southern interface with the Keith Turnbull Research Institute. Vegetation in this area consists of Swamp Scrub (EVC53) which has a bioregional conservation status of Endangered, and Heathy Woodland EVC 48, which has a bioregional conservation status of Least Concern.
- The study area contains nine patches of native vegetation, 14 indigenous scattered trees and 20 large trees in patches. There are also a large number of planted non-local native species and introduced species in the study area, particularly in the median and north of Ballarto Road.
- The vegetation along the interface with the Keith Turnbull Research Institute contains ephemeral swampy habitat which is intermittently connected to wetlands and Boggy Creek located to the south.
- There is a population of Swamp Skink *Lissolepis coventryi* (listed as endangered under the FFG Act) which was recorded adjacent to the study area, and there is suitable habitat for this species within the study area.
- There is potential habitat for the following threatened fauna species:
  - Swift Parrot *Lathamus discolor* – Listed as critically endangered under the EPBC Act and FFG Act.
  - White-throated Needletail *Hirundapus caudacutus* – Listed as vulnerable under the EPBC Act and FFG Act.
  - Painted Honeyeater *Grantiella picta* – Listed as vulnerable under the EPBC Act and FFG Act.
  - Grey-headed Flying-fox *Pteropus poliocephalus* – Listed as vulnerable under the EPBC Act and FFG Act.
  - Dwarf Galaxias *Galaxiella pusilla* – Listed as vulnerable under the EPBC Act and endangered under the FFG Act.
  - Black Falcon *Falco subniger* – Listed as critically endangered under the FFG Act.

- Swamp Skink *Lissolepis coventryi* – Listed as endangered under the FFG Act.
- Southern Toadlet *Pseudophryne semimarmorata* – Listed as endangered under the FFG Act.
- White-bellied Sea Eagle *Haliaeetus leucogaster* – Listed as endangered under the FFG Act.
- Lewin's Rail *Lewinia pectoralis* – Listed as vulnerable under the FFG Act.
- Little Eagle *Hieraaetus morphnoides* – Listed as vulnerable under the FFG Act.
- Square-tailed Kite *Lophoictinia isura* – Listed as vulnerable under the FFG Act.
- Hooded Robin *Melanodryas cucullata* – Listed as vulnerable under the FFG Act.

- Giant Honey-myrtle *Melaleuca armillaris* subsp. *armillaris* is present in the study area, which is listed as endangered under the *Flora and Fauna Guarantee Act 1988* (FFG Act).
- Melbourne Yellow-gum *Eucalyptus leucoxylon* subsp. *connata* is present in the study area, which is listed as endangered under the FFG Act.
- The study area contains suitable habitat for River Swamp Wallaby-grass *Amphibromus fluitans*, which is listed as vulnerable under the EPBC Act.
- The site is within 2.9 kilometres upstream of the Edithvale-Seaford Wetlands, which is a Ramsar wetland located to the north-west of the study area.
- The study area contributes to some local connectivity along the roadside of Ballarto Road between the western and eastern sections of the Keith Turnbull Research Institute.

Government legislation and policy

An assessment of the project in relation to key biodiversity legislation and policy is provided and summarised below.

Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
EPBC Act	Possible habitat in the study area for five EPBC listed fauna species, 1 listed flora species.	Referral not recommended.	Impacts to these species/habitats have been assessed as not likely to be significant (Appendix 2).
FFG Act	Study area contains four protected flora species, two endangered flora species, one threatened flora community, and habitat for 13 FFG Act listed fauna species.	Protected flora permit required if any of the four protected flora species will be affected by the proposal and Department of Transport does not already have a relevant permit for protected flora.	Site is public land. As a public authority under the FFG Act, Department of Transport needs to observe their public authority duty, by considering the objectives of the FFG Act and the impact of the proposed development on biodiversity (Table 6).

Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
Planning & Environment Act	ESO1 and Clause 52.17 applies to the indigenous vegetation to be removed. ESO1 applies to land along the southern interface with the Keith Turnbull Research Institute.	Planning permit required to lop or remove native vegetation.	Permit application needs to address provisions of Clause 52.17 and ESO1.
CaLP Act	Noxious weeds – Artichoke Thistle.	N/A	Comply with requirements to control/eradicate.
Water Act	Study area is in proximity / connected to Boggy Creek	Referral to Melbourne Water/CMA recommended.	Implications for specific waterways need to be adequately managed through a CEMP and in consultation with Melbourne Water.
Fisheries Act	Swampy areas along the interface with the Keith Turnbull Research Institute. May be suitable habitat for Dwarf Galaxias.	No permit required.	Mitigation measures outlined in this report to be adhered to. Therefore, the potential for protected aquatic biota to be injured, damaged or destroyed is considered to be negligible and no permit is required from Victorian Fisheries Authority.
SEPP (Waters)	Swampy areas and Boggy Creek to the south of the study area.	Approval of CEMP measures by EPA recommended.	Department of Transport to prepare and implement a site-specific Constructional Environmental Management Plan (CEMP), which includes all EPA approved waterway protection and erosion control measures.

Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines)

Based on the current design, the proposed development will require the removal of 0.847 hectares of native vegetation, including 11 large trees, from within location category 2. Therefore the planning permit application will be assessed on the detailed assessment pathway. The strategic biodiversity value score of the native vegetation to be removed ranges between 0.170 and 0.570.

Department of Transport have avoided and minimised environmental impacts by conducting a detailed and staged project design and analysis process. The design plan has been updated a number of times after assessment and feedback from the various planning stages, with the aim of minimising the impact of the project on the higher value vegetation south of Ballarto Road and to avoid any new footpath construction that requires tree removal north of Ballarto Road. The steps that have been taken during the design of the development to ensure that impacts on biodiversity from the removal of native vegetation have been minimised include:

- Initial options analysis for the development with a view to minimising impacts to the environment and a design workshop to ensure the design achieved its road safety purpose with a view to causing minimal impacts.
- Site investigations to ensure the design's road infrastructure was placed in the most appropriate sites and that site values were avoided where possible, or that minimal impacts are to be caused where site values could not be avoided by the design.
- Design review workshop to assess the final design against the recommendations made in the previous workshop assessments.
- Environmental assessment of proposed design by ecologists and an arborist, to ensure any significant values in the study area are identified and to seek advice on avoiding and minimising impacts where values may be impacted, or where there are risks to matters of state or national significance.

The specific actions Department of Transport have undertaken in the design process in an attempt to avoid and minimise impacts to vegetation include:

- Avoiding higher quality areas of native vegetation by shrinking the footprint as much as possible, and minimising the footprint of the development in the vicinity of the Keith Turnbull Research Institute.
- Where encroachment into vegetation to the south of Ballarto Road was required, the extent of encroachment was minimised to the greatest extent possible, while still allowing for the road construction project to achieve its desired road safety purpose.
- Locating all temporary site storage and compounds for the project on existing disturbed land to minimise impacts to native vegetation.
- Designing the new footpaths associated with the road construction in a way to avoid patch vegetation and scattered trees.

Native vegetation offsets

If a permit is granted, the offset requirements would be 0.297 general habitat units and 11 large trees (see Appendix 5). The general offset must be within the Port Phillip and Westernport Catchment Management Authority area or the Frankston City municipal district, and must have a minimum strategic biodiversity value score of 0.171. A Native Vegetation Report is provided in Appendix 5.

Department of Transport intend to purchase offset credits through the Native Vegetation Credit Register. A search was conducted on July 14 2022 and at that time of search (see Appendix 5), there are 14 suitable credit options which have the required location, general units and large trees required to offset the project's losses.

A quote from Vegetation Link for the required native vegetation offsets is provided in Appendix 5a of this report. DoT intend to purchase these offsets following approval of the project.

Recommendations

The results of this assessment should be incorporated into the final project design, by adding the flora and fauna mapping information into the planning maps and ensuring all of the mapped retained vegetation/habitats are appropriately protected from impacts from the development. Works are to be confined to the impact footprint outlined within this report. Development and construction controls will be implemented to ensure the development and associated infrastructure minimises impacts to native vegetation in the study area and avoids the adjoining mapped vegetation/habitats, beyond that which is necessary to make the road construction viable and effective.

All areas of vegetation/habitat nominated in the overall final design plan as 'retained' and the Tree Protection Zone (TPZ) buffers of retained large trees (and those adjoining the project study area) will be treated as no-go zones and placement of works, parking and stockpile areas will avoid these site features. Adequate barriers, fencing and signage are encouraged in areas where works are in close proximity to these no-go zones, to ensure compliance with this recommendation and to ensure the protection of sensitive wetland/swampy environments.

Other recommendations to reduce the impact of the development on the study area's current biodiversity values include the following:

- Micro-siting of all construction related temporary access roads, stockpiles, vehicle parking and site compounds should occur, and these structures should be located in areas that do not contain native vegetation or important fauna habitat.
- Clearly delineate the extent of the project's construction footprint and restrict all access to retained vegetation and fauna habitat through signage and/or secure high visibility temporary exclusion fencing.
- Train construction staff and contractors in the significance of the adjoining native vegetation and the extent of the no-go zones, and include environmental awareness in the site induction and at each morning's tool box talks.
- Where possible, use locally indigenous trees, shrubs and ground covers in all revegetation and plantings, if done as part of rehabilitation/landscaping of works areas.
- Implement strict weed and pathogen hygiene protocols during construction and operation, ensuring equipment arrives clean and is weed/pathogen free.
- Where trees have been deemed lost due to TPZ encroachment, where possible, all efforts should be made to retain these trees, provided they are structurally sound and do not pose a risk to road and cycle path users.
- Removal of hollow-bearing habitat trees should be supervised by an appropriately qualified person (i.e. ecologist or trained wildlife handler) to ensure species impacted by the tree removal may be relocated or have their health assessed and managed appropriately.
- Ensure works do not further fragment the swampy areas in the study area from the aquatic habitats to the south. Engineer appropriate drains or swales to maintain water flows and fish passage-ways.

In accordance with DELWP recommendations to mitigate impacts on Swamp Skink populations, a temporary fence with a 600mm high silt fence should be installed prior to works to prevent Swamp Skink from dispersing into the roadworks area. The temporary fence should start from the pathway connecting Ballarto Road to the Peninsula Link Trail and extend approximately 250 metres to join the north-south running fence to the east. The temporary fence is to be maintained and installed for the entirety of roadworks period. Additionally, artificial refuges, i.e. roof tiles, should be installed between the road and temporary fence to capture any Swamp Skink and release into habitat behind the temporary fence. Up to 50 roof tiles at intervals of 5m need to be deployed up to 4 weeks before surveys begin. Surveys should commence in Spring to early Summer (DELWP 2020). Tiles should be inspected at least three times and up to 5 times during the survey period with a week between inspections (DELWP 2020). The last check needs to coincide with the first day of vegetation removal. Upon completion of the road works, a permanent cyclone fence with an additional low barrier to prevent the dispersal of Swamp Skink should be installed and the temporary fence will be removed. These biodiversity and vegetation protection measures should be documented in a Construction Environmental Management Plan (CEMP), which should also include other measures to reduce the possible impacts of site construction works, including erosion and sedimentation management, biosecurity

considerations (pests and diseases), waste and pollution management, work site delineation, cultural heritage and contingency plans if natural (flora and fauna) or cultural heritage issues (i.e. unexpected finds) are encountered during the construction works.

Targeted survey is not recommended. However, in performing their role as a public authority under the FFG Act, Department of Transport may wish to conduct targeted surveys for modelled FFG Act threatened species and those threatened species considered to have a medium or higher chance of occurring in the study area (Appendix 1 and 2). This may inform the final design process further, if any constraints are identified from these surveys.

1. Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by Department of Transport to undertake a flora and fauna assessment of an area of land proposed for an intersection upgrade (the development). An area either side of the proposed road works construction footprint was delineated for the flora and fauna assessment (the study area), to capture the values in the broader vicinity of the proposed works.

The intersection re-development proposed for the study area (construction footprint) involves installation of traffic signals at the Ballarto Road and Lyrebird Drive intersection, duplication of Ballarto road in the vicinity of the intersection, installation of safety barriers on both sides of Ballarto Road, and construction of a batter fill interface on the southern side of Ballarto Road which will extend the majority of the length of the proposed construction footprint. A raised shared pedestrian bridge will be constructed from to provide connectivity to the existing Peninsula Link trail south of the study area. The raised shared pedestrian bridge will be 1.5 metres above the gully below and constructed with concrete culverts.

1.2 Scope of assessment

The objectives of this investigation are to:

- Describe the vascular flora (ferns, conifers and flowering plants), vertebrate fauna (mammals, birds, reptiles, frogs, fishes).
- Map native vegetation and other habitat features.
- Conduct a vegetation quality assessment.
- Review the implications of relevant biodiversity legislation and policy, including Victoria's Guidelines for the removal, destruction or lopping of native vegetation ('the Guidelines').
- Identify potential implications of the proposed development and provide recommendations to assist with development design.
- Recommend any further assessments of the site that may be required (such as targeted searches for threatened species).

1.3 Location of the study area

The study area is located on roads and adjoining roadsides in a built-up urban area approximately 1.8 kilometres south of the Carrum Downs central business district. The study area starts immediately west of the Carrum Downs police station and continues west along Ballarto Road for a distance of approximately 650 metres. The study area also extends approximately 180 metres down Lyrebird Drive from the intersection with Ballarto Road (Figure 1). The study area encompasses approximately 3.6 hectares of public land and the adjacent road reserves. It is currently zoned Road Zone – Category 1 (RDZ1) along Ballarto Road, Residential 1 Zone (R1Z) along Lyrebird Drive, and Public Park and Recreation Zone (PPRZ) immediately east of the Ballarto Road and Lyrebird Drive intersection. The study area is bordered to the south by the Keith Turnbull Research Institute, which is zoned Public Use Zone – Other Public Use (PUZ7).

The study area is within the:

- Gippsland Plain Bioregion.
- Bunyip River Basin (Port Phillip and Westernport catchment).
- Management area of Melbourne Water and the Port Phillip Westernport Catchment Management Authority (CMA).
- Frankston City Council local government area.

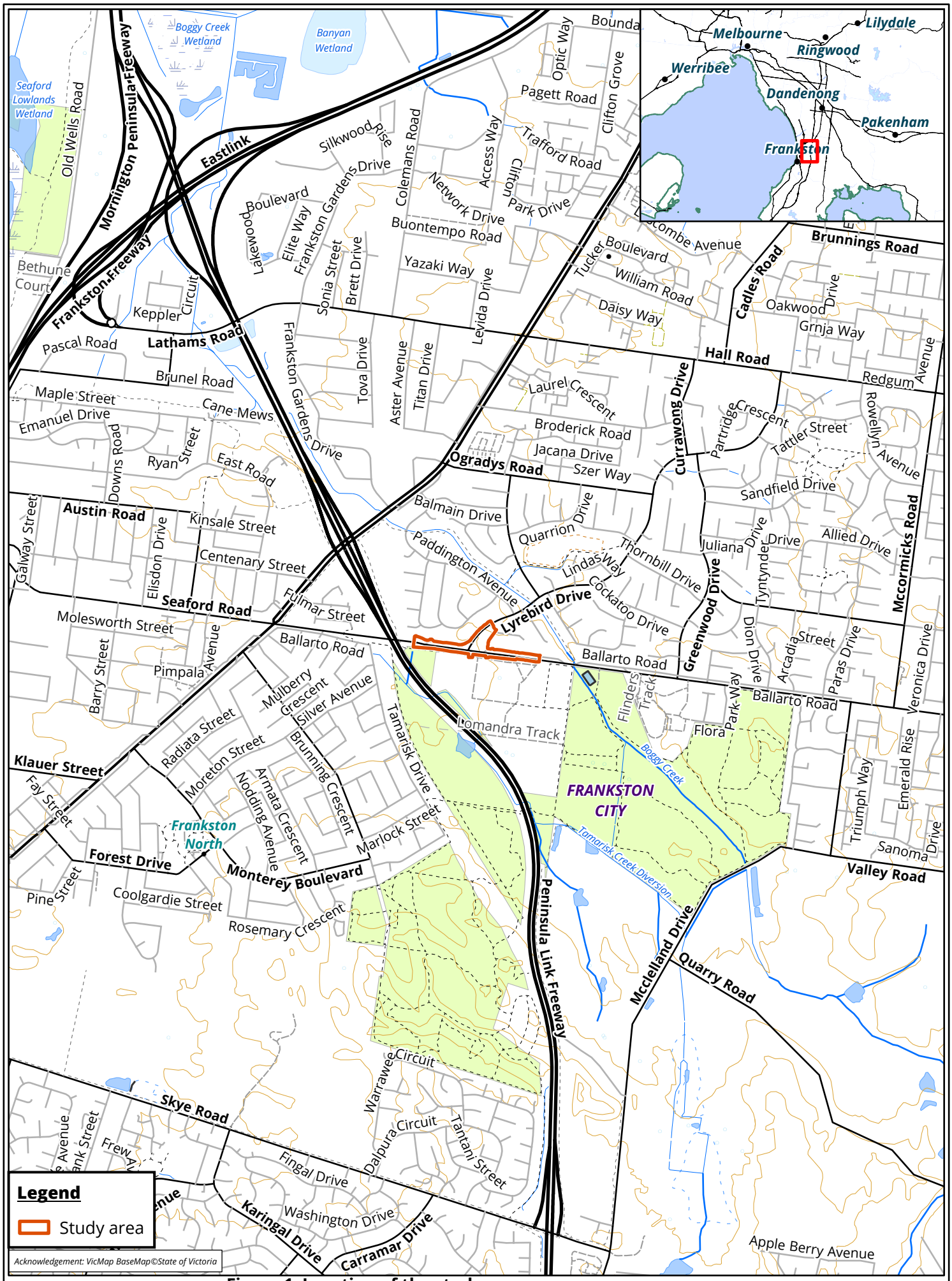

Figure 1 Location of the study area

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Matter: 36023,
Date: 12 July 2022 ,
Prepared for: SM, Prepared by: DK, Last edited by: dkang
Layout: 36023_F1_Locality
Project: P:\36000s\36023\Mapping\36023_BallartoRdLyrebirdDr_FFA_PPA.aprx

0 250 500 750 1,000
Metres
Scale: 1:25,000 @ A4
Coordinate System GDA 1994 MGA Zone 55

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2. Methods

2.1 Database review

In order to provide a context for the study area, information about flora and fauna from within 5 kilometres of the study area (the 'local area') was obtained from relevant biodiversity databases, many of which are maintained by the Victorian Government Department of Environment, Land, Water and Planning (DELWP) or the Australian Government Department of Agriculture, Water and the Environment (DAWE). Records from the following databases were collated and reviewed:

- DELWP's Victorian Biodiversity Atlas (VBA), including the 'VBA_FLORA25, FLORA100 & FLORA Restricted' and 'VBA_FAUNA25, FAUNA100 & FAUNA Restricted' datasets.
- DAWE's Protected Matters Search Tool for matters protected by the Commonwealth EPBC Act.

Other sources of biodiversity information were examined including:

- DELWP's NatureKit mapping tool.
- DELWP's Habitat Importance maps.
- DELWP's Native Vegetation Information Management (NVIM) system.
- DELWP's EnSym NVR Tool Support team was provided with site-based spatial information in order to generate a Native Vegetation Removal Report for the study area.
- Planning Scheme overlays relevant to biodiversity based on http://planningschemes.dpcd.vic.gov.au.

2.2 Definitions of threatened species or communities

Threatened species or communities include those species or communities that are listed under the EPBC Act and/or FFG Act. The conservation status of a species or ecological community is determined by its listing status under Commonwealth or State legislation / policy (Table 1).

Table 1 Conservation status of threatened species and ecological communities

Conservation status	
National	Listed as nationally critically endangered, endangered or vulnerable under the EPBC Act
State	Listed as extinct, extinct in the wild, critically endangered, endangered, vulnerable or conservation dependent in Victoria under the FFG Act

Lists of threatened species generated from the databases are provided in Appendix 1 (flora) and Appendix 2 (fauna) and the species have been assessed to determine their likelihood of occurrence based on the process outlined below.

2.3 Determining likelihood of occurrence of listed threatened species

Likelihood of occurrence indicates the potential for a species or ecological community to occur regularly within the study area. It is based on expert opinion, information in relevant biodiversity databases and reports, and an assessment of the habitats on site. Likelihood of occurrence is ranked as negligible, low, medium, high, or recorded. The rationale for the rank assigned is provided for each species in Appendix 1

(flora) and Appendix 2 (fauna). Those species for which there is little or no suitable habitat within the study area are assigned a likelihood of low or negligible and are not considered further.

Only those species listed under the EPBC Act or the FFG Act (hereafter referred to as ' threatened species') are assessed to determine their likelihood of occurrence. The habitat value for threatened species is calculated by the Habitat Importance Modelling produced by DELWP (DELWP 2017a). Where threatened species are recorded in the study area this is noted in Appendix 1 (flora) and Appendix 2 (fauna).

Threatened species which have at least a medium likelihood of occurrence are given further consideration in this report. The need for targeted survey for these species is also considered.

2.4 Site investigation

2.4.1 Flora assessment

The flora assessment was undertaken on 26 October 2021 and a list of flora species was collected. This list will be submitted to DELWP for incorporation into the Victorian Biodiversity Atlas. Planted species have not been recorded unless they are naturalised.

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses' (Clause 73.01).

The Guidelines classify native vegetation into two categories (DELWP 2017a):

- A **patch** of native vegetation (measured in hectares) is either:
  - An area of native vegetation, with or without trees, where at least 25 percent of the total perennial understorey cover is native plants.
  - An area with three or more native canopy trees where the drip line (i.e. the outermost boundary of a tree canopy) of each tree touches the drip line of at least one other tree, forming a continuous canopy.
  - Any mapped wetland included in the *Current wetlands map,* available in DELWP systems and tools.

Patch vegetation is classified into ecological vegetation classes (EVCs). An EVC contains one or more floristic (plant) communities, and represents a grouping of broadly similar environments. Definitions of EVCs and benchmarks (condition against which vegetation quality at the site can be compared) are determined by DELWP.

- A **scattered tree** is defined as a native canopy tree that does not form part of a patch of native vegetation.

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. Ecological vegetation class descriptions provide a list of the typical canopy species. A scattered tree is defined as either small or large, and is determined using the large tree benchmark for the relevant EVC. The extent of a small scattered tree is the area of a circle with a 10 metre radius (i.e. 0.031 hectares), while the extent of a large scattered tree is a circle with a 15 metre radius (i.e. 0.070 hectares). A condition score is applied to each scattered tree based on information provided by DELWP's NVIM.

A Vegetation Quality Assessment (VQA) was undertaken for all patches of native vegetation identified in the study area. This assessment is consistent with DELWP's habitat hectare method (DSE 2004) and the Guidelines (DELWP 2017a). For the purposes of this assessment the limit of the resolution for identification of a patch of native vegetation was taken to be 0.001 habitat hectares (Hha). That is, if a discrete patch native vegetation was present with sufficient cover but its condition and extent would not have resulted in the

identification of at least 0.001 habitat hectares, the vegetation patch of vegetation was not mapped or included in the assessment.

Where relevant, notes were made on specific issues such as noxious weed infestations, evidence of past management works, current factors impacting the study area, and the regeneration capacity of the vegetation.

Species nomenclature for flora follows the Victorian Biodiversity Atlas (VBA).

2.4.2 Fauna assessment

The study area was investigated by a zoologist on 26 October 2021 to determine its values for fauna. These were determined primarily on the basis of the types and qualities of habitat(s) present. All species of fauna observed during the assessment were noted and active searching for fauna was undertaken. This included direct observation, searching under rocks and logs, examination of tracks and scats and identifying calls. Particular attention was given to searching for significant species and their habitats. Fauna species were recorded with a view to characterising the values of the site and the investigation was not intended to provide a comprehensive survey of all fauna that has potential to utilise the site over time.

Fauna records will be submitted to DELWP for incorporation into the VBA.

2.4.3 Permits

Biosis undertakes flora and fauna assessments under the following permits and approvals:

- Wildlife Authorisation issued by DELWP under the *Victorian Wildlife Act 1975* (Permit Number 10010193)
- Permit to Take/Keep Protected Flora issued by DELWP under the FFG Act (Permit Number 10010194)
- Permit to Conduct Research in areas managed by Parks Victoria issued by DELWP under the *National Parks Act 1975*, *Crown Land (Reserves) Act 1978* and *Parks Victoria Act 2018* (Permit Number 10010071)
- Approvals 18.21 and 20.21 issued by the Wildlife and Small Institutions Animal Ethics Committee of the Victorian Government Department of Economic Development, Jobs, Transport and Resources (DEDJTR)
- Scientific Procedures Fieldwork Licence issued by DEDJTR's Wildlife and Small Institutions Animal Ethics Committee (Licence Number 20020).

2.5 Qualifications

Ecological surveys provide a sampling of flora and fauna at a given time and season. There are a number of reasons why not all species will be detected at a site during survey, such as low abundance, patchy distribution, species dormancy, seasonal conditions, and migration and breeding behaviours. In many cases these factors do not present a significant limitation to assessing the overall biodiversity values of a site.

The current flora and fauna assessment was conducted in mid-spring, which is an optimal time for survey. The former Department of Primary Industries site in the east section of the study area was locked on the day of assessment, and thorough survey of ground flora was not undertaken, but was conducted from the Ballarto Road side of the boundary security fence. The survey effort was sufficient to map and assess the general values of the study area. Arborist tree data was used for the tree component of the vegetation impact calculations in this report (Appendix 7).

Native Vegetation Removal Reports are prepared through DELWP's NVIM system or requested through DELWP's EnSym NVR Tool Support team. Biosis supplies relevant site-based spatial information as inputs to DELWP and we are entirely reliant on DELWP's output reports for all assessment pathway applications. Biosis makes every effort to ensure site and spatial information entered into the NVIM, or supplied to DELWP, is an accurate reflection of proposed native vegetation removal. The Native Vegetation Removal Report can be viewed in Appendix 5.

2.6 Legislation and policy

The implications for the project were assessed in relation to key biodiversity legislation and policy including:

- Matters listed under the EPBC Act, associated policy statements, significant impacts guidelines, listing advice and key threatening processes.
- Threatened taxa, communities and threatening processes listed under Section 10 of the FFG Act and associated action statements and listing advice.
- Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017a).
- *Planning and Environment Act 1987* – specifically Clauses 12.01-2, 52.17 and 66.02 and Overlays in the Frankston City Council Planning Scheme.
- Noxious weeds and pest animals lists under the *Catchment and Land Protection Act 1994* (CaLP Act).
- *Fisheries Act 1995.*
- *Water Act 1989.*
- *Environment Protection Act 1971*: State Environmental Protection Policy (Waters) 2018.

2.7 Mapping

Department of Transport supplied pdf site plans (Functional Design Layout - V21199-SKT-CI-0001-B dated 10/5/22) and digital files of the latest designs, the Habitat Management Services preliminary biodiversity study (Due Diligence Assessment: Ballarto Road/Lyrebird Drive. Carrum Downs.pdf), and the Greenwood Consulting arborist report (6610 220211 CIR Biosis Ballarto Cranbourne Rd 1911) dated 11 February 2022 and associated tree digital data. An updated arborist report was provided by Greenwood Consulting based on the latest designs for the project. The results of the report are based on these tree data, the Biosis surveyed flora and habitat data, and upon the impact areas in the supplied designs. A 2 metre buffer was applied to the design footprint to account for impacts during construction activities, and losses were asses on this area (construction footprint).

Mapping was conducted using hand-held GPS-enabled tablets and aerial photo interpretation. The accuracy of this mapping is therefore subject to the accuracy of the tablets (generally ± 7 metres) and dependent on the limitations of aerial photo rectification and registration.

Mapping has been produced using a Geographic Information System (GIS). Electronic GIS files which contain our flora and fauna spatial data are available to incorporate into design concept plans. However this mapping may not be sufficiently precise for detailed design purposes.

3. Results

The ecological features of the study area are described below and are mapped in Figure 2.

Species recorded during the flora and fauna assessment are listed in Appendix 1 (flora) and Appendix 2 (fauna). Unless of particular note, these species are not discussed further.

Threatened species recorded or predicted to occur in the local area is also provided in those appendices, along with an assessment of the likelihood of the species occurring within the study area.

3.1 Vegetation and fauna habitat

The majority of the study area has been moderately to highly modified, due to urban development, past road construction and the development of the recreational path which runs along the southern part of the study area. Large parts of the study area have been significantly degraded and support predominantly introduced vegetation that is of limited ecological value. However, despite the urban landscape, some parts of the study area still hold a range of ecological features including native vegetation, significant fauna habitat, large trees and scattered trees.

Significant ecological features present within the study area are generally limited to the roadside on the southern side of Ballarto Road. Two EVCs occur within the study area; Heathy Woodland (EVC 48), which has a bioregional conservation status of least concern, and Swamp Scrub (EVC 53), which has a bioregional conservation status of endangered.

Heathy Woodland (EVC 48) occurs in the middle of the study area, opposite Lyrebird Drive alongside the Peninsular Link Trail, as well as a small part in the far-east of the study area, near Carrum Downs police station. This EVC is characterised by an overstorey of Swamp Gum *Eucalyptus ovata,* some of which are large. The mid story is sparse and characterised by various wattles *Acacia* sp. The understorey is predominantly introduced grass species including Great Brome *Bromus diandrus*, Panic Veldt Grass *Ehrharta erecta* and Soft Brome *Bromus hordeaceus.*

Swamp Scrub (EVC 53) occurs along the remainder of the southern side of Ballarto Road, on the northern side of Ballarto Road in the far north-western corner of the study area, and there are two small patches just north of Botany Park on Lyrebird Drive. The better examples of this EVC are characterised by paperbarks *Melaleuca* sp., Blackwood *Acacia melanoxylon* and the occasional Swamp Gum. The mid-storey is dominated by a thick layer of Swamp Paperbark *Melaleuca ericifolia,* while wetter sections have dense layers of Narrow-leaf Cumbungi *Typha domingensis*. The understorey is dominated by introduced grasses including Soft Brome and Kikuyu *Cenchrus clandestinus*. There are a small number of native wallaby grasses *Rytidosperma* sp. scattered throughout the ground layer. The two small patches of Swamp Scrub on Lyrebird Drive are characterised by Coast Manna Gum *Eucalyptus viminalis* subsp. *pryoriana* with an understory that had been landscaped and covered by bark chip mulch.

The study area is relatively flat with a gentle rise in Lyrebird Drive around the vicinity of Botany Park. Wetter areas within the Swamp Scrub EVC are formed by small depressions in the ground surface.

These study area features are described further in Table 2 and mapped in Figure 2.

Representative site photos are provided after Table 2, and photos of scattered trees being impacted are available in the arborist report in Appendix 7.

Table 2 Summary of vegetation and habitat types within the study area

Vegetation or habitat type	Description	Location	Significant values
Heathy Woodland **EVC 48** **Bioregional Conservation Status:** Least Concern **(Photo 1 and 5)**	Eucalypt woodland to 10 metres tall dominated by Swamp Gum *Eucalyptus ovata*. A relatively sparse mid-storey is characterised by native species Blackwood *Acacia melanoxylon*, Coast Wattle *Acacia longifolia* subsp. *sophorae* and Coast Tea-tree *Leptospermum laevigatum*. Introduced Sweet Pittosporum *Pittosporum undulatum* is scattered throughout this EVC as a small and medium shrub. The ground later is dominated almost entirely by introduced species including Great Brome *Bromus diandrus*, Kikuyu *Cenchrus clandestinus* and Sweet Vernal-grass *Anthoxanthum odoratum*.	Roadside opposite Lyrebird Drive and a small patch in the east near Carrum Downs police station.	Eucalypts in these areas offer possible foraging habitat for Hooded Robin *Melanodryas cucullata*, Painted Honeyeater *Grantiella picta*, Grey-headed Flying-fox *Pteropus poliocephalus* and Square-tailed Kite *Lophoictinia isura* (threatened species). There may also be some suitable habitat for Southern Toadlet *Pseudophryne semimarmorata.*
Swamp Scrub **EVC 53** **Bioregional Conservation status:** Endangered **(Photo 2 and 3)**	Closed scrub to 8 metres tall dominated by Swamp Paperbark *Melaleuca ericifolia* with scattered Blackwood and the occasional Swamp Gum. This EVC had areas that were covered in water and were dominated by Narrow-leaf Cumbungi *Typha domingensis.* Drier sections were dominated by a weedy understory which included Cocksfoot *Dactylis glomeratus*, Sweet Vernal-grass and Great Brome. Some scattered Wallaby Grass *Rytidosperma sp.* and Spear Grass *Austrostipa sp.* could be found throughout.	Along the majority of the southern road reserve of Ballarto Road, and two small patches north of Botany Park on Lyrebird Drive.	Includes some areas of potential habitat for Dwarf Galaxias *Galaxiella pusilla*, Lewin's Rail *Lewinia pectoralis*, Little Eagle *Hieraaetus morphnoides*, Black Falcon *Falco subniger* and Swamp Skink *Lissolepis coventryi* (threatened species).
Densely vegetated wet areas/sedge land **(Photo 3)**	Watercourses and wet areas are densely vegetated with tussocks, reeds/sedges and mid-storey shrub cover. Areas are thin, between the bicycle path and Ballarto Road, and are either heavily dominated by Narrow-leaf Cumbungi or Swamp Paperbark. Fallen timber and coarse woody debris are present in most wet areas.	Within and in the road reserve adjacent to the Keith Turnbull Research Institute, in the south-west part of the study area.	The densely vegetated wet areas within the study area and the slow flowing drain adjacent to the study area provide known habitat for Swamp Skink (threatened species). Coarse woody debris, tussocks and raised ground near wet areas are utilised for basking. Swamp Skinks are highly territorial, therefore connectivity to suitable habitat is important for juvenile dispersal.

Vegetation or habitat type	Description	Location	Significant values
Scattered trees	Scattered remnant and planted trees within the study area provide a foraging resource for mobile fauna species.	Throughout the road reserve north of Ballarto Road and within Botany Park.	Eucalypts in these areas offer possible foraging and nesting habitat for common birds and arboreal mammals, and foraging habitat for Grey-headed Flying-fox *Pteropus poliocephalus* and Swift Parrot *Lathamus discolor* (threatened species).
Planted non-indigenous trees (Photo 4)	The majority of the northern road reserve of Ballarto Road and the road reserve of Lyrebird Drive contain non-indigenous planted trees.	Majority of the northern road reserve of Ballarto Road and on Lyrebird Drive.	Flowering eucalypts that are not indigenous to the local area offer possible foraging habitat for Painted Honeyeater and Grey-headed Flying-fox (threatened species).
Planted garden vegetation	Planted vegetation most commonly occurs in gardens in the vicinity of houses.	Residential properties along northern road reserve of Ballarto Road and on Lyrebird Drive.	These areas generally contains few habitat values, as most indigenous fauna species in the area are adapted to open grassland environments. However, these gardens may support a range of common native and introduced bird species, particularly when in flower.

Photo 1 **Patch vegetation consisting of Heathy Woodland (EVC 48) south of Ballarto Road, opposite Lyrebird Drive in the higher quality south-western section of the study area. Photo taken 26 October 2021, looking north-east.**

Photo 2 **Patch vegetation of Swamp Scrub EVC 53 with a predominantly introduced and landscaped understorey, in the north of the study area on Lyrebird Drive. Photo taken 26 October 2021, looking north.**

Photo 3 **Wet area in patch vegetation consisting of Swamp Scrub EVC 53 south of Ballarto Road in the western part of the study area. Photo taken 26 October 2021, looking north-west.**

Photo 4 **Planted trees along the nature strip and northern road reserve of Ballarto Road. Photo taken 26 October 2021, looking east.**

Photo 5 **Patch vegetation consisting of Heathy Woodland EVC 48 along the Ballarto Road reserve, in the eastern part of the study area near the Carrum Downs police station. Photo taken 26 October 2021, looking south-east.**

Photo 6 **Patch vegetation consisting of Swamp Scrub EVC 53 south of Ballarto Road in the western part of the study area. Photo taken 26 October 2021, looking west.**

3.2 Landscape context

The study area is in an urban environment and the vegetation present contributes to some connectivity along Ballarto Road between the high value Swamp Scrub in the west, located within the Keith Turnbull Research Institute and part of the Pines Flora and Fauna Reserve, linking along Ballarto Road to the moderate to high value Heathy Woodland east of the study area. The site is generally flat, with a slight rise up Lyrebird Drive, and several low points along the south-western boundary of the study area which retain water some of the year and tend to be areas of Swamp Scrub (Figure 2). The highest values are along the road reserve on the southern side of Ballarto Road, particularly in the south-west where the study area borders the adjoining Keith Turnbull Research Institute. North of Ballarto Road, there is limited indigenous native vegetation, with the road reserves dominated by planted trees, although there are several scattered trees in Botany Park on Lyrebird Drive, and two small patches of Swamp Scrub at the northern-most point of the study area (in Lyrebird Drive).

3.3 Threatened species and ecological communities

Threatened species recorded or predicted to occur within 5 kilometres of the study area or from the relevant catchment (aquatic species) are listed in Appendix 1 (flora) and Appendix 2 (fauna). An assessment of the likelihood of these species occurring in the study area and an indication of where within the site (i.e. which habitats or features of relevance to the species) is included. A summary of those species recorded or with a medium or high likelihood of occurring in the study area is provided in Table 3.

Table 3 Summary of EPBC and FFG Act listed species most likely to occur in the study area

Species name	Listing status	Area of value within the study area
Swift Parrot	Critically Endangered under the EPBC Act and FFG Act.	Likely to forage in the various indigenous and non-indigenous winter flowering eucalypts in the study area.
Dwarf Galaxias	Vulnerable under EPBC Act and endangered under the FFG Act.	May be present in the swamp habitat along the south-western part of the study area.
White-throated Needletail	Vulnerable under EPBC Act and the FFG Act.	Likely to occupy the airspace over the study area on occasion, but unlikely to utilise the native vegetation as the species is almost exclusively aerial.
Painted Honeyeater	Vulnerable under EPBC Act and the FFG Act.	May utilise the habitat along the south-west section of the study area where high value habitat and some Mistletoe *Amyema* sp. Is present.
Grey-headed Flying-fox	Vulnerable under EPBC Act and the FFG Act.	Likely to forage in the various indigenous and non-indigenous eucalypts on site when they are flowering.
River Swamp Wallaby-grass	Vulnerable under EPBC Act.	Recorded in the reserve just south of the study area in 2007 and may be present in the wetland and swampy areas.
Black Falcon	Critically endangered under the FFG Act.	May forage throughout the study area.

Species name	Listing status	Area of value within the study area
White-bellied Sea Eagle	Endangered under the FFG Act.	May forage throughout the study area but unlikely to have important breeding and nesting habitat in study area.
Southern Toadlet	Endangered under the FFG Act.	May be present in the swampy habitat within the study area.
Swamp Skink	Endangered under the FFG Act.	An individual was observed near the study area, and is highly likely to be present in the swampy habitat within the study area.
Giant Honey-myrtle	Endangered under the FFG Act.	This species was recorded throughout the south-western part of the study area.
Lewin's Rail	Vulnerable under the FFG Act.	May be present in the swampy habitat within the study area.
Little Eagle	Vulnerable under the FFG Act.	May forage throughout the study area.
Square-tailed Kite	Vulnerable under the FFG Act.	May forage throughout the study area but unlikely to have important breeding and nesting habitat in study area.
Hooded Robin	Vulnerable under the FFG Act.	May be present in the more connected higher quality habitat in the study area.

3.3.1 DELWP habitat importance modelling for threatened species

To support decision making under the Guidelines, DELWP has produced maps for Victoria showing the modelled extent of habitat for most threatened species. These maps are called 'habitat importance maps' and they assign a 'habitat importance score' to a location based on the importance of that location in the landscape as habitat for a particular threatened species, in relation to other suitable habitat for that species (DELWP 2017a).

Under the Guidelines, these maps form the basis for determining the impact of potential native vegetation removal on threatened species. The maps only apply where a proposal to remove native vegetation is considered on detailed assessment pathway. The habitat importance scores are used to calculate the type and extent of biodiversity offsets required for native vegetation removal that impacts on individual threatened species habitat.

A summary of those species for which habitat is modelled in the study area is provided in Table 4. These data were provided by DELWP's EnSym NVR Tool Support team and a full output report from DELWP is provided in Appendix 5. The arborist tree data and report did not identify the Yellow Gum *Eucalyptus leucoxylon* down to subspecies level, but was recorded as being an indigenous species to Melbourne. We have therefore made the assumption that the Yellow Gum in the study area are remnant Melbourne Yellow-gum *Eucalyptus leucoxylon* subsp. *connata* and updated the species in the report accordingly. There were no other FFG Act modelled species recorded within the study area.

Determination of the requirement for a species offset based on the extent of impact to one or more rare or threatened species is addressed in Section 5.

Table 4 Summary of threatened species' habitats modelled in the study area

Species number	Species scientific name	Species common name	Recorded on site during Biosis assessment?
504643	*Craspedia canens*	Grey Billy-buttons	No
12683	*Pseudemoia rawlinsoni*	Glossy Grass Skink	No
504940	*Austrostipa rudis* subsp. *australis*	Veined Spear-grass	No
503763	*Xerochrysum palustre*	Swamp Everlasting	No
13207	*Litoria raniformis*	Growling Grass Frog	No
500835	*Corybas aconitiflorus*	Spurred Helmet-orchid	No
505084	*Dianella amoena*	Matted Flax-lily	No
504657	*Microseris scapigera s.s.*	Plains Yam-daisy	No
507136	*Senecio campylocarpus*	Floodplain Fireweed	No
10045	*Lewinia pectoralis pectoralis*	Lewin's Rail	No
501326	*Eucalyptus yarraensis*	Yarra Gum	No
505560	*Dianella* sp. aff. *longifolia (Benambra)*	Arching Flax-lily	No
504655	*Coronidium gunnianum*	Pale Swamp Everlasting	No
504222	*Lachnagrostis punicea* subsp. *filifolia*	Purple Blown-grass	No
501084	*Diuris punctata*	Purple Diuris	No
10220	*Accipiter novaehollandiae novaehollandiae*	Grey Goshawk	No
13125	*Pseudophryne semimarmorata*	Southern Toadlet	No
504484	*Eucalyptus leucoxylon* subsp. *connata*	Melbourne Yellow-gum	Yes (see 3.3.1)
10238	*Falco subniger*	Black Falcon	No
10334	*Hirundapus caudacutus*	White-throated Needletail	No
500839	*Corybas fimbriatus*	Fringed Helmet-orchid	No

In addition to the modelled habitat the following listed species were recorded during the site assessment:

- Swamp Skink *Lissolepis coventryi* (adjacent to the study area).
- Giant Honey-myrtle *Melaleuca armillaris* subsp. *armillaris.*

3.3.2 Threatened ecological communities

EPBC Act listed communities

There were two EPBC Act listed threatened ecological communities predicted to occur within the 5 kilometre project search area (Appendix 1), those being:

- *Natural Damp Grassland of the Victorian Coastal Plains*.
- *Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains*.

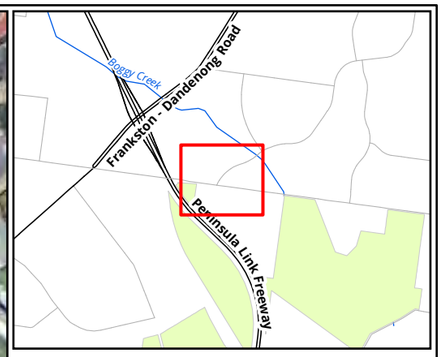
These two communities were assessed against the relevant EPBC Act listing criteria, and neither of the communities were deemed to be present in the study area (see Appendix 1).

FFG Act listed communities

There is one FFG Act listed threatened ecological community that could occur within the 5 kilometre project search area (Appendix 1), that being the *Herb-rich Plains Grassy Wetland (West Gippsland) Community*. Herb-rich Plains Grassy Wetland (West Gippsland) Community was assessed against the relevant FFG Act criteria, and was deemed not to be present in the study area (see Appendix 1).

3.4 Further survey recommendations

There are no further targeted surveys recommended for the study area. However, in performing their role as a public authority under the FFG Act, Department of Transport may wish to conduct targeted surveys for modelled threatened species and those considered to have a medium or higher chance of occurring in the study area (see Appendix 1 and 2). This may inform the final design process further, if any constraints are identified from these surveys.



Legend

- Study area
- Impact area
- Tree Protection Zone

Patch trees

- Large patch tree

Scattered trees

- Small scattered tree
- Large scattered tree

Ecological Vegetation Class

- (GipP0048) Heathy Woodland
- (GipP0053) Swamp Scrub

Figure 2 Ecological features of the study area

0 20 40 60 80 100

Metres

Scale: 1:2,000 @ A3

Coordinate System: GDA 1994 MGA Zone 55

biosis

N

Matter: 36023,
Date: 12 July 2022 ,
Prepared for: SM, Prepared by: DK, Last edited by: dkang
Layout: 36023_F2_EcoFeatures
Project: P:\36000s\36023\Mapping\
36023_BallartoRdLyrebirdDr_FFA_PPA.aprx

4. Biodiversity legislation and government policy

This section provides an assessment of the project in relation to key biodiversity legislation and government policy. This section does not describe the legislation and policy in detail. Where available, links to further information are provided.

4.1 Commonwealth

4.1.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on Matters of National Environmental Significance (MNES) protected under the Act.

Link for further information including a guide to the referral process is available at: http://www.environment.gov.au/epbc/index.html.

MNES relevant to the project are summarised in Table 5. It includes an assessment against the EPBC Act policy statements published by the Australian Government which provide guidance on the practical application of EPBC Act.

Table 5 Assessment of project in relation to the EPBC Act

MNES	Project specifics	Assessment against significant impact guidelines
EPBC Act listed species	48 EPBC Act listed fauna species and 11 flora species have been recorded or are predicted to occur in the 5 km radius project search area (local area). The likelihood of these species occurring in the study area is assessed in Appendix 1 (flora) and Appendix 2 (fauna).	Most of these species are not likely to occur and development is unlikely to constitute a significant impact. White-throated Needletail *Hirundapus caudacutus* may occupy airspace over the study area, but is almost exclusively aerial and will not be impacted by this proposal. Therefore a specific assessment against significant impact criteria was not warranted. Painted Honeyeater *Grantiella picta*, Grey-headed Flying-fox *Pteropus poliocephalus*, Swift Parrot *Lathamus discolor* and Dwarf Galaxia *Galaxiella pusilla* have a medium likelihood of being in the study area. Appendix 3 provides assessment against Significant Impact Criteria for each of these species. Given the thin linear nature of the impact area which is confined to the edge of Ballarto Road and has high weed loads and evidence of past disturbance, it is unlikely that the proposal will significantly impact on any of these species (Appendix 2).

MNES	Project specifics	Assessment against significant impact guidelines
EPBC Act listed ecological communities	Two EPBC Act listed ecological communities have been recorded or are predicted to occur in the project search area.	Neither Natural Damp Grassland of the Victorian Coastal Plains or Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains were deemed to be present in the study area (see Appendix 1).
Migratory species	58 migratory species have been recorded or are predicted to occur in the project search area (Appendix **2**).	While some of these species would be expected to use the study area on occasions, and some of them may do so regularly or may be resident, the impact area is a thin strip along the edge of Ballarto Rd which has high levels of weed infestations, and the study area does not provide important habitat for an ecologically significant proportion of any of these species.
Wetlands of international importance (Ramsar sites).	The study area is identified as being within the immediate vicinity of one Ramsar site, that being Edithvale-Seaford Wetlands. The study area is also within 10 km of the Ramsar site of Western Port.	The study area drains directly into the Seaford section of the Edithvale-Seaford Wetland Ramsar site via Boggy Creek, but this Ramsar site is located over 2.9 kilometres downstream of the study area with a considerable amount of urban development and road infrastructure between the two locations. Measures will be put in place to control erosion, sediment, pollution and run-off and will be written into the CEMP. As a result, the potential for the development to have a significant impact on the Ramsar wetland is considered to be low.

On the basis of criteria outlined in the relevant *Significant Impact Guidelines* it is considered unlikely that a significant impact on a Matter of National Environmental Significance would result from the proposed action (Appendix 3). Referral of the proposed action to the Australian Government Minister for the Environment to determine whether the action requires approval under the EPBC Act is therefore unlikely to be required.

4.2 State

4.2.1 Flora and Fauna Guarantee Act 1988 (FFG Act)

The 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. Under the FFG Act a permit is required from DELWP to 'take' protected flora species. Permit exemptions under the FFG Act generally apply to the non-commercial removal of protected flora from private land, unless there is 'critical habitat' that has been declared on the land. Authorisation under the FFG Act is required to collect, kill, injure or disturb listed fish on private or public land.

Link for further information: https://www.environment.vic.gov.au/conserving-threatened-species/victorias-framework-for-conserving-threatened-species

The FFG Act defines public land as *Crown land or land owned by, or vested in, a public authority,* while private land is defined as *any land other than public land.* A public authority is defined in the FFG Act as a body established for a public purpose by or under any Act and includes:

- An Administrative Office.
- A Government Department.
- A municipal council.
- A public entity.
- A State-owned enterprise.

The study area consists predominantly of Crown Land or land owned by or vested in a public authority, the Department of Transport, and is therefore public land for the purposes of the FFG Act.

Native vegetation within the study area also contains two FFG Act listed threatened flora species and 12 FFG Act listed threatened fauna species or habitat for them (Appendices 1 and 2).

Of relevance to the development, the study area contains four (4) FFG Act-listed protected flora species: Coast Wattle *Acacia longifolia subsp. Sophorae*, Scented Paperbark *Melaleuca squarrosa*, Annual Fireweed *Senecio glomeratus* Annual Fireweed *Senecio glomeratus* and Cotton Fireweed *Senecio quadridentatus* (Appendices 1). A protected flora permit from DELWP would be required if any of the four protected flora species will be affected by the proposal and Department of Transport does not already have a relevant permit for protected flora.

In addition to the requirement for a protected flora permit, it is a requirement of the FFG Act that a public authority, in performing its functions, must consider the objectives of the FFG Act and the impact on biodiversity. Public authorities are also required to consider the Biodiversity 2037 targets (DELWP 2017b), action statements, critical habitat determinations and management plans made under the FFG Act.

The Department of Transport should engage with DELWP to identify what is required of them to satisfy their Public Authority Duty for the proposed works, as Ministerial guidelines that outline these responsibilities are still in development. Table 6 provides an assessment of how Department of Transport has considered the public authority duty as part of this project. Additional matters are also specified by DELWP to be considered to clarify the objectives of the Public Authority Duty, including the Biodiversity Strategy, relevant action statements, management plans or critical habitat determinations.

Table 6 Assessment of project in relation to the FFG Act

Type of impact	Potential project impacts	Species potentially impacted	Notes
Long and short term impacts **Detrimental and beneficial impacts** **Direct and indirect impacts**	• Removal of potential habitat for listed threatened species. • Refer to Appendix 1 (flora) and Appendix 2 (fauna) for a list of FFG Act species likely to occur within the study area and those that do occur. • Removal of protected flora within the study area.	• Swift Parrot • Painted Honeyeater • Grey-headed Flying-fox • Dwarf Galaxias • Lewin's Rail • Little Eagle • White-bellied Sea Eagle • Square-tailed Kite • Black Falcon	• Avoid and minimise approach to be used when considering the requirement to remove potential habitat of listed threatened species and communities. • Although the Swamp Sink is a listed species under the FFG Act, it is also a native species of wildlife and is protected under the Wildlife Act. Therefore, any

Type of impact	Potential project impacts	Species potentially impacted	Notes
		• Hooded Robin • Swamp Skink • Southern Toadlet • Giant Honey-myrtle	regulatory requirements for the protection of this species are stipulated under the Wildlife Act and not the FFG Act. • DELWP recommend installing a temporary fence, with an attached 600mm high silt fence, along the entire length of the southern boundary of vegetation to be removed to prevent dispersal of Swamp Skink into roadworks area (Appendix 6, Photo 7 and 8). • Any Swamp Skink between the road and temporary fencing will be salvaged using artificial refuge methods, with a transect of up to 50 roof tiles at 5m intervals. Upon completion of roadworks, a permanent cyclone fence with lower barrier and attached frog fencing will be installed to prevent dispersal of Swamp Skink (Figure 4). • Native Vegetation Removal Guidelines to be followed. • CEMP to be in place. • FFG Act permit required (protected flora).
Cumulative impacts	• Removal of potential habitat corridor for listed threatened species in combination with habitat removal of other projects under the management of Department of Transport.		• Planning of works are to consider removal of potential habitat in relation to other past and forecast road upgrades within the local area. • Maintain terrestrial and aquatic habitat linkages where possible.
Potentially threatening processes	• Run-off. • Weed encroachment. • Alterations to site drainage. • Fragmentation of swampy habitat.		• Any works in and around Swamp Scrub will need to consider and mitigate potential run-off to the swamp areas and the nearby creek and wetland. • Ensure connectivity between swampy areas in study area

Type of impact	Potential project impacts	Species potentially impacted	Notes
			and wetland to the south are maintained. • Machinery to be checked and cleaned to prevent weed incursion.

4.2.2 Catchment and Land Protection Act 1994 (CaLP Act)

The CaLP Act identifies and classifies certain species as noxious weeds or pest animals, and provides a system of controls on noxious species.

The proponent must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals. The State is responsible for eradicating State prohibited weeds from all land in Victoria.

Link for further information: http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds.

4.2.3 Planning and Environment Act 1987 (incl. Planning Schemes)

The *Planning and Environment Act 1987* controls the planning and development of land in Victoria, and provides for the development of planning schemes for all municipalities.

Of particular relevance to the development proposal are controls relating to the removal, destruction or lopping of native vegetation contained within the Frankston City Planning Scheme (the Scheme), including permit requirements. The Scheme (Clause 73.01) defines 'native vegetation' as 'Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'. It is an objective of Clause 12.01-2 of the State Planning Policy Framework (Native Vegetation Management) that removal of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

Clause 52.17 (Native Vegetation) requires a planning permit to remove, destroy or lop native vegetation including some dead native vegetation. The need for a permit to remove native vegetation may also be triggered by overlays within the Scheme. The location of the overlays in relation to the study area can be determined via the following link: http://planningschemes.dpcd.vic.gov.au.

The provisions of the following overlays apply to the study area:

Environmental Significance Overlay – Schedule 1 (ESO1)

The ESO1 covers the southern edge of the study area where the proposed road works intersect with the Keith Turnbull Research Institute, south of Ballarto Road. Additional permit requirements for this area are required for conducting works in the zone or removing or impacting native vegetation. Based on our current understanding of the project, a permit will be required for the removal, destruction or lopping of native vegetation, including dead native vegetation, under Clause 52.17 of the Planning Scheme and a permit will likely be required under ESO1.

Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria (DELWP 2017a). The Guidelines replaced the previous incorporated document titled *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (DEPI 2013) on 12 December 2017.

The purpose of the Guidelines is to guide how impacts to biodiversity should be considered when assessing a permit application to remove, destroy or lop native vegetation. The objective for the guidelines in Victoria is 'No net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation'.

A detailed assessment of the implications for the project under the Guidelines is provided in Section 5 of this report. Under the Guidelines, there are three assessment pathways for assessing an application for a permit to remove native vegetation: basic, intermediate and detailed.

A detailed determination of the assessment pathway for the planning application relevant to the proposed development is provided in Section 5.2. In summary, the planning application for removal of native vegetation must meet the requirements of, and be assessed in, the detailed assessment pathway.

4.2.4 Fisheries Act 1995

The Fisheries Act 1995 provides a legislative frame work for the regulation, management and conservation of Victorian fisheries including aquatic habitats.

A person must not take, injure, damage, destroy or release any protected aquatic biota. Protected aquatic biota includes all species of the family Syngnathidae (seahorses, sea dragons and pipefish), and any fish or aquatic invertebrate or community that is listed under the FFG Act.

Protected aquatic biota that may be impacted upon by the development include:

- Dwarf Galaxias *Galaxiella pusilla* (endangered under the FFG Act).

The habitat being impacted by the proposed works are not preferred habitat for this species. Providing mitigation measures outlined in this report are adhered to, the potential indirect impacts to potential habitat to the south of the study area should be negligible. Therefore, the potential for protected aquatic biota as listed above, to be injured, damaged or destroyed is considered to be negligible and no permit is required from the Victorian Fisheries Authority.

4.2.5 Water Act 1989

The primary purpose of the *Water Act 1989* is to provide a framework for the allocation and management of surface water and groundwater throughout Victoria. It provides a principal mechanism for maintenance of ecosystem functions including those of aquatic ecosystems. Under By-Laws created by the relevant Authority under the Act, the authorities regulate the works within and in the vicinity of waterways. In Melbourne Water's management area this applies to all waterways with a catchment area of 60ha or more. These

waterways are deemed to be Melbourne Water assets, while all smaller watercourses are deemed the responsibility of the local government.

The proposed development will involve construction activities that affect beds and banks of waterways, riparian vegetation or quality or quantity of water in Boggy Creek, which is located just south of the study area.

Given the proximity of construction to a listed waterway, and with the proximity to a Ramsar wetland, development within the study area will require a permit from Melbourne Water / the Port Phillip Westernport Catchment Management Authority. Guidelines and application forms are available from Melbourne Water online (https://www.melbournewater.com.au/building-and-works/apply-to-build-or-develop/consent-minor-waterway-work), or can be obtained from Melbourne Water's Asset Service team – (03) 9235 1414.

4.2.6 Environment Protection Act 2017: Environmental Reference Standards

The *Environment Protection Act 2017* (EP Act) provides a legal framework for the systematic and strategic management of potential and realised environmental impacts. The EP Act, the Environment Protection Regulations 2021 and Environment Reference Standards (ERS) introduced from 1 July 2021 provide a regulatory framework designed to prevent harm by eliminating or minimising risks of harm to human health and the environment.

Under the regulatory changes, SEPP (Waters) will not continue as a subordinate instrument under the EP Act, and its formal statutory role ended on 1 July 2021. Much of the content of SEPP (Waters) has been saved under the Environment Protection Transitional Regulations 2021 for a period of 2 years after the commencement of the Environment Protection Regulations 2021. As SEPP (Waters) contributes to the state of knowledge and provides guidance on compliance with the General Environmental Duty (GED), the policy remains relevant to the protection and management of Victoria's water environments, including surface waters, estuarine and marine waters and groundwaters.

While not being saved under the Environment Protection Transitional Regulations 2021, the following clauses of SEPP (Waters) applicable to the project remain relevant as they provide guidance for compliance with the GED under the EP Act:

Clause 42 – Construction activities:

- Minimise soil erosion, land disturbance and discharge of sediment and other pollutants to surface waters.
- Where construction activities impinge on surface waters, construction managers need to monitor affected surface waters to assess whether beneficial uses are being protected.

Clause 45 – Native vegetation protection and rehabilitation:

- Minimise the removal of and rehabilitate native vegetation within or adjacent to surface waters.

The ERS requires that aquatic ecosystem values be protected. Environmental quality objectives and indicators are defined to protect beneficial uses (i.e. the uses and values of the water environment) and an attainment program provides guidance on protection of the beneficial uses. Impacts to surface water quality as a result of the project must not result in changes that exceed background levels and/or the water quality objectives specified for the wetland and Boggy Creek to the south of the study area, to protect surface water uses and values.

To ensure that direct and indirect (e.g. runoff) impacts to surface water quality do not exceed the background levels and/or water quality objectives, it is recommended that Department of Transport engage with the EPA and prepare and implement a site-specific Constructional Environmental Management Plan (CEMP), which includes all EPA approved erosion control measures. These temporary control measures should be inspected during rainfall events to ensure controls are able to prevent/minimise offsite discharges and longer term impacts. Sediment control measures selected should also reflect the level of protection required to protect the ecological values within Boggy Creek, downstream of the project area.

Link to further information: http://www.gazette.vic.gov.au/gazette/Gazettes2021/GG2021S245.pdf

5. Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines were introduced in December 2017. They set out and describe the application of Victoria's statewide policy in relation to assessing and compensating for the removal of native vegetation in order to achieve the objective of 'no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation'.

This objective is to be achieved through Victoria's planning system using an assessment approach that relies on strategic planning and the permit and offset system. The key policy for achieving no net loss to biodiversity is the three-step approach of avoid, minimise and offset:

- **Avoid** the removal, destruction or lopping of native vegetation to ensure that the important biodiversity values of native vegetation continue to be delivered into the future.
- **Minimise** impacts resulting from the removal of native vegetation that cannot be avoided.
- Provide an **offset** to compensate for the biodiversity impact resulting from the removal of native vegetation.

Minimising the environmental impacts of the proposed development was a major consideration in the iterative design and analysis process undertaken by Department of Transport. The design plan has been updated a number of times after assessment and feedback from the various planning stages, to minimise the footprint of the project in the vicinity of the higher value vegetation south of Ballarto Road and to avoid any new footpath construction that requires tree removal north of Ballarto Road. The steps that have been taken during the design of the development to ensure that impacts on biodiversity from the removal of native vegetation have been minimised include:

- Initial options analysis for the development with a view to minimising impacts to the environment.
- Design workshop for preferred design options, to ensure the design achieved its road safety purpose with a view to causing minimal impacts.
- Risk assessment workshop to investigate potential environmental, social and economic risks associated with the proposed design.
- Site investigations to ensure the footprint design and road infrastructure was placed in the most appropriate sites and that site values were avoided where possible, or that minimal impacts are to be caused where site values could not be avoided by the design.
- Design review workshop to assess the final design against the recommendations in the previous workshop assessments.
- Environmental assessment of the proposed design by ecologists and an arborist, to ensure any significant values are identified and those with the potential of being impacted, or any risks to matters of state or national significance, are effectively addressed.

The other actions Department of Transport have undertaken in the design process in attempt to minimise impacts to vegetation include:

- Avoiding higher quality areas of native vegetation by minimising the footprint of the development in the vicinity of the Keith Turnbull Research Institute.

- Where encroachment into vegetation to the south of Ballarto Road was required, the extent of encroachment was minimised to the greatest extent possible, while still allowing for the road construction project to achieve its desired road safety purpose.
- Locating all temporary site storage and compounds for the project on existing disturbed land to minimise impacts to native vegetation.
- Designing the new footpaths to avoid patch vegetation and scattered trees.
- Retaining as many trees which were deemed to be lost due to TPZ encroachment and factored into offset requirement, provided the tree retention does not provide a risk to road or path users.

DELWP has provided biodiversity information tools to assist with determining the assessment pathway associated with the removal of native vegetation and the contribution that native vegetation within the study area makes to Victoria's biodiversity.

All planning permit applications to remove native vegetation are assigned to an assessment pathway determined by the extent and location of proposed native vegetation removal. The assessment pathway will dictate the information to be provided in a planning permit application and the decision guidelines the responsible authority (e.g. Council) and/or DELWP as a referral authority will use to assess the permit application.

The biodiversity information tools have two components:

Site-based information

The site-based information is observable at a particular site. Biosis has collected the requisite site-based information for the assessment against the Guidelines.

Landscape scale information

Landscape scale information requires consideration of information beyond the site. This information is managed by DELWP and can be accessed via the NVIM.

The following section summarises the results of the site-based assessment and the outputs generated by the Native Vegetation Removal Report, which identifies the assessment pathway on which the planning application will be assessed. The full Native Vegetation Removal Report can be viewed in Appendix 5.

5.1 Proposed removal of native vegetation

The extent of native vegetation patches, the location of large trees within patches and any scattered trees were mapped within the study area (Figure 2) and the condition was assessed in relation to standard methods provided by DSE (2004) and pre-determined EVC benchmarks: https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks.

The proposed removal of native vegetation was assessed in accordance with the concept design provided (Functional Design Layout - File No. V21199-SKT-CI-0001-B). The development proposes to remove 0.847 hectares of native vegetation, comprising patch vegetation and 11 scattered trees (Figure 3). There are a total of 14 large trees which are proposed to be removed, consisting of 3 large scattered trees and 8 large trees in patches. Details of tree impacts are in Appendix 4 and photos of the scattered trees to be removed (or deemed lost) are available in the arborist report in Appendix 6. Spatial data (shapefiles) of proposed vegetation removal were submitted to DELWP's native vegetation support team, who provided a Native Vegetation Removal Report for the project. This is provided in Appendix 5 and summarised in the following sections.

5.1.1 Habitat hectares

A continuous area of the same EVC is termed a 'habitat zone'. Different habitat zones exists where there are different EVCs present and/or discrete (non-continuous) patches of the same EVC. A separate vegetation quality assessment was conducted for each habitat zone. The vegetation quality assessment score was multiplied by the extent of the habitat zone to give a value in habitat hectares.

The results of the vegetation quality assessment are provided in Appendix 4. Three habitat zones were identified and the number of habitat hectares in each habitat zone are provided in (Table 7).

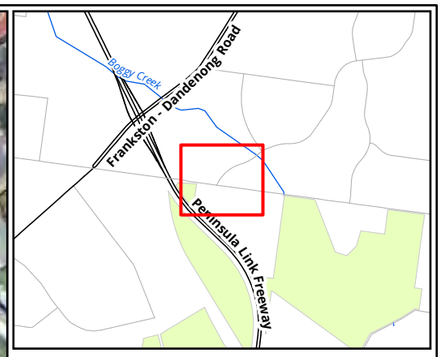
Table 7 Habitat hectares of native vegetation within the study area

Site ID			Ballarto	Ballarto	Ballarto
Habitat Zone ID			1	2	3
EVC #: Name			53 SS	48 HW	53 SS
		Max Score	**Score**	**Score**	**Score**
Site Condition	Large Old Trees	10	0	9	0
	Canopy Cover	5	3	4	5
	Lack of Weeds	15	13	0	4
	Understorey	25	5	5	15
	Recruitment	10	1	5	6
	Organic Matter	5	5	5	5
	Logs	5	0	4	0
	Total Site Score		27	32	35
	EVC standardiser (x 75/50)		1.55	-	1.55
	Adjusted Site Score		41	32	54
Landscape Value	Patch Size	10	1	1	1
	Neighbourhood	10	1	1	3
	Distance to Core	5	3	4	4
	Total Landscape Score		5	6	8
HABITAT SCORE		100	46	38	62
Habitat points = #/100		1	0.46	0.38	0.62

A total of 20 large trees occur within patches of native vegetation within the study area. The locations of large trees within patches are shown in Figure 2 and the DBH in centimetres of each large tree is provided in Appendix 4.

There are 12 scattered small trees and 2 scattered large trees within the study area. For applications that propose to remove scattered trees, the extent of scattered trees is calculated using the standard extents described in Section 2.4.1. A condition score is applied to each scattered tree based on information provided by DELWP's NVIM. The locations of scattered trees within the study area are shown in Figure 2 and further details for each tree (e.g. size, extent and DBH) are provided in Appendix 4.

Acknowledgements: VicMap BaseMap©State of Victoria, Imagery Nearmap 2021



Legend

- Study area
- Impact area
- Vegetation proposed to be removed

Large patch tree

- To be removed
- To be retained

Large scattered tree

- To be removed

Small scattered tree

- To be removed
- To be retained

Ecological Vegetation Class

- (GipP0048) Heathy Woodland
- (GipP0053) Swamp Scrub

Figure 3 Vegetation proposed to be removed

0 20 40 60 80 100

Metres

Scale: 1:2,000 @ A3

Coordinate System: GDA 1994 MGA Zone 55

biosis

N

Matter: 36023,
Date: 12 July 2022 ,
Prepared for: SM, Prepared by: DK, Last edited by: dkang
Layout: 36023_F3_VegRemoval
Project: P:\36000s\36023\Mapping\
36023_BallartoRdLyrebirdDr_FFA_PPA.aprx

5.2 Determining the assessment pathway

Applications to remove native vegetation are categorised into one of three assessment pathways: basic, intermediate or detailed. Two factors are used to determine the assessment pathway for a permit application, the **location** and **extent** of the native vegetation proposed to be removed. Location has been divided into three possible categories by DELWP, and has been pre-determined by DELWP for all locations in Victoria. The location of a particular site is determined using the *location map* available in the Native Vegetation Information Management (NVIM) system (http://nvim.depi.vic.gov.au).

The extent of native vegetation proposed to be removed determines the assessment pathway by considering the following:

- The total area (hectares) of native vegetation (including any patches and scattered trees) proposed to be removed
- Whether any large trees are proposed to be removed, either as scattered trees or occurring in patches.

It is proposed to remove 0.847 hectares of native vegetation (≥ 0.5 hectares and 11 large trees) from within location category 2, therefore the application for removal of this native vegetation must meet the requirements of, and be assessed in, the detailed assessment pathway. These requirements are provided in Appendix 4.

5.3 Offset requirements

In order to ensure a gain to Victoria's biodiversity that is equivalent to the loss resulting from the proposed removal of native vegetation, compensatory offsets are required. Losses and gains are measured in general or species habitat scores or units. The offset must also include at least one large tree for every large tree removed.

For a detailed assessment pathway application, the species-general offset test will determine if a general offset, species offset or combination of both is required.

The results of the species-general offset test are provided in Appendix 5 and summarized in Table 8.

Table 8 Summary of DELWP Native Vegetation Removal Report

Attribute	Outcome	Notes
Location category	2	The native vegetation is in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map).
Native vegetation removal extent	0.847 hectares	Including patch vegetation and 11 scattered trees.
Assessment pathway	Detailed	≥ 0.5 hectares and 11 large trees.
Strategic Biodiversity Value Score	Ranges between 0.170 and 0.570	
Modelled habitat for threatened species	Yes	Modelled habitat for 21 species (see Section 3.3.2 and Appendix 5). No species habitat thresholds were reached for the modelled species.
Offset type	General	

Attribute	Outcome	Notes
Offset multiplier	NA	
Offset amount: general habitat units	0.297 general habitat units	
General offset vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Frankston City Council.	The offset site must be located within the same Catchment Management Authority boundary or municipal district as the native vegetation to be removed.
General offset minimum Strategic Biodiversity Value Score	0.171	
Offset amount: Species habitat units	NA	
Large tree attributes	11 large trees	The offset must include protection of at least one large tree for every large tree to be removed.

5.4 Proposed offset strategy

Department of Transport intends to purchase the offset credits from the Victorian Native Vegetation Credit Register (NVCR).

A search of the NVCR has been undertaken (search undertaken on 14 July 2022) for the required general habitat units and large tree component that will satisfy the offset requirements as specified in Section 5.3 and Appendix 5. There are currently 14 offset options available on the NVCR which will meet this offset obligation.

A quote from Vegetation Link for the required native vegetation offsets is provided in Appendix 5a of this report. DoT intend to purchase these offsets following approval of the project.

6. Key ecological values and recommendations

This section identifies the key ecological features of the study area, provides an outline of potential implications of proposed development on those values and includes recommendations to assist Department of Transport to complete final designs and undertake their road works to minimise impacts on the environment and biodiversity within and surrounding the study area.

The primary measure to reduce impacts to biodiversity values within the study area is to avoid and minimise removal of native vegetation and terrestrial and aquatic habitat. This critical step has been appropriately considered during the final design phase of the project, when key decisions were made about the final location of the works footprint, and those of site compounds, temporary material storage, stockpiles, and extent of indirect construction impacts. The results of this assessment should therefore be incorporated into the final project documentation, by adding the flora and fauna mapping information into the planning maps and the CEMP.

Given the constraints on site and the need to work in specific areas to address the engineering and road safety requirements of the development, there is limited opportunity to further tailor the construction designs for the road works. It is important that all areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones, are suitably signed and fenced, and are not to be encroached upon as development progresses.

A summary of potential implications of development of the study area and recommendations to minimise impacts during the **construction phase** of the project is provided in Table 9.

Table 9 Summary of key ecological values, potential implications of developing the study area and recommendations to minimise ecological impacts during the construction phase.

Ecological feature (Figure 2)	Implications of development	Recommendations
Native vegetation	• The permanent removal of 0.847 hectares of vegetation, comprised of patch vegetation and removal or deemed loss of 11 large trees (8 large trees within patches and three large scattered trees). • The application will be assessed on the detailed assessment pathway. • There are no proportional impacts to native vegetation above the species offset threshold. See section 3.3.1 for modelled species and Appendix 5 for list of species proportional habitat impacts.	• Observe the actions to avoid and minimise removal of native vegetation, in accordance with the Guidelines. Refer to Section 5. Retained vegetation should be fenced off and treated as no-go zones. Despite a number of large trees being deemed lost due to TPZ encroachment of works, if practical, all efforts must still be made to try to retain the large trees on site if the trees are not directly impacted, and if retaining the tree does not pose a safety risk for road or cycle path users. • Secure and implement required offsets for vegetation losses as outlined in Section 5.3. • In addition to sediment control measures and sensitive construction techniques, the CEMP should also incorporate a suitable construction area rehabilitation methodology. This should detail actions such as revegetation to stabilise the embankments and methods to encourage natural regeneration and reduce erosion.

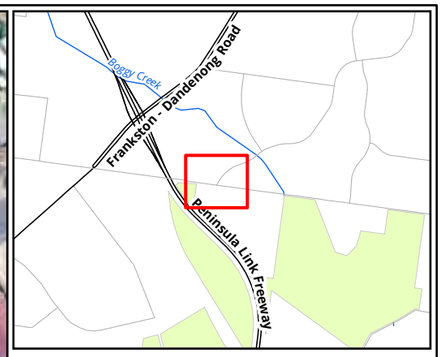
Threatened species and ecological communities	Removal of known/potential habitat for threatened species (i.e. Swamp Skink populations and protected flora species) (as identified in Table 3 and section 4.2.1).	• A protected flora permit from DELWP would be required if any of the four protected flora species within the study area are affected by the proposal and Department of Transport does not already have a relevant permit for protected flora (refer to section 4.2.1 and Appendix 1 for the identified protected flora species). ○ DoT is committed to submitting an application for a protected flora permit following the issue of a planning permit for the proposed works from the Responsible Authority (Minister for Planning). • As part of the proposed roadworks, DoT will remove all existing fencing south of Ballarto Road and install a temporary fence that will run along the entire length of the study area (Figure 4). • In accordance with DELWP recommendations to mitigate impacts on Swamp Skink populations, a 0.6m high silt fence will be attached to the temporary fence prior to works to prevent Swamp Skink from dispersing into the roadworks area (Figure 4). Use of a silt fence during construction works is considered to be more effective than a frog fence according to *The Wildlife Fencing Guide: Amphibians, Reptiles and Small Mammals* report (Animex International 2021). The temporary fence will be continuously maintained and will remain installed for the entirety of roadworks period. • Additionally, artificial refuges, i.e. roof tiles, should be installed between the road and temporary fence to capture any Swamp Skink and release into habitat behind the temporary fence. Up to 50 roof tiles at intervals of 5m need to be deployed up to 4 weeks before surveys begin. Surveys should commence in Spring to early Summer (DELWP 2020). Tiles should be inspected at least three times and up to 5 times during the survey period with a week between inspections (DELWP 2020). The last check needs to coincide with the first day of vegetation removal. Upon completion of the road works, a permanent cyclone fence with an additional low barrier to prevent the dispersal of Swamp Skink should be installed and the temporary fence will be removed. This permanent fence should follow specifications outlined by Animex International 2021 (Appendix 6, Photo 9). • Following the completion of roadworks, permanent fencing including frog fencing will be installed with a permanent frog fence along Ballarto Road. • Avoid and minimise removal of and indirect impacts to large hollow-bearing trees by

Ecological feature (Figure 2)	Implications of development	Recommendations
		establishing no-go areas around retained vegetation and only removing native vegetation which has been permitted to be removed as per this report. • Removal of hollow-bearing habitat trees should be supervised by an appropriately qualified person (i.e. ecologist or trained wildlife handler) to ensure species impacted by the tree removal may be relocated or have their health assessed and managed appropriately.
Weed invasion and spread	Soil disturbance can lead to weed invasion into undisturbed areas or weed spread in existing disturbed areas.	• Ensure construction machinery arrives on the site clean and free from weeds and pathogens. Ensure weed management takes place to control high threat species which may respond during and immediately after construction works. Undertake surveillance for new and emerging weeds along newly constructed features (disturbed areas) for an extended period, to ensure no new weeds establish in the study area as a result of the works.
Aquatic habitat features	Loss of, or alterations to, riparian and in-stream habitat within and in the vicinity of the study area (e.g. downstream) via: direct removal, notable hydrological changes, deterioration in water quality (including pollution event) and sedimentation.	• Avoid waterways and drainage lines where possible. Ensure works do not further fragment the swampy areas in the study area from the aquatic habitats to the south. Engineer appropriate drains or swales to maintain fish passage-ways. • Place any stormwater treatment/retention basins adjacent to waterways and not online. • Protect key values (including waterways) by retaining features and including appropriate buffers into the design, ensuring the connectivity of the waterway is not interrupted by direct or indirect construction or new road infrastructure.
Habitat connectivity	Removal of vegetation / habitat that forms part of a notable habitat linkage.	• Retain fauna habitat linkages within the development and the local area. All efforts must be made to minimise vegetation loss which may contribute to fragmenting vegetation in the area and impacting key habitat linkages. Despite some trees being considered lost due to TPZ impacts, make all efforts to retain these trees where viable, as their presence contributes to maintaining connectivity of vegetation in the local area.

Construction and post-construction management

Specific detail relating to preventing impacts to retained native vegetation and aquatic and terrestrial habitat within and adjoining the study area (i.e. including protecting native vegetation along the roadsides and adjoining large trees and patch vegetation outside the study area) should be addressed in a project-specific Construction Environmental Management Plan (CEMP). This will include issues relating to contractors such as

environmental inductions, installation of temporary fencing/signage, drainage and sediment control, as well as natural and cultural heritage issues (including contingencies for detection of natural and cultural heritage items during construction).



Legend

- Study area
- Area for Artificial Refuge surveys
- Permanent fence
- Temporary fence with 0.6m high slit fencing
- Swamp Skink record

Figure 4 Swamp Skink Mitigation Recommendations

0 10 20 30 40 50

Metres

Scale: 1:1,500 @ A3

Coordinate System: GDA 1994 MGA Zone 55

biosis

N

Matter: 36023,
Date: 12 July 2022 ,
Prepared for: ZP, Prepared by: DK, Last edited by: dkang
Layout: 36023_F4_SwampSkinMitigationRec
Project: P:\36000s\36023\Mapping\
36023_BallartoRdLyrebirdDr_FFA_PPA.aprx

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Appendices

Appendix 1 Flora

The following abbreviations and symbols are relevant to this Appendix:

Code	Meaning	Reference
National listings (EPBC Act)		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
PMST	Protected Matters Search Tool	
State listings (FFG Act)		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (public land only)	
Weed status (CaLP Act and DAWE Weeds of National Significance)		
SP	State prohibited species	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
RP	Regionally prohibited species	
RC	Regionally controlled species	
R	Restricted species	
WoNS	Weed of National Significance	Australian Weeds Strategy (DAWR 2017)
Other		
#	Native species outside its natural range	Victorian Biodiversity Atlas (VBA)

A1.1 Flora species recorded from the study area

Table A1.1 Flora species recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
	Acacia dealbata	Silver Wattle
P	*Acacia longifolia* subsp. *sophorae*	Coast Wattle
	Acacia melanoxylon	Blackwood
#	*Angophora costata* subsp. *costata*	Smooth-barked Apple
	Austrostipa spp.	Spear Grass
	Banksia integrifolia subsp. *integrifolia*	Coast Banksia
	Callistemon spp.	Bottlebrush
	Cassytha pubescens s.s.	Downy Dodder-laurel
	Cassytha spp.	Dodder Laurel
#	*Corymbia ficifolia*	Flowering Gum
	Dianella brevicaulis	Small-flower Flax-lily
	Dianella tasmanica	Tasman Flax-lily
	Dillwynia glaberrima	Smooth Parrot-pea
	Eucalyptus camaldulensis	River Red-gum
	Eucalyptus cephalocarpa	Mealy Stringybark
#	*Eucalyptus cladocalyx*	Sugar Gum
e	*Eucalyptus leucoxylon* subsp. *connata*	Melbourne Yellow-gum
	Eucalyptus ovata	Swamp Gum
	Eucalyptus viminalis subsp. *pryoriana*	Coast Manna-gum
	Goodenia ovata	Hop Goodenia
#	*Hakea salicifolia* subsp. *salicifolia*	Willow-leaf Hakea
	Juncus spp.	Rush
	Lepidosperma spp.	Sword Sedge
	Leptospermum continentale	Prickly Tea-tree
	Leptospermum laevigatum	Coast Tea-tree
	Lomandra longifolia subsp. *longifolia*	Spiny-headed Mat-rush
e, r	*Melaleuca armillaris* subsp. *armillaris*	Giant Honey-myrtle
	Melaleuca ericifolia	Swamp Paperbark
P	*Melaleuca squarrosa*	Scented Paperbark
	Pittosporum undulatum	Sweet Pittosporum
	Rytidosperma spp.	Wallaby Grass
P	*Senecio glomeratus*	Annual Fireweed
P	*Senecio quadridentatus*	Cotton Fireweed
	Typha spp.	Bulrush
Introduced species		
	Aira elegantissima	Delicate Hair-grass
	Anthoxanthum odoratum	Sweet Vernal-grass

Status	Scientific Name	Common Name
	Avena barbata	Bearded Oat
	Briza maxima	Large Quaking-grass
	Bromus diandrus	Great Brome
	Bromus hordeaceus	Soft Brome
	Cenchrus clandestinus	Kikuyu
RC	*Cynara cardunculus* subsp. *flavescens*	Artichoke Thistle
	Dactylis glomerata	Cocksfoot
	Ehrharta erecta	Panic Veldt-grass
	Fumaria capreolata	White Fumitory
	Holcus lanatus	Yorkshire Fog
	Hypochaeris radicata	Flatweed
	Plantago coronopus	Buck's-horn Plantain
	Plantago lanceolata	Ribwort
	Sonchus asper s.l.	Rough Sow-thistle
	Stenotaphrum secundatum	Buffalo Grass
	Trifolium spp.	Clover

A1.2 Listed flora species

The following table includes threatened flora species that have potential to occur within the study area. The list of threatened species is sourced from the VBA and PMST (accessed on 13 October 2021). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST has predicted that the species has potential to occur. A proportion of the flora habitat descriptions have been reproduced with permission from the Royal Botanic Gardens Victoria (RBGV 2020).

Table A1.2 Threatened flora species recorded or predicted to occur within 5 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Xerochrysum palustre	Swamp Everlasting	VU	cr		PMST	Sedge-swamps and shallow freshwater marshes and swamps in lowlands, on black cracking clay soils.	**Negligible**	No records. No habitat in study area.
Amphibromus fluitans	River Swamp Wallaby-grass	VU		2007	PMST	Swampy areas, mainly along the Murray River between Wodonga and Echuca with scattered records from southern Victoria.	**Medium**	Record from 2007 in reserve just south of study area.
Caladenia orientalis	Eastern Spider-orchid	EN	e	1986	PMST	Heath and heathy woodlands in coastal areas between the Mornington Peninsula and Wilsons Promontory.	**Low**	No recent records. Recorded in 1986 approx. 1.5km south-east of study area.
Euphrasia collina subsp. *muelleri*	Purple Eyebright	EN	e	1903		Grasslands and grassy woodlands; few populations are known to still exist.	**Low**	No recent records. Limited habitat available in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Prasophyllum frenchii	Maroon Leek-orchid	EN	e	2009	PMST	Grassland and grassy woodland environments on sandy or black clay loam soils that are generally damp but well drained.	**Low**	Nearest record approx. 4km north. Limited habitat in the study area.
Caladenia robinsonii	Frankston Spider-orchid	EN	cr	1986	PMST	Coastal heathy woodland; only confirmed population is near Rosebud.	**Negligible**	No recent records. Only known from one population to the south.
Pterostylis chlorogramma	Green-striped Greenhood	VU	e		PMST	Heathy woodland; more specific habitat requirements are poorly known.	**Low**	No records. Nearest records are old records.
Pterostylis cucullata	Leafy Greenhood	VU			PMST	Sand dune scrubs in coastal areas, and inland on slopes and river flats in moist foothill and montane forests.	**Negligible**	No records. No suitable habitat in the study area.
Senecio macrocarpus	Large-headed Fireweed	VU	cr		PMST	Grassland, shrubland and woodland habitats on heavy soils subject to waterlogging and/or drought conditions in summer.	**Low**	No records. Limited suitable habitat in the study area.
Senecio psilocarpus	Swamp Fireweed	VU			PMST	Seasonally inundated herb-rich swamps, growing on peaty soils or volcanic clays.	**Low**	No records. Limited suitable habitat in the study area.
Thelymitra epipactoides	Metallic Sun-orchid	EN	e		PMST	Moist or dry sandy loams or loamy sands, primarily in coastal heaths, grasslands and woodlands, but	**Low**	No records. Limited undisturbed suitable habitat

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
						also in similar communities at drier inland sites.		in the study area.
State significance								
Acacia howittii	Sticky Wattle		v	2017		Moist forest. Natural occurrences are confined to South Gippsland and Central Highlands.	**Negligible**	Nearest record 5km east. No habitat in study area.
Corymbia maculata	Spotted Gum		v	2018		In Victoria, naturally confined to a small population near Mt Tara in the east of the state.	**Negligible**	Conspicuous species which was not record in the study area.
Avicennia marina subsp. *australasica*	Grey Mangrove		e	2010		Low energy coastlines in the inter-tidal zone.	**Negligible**	Nearest record near coast to the west. No intertidal zone in study area.
Banksia saxicola	Rock Banksia		e	1968		Apparently restricted to higher peaks and sheltered gullies and slopes in the Grampians and on Wilsons Promontory (e.g. Sealers Cove), usually in rocky sites.	**Negligible**	Nearest record shows in Port Phillip Bay and is unreliable. No habitat.
Billardiera scandens s.s.	Velvet Apple-berry		e	1903		Common in heathland, woodland and forests from near sea level to the subalps.	**Low**	No recent records and few in broader area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Burnettia cuneata	Lizard Orchid		e	1902		Usually on acidic, low-nutrient soils which are frequently waterlogged and dominated by Scented Paperbark Melaleuca squarrosa.	**Low**	No recent records and few in broader area. Limited waterlogged habitat in study area.
Caladenia aurantiaca	Orange-tip Finger-orchid		e			Lowland forest and heathy woodlands, typically near the coast.	**Low**	No recent records. Nearest record at Cranbourne Botanic Gardens well to the east.
Correa reflexa var. *lobata*	Powelltown Correa		e			Endemic to Victoria, where locally common in moist, often heathy, open-forest from the Dandenong Ranges to near Powelltown, with an isolated occurrence in Cranbourne.	**Negligible**	No recent records. Nearest record at Cranbourne Botanic Gardens well to the east.
Diuris punctata var. *punctata*	Purple Diuris		e			Fertile, loamy soils and periodically wet areas in lowland grasslands, grassy woodlands, heathy woodlands and open heathlands.	**Low**	No recent records and limited available habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Eucalyptus fulgens	Green Scentbark		e	2003		Forests and woodlands of the Gippsland Plain and adjacent foothills.	**Negligible**	A conspicuous species which was not detected by ecologists or arborists assessment
Eucalyptus sideroxylon subsp. *sideroxylon*	Mugga		e	2017		Typically found on poor, shallow soils, including sands, gravels, ironstones and clays.	**Negligible**	A conspicuous species which was not detected by ecologists or arborists assessment
Lachnagrostis semibarbata var. *filifolia*	Purple Blown-grass		e	2001		Wet marshes and slightly saline swamps and depressions, on heavy soils away from the coast.	**Low**	Limited habitat in study area, but potential habitat to the south.
Melaleuca armillaris subsp. *armillaris*	Giant Honey-myrtle		e	2018		Near coastal heath/scrub, rocky coast and foothill outcrops.	**Recorded**	Numerous occurrences across the southern part of the study area.
Poa poiformis var. *ramifer*	Dune Poa		e	2009		Scattered areas along the coast.	**Negligible**	Sole local record from the coastline near Seaford. No habitat.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Prasophyllum lindleyanum	Green Leek-orchid		e	1919		Fertile soils in woodland or scrubby heath.	**Low**	No recent records and few in broader area.
Pterostylis pedoglossa	Prawn Greenhood		e			Heath and heathy woodland near the coast.	**Low**	No records. Only known from Langwarrin Flora and Fauna Reserve to the south.
Pterostylis X toveyana	Mentone Greenhood		e	1927		Coastal scrub and moist areas of open-forest.	**Low**	No recent records. Limited habitat in study area.
Thelymitra circumsepta	Naked Sun-orchid		e			In damp, shaded areas in heath, woodlands and forest.	**Low**	No recent records. Limited habitat in study area.
Thryptomene calycina	Grampians Thryptomene		e	2010		Low-nutrient, sandy or gravelly soils often in rocky areas in heathy woodland vegetation. Commonly cultivated and records near Melbourne are naturalisations.	**Negligible**	Nearest record likely naturalised from garden specimen.
Coronidium gunnianum	Pale Swamp Everlasting		cr	2001		Widespread and sometimes locally common, particularly in high-rainfall areas of Victoria; often in moist sites in open forests and woodlands.	**Low**	Limited habitat in study area, but potential habitat to the south.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Craspedia canens	Grey Billy-buttons		cr			Low altitude grasslands between Cranbourne and Traralgon.	**Negligible**	No records. No habitat in the study area.
Eucalyptus X studleyensis	Studley Park Gum		cr	1994		A morphologically variable hybrid between Eucalyptus Camaldulensis subsp. camaldulensis and E. ovata subsp. ovata from the lower Yarra River north-east of Melbourne (Kew, Viewbank, Watsonia).	**Low**	Nearest records from Sandhurst Golf Club to north-east.
Eucalyptus yarraensis	Yarra Gum		cr	2005		Valley flats and along stream on soils subject to periodic inundation or waterlogging.	**Negligible**	Few local records, not found during field assessments and no inundated areas in study area.
Microseris scapigera s.s.	Plains Yam-daisy		cr			Damp depressions in grasslands, woodlands, stream banks, alpine herbfields and around the margins of saline lakes and flats.	**Negligible**	No records and no recent records in general vicinity.
Ranunculus amplus	Lacey River Buttercup		cr	2002		Shallow margins of freshwater swamps, billabongs and dams.	**Negligible**	Very few records in broader area. No semi-aquatic habitat in the study area.

A1.3 Threated ecological communities

The following table includes the threatened ecological communities that have potential to occur within the project area. The list of threatened ecological communities has been compiled with reference to characteristics of FFG Act threatened communities (SAC 2013) and predictive output from the PMST (accessed on 13 October 2021).

Table A1.3 Threatened ecological communities predicted to occur within 5 km of the project area.

Community Name	Conservation status	Source	Description
National significance			
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	PMST	The vegetation in the damp areas adjoining Ballarto Road were dominated by dense Cumbungi or very dense Swamp Paperbark cover. The understorey contained few herbaceous species and was general dominated by weedy introduced grass species. Native species were limited to reeds, shrubs and trees, and therefore did not meet the tussock grassland diagnostic criteria. Neither of the dominant grass types of Kangaroo Grass *Themeda triandra* or Common Tussock Grass *Poa labillardierei* were recorded on site. The study area is dominated by grass species which prefer drier habitats, including Wallaby Grass *Rytidosperma spp.* and Spear Grass *Austrostipa spp*. Given the above factors, it was determined that his community is not present within the study area.
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	PMST	The vegetation in the wet areas adjoining Ballarto Road were dominated by dense Cumbungi or very dense Swamp Paperbark cover. The understorey contained few herbaceous species and was general dominated by weedy grass species. This community may occur further south in the adjoining flora reserve, but is not present in the study area.
State significance			
Herb-rich Plains Grassy Wetland (West Gippsland) Community	Threatened	NA	Occurs in shallow wetlands which fill in spring but are generally dry in summer. Known to occur in Carrum Carrum Swamp. However, vegetation in the wet areas adjoining Ballarto Road were dominated by dense Cumbungi or very dense Swamp Paperbark cover, had very little herbaceous plant cover and a high cover of introduced weed species. As a result, the wet areas did not meet the criteria to be considered a part of this wetland community.

Appendix 2 Fauna

The following abbreviations and symbols are relevant to this Appendix:

Code	Meaning	Reference
National listings (EPBC Act)		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
NT	Near threatened	
CD	Conservation dependent	
PMST	Protected Matters Search Tool	
State listings (FFG Act)		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (fish only)	
Pest animal status (CaLP Act and Fisheries Act)		
PS	Declared pest animal	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
N	Declared noxious aquatic species	Victorian *Fisheries Act 1995*
Other		
*****	Introduced species	Victorian Biodiversity Atlas (VBA)

A2.1 Fauna species recorded from the study area

Table A2.1 Vertebrate fauna recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
	Acanthiza pusilla	Brown Thornbill
	Anthochaera carunculata	Red Wattlebird
	Anthochaera chrysoptera	Little Wattlebird
	Calyptorhynchus funereus	Yellow-tailed Black-Cockatoo
	Chrysococcyx lucidus	Shining Bronze-Cuckoo
	Colluricincla harmonica	Grey Shrike-thrush
	Cracticus torquatus	Grey Butcherbird
	Gymnorhina tibicen	Australian Magpie
e	*Lissolepis coventryi*	Swamp Skink
	Manorina melanocephala	Noisy Miner
	Pardalotus punctatus	Spotted Pardalote
	Rhipidura albiscapa	Grey Fantail
	Trichoglossus molucannus	Rainbow Lorikeet
Introduced species		
	Spilopelia chinensis	Spotted Dove
	Sturnus vulgaris	Common Starling

A2.2 Listed fauna species

The following table includes a list of threatened fauna species that have potential to occur within the study area. The list of threatened species is sourced from the VBA and PMST (accessed on 14 October 2021). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST has predicted that the species has potential to occur.

Table A2.2 Threatened fauna species recorded or predicted to occur within 5 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Rostratula australis	Australian Painted-snipe	EN	cr	1993	PMST	Shallows of well-vegetated freshwater wetlands.	**Low**	Records further north (5km to Melbourne Water Eastern Treatment Plant wetlands). No suitable habitat within the study area.
Botaurus poiciloptilus	Australasian Bittern	EN	cr	2014	PMST	Shallow freshwater and brackish wetlands with abundant emergent aquatic vegetation.	**Low**	Records further north (5km to Melbourne Water Eastern Treatment Plant wetlands). No suitable habitat within the study area.
Falco hypoleucos	Grey Falcon	VU	v		PMST	Lightly timbered plains and Acacia scrub.	**Negligible**	No records in the local area, with most known populations in arid and semi-arid environments.
Neophema chrysogaster	Orange-bellied Parrot	CR	cr	1986	PMST	Coastal vegetation including saltmarshes, dunes, pastures, shrublands, sewage plants, saltworks, islands, and beaches.	**Low**	Historic records 5km to the north-west of the study area. However, there is no suitable habitat in the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Lathamus discolor	Swift Parrot	CR	cr	2011	PMST	A range of forests and woodlands, especially those supporting nectar-producing tree species. Also well-treed urban areas.	**Medium**	Occasional records in the local area, and the mature eucalypts in the study area would provide suitable foraging habitat.
Hirundapus caudacutus	White-throated Needletail	VU	v	2019	PMST	An almost exclusively aerial species within Australia, occurring over most types of habitat, particularly wooded areas.	**Medium**	Occasional recent records exist in the local area, and this species is likely to utilise the aerial space above the study area but unlikely to use the terrestrial elements of the study area.
Diomedea antipodensis gibsoni	Gibson's Albatross	VU			PMST	A marine, pelagic species that ranges widely throughout the Pacific region of the Southern Ocean. It visits off-shore waters of southern Australia.	**Negligible**	No suitable habitat in study area.
Pachyptila turtur subantarctica	Fairy Prion (southern)	VU			PMST	Open ocean over continental shelves and slopes, and rarely coming close to shore except at breeding islands and during rough weather.	**Negligible**	No suitable habitat in study area.
Thalassarche bulleri platei	Northern Buller's Albatross	VU			PMST	Buller's Albatross breeds in New Zealand and is a seasonal visitor to Victorian coastal waters where it occurs in pelagic and inshore waters.	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Diomedea exulans	Wandering Albatross	VU	cr		PMST	Occurs from Antarctic to subtropical areas in the southern hemisphere. In Australia, observed over continental shelves often in areas of continental up-wellings. Regularly recorded feeding in sheltered harbours, often gathering at sewerage outfalls.	**Negligible**	No suitable habitat in study area.
Thalassarche melanophris	Black-browed Albatross	VU		1994	PMST	Breeds in Antarctic and sub-Antarctic islands, but commonly occurs in pelagic waters off the coast of Victoria.	**Negligible**	No suitable habitat in study area.
Thalassarche chrysostoma	Grey-headed Albatross	EN	e		PMST	Occurs in warmer areas over winter, its breeding grounds are found in the Antarctic and subantarctic islands. Generally, forages over the open oceans. There have been a small number of records over inshore and offshore areas along the Victorian coast.	**Negligible**	No suitable habitat in study area.
Thalassarche cauta	Shy Albatross	EN	e	1994	PMST	The Shy Albatross is a marine pelagic species inhabiting sub-Antarctic and subtropical waters, spending the majority of their time at sea. Occasionally it is observed in continental shelf waters in bays and harbours.	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Macronectes giganteus	Southern Giant-Petrel	EN	e		PMST	Adults of this species are present all year round at Antarctic breeding colonies, from where immature birds disperse, some as far north as subtropical areas.	**Negligible**	No suitable habitat in study area.
Thalassarche bulleri	Buller's Albatross	VU	e		PMST	Buller's Albatross breeds in New Zealand and is a seasonal visitor to Victorian coastal waters where it occurs in pelagic and inshore waters.	**Negligible**	No suitable habitat in study area.
Macronectes halli	Northern Giant-Petrel	VU	e	2006	PMST	Breeds in coastal habitats on subantarctic islands. Dispersal movements of juveniles are poorly known but have been observed along temperate coastal areas of Australia. Often seen around sewer outfalls or seal and penguin colonies.	**Negligible**	Record from the beach, west of study area. No suitable habitat in study area.
Diomedea epomophora	Southern Royal Albatross	VU	cr		PMST	The range of the Southern Royal Albatross extends throughout the oceans of the Southern Hemisphere. The Southern Royal Albatross nests almost exclusively on the Chatham Islands, located hundreds of miles east of New Zealand.	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Diomedea sanfordi	Northern Royal Albatross	EN			PMST	The Northern Royal Albatross is marine, pelagic species and its habitat includes subantarctic, subtropical, and occasionally Antarctic waters (Marchant & Higgins 1990). The species nests on flat or gently sloping ground, on slopes, ridges, gullies and plateaux of large islands, and on the summits of islets (Bailey & Sorensen 1962; Dawson 1973; Westerkov 1963). Northern royal albatrosses (D. e. sanfordi) commonly nest on Campbell Island and the Auckland Islands.	**Negligible**	No suitable habitat in study area.
Diomedea antipodensis	New Zealand Wandering Albatross	VU			PMST	A marine, pelagic species that ranges widely throughout the Pacific region of the Southern Ocean. It visits off-shore waters of southern Australia.	**Negligible**	No suitable habitat in study area.
Thalassarche salvini	Salvin's Albatross	VU			PMST	Salvin's Albatross is a marine species occurring in subantarctic and subtropical waters (Marchant & Higgins 1990). Salvin's Albatross nest's on level or gently sloping ledges, summits, slopes and caves of rocky islets and stacks, usually in broken terrain with little soil and	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
						vegetation (Brothers 1979a, 1979b; Fleming 1939; Green 1974; Miskelly 1984).		
Thalassarche steadi	White-capped Albatross	VU			PMST	The White-capped Albatross is a marine species and occurs in subantarctic and subtropical waters. Birds nest on slopes vegetated with tussock and succulents on Auckland Island (Marchant & Higgins 1990).	**Negligible**	No suitable habitat in study area.
Thalassarche impavida	Campbell Albatross	VU			PMST	The Campbell Albatross is a marine sea bird inhabiting sub-Antarctic and subtropical waters from pelagic to shelf-break water habitats (Marchant & Higgins 1990). The Campbell Albatross breed on Campbell Island (Marchant & Higgins 1990). They make their nests on tussock-covered ledges and terraces of cliffs, slopes and hills, overlooking the sea or valleys, and on the summits of rocky islets (Bailey & Sorenson 1962; Downs et al. 1959; Weimerskirch et al. 1986).	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Limosa lapponica baueri	Bar-tailed Godwit (baueri)	VU			PMST	Bar-tailed Godwits inhabit estuarine mudflats, beaches and mangroves. They are common in coastal areas around Australia. They are social birds and are often seen in large flocks and in the company of other waders.	**Negligible**	Historic records 5km to the north-west of the study area. However, there is no suitable habitat in the study area.
Sternula nereis nereis	Australian Fairy Tern	VU			PMST	Fairy Terns inhabit coastal environments including intertidal mudflats, sand flats and beaches. Nests above high-water mark on sandy shell-grit beaches.	**Negligible**	No suitable habitat in study area.
Thinornis cucullatus	Hooded Plover	VU	v		PMST	Sandy ocean beaches, estuaries and inland lakes.	**Negligible**	No suitable habitat in study area.
Numenius madagascariensis	Eastern Curlew	CR	cr	1985	PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Negligible**	Historic records around Melbourne Water Eastern Treatment Plant. No suitable habitat in study area.
Calidris ferruginea	Curlew Sandpiper	CR	cr	2018	PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Negligible**	Records are further north (5km to Melbourne Water Eastern Treatment Plant wetlands). No suitable habitat within the study area.
Calidris canutus	Red Knot	EN	e		PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms,	**Negligible**	No records in the local area and no suitable habitat in the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
						saltworks, harbours, coastal lagoons and bays.		
Grantiella picta	Painted Honeyeater	VU	v		PMST	Dry open woodlands and forests. Typically forages for fruit and nectar in mistletoes and in tree canopies.	**Medium**	Two individuals recorded in 2017 at Langwarrin Flora and Fauna Reserve, ~5km south of the study area. There is limited foraging resources with mistletoe present within the study area, however unlikely to be important nesting habitat.
Anthochaera phrygia	Regent Honeyeater	CR	cr		PMST	A range of dry woodlands and forests dominated by nectar-producing tree species.	**Low**	No known populations in the local area, with remnant populations in central and north-east Victoria.
Potorous tridactylus tridactylus	Long-nosed Potoroo (SE mainland)	VU	v		PMST	Forest, heathy woodlands and heathlands.	**Low**	No known records in the local area. Closest population is isolated on French Island, Western Port Bay.
Megaptera novaeangliae	Humpback Whale	VU	cr		PMST	Migrate between summer feeding grounds in the Southern Ocean to Northern waters where birthing and mating occurs. Increasingly recorded along the Victorian coast, occasionally entering Port Phillip and Western Port.	**Negligible**	Marine species.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll	EN	e		PMST	Rainforest and wet and dry sclerophyll forests and woodlands.	**Low**	No known records in the local area. Study area is highly fragmented from known populations to the north-east.
Antechinus minimus maritimus	Swamp Antechinus	VU	v	2007	PMST	Dense wet heath and heathy woodland, sedgeland and dense tussock grassland.	**Low**	Suitable habitat within the study area, however records are limited in the local area with just one known record <5km south of study area.
Petauroides volans	Southern Greater Glider	VU	v		PMST	Wet and damp sclerophyll forest with large hollow-bearing trees.	**Negligible**	No suitable habitat in study area.
Pseudomys novaehollandiae	New Holland Mouse	VU	e	1984		Coastal heathland, heathy woodland and dry sclerophyll forest.	**Low**	Suitable habitat within the study area, however closest records in Langwarren Flora and Fauna Reserve are not recent (>20 years).
Eubalaena australis	Southern Right Whale	EN	e	2001	PMST	Migrates between summer feeding grounds in the Southern Ocean to warmer northern waters over winter, where it can be found along the Victorian coastline. The coast 8 km east of Warrnambool is a locally important calving and nursing site until late October or early November.	**Negligible**	Marine species.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Isoodon obesulus obesulus	Southern Brown Bandicoot	EN	e	2011	PMST	Heathland, shrubland, sedgeland, heathy open forest and woodland; also exotic vegetation, such as blackberry thickets and rank grasses where native vegetation has been removed.	**Low**	Considered to be locally extinct after 2011-2016 targeted surveys. Suitable habitat within the study area persists.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	v	2016	PMST	Rainforest, wet and dry sclerophyll forest, woodland and urban areas.	**Medium**	Occasional records within the local area, with species likely to forage on *Eucalyptus* spp. when flowering.
Chelonia mydas	Green Turtle	VU			PMST	Marine species with a pan-tropical distribution throughout the world. More abundant along the tropical coasts of Australia and the Great Barrier Reef. Green Turtles spend their first five to ten years drifting on ocean currents.	**Negligible**	Marine species.
Dermochelys coriacea	Leathery Turtle	EN	cr		PMST	Marine species usually sighted along the eastern seaboard often in bays, estuaries and rivers. No major nesting events have been recorded in Australia.	**Negligible**	Marine species.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Caretta caretta	Loggerhead Turtle	EN			PMST	Loggerhead Turtles forage widely in the waters of coral and rocky reefs, seagrass beds and muddy bays throughout eastern, northern and western Australia. Nesting occurs in coastal environments of northern WA, NT and QLD.	**Negligible**	Marine species.
Litoria raniformis	Growling Grass Frog	VU	v	1788	PMST	Still or slow-flowing waterbodies and surrounding terrestrial vegetation.	**Low**	No recent records in the local area.
Carcharodon carcharias	Great White Shark	VU	e		PMST	Near coastal and offshore waters.	**Negligible**	Marine species.
Prototroctes maraena	Australian Grayling	VU	e		PMST	Adults inhabit cool, clear, freshwater streams.	**Low**	No records in the local area, with closest known populations in Cardinia Ck to the east of the study area.
Galaxiella pusilla	Dwarf Galaxias	VU	e	2009	PMST	Slow-flowing or still freshwater wetlands such as swamps, drains and backwaters of streams.	**Medium**	Records in Boggy Creek (<800m from study area), with suitable habitat in the study area.
Synemon plana	Golden Sun Moth	CR	v		PMST	Natural temperate grassland, grassy woodland and pasture supporting spear grasses and wallaby grasses and exotic grassland dominated by Chilean needle grass.	**Negligible**	No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
State significance								
Lewinia pectoralis	Lewin's Rail		v	2019		Swamps, dense riparian vegetation and saltmarsh.	**Medium**	Recent records within the local area and suitable habitat within the study area.
Egretta garzetta	Little Egret		e	2012		Swamps, billabongs, floodplain pools, mudflats, mangroves and channels; breeds in trees standing in water.	**Low**	Records are further north in wetland habitat. No suitable habitat in study area.
Ardea intermedia plumifera	Plumed Egret		cr	2001		Densely-vegetated freshwater wetlands including lakes, swamps and billabongs. Breeds in trees standing in water.	**Low**	Records in local area, however no suitable habitat in study area.
Ardea alba modesta	Eastern Great Egret		v	2019		Flooded crops, pasture, swamps, lagoons, saltmarsh, sewage ponds, estuaries, dams, roadside ditches. Breeds in trees standing in water.	**Low**	Records in local area, however study area is unlikely to provide important habitat.
Ixobrychus dubius	Australian Little Bittern		e	2008		Freshwater swamps, lakes and rivers with dense reed beds, saltmarsh and coastal lagoons.	**Low**	Records in local area, however no suitable habitat in the study area.
Anseranas semipalmata	Magpie Goose		v	2013		Swamps, lakes, sewage ponds, flooded pasture, dams.	**Low**	Records further north, mostly at the Woodlands Wetlands in Braeside Park. No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Spatula rhynchotis	Australasian Shoveler		v	2019		Prefers large, permanent lakes and swamps with deep water, stable conditions and abundant aquatic vegetation. Less commonly recorded in small or shallow waters, such as billabongs, sewage ponds, freshwater rivers and densely vegetated farm dams. Forages in open water but nests in densely vegetated freshwater wetlands, where fringing vegetation may be an important habitat feature.	**Low**	Recent records within the local area, however no suitable habitat within the study area.
Stictonetta naevosa	Freckled Duck		e	2019		Large freshwater wetlands, generally with dense vegetation.	**Low**	Recent records within the local area, however no suitable habitat within the study area.
Aythya australis	Hardhead		v	2019		A mainly aquatic species preferring large, deep freshwater environments with abundant aquatic vegetation, including slow moving areas of rivers. Also occurs in brackish wetlands and may be found in deep dams and water storage ponds. Occasionally in estuarine and littoral habitats such as saltpans, coastal lagoons and sheltered inshore waters. Avoids main streams or rivers, except in calm	**Low**	Recent records within the local area, however no suitable habitat within the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
						reaches where aquatic flora is developed.		
Oxyura australis	Blue-billed Duck		v	2014		Open or densely vegetated wetlands.	**Low**	Recent records within the local area, however no suitable habitat within the study area.
Biziura lobata	Musk Duck		v	2014		A largely aquatic species preferring deep water on large, permanent swamps, lakes and estuaries with abundant aquatic vegetation. Often occurs in areas of dense vegetated cover within a wetland. Less commonly recorded in small or shallow waters, such as billabongs, sewage ponds, freshwater rivers and densely vegetated farm dams.	**Low**	Recent records within the local area, however no suitable habitat within the study area.
Hieraaetus morphnoides	Little Eagle		v	2018		Woodland and open areas. Rabbits are a key component of their diet. Nesting occurs in mature trees in open woodland or riparian vegetation.	**Medium**	Recent records within the local area, with suitable habitat in the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Haliaeetus leucogaster	White-bellied Sea-Eagle		e	2019		Coastal areas such as beaches and estuaries, inland wetlands and major inland streams.	**Medium**	Recent records within the local area. This species likely uses the study area for foraging but it is unlikely to be important habitat for breeding and nesting.
Lophoictinia isura	Square-tailed Kite		v	2019		Eucalypt woodlands, open forest and partially cleared farmland.	**Medium**	Recent records within the local area. This species likely uses the study area for foraging but it is unlikely to be important habitat for breeding and nesting.
Falco subniger	Black Falcon		cr	2013		Woodlands, open country and around terrestrial wetlands areas, including rivers and creeks. Mostly hunts over open plains and undulating land with large tracts of low vegetation. Primarily occurs in arid and semi-arid zones in the north, north-west and west of Victoria, though can be forced into more coastal areas by droughts and subsequent food shortages.	**Medium**	Recent records within the local area with suitable habitat within the study area.
Hydroprogne caspia	Caspian Tern		v	2018		Estuaries, inlets, bays, lagoons, inland lakes, flooded pasture, sewage ponds.	**Low**	Recent records in the local area, however no suitable habitat within the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Sternula albifrons	Little Tern		cr		PMST	This bird is mostly recorded in sheltered coastal environments, including bays, lagoons and estuaries. Nests on sandy substrates containing much shell-grit, which provides good camouflage for their eggs.	**Low**	No suitable habitat in study area.
Arenaria interpres	Ruddy Turnstone		e	1982		Mainly found on coastal beaches, exposed reefs, and rock platforms.	**Low**	No suitable habitat in study area.
Pluvialis fulva	Pacific Golden Plover		v	2012		A range of coastal habitats including mudflats, sandflats rocky shores and saltmarsh.	**Low**	No suitable habitat in study area.
Tringa glareola	Wood Sandpiper		e	2014	PMST	Well-vegetated shallow freshwater wetlands with emergent aquatic plants and dense fringing vegetation.	**Low**	Recent records in wetlands north of the study area. No suitable habitat in the study area.
Tringa brevipes	Grey-tailed Tattler		cr	1987		Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Low**	Historic records at Melbourne Water's Eastern Treatment Plant. No suitable habitat in study area.
Actitis hypoleucos	Common Sandpiper		v	2009	PMST	Migrates to Australia from Eurasia in August where it inhabits a wide variety of coastal and inland wetlands with muddy margins before departing north in March.	**Low**	Historic records at Melbourne Water's Eastern Treatment Plant. No suitable habitat in study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Tringa nebularia	Common Greenshank		e	2019	PMST	A variety of ephemeral and permanent inland wetlands and sheltered coastal wetlands.	**Low**	No suitable habitat in study area.
Tringa stagnatilis	Marsh Sandpiper		e	2019	PMST	Permanent or ephemeral wetlands, mudflats and saltmarshes in coastal and inland environments.	**Low**	No suitable habitat in study area.
Limosa limosa	Black-tailed Godwit		cr	1994	PMST	Primarily coastal environments such as bays, estuaries and lagoons with large intertidal mudflats or sandflats; occasionally found on rocky coasts or coral islets. The species may also occur in shallow and sparsely vegetated, near-coastal, wetlands; and less commonly inland in the environs of shallow, freshwater and saline lakes, swamps, dams and bore-overflows.	**Low**	No suitable habitat in study area.
Melanodryas cucullata	Hooded Robin		v	2008		Woodlands of eucalypt, Mallee, semi-cleared farmland.	**Medium**	One record south of the study area, with suitable habitat in study area.
Tursiops australis	Burrunan Dolphin		cr	2017		Marine waters in Port Phillip and the Gippsland Lakes.	**Negligible**	Marine species.
Ornithorhynchus anatinus	Platypus		v	1979		A variety of freshwater waterbodies, particularly those with stable banks suitable for	**Low**	No recent records in the local area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
						burrows, and shallow waters for foraging.		
Saccolaimus flaviventris	Yellow-bellied Sheathtail Bat		v	1909		A variety of habitats, ranging from wet forests to desert.	**Low**	No recent records in the local area.
Varanus varius	Lace Monitor		e	1973		A variety of wooded habitats, including woodlands; shelters in hollow trunks, limbs and logs.	**Low**	No recent records in the local area, with the study area highly fragmented from known populations in the north-east.
Lissolepis coventryi	Swamp Skink		e	2019		Densely vegetated swamps and associated watercourses, and adjacent wet heaths, sedgelands and saltmarshes.	**High**	One individual observed adjacent to study area during this assessment. Suitable habitat within the study area.
Pseudophryne semimarmorata	Southern Toadlet		e	1988		A variety of habitats such as open forests, lowland woodlands and heathlands where adults shelter beneath leaf litter and other debris in moist soaks and depressions.	**Medium**	Recent records in the local area, near Langwarrin FF Reserve and Royal Botanic Gardens Cranbourne. Suitable habitat in study area.

A2.3 Migratory species (EPBC Act listed)

Table A2.3 Migratory fauna species recorded or predicted to occur within 5 km of the study area

Scientific name	Common name	Most recent record
Migratory species		
Gallinago hardwickii	Latham's Snipe	2019
Plegadis falcinellus	Glossy Ibis	2019
Hirundapus caudacutus	White-throated Needletail	2019
Apus pacificus	Fork-tailed Swift	PMST
Pandion haliaetus	Osprey	PMST
Ardenna grisea	Sooty Shearwater	PMST
Ardenna carneipes	Flesh-footed Shearwater	PMST
Diomedea exulans	Wandering Albatross	PMST
Thalassarche melanophris	Black-browed Albatross	1994
Thalassarche chrysostoma	Grey-headed Albatross	PMST
Thalassarche cauta	Shy Albatross	1994
Macronectes giganteus	Southern Giant-Petrel	PMST
Thalassarche bulleri	Buller's Albatross	PMST
Macronectes halli	Northern Giant-Petrel	2006
Sterna hirundo	Common Tern	1999
Diomedea epomophora	Southern Royal Albatross	PMST
Diomedea sanfordi	Northern Royal Albatross	PMST
Diomedea antipodensis	New Zealand Wandering Albatross	PMST
Thalassarche salvini	Salvin's Albatross	PMST
Thalassarche steadi	White-capped Albatross	PMST
Thalassarche impavida	Campbell Albatross	PMST
Philomachus pugnax	Ruff (Reeve)	PMST

Scientific name	Common name	Most recent record
Chlidonias leucopterus	White-winged Black Tern	2019
Hydroprogne caspia	Caspian Tern	2018
Sternula albifrons	Little Tern	PMST
Onychoprion anaethetus	Bridled Tern	1998
Arenaria interpres	Ruddy Turnstone	1982
Pluvialis fulva	Pacific Golden Plover	2012
Charadrius bicinctus	Double-banded Plover	2014
Numenius madagascariensis	Eastern Curlew	1985
Limosa lapponica	Bar-tailed Godwit	1988
Tringa glareola	Wood Sandpiper	2014
Tringa brevipes	Grey-tailed Tattler	1987
Actitis hypoleucos	Common Sandpiper	2009
Tringa nebularia	Common Greenshank	2019
Tringa stagnatilis	Marsh Sandpiper	2019
Calidris ferruginea	Curlew Sandpiper	2018
Calidris ruficollis	Red-necked Stint	2014
Calidris acuminata	Sharp-tailed Sandpiper	2014
Calidris canutus	Red Knot	PMST
Calidris subminuta	Long-toed Stint	2018
Calidris melanotos	Pectoral Sandpiper	2014
Limosa limosa	Black-tailed Godwit	1994
Gelochelidon nilotica	Asian Gull-billed Tern	2005
Motacilla flava	Yellow Wagtail	PMST
Rhipidura rufifrons	Rufous Fantail	2008
Myiagra cyanoleuca	Satin Flycatcher	2010
Monarcha melanopsis	Black-faced Monarch	PMST

Scientific name	Common name	Most recent record
Balaena glacialis australis	Southern Right Whale	PMST
Lagenorhynchus obscurus	Dusky Dolphin	PMST
Megaptera novaeangliae	Humpback Whale	PMST
Eubalaena australis	Southern Right Whale	2001
Caperea marginata	Pygmy Right Whale	PMST
Chelonia mydas	Green Turtle	PMST
Dermochelys coriacea	Leathery Turtle	PMST
Caretta caretta	Loggerhead Turtle	PMST
Lamna nasus	Porbeagle	PMST
Carcharodon carcharias	Great White Shark	PMST

Appendix 3 Significant impact assessments

Swift Parrot

Table A3.1 Swift Parrot – EPBC Act Critically Endangered species – assessment against Significant Impact Criteria

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of a population	Unlikely	Swift Parrots are known to occur sporadically in the local area and are likely to utilise mature flowering eucalypts as a foraging resource during their winter migration to mainland Australia (Saunders & Tzaros 2011). Several habitat trees will be removed or deemed lost during construction. Given the extent of vegetation in the surrounding landscape, it is unlikely that the removal of vegetation in this location would lead to a long-term decrease in the size of a population given that it is not considered priority habitat. Swift Parrots are highly mobile and can freely disperse through and around disturbed areas and to larger reserves more broadly across Victoria and southern NSW. If Swift Parrots are present in the study area, they could be reasonably expected to occupy or utilise the similar habitat adjacent to the construction footprint and as such, the habitat removal would be unlikely to lead to a decline in a population as this population would have habitat remaining for critical activities (i.e. foraging, dispersal etc.).
Reduce the area of occupancy of the species	Unlikely	The proposed works would not reduce the overall area of occupancy of the species as the species could still occupy the study area and the broader landscape in much the same sporadic way as it did prior to works taking place. The development would slightly reduce the area of available habitat within the study area but not the overall area of occupancy of the species in Victoria and southern NSW.

Significant Impact Criteria	Likelihood of significant impact	Justification
Fragment an existing population into two or more populations	Unlikely	Due to its complex movement patterns typified by migration and local nomadism, the Swift Parrot has what is effectively a single national population. Individuals move interchangeably between key wintering sites on the Australian mainland and can move freely through areas of unsuitable and marginal habitat to seek out and exploit favourable habitat patches. The small amount of tree clearing activities associated with the works are unlikely to impact this species given the suitable habitat adjacent the study area and within the local area.
Adversely affect habitat critical to the survival of the species	Unlikely	Critical habitat for Swift Parrot has not been defined, and is difficult to define given its reliance on a diversity of habitat types across its range and the dependence on these sites vary both spatially and temporally. Priority habitats for the species are defined in the National Recovery Plan (Saunders and Tzaros 2011) as habitats which are used: • for nesting • by large proportions of the Swift Parrot population • repeatedly between seasons (site fidelity), or • for prolonged periods of time (site persistence). Vegetation in the study area is not used for nesting (they breed only in Tasmania) and given the location bordering a much larger area of native vegetation, trees in the study area are unlikely to be used by large numbers of birds repeatedly or for extended periods of time. It is therefore unlikely the proposal would adversely affect habitat critical to this species survival.
Disrupt the breeding cycle of a population	Highly unlikely	This species only breeds in Tasmania.

Significant Impact Criteria	Likelihood of significant impact	Justification
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Unlikely	It is unlikely that modification of habitat within the construction footprint would lead to a broader species decline, given the linear nature of the development and the availability of similar adjacent habitat. It is also unlikely that indirect impacts of construction activities such as noise pollution, weed invasion or surface water runoff would lead to a species decline as the key habitat requirement of this species appears to be availability of flowering or lerp infested eucalypts and they appear to tolerate noise pollution and urbanised areas.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	Unlikely	The proposed action will not 'open up' habitat that was previously inaccessible to invasive species and measures will be put in place during construction to prevent to introduction of weed propagules and pathogens. As such, the works are unlikely to exacerbate the current level of invasive species threat operating within the study area to the point that they become harmful to the Swift Parrot.
Introduce disease that may cause the species to decline	Highly unlikely	The proposed action is unlikely to introduce a disease that causes the Swift Parrot to decline.
Interfere with the recovery of a species	Unlikely	A national recovery plan for the Swift Parrot has been produced (Saunders & Tzaros 2011) to minimise the probability of extinction of the Swift Parrot in the wild, and to increase the probability of important populations becoming self-sustaining in the long term. The proposal is unlikely to directly interfere with priority habitats that have been identified in the 2011 recovery plan or any Swift Parrot recovery actions in Victoria or southern NSW.

Significant Impact Criteria	Likelihood of significant impact	Justification
Swift Parrot significant impact assessment		
The Swift Parrot's migratory nature means that it cannot be discounted from occurring anywhere there are winter flowering eucalypt species in south-east Australia. However, the availability of similar resources in the broader landscape and the dispersal ability of this species indicate the development will be unlikely to lead to any decline in the species' overall abundance or area of occupancy. Furthermore, the vegetation within the study area is unlikely to constitute critical habitat for this species. On this basis it is considered unlikely that a significant impact on Swift Parrot would result from the proposed road maintenance and construction works on Ballarto Road.		

Painted Honeyeater

Table A3.2 Painted Honeyeater - EPBC Act Vulnerable species - Assessment against Significant Impact Criteria

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of an important population of the species	Unlikely	Due to its complex movement patterns typified by migration between the southern states and Australia's northern most states and territories, the Painted Honeyeater has what is effectively a single national population (Commonwealth of Australia 2015). The species exhibits seasonal north-south movements based primarily on the fruiting of mistletoe species. The species breeding cycle is closely aligned to these flowering events. There is very little mistletoe in the study area and the area is unlikely to be preferred habitat for Painted Honeyeater.
Reduce the area of occupancy of an important population	Unlikely	Critical habitat for Painted Honeyeater has not been defined, and is difficult to define given its reliance on a diversity of habitat types across its large distribution range. Vegetation in the study area lacks the key habitat components which this species relies upon, and it is unlikely to be used by large numbers of birds repeatedly or for extended periods of time. It is therefore unlikely the proposal would adversely affect habitat critical to this species' survival.
Fragment an existing important population into two or more populations	Unlikely	The majority of the development impacts are occurring in previously disturbed roadside areas. The development impact footprint in the higher value areas in the south-west of the study area are bordered by large areas of native vegetation which is contiguous with similar vegetation at the local landscape scale. Therefore the habitat loss for this proposal is unlikely to fragment any populations of Painted Honeyeater, as there will be suitable habitat immediately adjacent to the development area in which the species can forage, nest and breed.

Significant Impact Criteria	Likelihood of significant impact	Justification
Adversely affect habitat critical to the survival of the species	Highly unlikely	It is unlikely that modification of habitat within the construction footprint would lead to a broader species decline, given the previously disturbed nature of the majority of the planned development footprint and the availability of similar adjacent habitat beyond the construction footprint. It is also unlikely that indirect impacts of construction activities such as noise pollution, weed invasion or surface water runoff would lead to a species decline as the key habitat requirement of this species appears to be availability of flowering acacia and mistletoe species, and they appear to tolerate noise pollution and urbanised areas.
Disrupt the breeding cycle of an important population	Unlikely	The study area contains the preferred species of Silver Wattle *Acacia dealbata* but generally has few mistletoe species. Given the proximity of similar habitat immediately adjacent in the Keith Turnbull Research Institute, there is sufficient opportunity for the species to breed and forage in other higher quality areas compared to those in the disturbed impact area. Therefore the proposed action will not occur in the species preferred habitat and is unlikely to have an impact on the species breeding cycle.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Highly unlikely	The proposed action is predominantly occurring in previously cleared areas and areas which are disturbed by former road construction and weed invasion. The study area also lacks high cover of the key mistletoe species upon which the species lifecycle is dependant. Therefore, it is highly unlikely that the development will impact habitat in the study area to the extent that it causes the Painted Honeyeater to decline.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	Unlikely	The proposed action will not 'open up' habitat that was previously inaccessible to invasive species and measures will be put in place during construction to prevent the introduction of weed propagules and pathogens. As such, the works are unlikely to exacerbate the current level of invasive species threat operating within the study area to the point that they become harmful to the Painted Honeyeater.

Significant Impact Criteria	Likelihood of significant impact	Justification
Introduce disease that may cause the species to decline	Unlikely	Biosecurity measures will be put in place in the CEMP and the proposed action is unlikely to introduce a disease that causes the Painted Honeyeater to decline.
Interfere with the recovery of a species	Unlikely	A national recovery plan for the Painted Honeyeater has not yet been produced. The current conservation advice indicates regrowth areas with high densities of mistletoe are the highest priority habitats for protection, including those in box ironbark forests (Commonwealth of Australia 2015). However, given the study area has very low densities of mistletoe, the study area is not likely to be highly utilised by the species and the losses associated with the development are unlikely to interfere with the recovery of Painted Honeyeater.
Painted Honeyeater significant impact assessment		
The Painted Honeyeater's migratory nature means that it cannot be discounted from occurring anywhere there are flowering wattle and mistletoe species in eastern Australia. Critical habitat has not yet been defined for this species. Furthermore, the study area does not contain the species' preferred habitat of high cover of mistletoe species, and as such, is not considered to be high value habitat for this species. The availability of similar resources immediately adjacent to the study area and in the broader landscape, and the dispersal ability of this species indicate the development will be unlikely to lead to any decline in the species' overall abundance or area of occupancy as a result of the proposed development. On this basis, it is considered unlikely that a significant impact on Painted Honeyeater would result from the proposed road construction and maintenance works.		

Grey-headed Flying-fox

Table A3.3 Grey-headed Flying-fox - EPBC Act Critically Endangered species - Assessment against Significant Impact Criteria

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of an important population of the species	Unlikely	All Grey-headed Flying-fox in Australia are regarded as one single population that moves freely within their entire national range (DoEE 2020). Grey-headed Flying-fox can move up to 100 kilometres in a single night and are known to occupy and freely disperse through urban environments (DoEE 2020), as such Grey-headed Flying-fox could be expected to occur anywhere within the study area. It is unlikely that the removal of potential foraging habitat, consisting of 0.792 hectares of native vegetation and 14 large trees, would lead to a long term decrease in the size of an important population. Given the vegetation removal will occur outside of known camps and habitat on site is physically connected to similar habitat adjoining the study area, Grey-headed Flying-fox could be reasonably expected to occupy or utilise the similar habitat adjacent to the construction footprint, and as such the habitat removal would be unlikely to lead to a decline in an important population, as this population would have ample habitat remaining for critical activities (i.e. foraging, breeding, dispersal etc.).
Reduce the area of occupancy of an important population	Unlikely	The proposed development is predominantly occurring in previously disturbed areas along the roadside of Ballarto Road, and would only slightly reduce the area of available native vegetation within the study area. However, the overall area of occupancy will remain unchanged, as the broader study area will remain suitable for this species post construction, and the retained habitat is likely to recover after construction works are completed, under appropriate management. Habitat on site is not currently used for roosting and a camp is not present within the study area.

Significant Impact Criteria	Likelihood of significant impact	Justification
Fragment an existing important population into two or more populations	Unlikely	All Grey-headed Flying-fox in Australia are regarded as one single population that moves freely within their entire national range (DoEE 2020). Given that Grey-headed Flying-fox can move up to 100 kilometres in a single night and are known to occupy and freely disperse through urban environments (DoEE 2020), any disturbance associated with the road maintenance works is not considered a barrier to dispersal for this species and as such will not fragment an existing important population.
Adversely affect habitat critical to the survival of the species	Highly unlikely	Given the type of vegetation that will be removed, the availability of similar habitat adjacent to the works areas and the fact that no camp is located in the study area, the habitat to be affected is unlikely to constitute habitat critical to the survival of the species.
Disrupt the breeding cycle of an important population	Unlikely	For the reasons outlined above it is unlikely that works activities would disrupt the breeding cycle of an important population. Secondary impacts such as noise disturbance during construction are not expected to be significant given this species' tolerance for highly noise polluted urban environments.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Unlikely	It is unlikely that modification of habitat within the construction footprint would lead to a broader species decline, given the type of vegetation to be removed (non–roosting habitat) and the availability of similar adjacent habitat.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	Unlikely	The proposed action will not 'open up' habitat that was previously inaccessible to invasive species and measures are to be put in place to reduce the risks of weed propagules and pathogens entering the site on machinery. As such, it is unlikely to exacerbate the current level of invasive species threats operating within the study area to the point that they become harmful to the Grey-headed Flying-fox.

Significant Impact Criteria	Likelihood of significant impact	Justification
Introduce disease that may cause the species to decline	Unlikely	No diseases are currently known to be transferable to Grey-headed Flying-fox as a result of human activities.
Interfere with the recovery of a species	Unlikely	A national recovery plan for the Grey-headed Flying-fox has not been produced. The proposal is unlikely to directly interfere with the recovery of the species on a national or local scale due to the restricted nature of the impact and the dispersal ability of this species.
Grey-headed Flying-fox significant impact assessment		
The Grey-headed Flying-fox was not recorded in the construction corridor. The dispersal ability of this species and its use of both native and non-native vegetation for foraging and roosting activities indicates that the road maintenance works will not act as a barrier to dispersal for this species. Furthermore, the vegetation within the study area is unlikely to constitute critical habitat for this species. On this basis it is considered unlikely that a significant impact on Grey-headed Flying-fox would result from the Ballarto Road maintenance works.		

Dwarf Galaxias

Table A3.4 Dwarf Galaxias - EPBC Act Critically Endangered species - Assessment against Significant Impact Criteria

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of an important population of the species	Unlikely	There are records for this species from Boggy Creek to the south, where the swampy wetland habitat is of higher quality. Swamp habitat within the study area is densely vegetated with shrubs or emergent aquatic plants and is unlikely to hold water for substantial periods, compared to the lower and higher quality wetland habitat further south. Given the vegetation removal will occur along the disturbed edge of Ballarto Road, and that habitat on site is physically connected to similar but higher quality habitat adjoining the study area, Dwarf Galaxias could be reasonably expected to occupy or utilise the similar habitat adjacent to the construction footprint, and provided connectivity is not interrupted (an action in the CEMP), the habitat removal would be unlikely to lead to a decline in an important population, as this population would have ample habitat remaining for critical activities (i.e. foraging, breeding, dispersal etc.).
Reduce the area of occupancy of an important population	Unlikely	The proposed development is predominantly occurring in previously disturbed areas along the road reserve of Ballarto Road, and would only slightly reduce the area of available native vegetation within the study area. However, the overall area of occupancy will remain relatively unchanged, as the broader study area will remain suitable for this species post construction, the retained habitat is being protected during construction works, and rehabilitation will help restore impacted areas along the margin of the proposed works.

Significant Impact Criteria	Likelihood of significant impact	Justification
Fragment an existing important population into two or more populations	Unlikely	Dwarf Galaxias are known to occupy and freely disperse through suitable swampy and wetland habitats, even extremely limited ephemeral habitats (Saddlier, Jackson, & Hammer 2010). Given the works are of a thin and linear nature, are occurring in an urban environment, and there is suitable habitat contiguous with the impact area, any disturbance associated with the road maintenance works is not considered a barrier to dispersal for this species and as such will not fragment an existing important population.
Adversely affect habitat critical to the survival of the species	Unlikely	Given the type of vegetation that will be removed, the availability of similar but higher quality habitat adjacent to the works areas and the recommended measures to be put in place to minimise impacts to waterways in the CEMP, the habitat to be affected is unlikely to constitute habitat critical to the survival of the species.
Disrupt the breeding cycle of an important population	Unlikely	For the reasons outlined above it is unlikely that works activities would disrupt the breeding cycle of an important population. Connectivity of ephemeral swampy areas to more permanent waterbodies, such as Boggy Creek, are being maintained, which is an important recommendation in their Recovery Plan to help preserve the species survival chances (Saddlier, Jackson, & Hammer 2010). Secondary impacts such as water pollution or changes to site drainage during construction are to be managed via liaison with the EPA and via suitable measures in the CEMP, and impacts are not expected to be significant given this species' tolerance for disturbed urban aquatic environments.

Significant Impact Criteria	Likelihood of significant impact	Justification
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Unlikely	The past construction of a cycle path along the south of the construction zone has created an increased barrier to dispersal between the swampy area in the study area and higher quality aquatic habitats to the south. It is unlikely that construction would increase the fragmentation which has already occurred in the area, and efforts will be made to ensure this is the case (CEMP). Modification of habitat within the construction footprint would therefore be unlikely to lead to a broader species decline, given the type of vegetation to be removed (linear and disturbed) and the availability of similar but higher quality and more connected adjacent habitat.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	Unlikely	The proposed action will not 'open up' habitat that was previously inaccessible to invasive species and measures are to be put in place to reduce the risks of weed propagules and pathogens entering the site on machinery. As such, it is unlikely to exacerbate the current level of invasive species threats operating within the study area to the point that they become harmful to the Dwarf Galaxias.
Introduce disease that may cause the species to decline	Unlikely	There will be measures put in place to control the introduction of pests and diseases, including post-construction monitoring for new and emerging pest species. Given hygiene measures are being put in place, it is unlikely that a disease will be introduced during construction works.
Interfere with the recovery of a species	Unlikely	A national recovery plan for Dwarf Galaxias has been produced. Provided the recommended measures are put in place via the CEMP, the proposal is unlikely to directly interfere with the recovery of the species on a national or local scale, due to the restricted nature of the impact, the dispersal ability of this species and the presence of more connected and higher quality aquatic habitat immediately south of the study area.

Significant Impact Criteria	Likelihood of significant impact	Justification
Dwarf Galaxias significant impact assessment		
The Dwarf Galaxias have been recorded in Boggy Creek, within 800 metres south of the study area. The past construction of a cycle path along the south of the construction zone has created an increased barrier to dispersal between the swampy area in the study area and higher quality more permanent aquatic habitats to the south. The linear nature of the construction works which are generally limited to previously disturbed areas along the Ballarto Road reserve, and the limited impact expected to site drainage, as well as measures to be put in place to protect the aquatic environments from erosion, sedimentation, fragmentation and pollution via a CEMP, indicates that the road construction and maintenance works will be unlikely to constitute a significant impact to Dwarf Galaxias.		

Appendix 4 Vegetation impact assessment results

A5.1 Tree data

Table A4.1 Scattered trees within the study area

Tree #	Scientific name	Common name	DBH (cm)	Tree retained/lost	Large tree
235	*Eucalyptus leucoxylon*	Yellow Gum	38	Remove	No
244	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	53	Remove	Yes
245	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	52	Remove	Yes
252	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	39	Remove	No
262	*Eucalyptus cephalocarpa*	Mealy Stringybark	16	Retain	No
264	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	45	Retain	No
266	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	40	Remove	No
269	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	19	Retain	No
273	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	38	Remove	No
277	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	20	Remove	No
280	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	23	Remove	No
283	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	37	Remove	No
285	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	32	Remove	No
305	*Eucalyptus leucoxylon* subsp. *connata*	Yellow Gum	35	Remove	No

Table A4.2 Large trees within patches within the study area

Tree #	Scientific name	Common name	DBH (cm)	EVC	Tree retained/lost	Large tree
10	*Eucalyptus ovata*	Swamp Gum	95	(GipP0053) Swamp Scrub	Retain	Yes
11	*Eucalyptus ovata*	Swamp Gum	72	(GipP0053) Swamp Scrub	Retain	Yes
16	*Eucalyptus ovata*	Swamp Gum	73	(GipP0053) Swamp Scrub	Remove	Yes
20	*Eucalyptus ovata*	Swamp Gum	70	(GipP0053) Swamp Scrub	Retain	Yes
54	*Eucalyptus ovata*	Swamp Gum	99	(GipP0048) Heathy Woodland	Remove	Yes
55	*Eucalyptus ovata*	Swamp Gum	85	(GipP0048) Heathy Woodland	Remove	Yes
62	*Eucalyptus ovata*	Swamp Gum	71	(GipP0048) Heathy Woodland	Remove	Yes
63	*Eucalyptus ovata*	Swamp Gum	85	(GipP0048) Heathy Woodland	Remove	Yes
79	*Eucalyptus ovata*	Swamp Gum	80	(GipP0048) Heathy Woodland	Remove	Yes
80	*Eucalyptus ovata*	Swamp Gum	71	(GipP0048) Heathy Woodland	Retain	Yes
84	*Eucalyptus ovata*	Swamp Gum	58	(GipP0048) Heathy Woodland	Retain	Yes
102	*Eucalyptus ovata*	Swamp Gum	89	(GipP0048) Heathy Woodland	Retain	Yes
123	*Eucalyptus ovata*	Swamp Gum	123	(GipP0053) Swamp Scrub	Retain	Yes
129	*Eucalyptus camaldulensis*	River Red Gum	76	(GipP0053) Swamp Scrub	Remove	Yes
136	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	80	(GipP0053) Swamp Scrub	Retain	Yes
140	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	80	(GipP0053) Swamp Scrub	Retain	Yes
141	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	80	(GipP0053) Swamp Scrub	Remove	Yes
154	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	81	(GipP0053) Swamp Scrub	Retain	Yes
201	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	84	(GipP0053) Swamp Scrub	Retain	Yes

Tree #	Scientific name	Common name	DBH (cm)	EVC	Tree retained/lost	Large tree
202	*Eucalyptus viminalis* subsp. *pryoriana*	Coast Manna-gum	74	(GipP0053) Swamp Scrub	Retain	Yes

Appendix 5 Native Vegetation Removal Report

Native vegetation removal report

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

Date of issue: **14/07/2022**
Time of issue: **1:05 am**

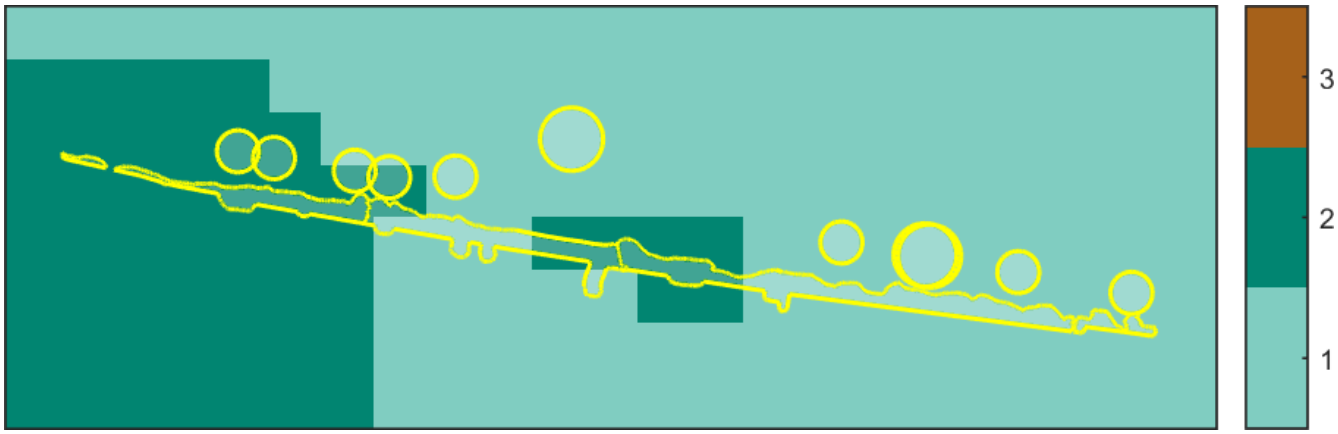
Report ID: BIO_2022_079

Project ID	36023_VegClearingV2_20220214

Assessment pathway

Assessment pathway	**Detailed Assessment Pathway**
Extent including past and proposed	0.847 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.847 ha
No. Large trees proposed to be removed	11
Location category of proposed removal	Location 2 The native vegetation is in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map). Removal of less than 0.5 hectares of native vegetation in this location will not have a significant impact on any habitat for a rare or threatened species.

1. Location map



Offset requirements if a permit is granted

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

General offset amount[1]	0.297 general habitat units
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Frankston City Council
Minimum strategic biodiversity value score[2]	0.171
Large trees	11 large trees

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

Appendix 1 includes information about the native vegetation to be removed

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

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

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

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

Next steps

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

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

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

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

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

Additional application requirements must be met including:

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

Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

For more information contact the DELWP Customer Service Centre 136 186

www.delwp.vic.gov.au

Appendix 1: Description of native vegetation to be removed

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

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

Species habitat units = extent x condition x species landscape factor x 2, where the species landscape factor = 0.5 + (habitat importance score/2)

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

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

General habitat units = extent x condition x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

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

Native vegetation to be removed

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
1-1	Patch	gipp0048	Least Concern	5	no	0.380	0.142	0.142	0.180		0.048	General
1-2	Patch	gipp0053	Endangered	2	no	0.620	0.206	0.206	0.173		0.112	General
1-3	Patch	gipp0053	Endangered	0	no	0.620	0.022	0.022	0.170		0.012	General
1-4	Patch	gipp0053	Endangered	0	no	0.620	0.005	0.005	0.570		0.004	General
1-5	Patch	gipp0053	Endangered	1	no	0.620	0.079	0.079	0.358		0.050	General
2-1	Scattered Tree	gipp0053	Endangered	1	no	0.200	0.070	0.038	0.170		0.007	General
2-2	Scattered Tree	gipp0053	Endangered	1	no	0.200	0.070	0.038	0.170		0.007	General
2-4	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.031	0.170		0.005	General
2-6	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.031	0.180		0.006	General

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
2-7	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.030	0.180		0.005	General
2-8	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.030	0.180		0.005	General
2-9	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.030	0.308		0.006	General
2-10	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.030	0.570		0.007	General
2-11	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.031	0.170		0.005	General
2-12	Scattered Tree	gipp0053	Endangered	0	no	0.200	0.031	0.031	0.170		0.005	General
2-13	Scattered Tree	gipp0053	Endangered	1	no	0.200	0.070	0.070	0.180		0.012	General

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

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

Species common name	Species scientific name	Species number	Conservation status	Group	Habitat impacted	% habitat value affected
Grey Billy-buttons	*Craspedia canens*	504643	Endangered	Dispersed	Habitat importance map	0.0001
Glossy Grass Skink	*Pseudemoia rawlinsoni*	12683	Vulnerable	Dispersed	Habitat importance map	0.0000
Veined Spear-grass	*Austrostipa rudis subsp. australis*	504940	Rare	Dispersed	Habitat importance map	0.0000
Swamp Everlasting	*Xerochrysum palustre*	503763	Vulnerable	Dispersed	Habitat importance map	0.0000
Growling Grass Frog	*Litoria raniformis*	13207	Endangered	Dispersed	Habitat importance map	0.0000
Spurred Helmet-orchid	*Corybas aconitiflorus*	500835	Rare	Dispersed	Habitat importance map	0.0000
Matted Flax-lily	*Dianella amoena*	505084	Endangered	Dispersed	Habitat importance map	0.0000
Floodplain Fireweed	*Senecio campylocarpus*	507136	Rare	Dispersed	Habitat importance map	0.0000
Plains Yam-daisy	*Microseris scapigera s.s.*	504657	Vulnerable	Dispersed	Habitat importance map	0.0000
Lewin's Rail	*Lewinia pectoralis pectoralis*	10045	Vulnerable	Dispersed	Habitat importance map	0.0000
Yarra Gum	*Eucalyptus yarraensis*	501326	Rare	Dispersed	Habitat importance map	0.0000
Arching Flax-lily	*Dianella sp. aff. longifolia (Benambra)*	505560	Vulnerable	Dispersed	Habitat importance map	0.0000
Pale Swamp Everlasting	*Coronidium gunnianum*	504655	Vulnerable	Dispersed	Habitat importance map	0.0000
Purple Blown-grass	*Lachnagrostis punicea subsp. filifolia*	504222	Rare	Dispersed	Habitat importance map	0.0000
Purple Diuris	*Diuris punctata*	501084	Vulnerable	Dispersed	Habitat importance map	0.0000
Grey Goshawk	*Accipiter novaehollandiae novaehollandiae*	10220	Vulnerable	Dispersed	Habitat importance map	0.0000
Melbourne Yellow-gum	*Eucalyptus leucoxylon subsp. connata*	504484	Vulnerable	Dispersed	Habitat importance map	0.0000
Southern Toadlet	*Pseudophryne semimarmorata*	13125	Vulnerable	Dispersed	Habitat importance map	0.0000

Black Falcon	*Falco subniger*	10238	Vulnerable	Dispersed	Habitat importance map	0.0000
White-throated Needletail	*Hirundapus caudacutus*	10334	Vulnerable	Dispersed	Habitat importance map	0.0000
Fringed Helmet-orchid	*Corybas fimbriatus*	500839	Rare	Dispersed	Habitat importance map	0.0000

Habitat group

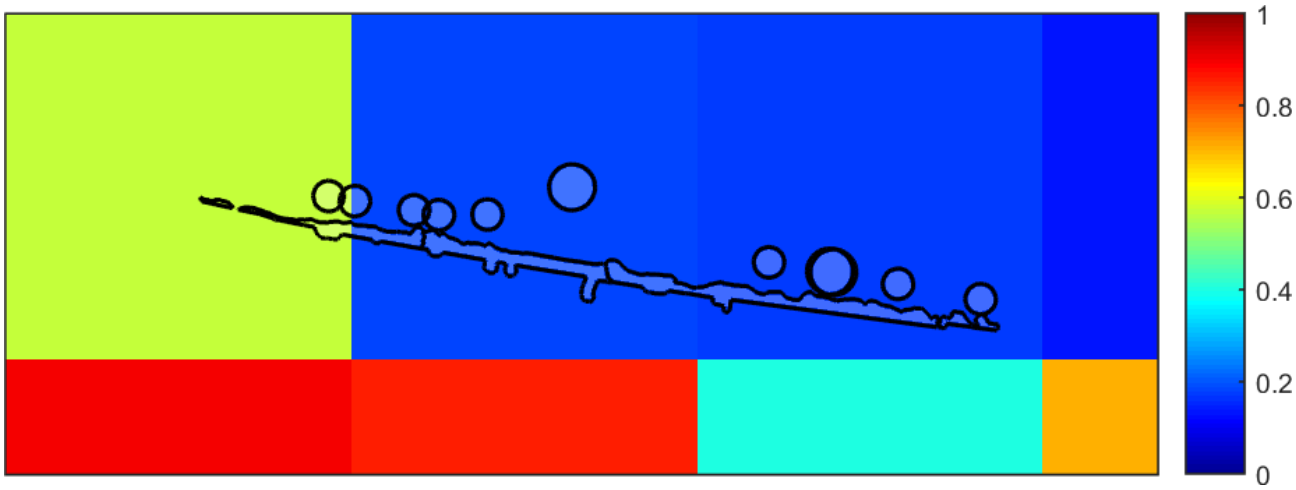
- Highly localised habitat means there is 2000 hectares or less mapped habitat for the species
- Dispersed habitat means there is more than 2000 hectares of mapped habitat for the species

Habitat impacted

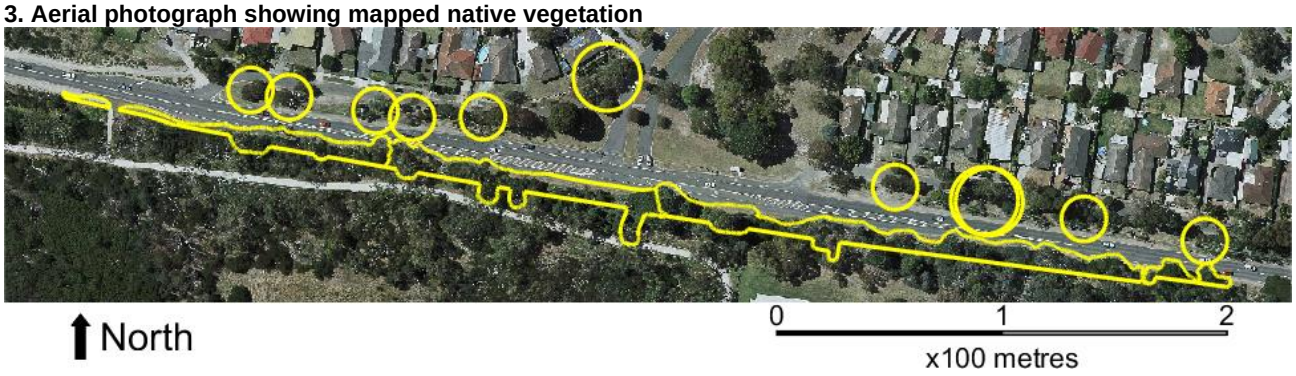
- Habitat importance maps are the maps defined in the Guidelines that include all the mapped habitat for a rare or threatened species
- Top ranking maps are the maps defined in the Guidelines that depict the important areas of a dispersed species habitat, developed from the highest habitat importance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

Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



4. Map of the property in context

Yellow boundaries denote areas of proposed native vegetation removal.

Report of available native vegetation credits

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

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

Date and time: 14/07/2022 01:12 **Report ID: 15014**

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.297	0.171	11	CMA	Port Phillip and Westernport
			or LGA	Frankston City

Details of available native vegetation credits on 14 July 2022 01:12

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0277	7.029	462	Port Phillip and Westernport	Mornington Peninsula Shire	No	Yes	No	Abezco, Ethos, VegLink
BBA-0670	17.868	149	Port Phillip and Westernport	Cardinia Shire	No	Yes	No	Abezco, VegLink
BBA-0677	17.807	1527	Port Phillip and Westernport	Whittlesea City	No	Yes	No	Abezco, VegLink
BBA-0678	46.625	2629	Port Phillip and Westernport	Nillumbik Shire	No	Yes	No	VegLink
BBA-0678_2	0.388	59	Port Phillip and Westernport	Nillumbik Shire	No	Yes	No	VegLink
BBA-2789	1.317	14	Port Phillip and Westernport	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2790	2.911	116	Port Phillip and Westernport	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2870	2.544	431	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
BBA-2871	16.335	1668	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
TFN-C1664	2.618	67	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	No	Yarra Ranges SC
VC_CFL-3084_01	0.583	428	Port Phillip And Westernport	Cardinia Shire	Yes	Yes	No	VegLink
VC_CFL-3687_01	0.884	86	Port Phillip And Westernport	Baw Baw Shire	Yes	Yes	No	Baw Baw SC
VC_CFL-3740_01	1.756	96	Port Phillip And Westernport	Cardinia Shire, Yarra Ranges Shire	Yes	Yes	No	Bio Offsets

VC_CFL-3740_01	0.425	25	Port Phillip And Westernport	Yarra Ranges Shire	Yes	Yes	No	Bio Offsets
VC_CFL-3762_01	2.496	132	Port Phillip And Westernport	Moorabool Shire	Yes	Yes	No	VegLink

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

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

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

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

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
VC_CFL-3710_01	7.606	322	Port Phillip And Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3744_01	3.717	384	Port Phillip And Westernport	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3746_01	4.962	563	Port Phillip And Westernport	Macedon Ranges Shire	Yes	Yes	No	VegLink

LT - Large Trees *CMA - Catchment Management Authority* *LGA - Municipal District or Local Government Authority*

Next steps

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

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

Broker contact details

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

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

Appendix 5a Evidence of native vegetation offset quote

vegetationlink

Our reference: VLQ-8297

Your reference: TBA

19 July 2022

Denise Montgomery
Department of Transport
Denise.Montgomery@roads.vic.gov.au

Dear Denise

RE: Quotation for the supply of native vegetation credits

Vegetation Link is an accredited offset provider with the Department of Environment, Land, Water & Planning (DELWP). We offer a specialised brokerage service to enable permit holders and developers to identify suitable native vegetation credits to meet their planning permit offset requirements.

Based on the information you have provided, I understand you require the following native vegetation offset:

Offset type	Vicinity	General habitat units (GHU)	Min. strategic biodiversity value (SBV)	Large trees
General	Port Phillip & Westernport CMA	0.297	0.171	11

To meet your offset requirements, you can purchase native vegetation credits from a third party as per the options quoted below[1]. This quotation is valid for 14 days, subject to credit availability and landholder pricing.

Option 1: CTA pathway – offset site located in the Moorabool Shire area (approx. 3-6 week turnaround from acceptance of quote)	
Cost of native vegetation credits – **invoiced by DELWP**	$52,580.00
Transaction fees – **invoiced by Vegetation Link**	$1,700.00
Total (ex. GST)	**$54,280.00**
Total (inc. GST)	**$59,708.00**

Option 2: 2 x CTA pathway – offset sites located in the Moorabool & Cardinia Shire areas (approx. 3-6 week turnaround from acceptance of quote)	
Cost of native vegetation credits – **invoiced by DELWP**	$43,560.00
Transaction fees for 2 CTAs – **invoiced by Vegetation Link**	$3,400.00
Total (ex. GST)	**$46,960.00**
Total (inc. GST)	**$51,656.00**

[1] *Note that the transaction fee includes DELWP NVOR transfer and allocation fees and a Vegetation Link fee*

If you would like to purchase credits, let us know that you accept the quote and return the attached **purchaser details form** by email. If more than one quotation option is provided above, specify which option you choose. Upon receipt of the form, we will begin the trade process. Further details of the process for credit allocation is in the FAQ below.

Should you have any queries, please do not hesitate to contact us on 1300 VEG LINK (1300 834 546) or email offsets@vegetationlink.com.au.

Sincerely,

Tesha Mahoney
Biodiversity Offset Broker

FAQs

What is a third party offset?

A third party offset is an offset site owned by another landowner who manages and protects native vegetation on their land. Landowners who establish these offset sites are required to:

- Enter into a Landowner Agreement for the specified offset site. A landowner agreement is in perpetuity and is binding upon the current and future landowners of the site. It permanently restricts use of the site for many purposes.
- Implement a detailed 10-year Management Plan endorsed by the DELWP Native Vegetation Offset Register to manage and improve the biodiversity values of the site.

How is the price of native vegetation offset credit (GHUs, GBEUs etc.) determined?

Landowners who own offset sites set their own price for native vegetation credits. They determine the price based on numerous factors. This includes but not limited to site establishment, the cost to manage the site in perpetuity (e.g., maintain fencing, control pest species), foregone use cost, and administrative costs. Depending on how the site is registered, the credit fee may be paid to either DELWP or directly to the landowner.

Further information about the work some of our landowners are doing can be found on the Vegetation Link website.

What is the process after I accept the quote?

After you accept the quote and return the purchaser table, the following steps will be undertaken:

1. We will set up a contract between the parties involved and send the contract out for signing by all parties.
2. Once the contract is signed by all parties, invoices will be issued for the fees listed in the quotation. We will send you two invoices, one for our transaction fee invoiced by Vegetation Link and one for the credit fee, usually to be paid to DELWP or the landowner. We recommend providing remittances for your payments.
3. Once payments are received, Vegetation Link will send you an allocated credit extract from the Native Vegetation Offset Register and your executed contract as evidence that you have purchased the offset.

How long will the process take? When will I get my credits?

Generally, the process from quote acceptance to having evidence of allocated credits takes between 2-6 weeks. This is dependent on a range of factors including the type of landholder agreement, contract types and organisational workflows. We work as quickly as possible to get your credits to you within this time period.

We note that you **cannot** remove vegetation until you have been given permission by the Responsible Authority (usually the council that has issued your permit).

What happens if I don't have a permit yet?

When people are buying credits before a permit is issued, the following three options are most common:

- You can pay for the offsets before the planning permit is available, and then the offsets are allocated to the permit when it is available. This will incur an additional $50 fee from DELWP. When considering this option, it is important to realise that your estimated offset requirements may be different than the actual permit requirements.
- You can wait for the planning permit to be approved first and then request a quote to meet the requirements in your permit. Should credits be available, you can then start the offset purchase process. We then use the planning permit number for allocating the credits. Allocating credits to the permit is evidence that you have purchased your offset.
- You can request a quote to confirm availability and to get an idea of the cost of offsetting before you apply for a permit. Once you receive the planning permit you can request an updated quote. It is at this point that you can then go through the offset purchase process.

We cannot guarantee credit availability until a) contracts are executed, or b) credits have been held via a pending trade lodged with DELWP Native Vegetation Offset Register.

We cannot guarantee price until a) a quote has been accepted within 14 days, and b) a Credit Trading Agreement is signed within 21 days, and c) the invoice for the credits is paid within 28 days of the date the invoice is issued.

If I sign the contract, does that mean I MUST pay for the credits?

Yes, you have entered into a contract agreeing to pay for the offset credits therein and are required to pay for those credits. The credits must be paid for within 28 days of the date of the invoice.

Can you hold the credits for me, as I want to pay later?

We are unable to hold credits for later payment. Please also see 'What happens if I don't have a permit yet?' above.

For further information, see our website, the DELWP website or call us any time on 1300 834 546.

Appendix 6 Fencing specifications

Photo 7 Example of temporary fencing and silt fence (black material) for Swamp Skink impact mitigation.

Photo 8 Example of temporary fence with silt fence (green material) for Swamp Skink mitigation.

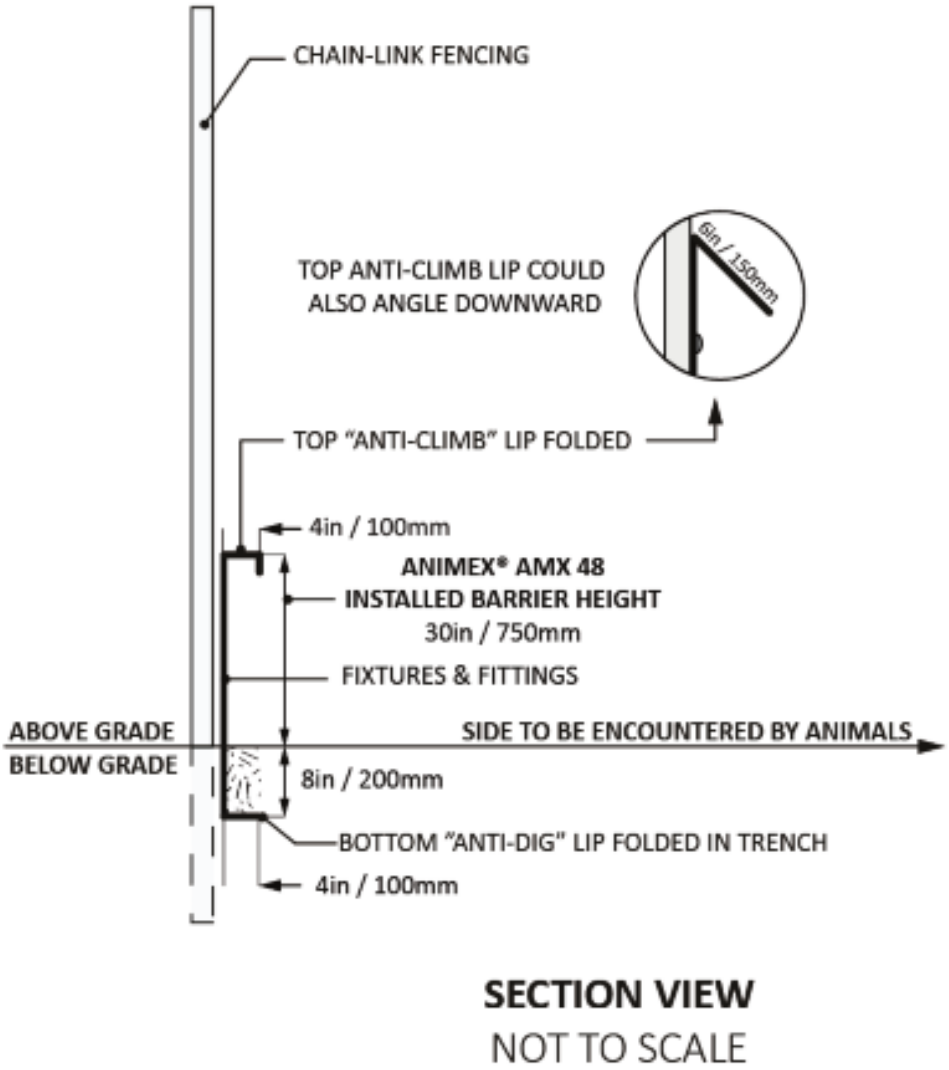


Photo 9 **Specifications for permanent cyclone fence including additional barrier for Swamp Skink as recommended in The Wildlife Fence Guide (Animex International 2021).**

Appendix 7 Arborist report

Greenwood Consulting P/L

Address: PO Box 130 Emerald Vic 3782
Phone: (03) 5968 6626
Fax: (03) 8669 4302
Mobile: 0419 581 058
Email: roger.g@rgc.net.au
A.B.N. 54 170 171 876
Web: www.rgc.net.au

For

Biosis P/L

Site location

Ballarto Road
Skye

Report type

Arboricultural
Construction Impact Assessment

Prepared by

Roger Greenwood

B. App. Sci. (Hort)
Dip. App. Sci. (Hort)
Adv. Cert. Arb.

Friday, 11 February 2022

Ref: 6610 220211 CIR Biosis Ballarto Cranbourne Rd 1911.Docx

Table of contents

1. Summary

This report was commissioned by Ms Kimberly Spragg of Biosis P/L to assess the condition of 308 trees located on or adjacent to Ballarto Road, Skye and to evaluate the impacts on these trees arising from the proposed development on this site.

This report is based on the previous reporting for this site undertaken for Habitat Management Services P/L in January 2020 (Ref: 5398 200121 CIR HMS Ballarto Cranbourne Rd 1911).

The tree data from the original report has been field verified and several trees have been added to the scope of the assessment as required by tree growth and a slight extension of the project to the east.

Of the 308 trees assessed as a part of this report:

1) 18 Trees are of High or Very High retention value. Of these trees;
    a) 6 Trees are within or are very close to the proposed works and have an Extreme or High construction impact.
        i) These trees are unlikely to remain viable within the proposed works.
    b) 3 Trees have a moderate construction impact and are likely to remain viable within the proposed works.
    c) 9 Trees have a construction impact of low or none and are likely to remain viable within the proposed works.
2) 47 trees are of Moderate retention value. Of these trees;
    a) 19 Trees are within or are very close to the proposed works and have an Extreme or High construction impact.
        i) These trees are unlikely to remain viable within the proposed works.
    b) 28 Trees have a construction impact of low or none and are likely to remain viable within the proposed works.
3) 183 trees are of Low or Very Low retention value. Of these trees;
    a) 67 Trees are within or are very close to the proposed works and have an Extreme or High construction impact.
        i) These trees are unlikely to remain viable within the proposed works.
    b) 3 Trees have a moderate construction impact and are likely to remain viable within the proposed works.
    c) 113 Trees have a construction impact of low or none and are likely to remain viable within the proposed works.
4) 60 trees have a retention value of Remove.
    a) These trees generally have a useful life expectancy (ULE) of < 5 years and are not considered suitable for retention within the proposed development.
        i) These trees are expected to be removed as a part of the proposed works where they are located on land controlled by the roads authority.
        ii) Trees located on adjoining properties or land not otherwise controlled by the roads authority may need to be retained.

2. Impact of proposed design changes

The following table sets out the total numbers of trees that will be impacted by the proposed works based on the previous February and current May designs (Table 1).

Table 1 Tree impacts comparison between previous and current design

	February design			May design		
Retention value / Impact	**Extreme / high**	**Moderate**	**Low / none**	**Extreme / high**	**Moderate**	**Low / None**
High / Very high	7	2	9	6	3	9
Moderate	17	2	27	19	0	28
Low / Very low	65	11	106	67	3	113

3. Document control

File reference	File type	Modifications	Date
5398 191220	*CIR*	Original document. Construction impact assessment for 286 trees.	20/12/2019
5398 200121	*CIR*	Correction of minor typographical errors.	21/01/2020
6610 220211	*CIR*	Report modified for new plans, extended scope and review of tree condition for 308 Trees.	11/02/2022
6610 220606	*CIR*	Report modified for new plans, extended scope.	06/06/2022

4. Introduction

This report was commissioned by Ms Kimberly Spragg of Biosis P/L to assess the condition of 286 trees located on or adjacent to Ballarto Road, Skye and to evaluate the impacts on these trees arising from the proposed development on this site.

This report is based on the previous reporting for this site undertaken for Habitat Management Services P/L in January 2020 (Ref: 5398 200121 CIR HMS Ballarto Cranbourne Rd 1911).

The tree data from the original report has been field verified and several trees have been added to the scope of the assessment as required by tree growth and a slight extension of the project to the east.

Specifically the report addresses the following issues:

- The health and structural condition of the trees.
- The suitability of these trees for retention on the site in light of the proposed development.
- The impact of the development on these trees.
- Recommendations for the protection of these trees.

This report is based, in part, on the plans provided and the accuracy of these plans is assumed. Inaccuracies in the plans provided may invalidate all or parts of this report.

The location of services within the site is not known and the possible impact of any services installation on the retained trees at this site is not included within this report.

The site was inspected by Roger Greenwood of this office on Tuesday 10th December and Wednesday 11th December 2019.

5. Documents reviewed

The following documents were reviewed in the preparation of this report.

Date	Title	Author	Company
Not dated	Not titled (Proposed works plan)	Not stated	Not stated (Vic Roads)
18/05/2021	Functional Layout. (Ref: V21067- DRG-CI-1001. Ver B Sheet 1 of 3).	SP	B G & E
18/05/2021	Functional Layout. (Ref: V21067- DRG-CI-1002. Ver B. Sheet 2 of 3).	SP	B G & E
18/05/2021	Functional Layout. (Ref: V21067- DRG-CI-1003. Ver B. Sheet 3 of 3).	SP	B G & E
03/04/2019	AutoCAD file of Feature & Levels Survey (1900254--fs-01>dgn)	Kyle Smith	Not stated
03/04/2019	AutoCAD file of Enhancement File (1900254--es-01>dgn)	Kyle Smith	Not stated
03/04/2019	AutoCAD file of Enhancement File (1900254-CDS-01>txt)	Kyle Smith	Not stated
10/05/2022	City of Frankston Boundary Acquisition & Tree Removal Sketch (Ref: V21199-SKT-CI_0001.dwg Issue B)	TG	BG & E

6. Scope

Tree assessment was undertaken along the north and south sides of Ballarto Road as set out in Figure 1.

The scope of works has increased to the east by approximately 70 metres and a total of 18 trees have been added to the assessment in this area.

A total of four trees have been added to the assessment because of growth of younger trees.

All of those trees that are considered significant to the site and that are located within the assessment area provided are addressed in this report.

Significant trees are generally those that are greater than five metres in height and/or with a Diameter at Breast Height (DBH) of greater than 15 cm.

Figure 1 Site scope plan

7. Notes

1) No drainage is shown on the plans provided and, if drainage is required, then the construction impact assessment for this project may need to be revised.

2) An image for Tree 261 was not captured at the site inspection.

   a) An image from Google Street View has been used to illustrate this tree.

      i) The small tree adjacent to Tree 261 shown in this image no longer exists at this site.

3) The tree GPS tree locations used in the previous reporting have been adjusted in this report to coincide with the tree locations shown on the feature and levels survey provided.

   a) Some level of ambiguity exists between the surveyed tree locations and the GPS tree locations where trees exist on the survey that were not found in the GPS tree assessments and trees exist in the GPS assessment that were not included in the feature and levels survey.

      i) While some of these ambiguities have been resolved a number have not yet been resolved.

4) The construction proximity for those trees that are well removed from the proposed works has been estimated rather than measured.
5) Tree removal and retention colour coding has not been updated in the site plans prepared for this report and colour coding in this report as per the previous report (6610 220211 CIR Biosis Ballarto Cranbourne Rd 1911).
6) Tree 390 is a failed tree that has been largely removed from the site.

8. Methodology

On Tuesday 10th December and Wednesday the 11th December 2019 a visual tree assessment (VTA) inspection was conducted from the ground by Roger Greenwood of this office, of 286 trees to the north and south of Ballarto Road, Skye.

Trees were assessed on both the north and south sides of Ballarto Road from approximately 235 metres to the west of Lyebird Drive to approximately 365 metres to the east.

Tree height has generally been measured for higher value trees and canopy width has generally been estimated.

A single image was captured for each tree.

Diameter at Breast Height (DBH) was measured using a Yamayo Million diameter tape for moderate, high and very high value trees. The DBH for other trees was estimated.

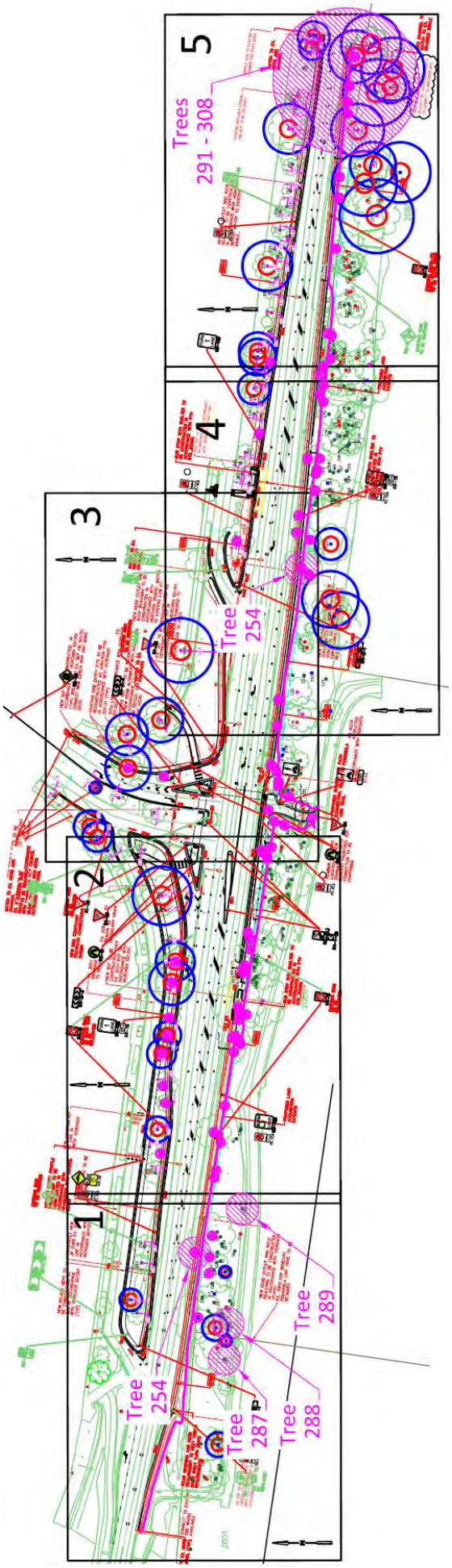
A Tree Protection Zone (TPZ) and a Structural Root Zone (SRZ) was calculated for each tree. TPZ intrusions were calculated using a straight line TPZ calculation method which assumes that all TPZ intrusions are directly across the TPZ.

Further analysis should be undertaken once more detailed plans are available for Moderate, High and Very High retention value trees.

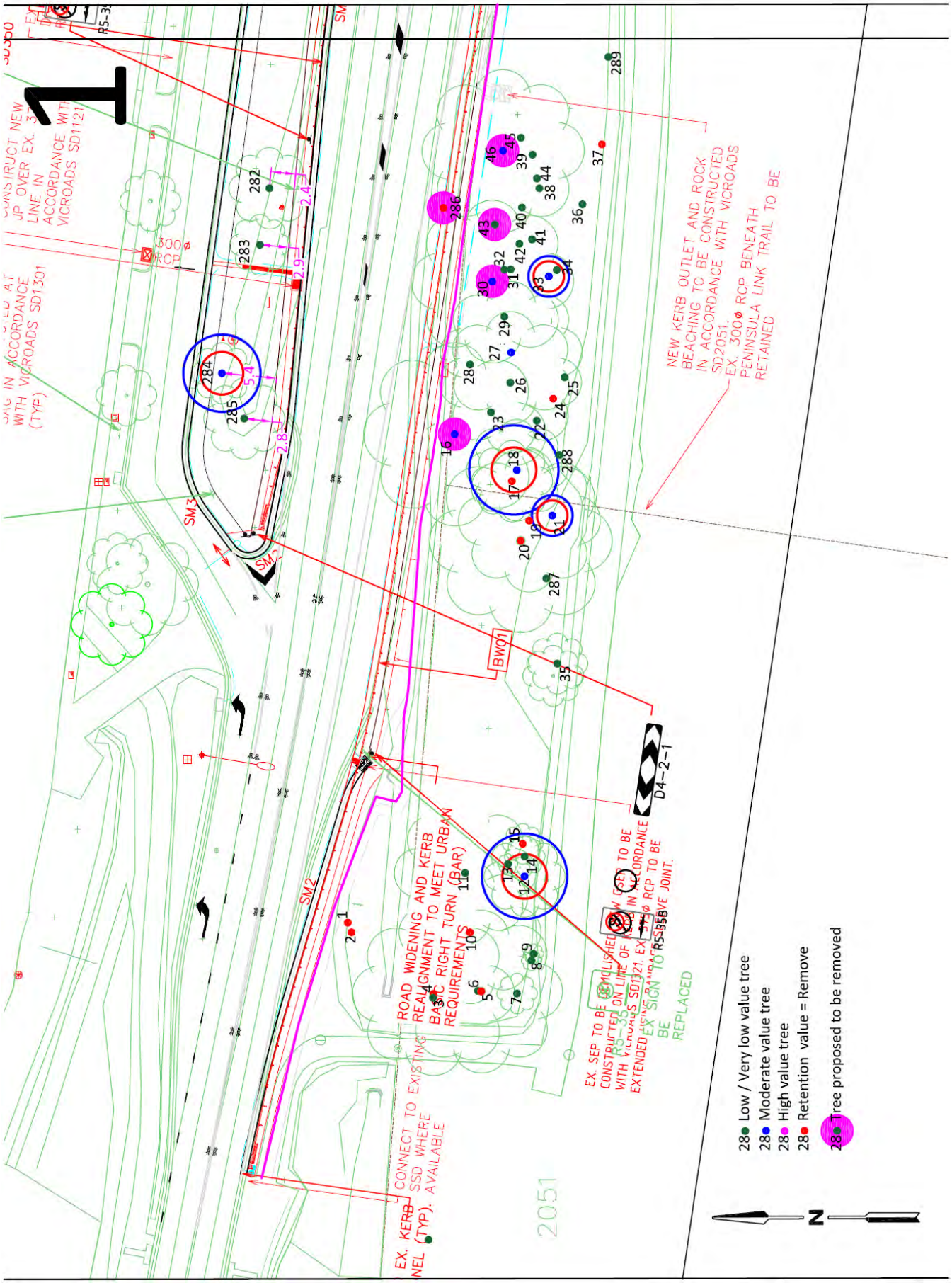
The following notes should be considered in the interpretation of this report:

1) Trees where the proposed works are within 1 metre of the trunk centre are regarded as being removed as a part of these works.
    a) These trees are listed in the report as “Removed” and are not addressed in the Construction Impact section of this report.
2) Construction impacts have only been addressed for those trees that are assessed as “Moderate”, “High” or “Very High” Retention Value.
3) Tree Protection Zones and Structural Root Zones are shown on the small scale site plans only for trees that are:
    a) Moderate or high retention value.
    b) Outside the proposed works footprint by more than 1.0 metres.
4) Some of the trees assessed for this report are prostrate *Leptospermum laevigatum* (Coast Tea Tree). It is likely that the canopies of these trees will intrude onto the area of proposed works and that some level of pruning may well be required to undertake the required construction works.
    a) The impact of any required pruning works on these trees has not been included in this report.
    b) Further analysis will be required for these trees.

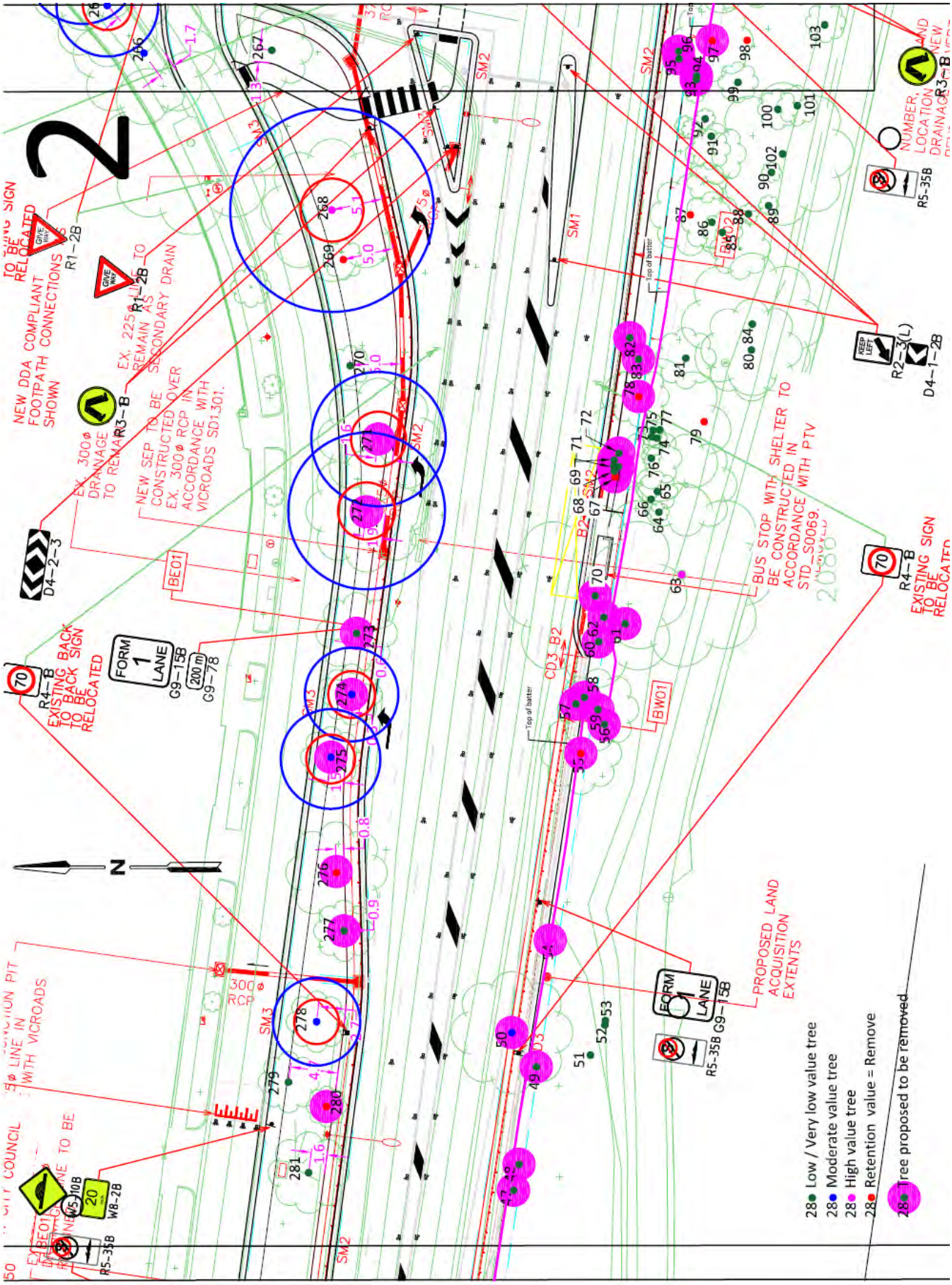
9. Site plan (All)



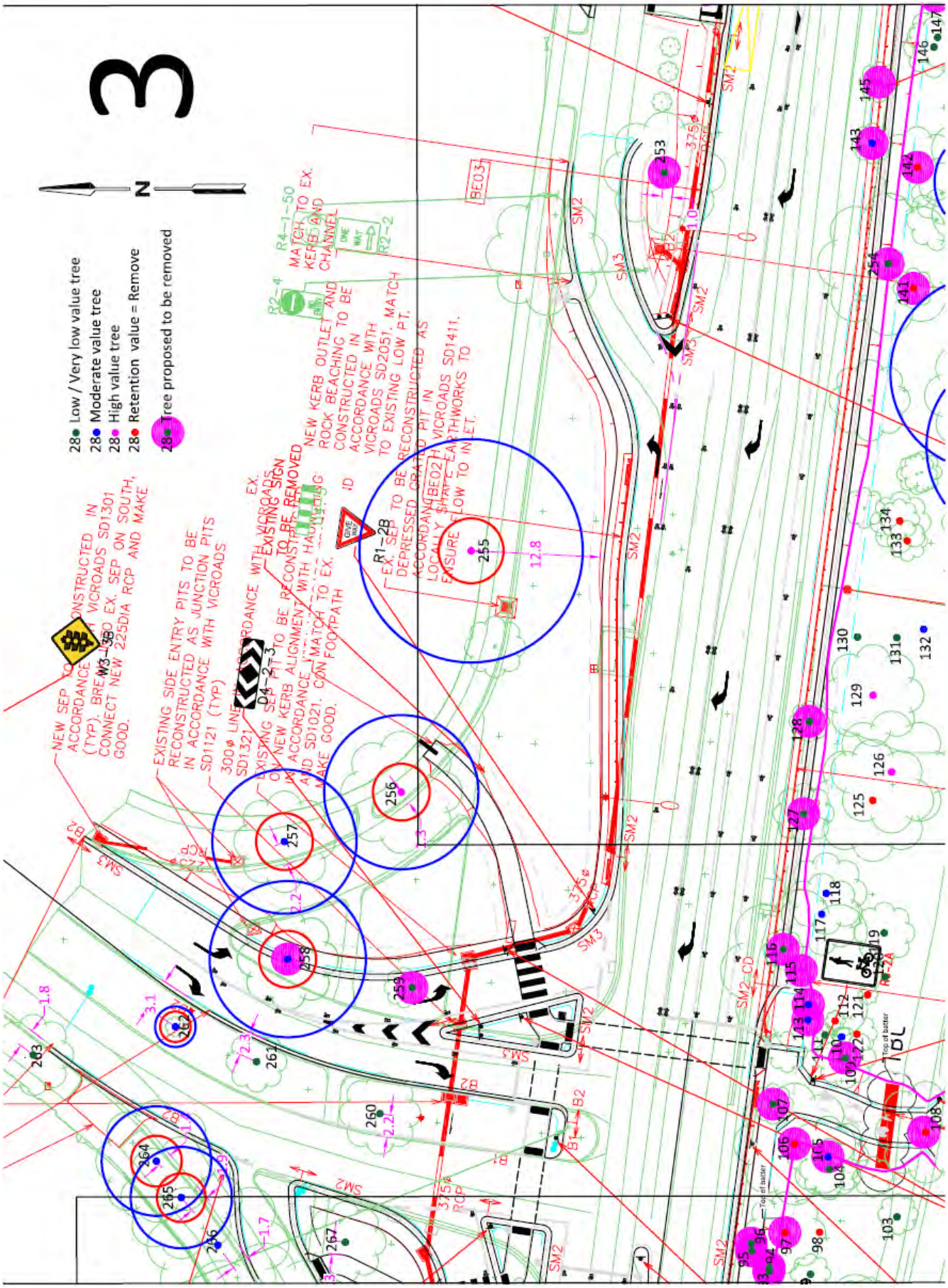
9.1. Site plan 1



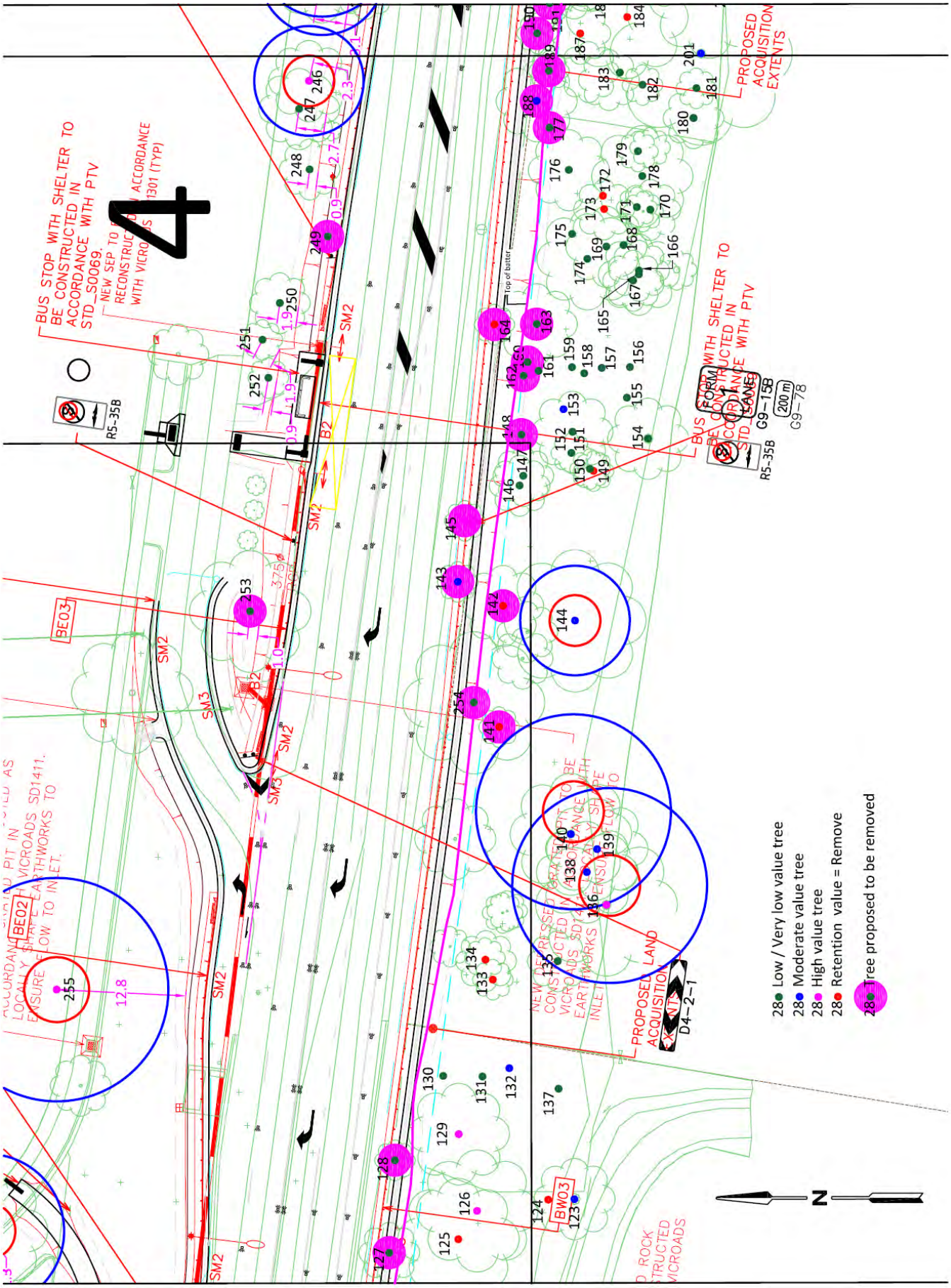
9.2. Site plan 2



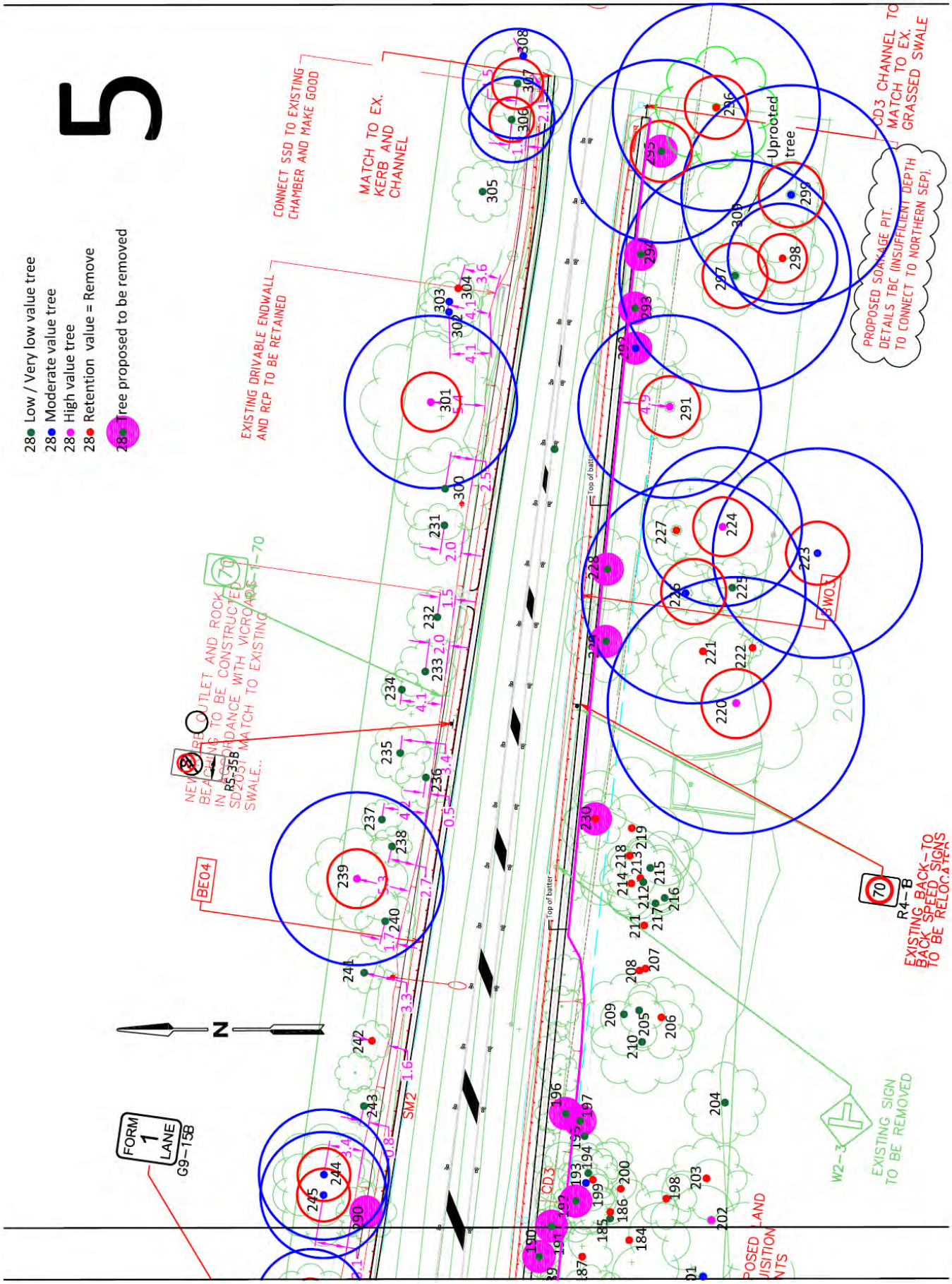
9.3. Site plan 3



9.4. Site plan 4



9.5. Site plan 5



10. Tree summary data

This table contains a summary of data pertaining to all trees shown and numbered on the enclosed feature and levels survey.

Underlined and italicised species names have not been assessed. Generally these trees are <5m tall, not found or stumps. The construction impact values are blank for these records.

1. **Retention value**: The retention value of the tree to the site.
    a. Tree number and species name are **Bold** for High and Very high values trees.
2. **Retained?:** Indicates whether the tree is proposed to be retained on the site.
3. **Construction impact:** Indicates the likely impact of the proposed development on the tree and is based on a straight line TPZ intrusion. Complex TPZ intrusions are not analysed in this table.
    a. **None:** Works do not intrude onto the tree's TPZ.
    b. **Low:** Construction intrusion is less than 10% of TPZ and contiguous area exists to compensate for any loss.
    c. **Moderate:** Construction intrusion is between 10% and 25% of TPZ. Construction methods or other considerations may allow these trees to remain viable. Generally further analysis is required..
    d. **High:** Construction intrusion is greater than 25% and it is generally considered that these trees will not remain viable within the development as currently proposed.
    e. **Extreme:** These trees are located within the proposed development or are within approximately 1 metre of the proposed works. These trees will not remain viable within the development as currently proposed.
    f. **Blank:** The tree has not been assessed.

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
1	Tamarix parviflora	Remove.	Retained	Low	Site	1.5	2	5/47
2	Tamarix parviflora	Remove.	Retained	None	Site	1.5	2.2	7/57
3	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	5/47
4	Eucalyptus ovata	Remove.	Retained	None	Site	2.8	7.2	12/189
5	Eucalyptus ovata	Remove.	Retained	None	Site	2.9	7.8	15/204
6	Eucalyptus ovata	Very low	Retained	None	Site	1.5	2	7/50
7	Eucalyptus ovata	Very low	Retained	None	Site	1.5	2	5/47
8	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	5/28
9	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	5/31
10	Eucalyptus ovata	Remove.	Retained	None	Site	3.2	11.4	9/298
11	Eucalyptus ovata	Low	Retained	None	Site	2.9	8.6	15/226
12	Eucalyptus ovata	Moderate	Retained	None	Site	2.2	4.2	11/110
13	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	5/25
14	Eucalyptus ovata	Low	Retained	None	Site	1.7	2.6	9/69
15	Eucalyptus ovata	Remove.	Retained	None	Site	1.7	2.8	8/72
16	Eucalyptus ovata	Moderate	Removed	High	Site	3	8.8	15/229

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
17	Eucalyptus ovata	Remove.	Retained	None	Site	2.5	5.4	11/141
18	Eucalyptus ovata	Moderate	Retained	None	Site	2.2	4.4	11/116
19	Eucalyptus ovata	Remove.	Retained	None	Site	2.6	6	10/157
20	Eucalyptus ovata	Remove.	Retained	None	Site	2.9	8.4	16/220
21	Eucalyptus ovata	Moderate	Retained	None	Site	1.5	2	5/38
22	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/50
23	Eucalyptus ovata	Low	Retained	Low	Site	2.5	5.8	11/151
24	Eucalyptus ovata	Remove.	Retained	None	Site	2.4	4.8	7/126
25	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/31
26	Eucalyptus ovata	Low	Retained	Low	Site	2.7	6.7	11/176
27	Pinus sylvestris	Moderate	Retained	None	Site	1.8	3.1	14/82
28	Pinus sylvestris	Low	Retained	Low	Site	2	3.5	8/91
29	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/31
30	Eucalyptus ovata	Moderate	Removed	Moderate	Site	2.8	7.4	14/195
31	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	6/31
32	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/25
33	Eucalyptus botryoides	Moderate	Retained	None	Site	1.5	2	6/31
34	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/44
35	Eucalyptus ovata	Low	Retained	None	Site	2.2	4.4	9/116
36	Melaleuca armillaris	Low	Retained	None	Site	1.5	2	5/35
37	Eucalyptus ovata	Remove.	Retained	None	Site	1.8	3	7/79
38	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	8/35
39	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	8/38
40	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	7/38
41	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	6/31
42	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	6/31
43	Melaleuca ericifolia	Low	Removed	None	Site	1.5	2	5/31
44	Acacia sophorae	Low	Retained	None	Site	1.5	2	5/31
45	Melaleuca ericifolia	Low	Retained	None	Site	1.5	2	5/31
46	Eucalyptus ovata	Moderate	Removed	Moderate	Site	2.6	5.9	12/154
47	Eucalyptus ovata	Low	Removed	High	Site	2.2	4.2	9/110
48	Acacia melanoxylon	Very low	Removed	High	Site	1.5	2	4/47
49	Acacia sophorae	Low	Removed	High	Site	1.5	2	5/50
50	Eucalyptus ovata	Moderate	Removed	Extreme	Site	2.4	4.9	13/129
51	Acacia sophorae	Low	Retained	None	Site	1.5	2	6/44
52	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	6/31
53	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	7/38
54	Eucalyptus ovata	High	Removed	Extreme	Site	3.3	11.9	14/311
55	Eucalyptus ovata	Remove.	Removed	Extreme	Site	3.1	10.2	14/267

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
56	Pittosporum undulatum	Low	Removed	None	Site	1.5	2	5/31
57	Acacia sophorae	Low	Removed	Extreme	Site	1.5	2	4/50
58	Eucalyptus ovata	Low	Removed	Extreme	Site	2.6	5.9	10/154
59	Eucalyptus ovata	Low	Removed	Moderate	Site	1.5	2	7/44
60	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2.3	7/60
61	Eucalyptus ovata	Low	Removed	Low	Site	1.5	2	9/44
62	Eucalyptus ovata	Low	Removed	Extreme	Site	2.9	8.5	12/223
63	Eucalyptus ovata	High	Retained	Moderate	Site	3.1	10.2	16/267
64	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	6/28
65	Acacia melanoxylon	Low	Retained	None	Site	1.5	2.3	6/60
66	Acacia melanoxylon	Low	Removed	Low	Site	1.5	2	5/47
67	Eucalyptus ovata	Remove.	Removed	Extreme	Site	2	3.6	6/94
68	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/31
69	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/25
70	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/25
71	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/28
72	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	6/38
73	Acacia melanoxylon	Low	Retained	Moderate	Site	1.5	2	7/38
74	Acacia melanoxylon	Low	Retained	Low	Site	1.5	2.2	6/57
75	Acacia melanoxylon	Low	Retained	Moderate	Site	1.5	2	7/31
76	Acacia melanoxylon	Low	Retained	Low	Site	1.5	2	6/44
77	Acacia melanoxylon	Low	Retained	Extreme	Site	1.5	2	6/44
78	Acacia sophorae	Remove.	Removed	Extreme	Site	1.7	2.8	5/72
79	Eucalyptus ovata	Remove.	Retained	Moderate	Site	3	9.6	8/251
80	Eucalyptus ovata	Low	Retained	None	Site	2.9	8.5	14/223
81	Acacia melanoxylon	Low	Retained	Low	Site	1.7	2.8	7/72
82	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/38
83	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	7/47
84	Eucalyptus ovata	Low	Retained	None	Site	2.7	7	12/182
85	Acacia melanoxylon	Low	Retained	None	Site	2	3.6	10/94
86	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	9/50
87	Acacia sophorae	Remove.	Removed	Moderate	Site	1.6	2.4	4/63
88	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	8/50
89	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	10/53
90	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	8/41
91	Acacia melanoxylon	Low	Retained	High	Site	2	3.6	10/94
92	Pittosporum undulatum	Low	Retained	Moderate	Site	1.5	2	5/31
93	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	5/47
94	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	6/35

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
95	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2	7/41
96	Acacia melanoxylon	Low	Removed	Extreme	Site	1.5	2.2	6/57
97	Eucalyptus ovata	Remove.	Removed	Extreme	Site	2.4	4.8	12/126
98	Eucalyptus ovata	Remove.	Retained	Low	Site	2.4	4.8	12/126
99	Acacia melanoxylon	Low	Retained	None	Site	1.8	3	8/79
100	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	7/35
101	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	7/50
102	Eucalyptus ovata	Low	Retained	Moderate	Site	3.1	10.7	15/280
103	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	6/35
104	Acacia melanoxylon	Low	Retained	Moderate	Site	1.5	2.3	9/60
105	Acacia melanoxylon	Moderate	Removed	High	Site	1.8	3.1	10/82
106	Acacia melanoxylon	Remove.	Removed	Extreme	Site	2.9	8.4	15/220
107	Pittosporum undulatum	Low	Removed	Extreme	Site	1.5	2	5/31
108	Eucalyptus ovata	Remove.	Removed	Extreme	Site	2.5	5.3	11/138
109	Acacia melanoxylon	Low	Removed	High	Site	1.5	2.3	6/60
110	Acacia melanoxylon	Moderate	Retained	Low	Site	1.9	3.2	11/85
111	Acacia melanoxylon	Low	Retained	Moderate	Site	1.5	2	8/41
112	Acacia melanoxylon	Remove.	Retained	Low	Site	1.5	2	5/25
113	Pittosporum undulatum	Moderate	Removed	Extreme	Site	1.5	2	5/31
114	Pittosporum undulatum	Moderate	Removed	Extreme	Site	1.5	2	5/31
115	Pinus halepensis	High	Removed	Extreme	Site	3.3	11.8	24/308
116	Pittosporum undulatum	Low	Removed	Extreme	Site	1.5	2	5/31
117	Pinus halepensis	Moderate	Retained	High	Site	2.5	5.8	15/151
118	Pinus halepensis	Moderate	Retained	High	Site	2.5	5.8	16/151
119	Pittosporum undulatum	Low	Retained	None	Site	1.5	2	5/35
120	Acacia melanoxylon	Low	Retained	None	Site	1.5	2	5/28
121	Acacia melanoxylon	Remove.	Retained	None	Site	1.5	2	5/25
122	Eucalyptus sp.	Remove.	Retained	Moderate	Site	2.5	5.8	12/151
123	Eucalyptus ovata	Moderate	Retained	None	Site	3.6	14.8	15/386
124	Acacia sophorae	Remove.	Retained	None	Site	2	3.6	6/94
125	Acacia melanoxylon	Remove.	Retained	Low	Site	2.6	6	13/157
126	Eucalyptus camaldulensis	High	Retained	None	Site	2.5	5.5	17/145
127	Pittosporum undulatum	Low	Removed	Extreme	Site	1.5	2	6/47
128	Acacia melanoxylon	Very low	Removed	Extreme	Site	1.5	2	4/47
129	Eucalyptus camaldulensis	High	Retained	Moderate	Site	3	9.1	21/239
130	Acacia melanoxylon	Low	Retained	Low	Site	1.7	2.6	8/69
131	Acacia melanoxylon	Low	Retained	None	Site	2.2	4.1	10/107
132	Leptospermum laevigatum	Moderate	Retained	None	Site	2.4	4.8	5/126
133	Acacia sophorae	Remove.	Retained	None	Site	1.5	2	5/47

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
134	Acacia sophorae	Remove.	Retained	None	Site	1.6	2.4	6/63
135	Acacia sophorae	Low	Retained	None	Site	1.6	2.4	5/63
136	Eucalyptus pryoriana	High	Retained	None	Site	3	9.6	15/251
137	Leptospermum laevigatum	Very low	Retained	None	Site	2	3.6	4/94
138	Eucalyptus pryoriana	Moderate	Retained	None	Site	2.6	6.4	12/167
139	Eucalyptus pryoriana	Moderate	Retained	None	Site	2.3	4.7	10/123
140	Eucalyptus pryoriana	Moderate	Retained	None	Site	3	9.6	13/251
141	Eucalyptus pryoriana	Remove.	Removed	High	Site	3	9.6	9/251
142	Acacia sophorae	Remove.	Removed	Low	Site	1.6	2.4	6/63
143	Banksia integrifolia	Moderate	Removed	Extreme	Site	1.5	2	5/31
144	Eucalyptus pryoriana	Moderate	Retained	None	Site	2.5	5.4	11/141
145	Banksia integrifolia	High	Removed	Extreme	Site	2	3.5	10/91
146	Leptospermum laevigatum	Low	Removed	Low	Site	1.5	2	5/31
147	Leptospermum laevigatum	Low	Removed	Low	Site	1.5	2	5/47
148	Leptospermum laevigatum	Very low	Removed	Moderate	Site	1.5	2	4/31
149	Acacia sophorae	Remove.	Retained	None	Site	1.5	2	5/47
150	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/47
151	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/31
152	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/47
153	Pinus halepensis	Moderate	Retained	Low	Site	2.7	6.7	14/176
154	Eucalyptus pryoriana	Low	Retained	None	Site	3	9.7	6/255
155	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	6/31
156	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	6/47
157	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/25
158	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/25
159	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	5/31
160	Acacia sophorae	Low	Removed	High	Site	1.5	2	6/41
161	Leptospermum laevigatum	Low	Retained	Low	Site	1.5	2	5/31
162	Leptospermum laevigatum	Low	Removed	High	Site	1.5	2	5/31
163	Leptospermum laevigatum	Low	Removed	Moderate	Site	1.5	2	4/25
164	Eucalyptus pryoriana	Remove.	Removed	Extreme	Site	2.4	4.8	5/126
165	Pinus pinaster	Low	Retained	None	Site	2.6	6	13/157
166	Leptospermum laevigatum	Low	Retained	None	Site	2.2	4.2	9/110
167	Leptospermum laevigatum	Low	Retained	None	Site	1.7	2.8	5/72
168	Leptospermum laevigatum	Low	Retained	None	Site	1.8	2.9	9/75
169	Leptospermum laevigatum	Very low	Retained	None	Site	1.5	2	4/47
170	Leptospermum laevigatum	Low	Retained	None	Site	2.2	4.2	7/110
171	Leptospermum laevigatum	Low	Retained	None	Site	2	3.6	9/94
172	Leptospermum laevigatum	Remove.	Retained	None	Site	2.2	4.2	9/110

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
173	Leptospermum laevigatum	Remove.	Retained	None	Site	2	3.6	9/94
174	Leptospermum laevigatum	Low	Retained	None	Site	2.2	4.1	4/107
175	Leptospermum laevigatum	Low	Retained	Low	Site	2	3.6	4/94
176	Leptospermum laevigatum	Low	Retained	Moderate	Site	2.4	4.8	6/126
177	Leptospermum laevigatum	Low	Removed	High	Site	1.6	2.4	5/63
178	Leptospermum laevigatum	Low	Retained	None	Site	2.2	4.2	5/110
179	Leptospermum laevigatum	Low	Retained	None	Site	2	3.6	5/94
180	Leptospermum laevigatum	Low	Retained	None	Site	2	3.6	6/94
181	Leptospermum laevigatum	Low	Retained	None	Site	1.6	2.4	5/63
182	Leptospermum laevigatum	Low	Retained	None	Site	1.5	2	7/53
183	Leptospermum laevigatum	Low	Retained	None	Site	1.6	2.4	7/63
184	Leptospermum laevigatum	Remove.	Retained	None	Site	2.5	5.4	6/141
185	Leptospermum laevigatum	Low	Retained	None	Site	2.1	4	7/104
186	Leptospermum laevigatum	Remove.	Retained	None	Site	2.2	4.2	7/110
187	Leptospermum laevigatum	Remove.	Retained	Low	Site	1.8	3	5/79
188	Pinus pinaster	Moderate	Removed	Extreme	Site	2.6	6	14/157
189	Pinus pinaster	Low	Removed	Extreme	Site	1.8	3	11/79
190	Pinus pinaster	Low	Removed	Extreme	Site	1.8	3	11/79
191	Pinus pinaster	Low	Removed	Extreme	Site	1.9	3.4	11/88
192	Leptospermum laevigatum	Low	Removed	High	Site	2.4	4.8	8/126
193	Pinus pinaster	Moderate	Retained	High	Site	2.6	6	14/157
194	Leptospermum laevigatum	Low	Retained	High	Site	2.4	4.8	11/126
195	Leptospermum laevigatum	Very low	Retained	High	Site	2	3.6	4/94
196	Leptospermum laevigatum	Low	Removed	Extreme	Site	1.5	2	4/47
197	Leptospermum laevigatum	Very low	Removed	High	Site	1.5	2	4/47
198	Leptospermum laevigatum	Remove.	Retained	None	Site	2.4	4.8	6/126
199	Leptospermum laevigatum	Remove.	Retained	Low	Site	1.8	3	5/79
200	Leptospermum laevigatum	Remove.	Retained	None	Site	1.6	2.4	5/63
201	Eucalyptus pryoriana	Moderate	Retained	None	Site	3.1	10.1	15/264
202	Eucalyptus pryoriana	High	Retained	None	Site	3	8.9	15/233
203	Leptospermum laevigatum	Remove.	Retained	None	Site	2.4	4.8	8/126
204	Eucalyptus pryoriana	Low	Retained	None	Site	2.7	6.5	10/170
205	Leptospermum laevigatum	Low	Retained	None	Site	2.5	5.4	10/141
206	Leptospermum laevigatum	Remove.	Retained	None	Site	1.8	3	5/79
207	Leptospermum laevigatum	Remove.	Retained	None	Site	2.5	5.4	2/141
208	Leptospermum laevigatum	Remove.	Retained	None	Site	2.5	5.4	3/141
209	Leptospermum laevigatum	Low	Retained	None	Site	1.8	3	5/79
210	Leptospermum laevigatum	Very low	Retained	None	Site	1.8	3	4/79
211	Leptospermum laevigatum	Remove.	Retained	None	Site	2	3.6	3/94

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
212	Leptospermum laevigatum	Low	Retained	None	Site	1.8	3	5/79
213	Leptospermum laevigatum	Remove.	Retained	None	Site	1.8	3.1	7/82
214	Leptospermum laevigatum	Remove.	Retained	None	Site	1.8	3	4/79
215	Leptospermum laevigatum	Low	Retained	None	Site	1.8	3	6/79
216	Leptospermum laevigatum	Low	Retained	None	Site	2.4	4.8	5/126
217	Leptospermum laevigatum	Very low	Retained	None	Site	1.8	3	4/79
218	Eucalyptus pryoriana	Remove.	Retained	Low	Site	2.8	7.4	9/195
219	Eucalyptus pryoriana	Remove.	Retained	Low	Site	2.7	7	12/182
220	Banksia integrifolia	High	Retained	None	Site	3.4	12.6	19/330
221	Banksia integrifolia	Remove.	Retained	None	Site	2.6	6.4	13/167
222	Banksia integrifolia	Remove.	Retained	None	Site	3.2	11	15/289
223	Banksia integrifolia	Moderate	Retained	None	Site	3.1	10.3	17/270
224	Banksia integrifolia	High	Retained	None	Site	2.9	7.8	17/204
225	Banksia integrifolia	Low	Retained	None	Site	2.1	3.8	7/101
226	Banksia integrifolia	Moderate	Retained	Low	Site	3.2	11	18/289
227	Banksia integrifolia	Remove.	Retained	Moderate	Site	3.1	10.1	17/264
228	Melaleuca armillaris	Low	Removed	Extreme	Site	2.4	4.8	7/126
229	Melaleuca armillaris	Low	Removed	High	Site	2.8	7.6	7/198
230	Acacia sophorae	Remove.	Removed	Extreme	Site	1.6	2.4	5/63
231	Eucalyptus cladocalyx 'Nana'	Low	Retained	Moderate	Site	1.8	2.9	7/75
232	Eucalyptus cladocalyx 'Nana'	Low	Retained	High	Site	2.4	5.2	8/135
233	Eucalyptus cladocalyx 'Nana'	Low	Retained	Moderate	Site	2.3	4.6	9/119
234	Eucalyptus gomphocephala	Low	Retained	None	Site	2	3.5	6/91
235	Eucalyptus leucoxylon	Low	Retained	Low	Site	2.3	4.6	8/119
236	Melaleuca armillaris	Very low	Removed	High	Site	2.3	4.7	4/123
237	Agonis flexuosa	Low	Retained	None	Site	1.5	2	6/53
238	Hesperocyparis arizonica	Low	Retained	Moderate	Site	2.4	4.8	5/126
239	Angophora costata	High	Retained	Moderate	Site	2.9	8.5	22/223
240	Agonis flexuosa	Low	Retained	Moderate	Site	2	3.7	5/97
241	Hesperocyparis arizonica	Low	Retained	None	Site	1.8	3.1	5/82
242	Melaleuca sp.	Remove.	Retained	Low	Site	1.5	2	5/47
243	Leptospermum laevigatum	Low	Retained	High	Site	2.3	4.7	5/123
244	Eucalyptus pryoriana	Moderate	Retained	Moderate	Site	2.6	6.4	14/167
245	Eucalyptus pryoriana	Moderate	Retained	Moderate	Site	2.6	6.2	10/163
246	Angophora costata	High	Retained	Moderate	Site	2.5	5.4	16/141
247	Hakea salicifolia	Low	Retained	Low	Site	2.1	3.8	5/101
248	Araucaria heterophylla	Low	Retained	High	Site	1.8	3	5/79
249	Leptospermum petersonii	Very low	Removed	Extreme	Site	1.5	2	4/31
250	Eucalyptus cladocalyx	Low	Retained	Moderate	Site	2.2	4.1	7/107

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
251	Leptospermum laevigatum	Low	Retained	Moderate	Site	2.2	4.2	7/110
252	Eucalyptus leucoxylon	Low	Removed	High	Site	2.3	4.7	9/123
253	Agonis flexuosa	Low	Retained	High	Site	2.8	7.7	8/201
254	Acacia sophorae	Low	Removed	Extreme	Site	1.5	2.2	5/57
255	Pinus halepensis	High	Retained	None	Site	3.2	11	20/289
256	Eucalyptus prava	Moderate	Retained	High	Site	2.8	7.6	12/198
257	Lophostemon confertus	Moderate	Retained	High	Site	2.8	7.1	12/185
258	Eucalyptus nicholii	Moderate	Removed	Extreme	Site	2.8	7.7	13/201
259	Callistemon citrinus	Low	Removed	Extreme	Site	1.5	2	5/47
260	Melaleuca linariifolia	Low	Retained	High	Site	2.9	8.4	7/220
261	Melaleuca linariifolia	Low	Retained	Moderate	Site	2.5	5.4	6/141
262	Eucalyptus cephalocarpa	Moderate	Retained	None	Site	1.5	2	7/50
263	Corymbia ficifolia	Low	Retained	High	Site	2.4	5	9/132
264	Eucalyptus leucoxylon	Moderate	Retained	High	Site	2.5	5.4	9/141
265	Corymbia calophylla	Moderate	Retained	High	Site	2.4	5	10/132
266	Eucalyptus leucoxylon	Moderate	Retained	High	Site	2.4	4.8	10/126
267	Melaleuca linariifolia	Low	Retained	High	Site	2.9	8.6	7/226
268	Angophora costata	High	Retained	Moderate	Site	3.1	10	19/261
269	Eucalyptus leucoxylon	Remove.	Retained	None	Site	1.5	2.3	7/60
270	Callistemon 'Kings Park Special'	Low	Retained	None	Site	1.8	2.9	6/75
271	Angophora costata	High	Removed	High	Site	2.7	6.6	19/173
272	Angophora costata	High	Removed	High	Site	2.8	7.7	19/201
273	Eucalyptus leucoxylon	Low	Removed	High	Site	2.3	4.6	9/119
274	Angophora costata	Moderate	Removed	Extreme	Site	2.3	4.6	11/119
275	Angophora costata	Moderate	Removed	High	Site	2.4	4.9	11/129
276	Eucalyptus cladocalyx 'Nana'	Remove.	Removed	High	Site	2.6	6.4	11/167
277	Eucalyptus leucoxylon	Low	Removed	High	Site	1.6	2.4	4/63
278	Corymbia calophylla	Moderate	Retained	Moderate	Site	2.2	4.3	11/113
279	Eucalyptus conferruminata	Low	Retained	None	Site	2.1	4	7/104
280	Eucalyptus leucoxylon	Remove.	Removed	Extreme	Site	1.7	2.8	4/72
281	Melaleuca styphelioides	Low	Retained	High	Site	2.6	6.2	5/163
282	Eucalyptus cladocalyx 'Nana'	Low	Retained	Moderate	Site	2.5	5.3	8/138
283	Eucalyptus leucoxylon	Low	Retained	Moderate	Site	2.2	4.4	7/116
284	Angophora costata	Moderate	Retained	None	Site	2.1	3.8	7/101
285	Eucalyptus leucoxylon	Low	Retained	Low	Site	2.1	3.8	6/101
286	Eucalyptus ovata	Remove.	Removed	None	Site	2	3.6	5/94
287	Eucalyptus ovata	Very low	Retained	None	Site	1.5	2	4/28
288	Eucalyptus ovata	Low	Retained	None	Site	1.5	2	4/22
289	Acacia melanoxylon	Moderate	Retained	None	Site	1.5	2	5/22

ID:	Genus / Species:	Retention Value:	Retained?:	Construction Impact:	Location:	SRZ:	TPZ:	Height (m) / Trunk circ (cm):
290	Leptospermum laevigatum	Low	Removed	Extreme	Site	2.5	5.4	4/141
291	Banksia integrifolia	High	Retained	Moderate	Site	3	9	16/236
292	Melaleuca linariifolia	Moderate	Removed	High	Site	3	9.7	12/255
293	Agonis flexuosa	Low	Removed	High	Site	2	3.7	5/97
294	Acacia sophorae	Very low	Removed	None	Site	1.5	2	3/16
295	Melaleuca armillaris	Low	Retained	High	Site	3	9	8/236
296	Banksia integrifolia	Remove.	Retained	Moderate	Site	3.1	10.2	10/267
297	Banksia integrifolia	Low	Retained	Low	Site	3.2	11.4	18/298
298	Banksia integrifolia	Remove.	Retained	None	Site	2.5	5.4	11/141
299	Banksia integrifolia	Moderate	Retained	None	Site	3.2	10.8	17/283
300	Melaleuca armillaris	Low	Retained	Moderate	Site	2.3	4.7	5/123
301	Angophora costata	Very high	Retained	Moderate	Site	2.9	8.5	19/223
302	Banksia integrifolia	Moderate	Retained	None	Site	1.8	3	10/79
303	Banksia integrifolia	Moderate	Retained	None	Site	1.8	3	7/79
304	Hakea salicifolia	Remove.	Retained	None	Site	1.6	2.4	5/63
305	Eucalyptus leucoxylon	Low	Retained	None	Site	2.2	4.2	4/110
306	Melaleuca armillaris	Low	Retained	High	Site	2.9	8.4	5/220
307	Melaleuca armillaris	Low	Retained	High	Site	2.5	5.4	6/141
308	Banksia integrifolia	Moderate	Retained	Low	Site	1.6	2.4	6/63
309	Banksia integrifolia	Remove.	Retained	None	Site	2.5	5.4	1/141

Total number of tree/s referred to in this report(Total): 309

11. Construction impact

The following trees are regarded as being suitable for retention and are located within close proximity to elements of the proposed development. The successful retention of those trees that are proposed to be retained may require additional care and the adoption of the following recommendations.

Note: ***Construction Proximity*** of 0.1 indicates construction over or immediately adjacent to the tree.

ID	Genus / species	DBH	SRZ	TPZ:	RemRet	ConP:	Ret Value	Impact?:
The following 23 tree/s are shown as Retained on the plans provided.								
63	*Eucalyptus ovata*	85	3.1	10.2	Retained	6.1	High	Moderate
110	*Acacia melanoxylon*	27	1.9	3.2	Retained	2.4	Moderate	Low
117	*Pinus halepensis*	48	2.5	5.8	Retained	1.3	Moderate	High
118	*Pinus halepensis*	48	2.5	5.8	Retained	2	Moderate	High
129	*Eucalyptus camaldulensis*	76	3	9.1	Retained	4.5	High	Moderate
153	*Pinus halepensis*	56	2.7	6.7	Retained	5	Moderate	Low
193	*Pinus pinaster*	50	2.6	6.0	Retained	1.8	Moderate	High
195	*Leptospermum laevigatum*	30	2	3.6	Retained	1.2	Very low	High
226	*Banksia integrifolia*	92	3.2	11.0	Retained	8.3	Moderate	Low
239	*Angophora costata*	71	2.9	8.5	Retained	5.3	High	Low
244	*Eucalyptus pryoriana*	53	2.6	6.4	Retained	3.4	Moderate	Moderate
245	*Eucalyptus pryoriana*	52	2.6	6.2	Retained	3.1	Moderate	Moderate
246	*Angophora costata*	45	2.5	5.4	Retained	2.3	High	Moderate
256	*Eucalyptus prava*	63	2.8	7.6	Retained	1.3	Moderate	High
257	*Lophostemon confertus*	59	2.8	7.1	Retained	2.2	Moderate	High
264	*Eucalyptus leucoxylon*	45	2.5	5.4	Retained	1.4	Moderate	High
265	*Corymbia calophylla*	42	2.4	5.0	Retained	1.9	Moderate	High
266	*Eucalyptus leucoxylon*	40	2.4	4.8	Retained	1.7	Moderate	High
268	*Angophora costata*	83	3.1	10.0	Retained	5.1	High	Moderate
278	*Corymbia calophylla*	36	2.2	4.3	Retained	2.7	Moderate	Low
291	*Banksia integrifolia*	75	3	9.0	Retained	4.9	High	Moderate
301	*Angophora costata*	71	2.9	8.5	Retained	5.4	Very high	Low
308	*Banksia integrifolia*	20	1.6	2.4	Retained	2.1	Moderate	Low
SRZ: Structural Root Zone. TPZ: Tree Protection Zone. mTPZ: Tree Protection Zone.(Canopy) ConP: Construction Proximity.								
Number of trees in this section Total):		23						

11.1. Trees 63, 129, 246, 268 & 291 (High retention value – Moderate impact)

These trees have a High Retention Value and a Construction Impact of Moderate. These trees should be preserved if possible.

The retention of these three trees appears possible within the current design. The retention of these trees may require minor design changes or specialised construction methods to minimise impacts.

11.2. 239 & 301 (High retention value – Low impact)

These trees have a High Retention Value and a Construction Impact of Low. These trees should be preserved if possible.

These trees are unlikely to be significantly impacted by the proposed works and are expected to remain viable within the proposed works.

11.1. Tree 193, 257 & 268 (Moderate retention value – High impact)

These trees have a Moderate Retention Value and a Construction Impact of High. These trees should be preserved where they do not overly constrain the proposed works.

The retention these trees appears to be unlikely within the current design.

The proposed batter would need to be moved away from these trees by several metres to allow these trees to be retained.

11.2. Trees 244 & 245.

These trees have a Moderate Retention Value and a Construction Impact of Moderate. These trees should be preserved if possible.

The retention of these two trees appears possible within the current design. The retention of these trees may require minor design changes or specialised construction methods to minimise impacts.

11.3. 110, 153, 226 & 278 (Moderate retention value – Low impact)

These trees have a Moderate Retention Value and a Construction Impact of Low. These trees should be preserved if possible.

These trees are unlikely to be significantly impacted by the proposed works and are expected to remain viable within the proposed works.

12. Recommendations

The following recommendations should be adopted to ensure the successful retention of those trees that are proposed to be retained.

1. This report should be reviewed based on more complete plans when they are available.
    a. This construction impact report should be revised as required to ensure that services installation impacts on retained trees are avoided.
2. A Tree Management Plan should be created for this site to inform tree management guide construction within the Tree Protection Zones for retained trees.

12.1. Trees 256 & 257

3. Trees 256 & 257 are likely to suffer significant root damage during the removal of the adjacent existing road surface.
    a. The removal of the road should be undertaken under qualified arboricultural supervision.

13. Construction – no impact

The following trees are regarded as being suitable for retention and are unlikely to suffer any significant impact from the proposed development.

While significant care may be required to successfully retain these trees, no modification of the plans or special precautions are likely to be required to ensure this outcome. If these trees are to be retained then they should be protected during construction as outlined in Section 18 - Tree Protection Guidelines.

ID	Genus / species	DBH	SRZ	TPZ:	mTPZ	ConP:	Ret Value	Retained
The following 4 tree/s are shown as Removed on the plans provided.								
43	*Melaleuca ericifolia*	10	1.5	2.0	=TPZ	2.9	Low	Removed
56	*Pittosporum undulatum*	10	1.5	2.0	=TPZ	2.2	Low	Removed
147	*Leptospermum laevigatum*	15	1.5	2.0	=TPZ	1.9	Low	Removed
294	*Acacia sophorae*	5	1.5	2.0	=TPZ	3.1	Very low	Removed
The following 115 tree/s are shown as Retained on the plans provided.								
3	*Acacia melanoxylon*	15	1.5	2.0	=TPZ	9.5	Low	Retained
6	*Eucalyptus ovata*	16	1.5	2.0	=TPZ	13.9	Very low	Retained
7	*Eucalyptus ovata*	15	1.5	2.0	=TPZ	17.5	Very low	Retained
8	*Eucalyptus ovata*	9	1.5	2.0	=TPZ	19.1	Low	Retained
9	*Eucalyptus ovata*	10	1.5	2.0	=TPZ	19.1	Low	Retained
11	*Eucalyptus ovata*	72	2.9	8.6	=TPZ	10.2	Low	Retained
12	*Eucalyptus ovata*	35	2.2	4.2	=TPZ	16.2	Moderate	Retained
13	*Eucalyptus ovata*	8	1.5	2.0	=TPZ	14.4	Low	Retained
14	*Eucalyptus ovata*	22	1.7	2.6	=TPZ	16.1	Low	Retained
18	*Eucalyptus ovata*	37	2.2	4.4	=TPZ	8.4	Moderate	Retained
21	*Eucalyptus ovata*	12	1.5	2.0	=TPZ	11.7	Moderate	Retained
22	*Melaleuca armillaris*	16	1.5	2.0	=TPZ	9	Low	Retained
25	*Melaleuca armillaris*	10	1.5	2.0	=TPZ	11	Low	Retained
26	*Eucalyptus ovata*	56	2.7	6.7	=TPZ	6.2	Low	Retained
27	*Pinus sylvestris*	26	1.8	3.1	=TPZ	6.4	Moderate	Retained
29	*Melaleuca armillaris*	10	1.5	2.0	=TPZ	5.1	Low	Retained
31	*Melaleuca armillaris*	10	1.5	2.0	=TPZ	5.1	Low	Retained
32	*Melaleuca armillaris*	8	1.5	2.0	=TPZ	4.4	Low	Retained
33	*Eucalyptus botryoides*	10	1.5	2.0	=TPZ	8	Moderate	Retained
34	*Melaleuca armillaris*	14	1.5	2.0	=TPZ	9	Low	Retained
35	*Eucalyptus ovata*	37	2.2	4.4	=TPZ	10.5	Low	Retained
36	*Melaleuca armillaris*	11	1.5	2.0	=TPZ	10	Low	Retained
38	*Melaleuca ericifolia*	11	1.5	2.0	=TPZ	6.7	Low	Retained
39	*Melaleuca ericifolia*	12	1.5	2.0	=TPZ	5.6	Low	Retained
40	*Melaleuca ericifolia*	12	1.5	2.0	=TPZ	5.4	Low	Retained
41	*Melaleuca ericifolia*	10	1.5	2.0	=TPZ	6.8	Low	Retained
42	*Melaleuca ericifolia*	10	1.5	2.0	=TPZ	5.6	Low	Retained
44	*Acacia sophorae*	10	1.5	2.0	=TPZ	6.4	Low	Retained
45	*Melaleuca ericifolia*	10	1.5	2.0	=TPZ	4.3	Low	Retained
51	*Acacia sophorae*	14	1.5	2.0	=TPZ	5.8	Low	Retained
52	*Eucalyptus ovata*	10	1.5	2.0	=TPZ	6.7	Low	Retained
53	*Eucalyptus ovata*	12	1.5	2.0	=TPZ	6.7	Low	Retained
64	*Acacia melanoxylon*	9	1.5	2.0	=TPZ	2.8	Low	Retained
65	*Acacia melanoxylon*	19	1.5	2.3	=TPZ	2.4	Low	Retained
80	*Eucalyptus ovata*	71	2.9	8.5	=TPZ	9	Low	Retained
81	*Acacia melanoxylon*	23	1.7	2.8	=TPZ	2.7	Low	Retained
84	*Eucalyptus ovata*	58	2.7	7.0	=TPZ	8.6	Low	Retained
85	*Acacia melanoxylon*	30	2	3.6	=TPZ	4.4	Low	Retained

ID	Genus / species	DBH	SRZ	TPZ:	mTPZ	ConP:	Ret Value	Retained
86	*Acacia melanoxylon*	16	1.5	2.0	=TPZ	3.2	Low	Retained
88	*Acacia melanoxylon*	16	1.5	2.0	=TPZ	5	Low	Retained
89	*Acacia melanoxylon*	17	1.5	2.0	=TPZ	7	Low	Retained
90	*Acacia melanoxylon*	13	1.5	2.0	=TPZ	7	Low	Retained
99	*Acacia melanoxylon*	25	1.8	3.0	=TPZ	3.6	Low	Retained
100	*Acacia melanoxylon*	11	1.5	2.0	=TPZ	6	Low	Retained
101	*Acacia melanoxylon*	16	1.5	2.0	=TPZ	8	Low	Retained
103	*Acacia melanoxylon*	11	1.5	2.0	=TPZ	4.6	Low	Retained
119	*Pittosporum undulatum*	11	1.5	2.0	=TPZ	7.4	Low	Retained
120	*Acacia melanoxylon*	9	1.5	2.0	=TPZ	7.4	Low	Retained
123	*Eucalyptus ovata*	123	3.6	14.8	=TPZ	15	Moderate	Retained
126	*Eucalyptus camaldulensis*	46	2.5	5.5	=TPZ	6.9	High	Retained
130	*Acacia melanoxylon*	22	1.7	2.6	=TPZ	2.5	Low	Retained
131	*Acacia melanoxylon*	34	2.2	4.1	=TPZ	6.3	Low	Retained
132	*Leptospermum laevigatum*	40	2.4	4.8	=TPZ	8.7	Moderate	Retained
135	*Acacia sophorae*	20	1.6	2.4	=TPZ	11.5	Low	Retained
136	*Eucalyptus pryoriana*	80	3	9.6	=TPZ	13	High	Retained
137	*Leptospermum laevigatum*	30	2	3.6	=TPZ	13	Very low	Retained
138	*Eucalyptus pryoriana*	53	2.6	6.4	=TPZ	12.8	Moderate	Retained
139	*Eucalyptus pryoriana*	39	2.3	4.7	=TPZ	13	Moderate	Retained
140	*Eucalyptus pryoriana*	80	3	9.6	=TPZ	10.8	Moderate	Retained
144	*Eucalyptus pryoriana*	45	2.5	5.4	=TPZ	8.9	Moderate	Retained
150	*Leptospermum laevigatum*	15	1.5	2.0	=TPZ	8	Low	Retained
151	*Leptospermum laevigatum*	10	1.5	2.0	=TPZ	6.1	Low	Retained
152	*Leptospermum laevigatum*	15	1.5	2.0	=TPZ	6.3	Low	Retained
154	*Eucalyptus pryoriana*	81	3	9.7	=TPZ	12	Low	Retained
155	*Leptospermum laevigatum*	10	1.5	2.0	=TPZ	11	Low	Retained
156	*Leptospermum laevigatum*	15	1.5	2.0	=TPZ	11	Low	Retained
157	*Leptospermum laevigatum*	8	1.5	2.0	=TPZ	8	Low	Retained
158	*Leptospermum laevigatum*	8	1.5	2.0	=TPZ	7	Low	Retained
159	*Leptospermum laevigatum*	10	1.5	2.0	=TPZ	5.2	Low	Retained
161	*Leptospermum laevigatum*	10	1.5	2.0	=TPZ	2	Low	Retained
165	*Pinus pinaster*	50	2.6	6.0	=TPZ	11	Low	Retained
166	*Leptospermum laevigatum*	35	2.2	4.2	=TPZ	11	Low	Retained
167	*Leptospermum laevigatum*	23	1.7	2.8	=TPZ	10.5	Low	Retained
168	*Leptospermum laevigatum*	24	1.8	2.9	=TPZ	9.5	Low	Retained
169	*Leptospermum laevigatum*	15	1.5	2.0	=TPZ	6.9	Very low	Retained
170	*Leptospermum laevigatum*	35	2.2	4.2	=TPZ	11	Low	Retained
171	*Leptospermum laevigatum*	30	2	3.6	=TPZ	9.5	Low	Retained
174	*Leptospermum laevigatum*	34	2.2	4.1	=TPZ	5.3	Low	Retained
175	*Leptospermum laevigatum*	30	2	3.6	=TPZ	3.5	Low	Retained
178	*Leptospermum laevigatum*	35	2.2	4.2	=TPZ	9.5	Low	Retained
179	*Leptospermum laevigatum*	30	2	3.6	=TPZ	9	Low	Retained
180	*Leptospermum laevigatum*	30	2	3.6	=TPZ	14	Low	Retained
181	*Leptospermum laevigatum*	20	1.6	2.4	=TPZ	14	Low	Retained
182	*Leptospermum laevigatum*	17	1.5	2.0	=TPZ	8	Low	Retained

ID	Genus / species	DBH	SRZ	TPZ:	mTPZ	ConP:	Ret Value	Retained
183	*Leptospermum laevigatum*	20	1.6	2.4	=TPZ	6.4	Low	Retained
185	*Leptospermum laevigatum*	33	2.1	4.0	=TPZ	4.5	Low	Retained
201	*Eucalyptus pryoriana*	84	3.1	10.1	=TPZ	14	Moderate	Retained
202	*Eucalyptus pryoriana*	74	3	8.9	=TPZ	14	High	Retained
204	*Eucalyptus pryoriana*	54	2.7	6.5	=TPZ	14	Low	Retained
205	*Leptospermum laevigatum*	45	2.5	5.4	=TPZ	5.5	Low	Retained
209	*Leptospermum laevigatum*	25	1.8	3.0	=TPZ	4	Low	Retained
210	*Leptospermum laevigatum*	25	1.8	3.0	=TPZ	5.9	Very low	Retained
212	*Leptospermum laevigatum*	25	1.8	3.0	=TPZ	6.9	Low	Retained
215	*Leptospermum laevigatum*	25	1.8	3.0	=TPZ	7.5	Low	Retained
216	*Leptospermum laevigatum*	40	2.4	4.8	=TPZ	9	Low	Retained
217	*Leptospermum laevigatum*	25	1.8	3.0	=TPZ	8	Very low	Retained
220	*Banksia integrifolia*	105	3.4	12.6	=TPZ	14.3	High	Retained
223	*Banksia integrifolia*	86	3.1	10.3	=TPZ	20	Moderate	Retained
224	*Banksia integrifolia*	65	2.9	7.8	=TPZ	11.2	High	Retained
225	*Banksia integrifolia*	32	2.1	3.8	=TPZ	12	Low	Retained
234	*Eucalyptus gomphocephala*	29	2	3.5	=TPZ	4.1	Low	Retained
237	*Agonis flexuosa*	17	1.5	2.0	=TPZ	4.2	Low	Retained
241	*Hesperocyparis arizonica*	26	1.8	3.1	=TPZ	3.3	Low	Retained
255	*Pinus halepensis*	92	3.2	11.0	=TPZ	12.8	High	Retained
262	*Eucalyptus cephalocarpa*	16	1.5	2.0	=TPZ	2.4	Moderate	Retained
270	*Callistemon 'Kings Park Special'*	24	1.8	2.9	=TPZ	5	Low	Retained
279	*Eucalyptus conferruminata*	33	2.1	4.0	=TPZ	4.7	Low	Retained
284	*Angophora costata*	32	2.1	3.8	=TPZ	5.4	Moderate	Retained
287	*Eucalyptus ovata*	9	1.5	2.0	=TPZ	11	Very low	Retained
288	*Eucalyptus ovata*	7	1.5	2.0	=TPZ	11	Low	Retained
289	*Acacia melanoxylon*	7	1.5	2.0	=TPZ	11	Moderate	Retained
299	*Banksia integrifolia*	90	3.2	10.8	=TPZ	14.7	Moderate	Retained
302	*Banksia integrifolia*	25	1.8	3.0	=TPZ	4.1	Moderate	Retained
303	*Banksia integrifolia*	25	1.8	3.0	=TPZ	4.1	Moderate	Retained
305	*Eucalyptus leucoxylon*	35	2.2	4.2	=TPZ	4.5	Low	Retained

SRZ: Structural Root Zone. TPZ: Tree Protection Zone. mTPZ: Tree Protection Zone.(Canopy) ConP: Construction Proximity.

Number of trees in this section Total): 119

14. Trees shown as removed

The following trees are regarded as removed on the plans provided.

ID	Genus / species	Common name	ULE	Ret value
The retention value for the following 5 tree/s is High				
54	*Eucalyptus ovata*	Swamp Gum	15 - 30	High
115	*Pinus halepensis*	Allepo Pine	30 - 60	High
145	*Banksia integrifolia*	Coast Banksia	> 60	High
271	*Angophora costata*	Sydney Apple Gum	15 - 30	High
272	*Angophora costata*	Sydney Apple Gum	30 - 60	High
The retention value for the following 46 tree/s is Low				
43	*Melaleuca ericifolia*	Swamp Paperbark	15 - 30	Low
47	*Eucalyptus ovata*	Swamp Gum	15 - 30	Low
49	*Acacia sophorae*	Coast Wattle	5 - 15	Low
56	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
57	*Acacia sophorae*	Coast Wattle	5 - 15	Low
58	*Eucalyptus ovata*	Swamp Gum	5 - 15	Low
59	*Eucalyptus ovata*	Swamp Gum	5 - 15	Low
60	*Acacia melanoxylon*	Blackwood	5 - 15	Low
61	*Eucalyptus ovata*	Swamp Gum	15 - 30	Low
62	*Eucalyptus ovata*	Swamp Gum	5 - 15	Low
66	*Acacia melanoxylon*	Blackwood	15 - 30	Low
68	*Acacia melanoxylon*	Blackwood	15 - 30	Low
69	*Acacia melanoxylon*	Blackwood	15 - 30	Low
70	*Acacia melanoxylon*	Blackwood	15 - 30	Low
71	*Acacia melanoxylon*	Blackwood	5 - 15	Low
72	*Acacia melanoxylon*	Blackwood	5 - 15	Low
82	*Acacia melanoxylon*	Blackwood	5 - 15	Low
83	*Acacia melanoxylon*	Blackwood	5 - 15	Low
93	*Acacia melanoxylon*	Blackwood	5 - 15	Low
94	*Acacia melanoxylon*	Blackwood	5 - 15	Low
95	*Acacia melanoxylon*	Blackwood	5 - 15	Low
96	*Acacia melanoxylon*	Blackwood	5 - 15	Low
107	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
109	*Acacia melanoxylon*	Blackwood	5 - 15	Low
116	*Pittosporum undulatum*	Sweet Pittosporum	5 - 15	Low
127	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
146	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low
147	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low
160	*Acacia sophorae*	Coast Wattle	5 - 15	Low
162	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low
163	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low
177	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low
189	*Pinus pinaster*	Maritime Pine	15 - 30	Low
190	*Pinus pinaster*	Maritime Pine	15 - 30	Low
191	*Pinus pinaster*	Maritime Pine	15 - 30	Low
192	*Leptospermum laevigatum*	Coast Tea Tree	5 - 15	Low
196	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Low

ID	Genus / species	Common name	ULE	Ret value
228	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
229	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
252	*Eucalyptus leucoxylon*	Yellow Gum	15 - 30	Low
254	*Acacia sophorae*	Coast Wattle	5 - 15	Low
259	*Callistemon citrinus*	Crimson Bottle Brush	5 - 15	Low
273	*Eucalyptus leucoxylon*	Yellow Gum	15 - 30	Low
277	*Eucalyptus leucoxylon*	Yellow Gum	5 - 15	Low
290	*Leptospermum laevigatum*	Coast Tea Tree	0	Low
293	*Agonis flexuosa*	West Australian Willow Myrtle	15 - 30	Low
The retention value for the following 13 tree/s is Moderate				
16	*Eucalyptus ovata*	Swamp Gum	5 - 15	Moderate
30	*Eucalyptus ovata*	Swamp Gum	15 - 30	Moderate
46	*Eucalyptus ovata*	Swamp Gum	15 - 30	Moderate
50	*Eucalyptus ovata*	Swamp Gum	15 - 30	Moderate
105	*Acacia melanoxylon*	Blackwood	15 - 30	Moderate
113	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Moderate
114	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Moderate
143	*Banksia integrifolia*	Coast Banksia	> 60	Moderate
188	*Pinus pinaster*	Maritime Pine	15 - 30	Moderate
258	*Eucalyptus nicholii*	Willow Leaf Peppermint	15 - 30	Moderate
274	*Angophora costata*	Sydney Apple Gum	30 - 60	Moderate
275	*Angophora costata*	Sydney Apple Gum	30 - 60	Moderate
292	*Melaleuca linariifolia*	Flax Leaf Paperbark	15 - 30	Moderate
The retention value for the following 14 tree/s is Remove.				
55	*Eucalyptus ovata*	Swamp Gum	0	Remove.
67	*Eucalyptus ovata*	Swamp Gum	1 - 5	Remove.
78	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
87	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
97	*Eucalyptus ovata*	Swamp Gum	0	Remove.
106	*Acacia melanoxylon*	Blackwood	0	Remove.
108	*Eucalyptus ovata*	Swamp Gum	1 - 5	Remove.
141	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Remove.
142	*Acacia sophorae*	Coast Wattle	0	Remove.
164	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Remove.
230	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
276	*Eucalyptus cladocalyx 'Nana'*	Dwarf Sugar Gum	1 - 5	Remove.
280	*Eucalyptus leucoxylon*	Yellow Gum	1 - 5	Remove.
286	*Eucalyptus ovata*	Swamp Gum	1 - 5	Remove.
The retention value for the following 7 tree/s is Very low				
48	*Acacia melanoxylon*	Blackwood	5 - 15	Very low
128	*Acacia melanoxylon*	Blackwood	5 - 15	Very low
148	*Leptospermum laevigatum*	Coast Tea Tree	15 - 30	Very low
197	*Leptospermum laevigatum*	Coast Tea Tree	5 - 15	Very low
236	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Very low
249	*Leptospermum petersonii*	Lemon Scented Tea Tree	30 - 60	Very low
294	*Acacia sophorae*	Coast Wattle	5 - 15	Very low
Number of tree/s in this section (Total): 85				

15. Trees recommended for removal

The following trees are recommended for removal generally on the basis of poor, or worse, health and/or structure.

ID	Genus / species	Common name	ULE	Reason:	Ret value
The following 14 tree/s are shown as Removed on the plans provided.					
55	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
67	*Eucalyptus ovata*	Swamp Gum	1 - 5	Health ULE.	Remove.
78	*Acacia sophorae*	Coast Wattle	1 - 5	Health ULE.	Remove.
87	*Acacia sophorae*	Coast Wattle	1 - 5	Health ULE.	Remove.
97	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
106	*Acacia melanoxylon*	Blackwood	0	Health ULE.	Remove.
108	*Eucalyptus ovata*	Swamp Gum	1 - 5	Health ULE.	Remove.
141	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Health ULE.	Remove.
142	*Acacia sophorae*	Coast Wattle	0	Health ULE.	Remove.
164	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Health ULE.	Remove.
230	*Acacia sophorae*	Coast Wattle	1 - 5	Health ULE.	Remove.
276	*Eucalyptus cladocalyx 'Nana'*	Dwarf Sugar Gum	1 - 5	Health ULE.	Remove.
280	*Eucalyptus leucoxylon*	Yellow Gum	1 - 5	Health ULE.	Remove.
286	*Eucalyptus ovata*	Swamp Gum	1 - 5	Health ULE.	Remove.
The following 46 tree/s are shown as Retained on the plans provided.					
1	*Tamarix parviflora*	Tamarisk	1 - 5	Health ULE.	Remove.
2	*Tamarix parviflora*	Tamarisk	0	Health ULE.	Remove.
4	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
5	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
10	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
15	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
17	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
19	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
20	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
24	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
37	*Eucalyptus ovata*	Swamp Gum	1 - 5	Health ULE.	Remove.
79	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
98	*Eucalyptus ovata*	Swamp Gum	0	Health ULE.	Remove.
112	*Acacia melanoxylon*	Blackwood	1 - 5	Health ULE.	Remove.
121	*Acacia melanoxylon*	Blackwood	1 - 5	Health ULE.	Remove.
122	*Eucalyptus sp.*	Gum	0	Health ULE.	Remove.
124	*Acacia sophorae*	Coast Wattle	0	Health ULE.	Remove.
125	*Acacia melanoxylon*	Blackwood	1 - 5	Health ULE.	Remove.
133	*Acacia sophorae*	Coast Wattle	0	Health ULE.	Remove.
134	*Acacia sophorae*	Coast Wattle	1 - 5	Health ULE.	Remove.
149	*Acacia sophorae*	Coast Wattle	0	Health ULE.	Remove.
172	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
173	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
184	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
186	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
187	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
198	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
199	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.

ID	Genus / species	Common name	ULE	Reason:	Ret value
200	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
203	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
206	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
207	*Leptospermum laevigatum*	Coast Tea Tree	0	Health ULE.	Remove.
208	*Leptospermum laevigatum*	Coast Tea Tree	0	Health ULE.	Remove.
211	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
213	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
214	*Leptospermum laevigatum*	Coast Tea Tree	1 - 5	Health ULE.	Remove.
218	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Health ULE.	Remove.
219	*Eucalyptus pryoriana*	Gippsland Manna Gum	1 - 5	Health ULE.	Remove.
221	*Banksia integrifolia*	Coast Banksia	1 - 5	Health ULE.	Remove.
222	*Banksia integrifolia*	Coast Banksia	0	Health ULE.	Remove.
227	*Banksia integrifolia*	Coast Banksia	1 - 5	Health ULE.	Remove.
242	*Melaleuca sp.*	Paperbark	1 - 5	Health ULE.	Remove.
269	*Eucalyptus leucoxylon*	Yellow Gum	5 - 15	Health ULE.	Remove.
296	*Banksia integrifolia*	Coast Banksia	5 - 15	Health ULE.	Remove.
298	*Banksia integrifolia*	Coast Banksia	5 - 15	Health ULE.	Remove.
304	*Hakea salicifolia*	Willow Hakea	> 60	Health ULE.	Remove.
Number of tree/s in this section (Total): 60					

16. Weed species

The following trees are regarded by authorities as being environmental weeds (Muyt, 2001) (Yarra Ranges, 2004). Consideration should be given to the removal of these trees on the basis of their potential to contribute to environmental weed problems within the local area.

Trees located on adjoining properties are not included in this list.

ID	Genus / species	Common name	ULE	Ret value
22	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
25	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
29	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
31	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
32	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
34	*Melaleuca armillaris*	Giant Honey Myrtle	1 - 5	Low
36	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
44	*Acacia sophorae*	Coast Wattle	15 - 30	Low
49	*Acacia sophorae*	Coast Wattle	5 - 15	Low
51	*Acacia sophorae*	Coast Wattle	5 - 15	Low
56	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
57	*Acacia sophorae*	Coast Wattle	5 - 15	Low
78	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
87	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
92	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
107	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
113	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Moderate
114	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Moderate
115	*Pinus halepensis*	Allepo Pine	30 - 60	High
116	*Pittosporum undulatum*	Sweet Pittosporum	5 - 15	Low
117	*Pinus halepensis*	Allepo Pine	15 - 30	Moderate
118	*Pinus halepensis*	Allepo Pine	15 - 30	Moderate
119	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
124	*Acacia sophorae*	Coast Wattle	0	Remove.
127	*Pittosporum undulatum*	Sweet Pittosporum	15 - 30	Low
133	*Acacia sophorae*	Coast Wattle	0	Remove.
134	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
135	*Acacia sophorae*	Coast Wattle	5 - 15	Low
142	*Acacia sophorae*	Coast Wattle	0	Remove.
149	*Acacia sophorae*	Coast Wattle	0	Remove.
153	*Pinus halepensis*	Allepo Pine	15 - 30	Moderate
160	*Acacia sophorae*	Coast Wattle	5 - 15	Low
165	*Pinus pinaster*	Maritime Pine	30 - 60	Low
188	*Pinus pinaster*	Maritime Pine	15 - 30	Moderate
189	*Pinus pinaster*	Maritime Pine	15 - 30	Low
190	*Pinus pinaster*	Maritime Pine	15 - 30	Low
191	*Pinus pinaster*	Maritime Pine	15 - 30	Low
193	*Pinus pinaster*	Maritime Pine	30 - 60	Moderate
228	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
229	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
230	*Acacia sophorae*	Coast Wattle	1 - 5	Remove.
236	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Very low
247	*Hakea salicifolia*	Willow Hakea	15 - 30	Low
250	*Eucalyptus cladocalyx*	Sugar Gum	0	Low
254	*Acacia sophorae*	Coast Wattle	5 - 15	Low

ID	Genus / species	Common name	ULE	Ret value
255	*Pinus halepensis*	Allepo Pine	30 - 60	High
294	*Acacia sophorae*	Coast Wattle	5 - 15	Very low
295	*Melaleuca armillaris*	Giant Honey Myrtle	15 - 30	Low
300	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
304	*Hakea salicifolia*	Willow Hakea	> 60	Remove.
306	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
307	*Melaleuca armillaris*	Giant Honey Myrtle	5 - 15	Low
Number of tree/s in this section (Total): 52				

17. References

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18. Appendix 1 - Tree protection guidelines

The following tree protection guidelines should be observed as appropriate. Where it is not possible to comply with these recommendations alternative arrangements should be decided with a qualified arborist.

1. A site specific Tree Protection Report should be commissioned prior to the commencement of construction to guide construction activity around any retained trees on or adjacent to the site.
2. Clearly marked as being retained on the site to avoid confusion during the tree removal phase.
3. The stumps of removed trees should be ground out rather than pulled to avoid injury to adjacent trees.
4. Construction specifications should include the plan location of those trees that are to be retained.
5. Penalties should be included in the construction specifications for damage to trees that are to be retained.
6. The trees to be retained should be enclosed with a 1.8 meter high chain link fence supported on steel posts driven 0.6 meters into the ground.

    6.1. Tree protection fencing should be established as shown.

        6.1.1. If tree protection fencing is not detailed in the report it should enclose, at a minimum, the entire **Structural Root Zone** and as much of the **Tree Protection Zone** as possible.

    6.2. Access should be provided by a single gate that should be kept locked at all times except when required for tree inspection or maintenance.

    6.3. Tree protection fencing should be installed following the removal of trees and prior to any other works being commenced.

    6.4. The area inside the fence should be mulched to a depth of 0.15 meters with general arboricultural wood chip mulch or similar.

7. Where construction clearance is required and areas of the Tree Protection Zone cannot be fenced the ground in these areas should be protected from compaction with **Ground Protection.**

   7.1. **Ground Protection** can consist of any constructed platform that prevents point loads on the soil within the Tree Protection Zone. These could include:

      7.1.1. Industrial pallets joined together to form a platform.

      7.1.2. 12 mm plywood joined together to form a platform.

      7.1.3. Planks of timber joined together to form a platform.

   7.2. **Ground Protection** should be constructed with sufficient strength to allow it to survive the entire construction process.

   7.3. **Ground Protection** should be installed following the removal of trees and prior to any other works being commenced.

8. Excavation within the **Structural Root Zone** should be avoided unless absolutely necessary.

   8.1. Any excavation within the **Structural Root Zone** should be performed by hand.

   8.2. Any excavation within or tunnelling under the **Structural Root Zone** should be supervised by a qualified arborist.

   8.3. Any roots encountered from the retained trees should be pruned carefully and cleanly, preferably back to a branch root.

   8.4. Before any roots are pruned the effect of such pruning on the health and structural stability of the tree should be evaluated by a qualified arborist.

9. Excavation within the **Tree Protection Zone** should be avoided where possible.

   9.1. Any excavation within the **Tree Protection Zone** should be performed carefully to minimise root injury.

   9.2. Any roots encountered from the retained trees should be pruned carefully and cleanly, preferably back to a branch root.

   9.3. Before any excavation occurs the effect of such excavation on the health and structural stability of the tree should be evaluated by a qualified arborist.

10. Concrete and other washout or waste disposal areas should be kept well away from trees to be retained.

11. Where automatic irrigation systems are installed the amount of irrigation that is applied should be checked against the requirements of the existing trees on the site.

12. Any pruning works that are required to facilitate construction should be performed by a qualified arborist.

Adapted from Harris, Clark and Matheny (2004)

21. Appendix 2 - Tree data

Note: Where **Retention value** = "**Remove**" only the arboricultural attributes of the tree (i.e. health, structure and ULE) are considered. Other factors that may affect the decision to retain or remove the tree are not considered.

- Where the **'Construction Proximity'** is larger than the **'Tree Protection Zone (TPZ)'** it is probable that the development will have **no significant impact on the health and longevity** of the tree.
- Where the '**Construction Proximity'** is larger than the '**Structural Root Zone (SRZ)'** it is probable that the development will have **no significant impact on the stability** of the tree.
- The following information should be read in conjunction with the **'Explanation of Terms'** and the **'Glossary / Notes'** sections found later in this report.

SRZ (m):	AS 4970-2009 Protection of trees on development sites. (Radius)	Total Number of trees
TPZ (m):	AS 4970-2009 Protection of trees on development sites (Radius)	309
mTPZ (m):	Modification to TPZ as required to protect canopy	
Construction Proximity:	0.1 indicates construction over or immediately adjacent to the tree	

Tree ID: 1

Genus / species: *Tamarix parviflora*

Deciduous Tamarisk

Height (m):	5	Structure:	Very poor
Width (m):	2	Health:	Poor
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m):	*1.5*	Works priority:	Very low
TPZ (m):	*2.0*	*Construction Proximity:*	*1.6*
mTPZ (m):	*=TPZ*		

Tree ID: 2

Genus / species: *Tamarix parviflora*

Deciduous Tamarisk

Height (m):	7	Structure:	Poor
Width (m):	2	Health:	Dead
DBH (cm):	18 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	0
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m):	*1.5*	Works priority:	Very low
TPZ (m):	*2.2*	*Construction Proximity:*	*2.4*
mTPZ (m):	*=TPZ*		

Tree ID: 3

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Poor
Width (m):	2	Health:	Good
DBH (cm):	15 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

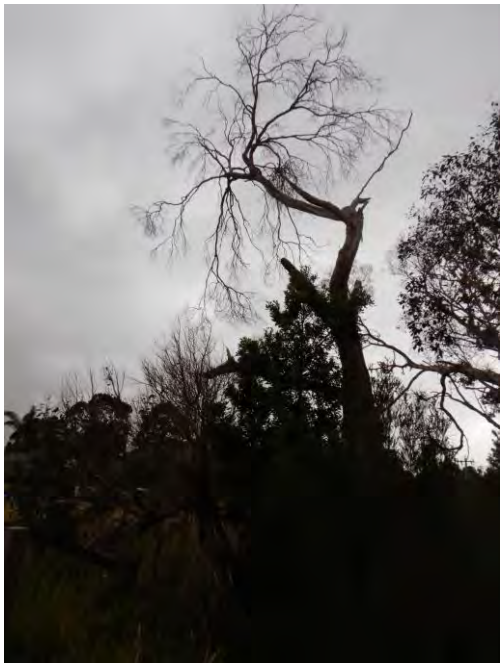
Works Required: B Removal.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 9.5*

mTPZ (m): =TPZ

Tree ID: 4



Genus / species: *Eucalyptus ovata*

Evergreen Swamp Gum

Height (m):	12	Structure:	Poor
Width (m):	9	Health:	Dead
DBH (cm):	60 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.8 Works priority: Very low

TPZ (m): 7.2 *Construction Proximity: 9.5*

mTPZ (m): =TPZ

Tree ID: 5

Genus / species: *Eucalyptus ovata*

Evergreen Swamp Gum

Height (m):	15	Structure:	Poor
Width (m):	10	Health:	Dead
DBH (cm):	65 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.9 Works priority: Very low

TPZ (m): 7.8 *Construction Proximity: 13.6*

mTPZ (m): =TPZ

Tree ID: 6

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	7	Structure:	Poor
Width (m):	2	Health:	Good
DBH (cm):	16 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 13.9*
mTPZ (m): =TPZ

Tree ID: 7

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	5	Structure:	Poor
Width (m):	2	Health:	Dead
DBH (cm):	15 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 17.5*
mTPZ (m): =TPZ

Tree ID: 8

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	5	Structure:	Fair
Width (m):	1	Health:	Fair
DBH (cm):	9 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 19.1*
mTPZ (m): =TPZ

Tree ID: 9

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	5	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 19.1*
mTPZ (m): =TPZ

Tree ID: 10

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	9	Structure:	Poor
Width (m):	11	Health:	Dead
DBH (cm):	95 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 3.2 Works priority: Very low
TPZ (m): 11.4 *Construction Proximity: 12.2*
mTPZ (m): =TPZ

Tree ID: 11

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	15	Structure:	Poor
Width (m):	8	Health:	Poor
DBH (cm):	72 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A
TPZ (m): 8.6 *Construction Proximity: 10.2*
mTPZ (m): =TPZ

Tree ID: 12

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	11	Structure:	Poor
Width (m):	8	Health:	Dead
DBH (cm):	35 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.2 *Construction Proximity: 16.2*
mTPZ (m): =TPZ

Tree ID: 13

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	5	Structure:	Poor
Width (m):	1	Health:	Dead
DBH (cm):	8 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 14.4*
mTPZ (m): =TPZ

Tree ID: 14

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	9	Structure:	Fair
Width (m):	6	Health:	Poor
DBH (cm):	22 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.7 Works priority: N/A
TPZ (m): 2.6 *Construction Proximity: 16.1*
mTPZ (m): =TPZ

Tree ID: 15

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 8 Structure: Fair
Width (m): 6 Health: Dead
DBH (cm): 23 Estimated Maturity: Immature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Very poor
Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.7 Works priority: Very low
TPZ (m): 2.8 *Construction Proximity: 15.7*
mTPZ (m): =TPZ

Tree ID: 16

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 15 Structure: Fair
Width (m): 14 Health: Fair
DBH (cm): 73 Measured Maturity: Over mature
Origin: Melbourne ULE (years): 5 - 15
Retained?: Removed Form: Fair
Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 8.8 *Construction Proximity: 1.8*
mTPZ (m): =TPZ

Tree ID: 17

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 11 Structure: Poor
Width (m): 8 Health: Dead
DBH (cm): 45 Estimated Maturity: Over mature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Very poor
Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.5 Works priority: Very low
TPZ (m): 5.4 *Construction Proximity: 8.1*
mTPZ (m): =TPZ

Tree ID: 18

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 11 Structure: Fair
Width (m): 7 Health: Good
DBH (cm): 37 Measured Maturity: Mature
Origin: Melbourne ULE (years): 15 - 30
Retained?: Retained Form: Poor
Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.4 *Construction Proximity: 8.4*
mTPZ (m): =TPZ

Tree ID: 19

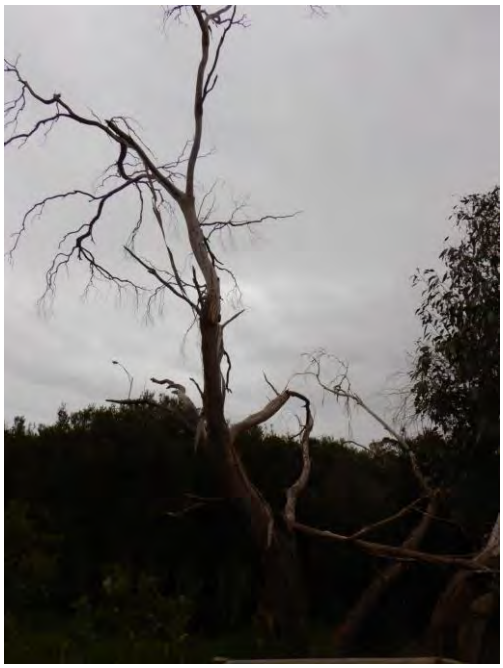
Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 10 Structure: Poor
Width (m): 6 Health: Dead
DBH (cm): 50 Estimated Maturity: Over mature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Very poor
Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.6 Works priority: Very low
TPZ (m): 6.0 *Construction Proximity: 10.6*
mTPZ (m): =TPZ

Tree ID: 20

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 16 Structure: Poor
Width (m): 14 Health: Dead
DBH (cm): 70 Estimated Maturity: Over mature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Very poor
Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.9 Works priority: Very low
TPZ (m): 8.4 *Construction Proximity: 10*
mTPZ (m): =TPZ



Tree ID: 21

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 5 Structure: Good
Width (m): 1 Health: Good
DBH (cm): 12 Measured Maturity: Immature
Origin: Melbourne ULE (years): > 60
Retained?: Retained Form: Good
Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 11.7*
mTPZ (m): =TPZ

Tree ID: 22

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle
Height (m): 5 Structure: Good
Width (m): 4 Health: Good
DBH (cm): 16 Measured Maturity: Mature
Origin: Victorian ULE (years): 15 - 30
Retained?: Retained Form: Good
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 9*
mTPZ (m): =TPZ

Tree ID: 23

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 11 Structure: Poor
Width (m): 9 Health: Good
DBH (cm): 48 Measured Maturity: Over mature
Origin: Melbourne ULE (years): 5 - 15
Retained?: Retained Form: Poor
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.8 *Construction Proximity: 5.1*
mTPZ (m): =TPZ

Tree ID: 24

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 7 Structure: Poor
Width (m): 8 Health: Dead
DBH (cm): 40 Measured Maturity: Over mature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Very poor
Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 10*
mTPZ (m): =TPZ

Tree ID: 25

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle
Height (m): 5 Structure: Good
Width (m): 2 Health: Good
DBH (cm): 10 Measured Maturity: Mature
Origin: Victorian ULE (years): 15 - 30
Retained?: Retained Form: Good
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 11*
mTPZ (m): =TPZ

Tree ID: 26

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 11 Structure: Poor
Width (m): 9 Health: Dead
DBH (cm): 56 Measured Maturity: Over mature
Origin: Melbourne ULE (years): 0
Retained?: Retained Form: Fair
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: B Removal.,J No works.

SRZ (m): 2.7 Works priority: N/A
TPZ (m): 6.7 *Construction Proximity: 6.2*
mTPZ (m): =TPZ

Tree ID: 27

Genus / species: *Pinus sylvestris*

Evergreen Scots Pine

Height (m):	14	Structure:	Good
Width (m):	2	Health:	Fair
DBH (cm):	26 Measured	Maturity:	Immature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.1 *Construction Proximity: 6.4*

mTPZ (m): =TPZ

Tree ID: 28

Genus / species: *Pinus sylvestris*

Evergreen Scots Pine

Height (m):	8	Structure:	Good
Width (m):	3	Health:	Fair
DBH (cm):	29 Measured	Maturity:	Immature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.5 *Construction Proximity: 2.7*

mTPZ (m): =TPZ

Tree ID: 29

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	5	Structure:	Fair
Width (m):	2	Health:	Fair
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 5.1*

mTPZ (m): =TPZ

Tree ID: 30

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum
Height (m): 14 Structure: Fair
Width (m): 12 Health: Fair
DBH (cm): 62 Measured Maturity: Over mature
Origin: Melbourne ULE (years): 15 - 30
Retained?: Removed Form: Fair
Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A
TPZ (m): 7.4 *Construction Proximity: 3.4*
mTPZ (m): =TPZ

Tree ID: 31

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle
Height (m): 6 Structure: Good
Width (m): 2 Health: Fair
DBH (cm): 10 Measured Maturity: Mature
Origin: Victorian ULE (years): 5 - 15
Retained?: Retained Form: Fair
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 5.1*
mTPZ (m): =TPZ

Tree ID: 32

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle
Height (m): 5 Structure: Good
Width (m): 2 Health: Fair
DBH (cm): 8 Measured Maturity: Mature
Origin: Victorian ULE (years): 5 - 15
Retained?: Retained Form: Fair
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 4.4*
mTPZ (m): =TPZ

Tree ID: 33

Genus / species: *Eucalyptus botryoides*

Evergreen Southern Mahogany

Height (m):	6	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 8*

mTPZ (m): =TPZ

Tree ID: 34

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	5	Structure:	Fair
Width (m):	4	Health:	Poor
DBH (cm):	14 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 9*

mTPZ (m): =TPZ

Tree ID: 35

Genus / species: *Eucalyptus ovata*

Evergreen Swamp Gum

Height (m):	9	Structure:	Fair
Width (m):	7	Health:	Good
DBH (cm):	37 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.4 *Construction Proximity: 10.5*

mTPZ (m): =TPZ

Tree ID: 36

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	5	Structure:	Good
Width (m):	2	Health:	Fair
DBH (cm):	11 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 10*

mTPZ (m): =TPZ

Tree ID: 37

Genus / species: *Eucalyptus ovata*

Evergreen Swamp Gum

Height (m):	7	Structure:	Very poor
Width (m):	7	Health:	Poor
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.,J No works.

SRZ (m): 1.8 Works priority: Very low

TPZ (m): 3.0 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 38

Genus / species: *Melaleuca ericifolia*

Evergreen Swamp Paperbark

Height (m):	8	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	11 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6.7*

mTPZ (m): =TPZ

Tree ID: 39

Genus / species: *Melaleuca ericifolia*
Evergreen Swamp Paperbark

Height (m):	8	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	12 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 5.6*
mTPZ (m): =TPZ

Tree ID: 40

Genus / species: *Melaleuca ericifolia*
Evergreen Swamp Paperbark

Height (m):	7	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	12 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 5.4*
mTPZ (m): =TPZ

Tree ID: 41

Genus / species: *Melaleuca ericifolia*
Evergreen Swamp Paperbark

Height (m):	6	Structure:	Poor
Width (m):	1	Health:	Fair
DBH (cm):	10 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 6.8*
mTPZ (m): =TPZ

Tree ID: 42

Genus / species: *Melaleuca ericifolia*

Evergreen Swamp Paperbark

Height (m):	6	Structure:	Poor
Width (m):	1	Health:	Fair
DBH (cm):	10 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 5.6*

mTPZ (m): =TPZ

Tree ID: 43

Genus / species: *Melaleuca ericifolia*

Evergreen Swamp Paperbark

Height (m):	5	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	10 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 2.9*

mTPZ (m): =TPZ

Tree ID: 44

Genus / species: *Acacia sophorae*

Evergreen Coast Wattle

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6.4*

mTPZ (m): =TPZ

Tree ID: 45

Genus / species: *Melaleuca ericifolia*
Evergreen Swamp Paperbark

Height (m):	5	Structure:	Poor
Width (m):	2	Health:	Poor
DBH (cm):	10 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 4.3*
mTPZ (m): =TPZ

Tree ID: 46

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	12	Structure:	Fair
Width (m):	9	Health:	Fair
DBH (cm):	49 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 5.9 *Construction Proximity: 2.7*
mTPZ (m): =TPZ

Tree ID: 47

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	9	Structure:	Fair
Width (m):	5	Health:	Fair
DBH (cm):	35 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.2 *Construction Proximity: 0.5*
mTPZ (m): =TPZ

Tree ID: 48

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	4	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.7*
mTPZ (m): =TPZ

Tree ID: 49

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	5	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	16 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.8*
mTPZ (m): =TPZ

Tree ID: 50

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	13	Structure:	Poor
Width (m):	8	Health:	Fair
DBH (cm):	41 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 4.9 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 51

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	6	Structure:	Poor
Width (m):	4	Health:	Fair
DBH (cm):	14 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 5.8*
mTPZ (m): =TPZ

Tree ID: 52

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	6	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 6.7*
mTPZ (m): =TPZ

Tree ID: 53

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	7	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	12 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 6.7*
mTPZ (m): =TPZ

Tree ID: 54

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	14	Structure:	Fair
Width (m):	16	Health:	Good
DBH (cm):	99 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m):	*3.3*	Works priority:	N/A
TPZ (m):	*11.9*	*Construction Proximity:*	*0.1*
mTPZ (m):	*=TPZ*		

Tree ID: 55

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	14	Structure:	Poor
Width (m):	12	Health:	Dead
DBH (cm):	85 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Removed	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m):	*3.1*	Works priority:	Very low
TPZ (m):	*10.2*	*Construction Proximity:*	*0.1*
mTPZ (m):	*=TPZ*		

Tree ID: 56

Genus / species: *Pittosporum undulatum*
Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m):	*1.5*	Works priority:	N/A
TPZ (m):	*2.0*	*Construction Proximity:*	*2.2*
mTPZ (m):	*=TPZ*		

Tree ID: 57

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	4	Structure:	Fair
Width (m):	5	Health:	Poor
DBH (cm):	16 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 58

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	10	Structure:	Poor
Width (m):	7	Health:	Poor
DBH (cm):	49 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 5.9 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 59

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	7	Structure:	Fair
Width (m):	2	Health:	Poor
DBH (cm):	14 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.9*
mTPZ (m): =TPZ

Tree ID: 60

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	7	Structure:	Fair
Width (m):	3	Health:	Poor
DBH (cm):	19 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.3 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 61

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	9	Structure:	Fair
Width (m):	3	Health:	Fair
DBH (cm):	14 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.4*
mTPZ (m): =TPZ

Tree ID: 62

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	12	Structure:	Poor
Width (m):	9	Health:	Poor
DBH (cm):	71 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A
TPZ (m): 8.5 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 63

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	16	Structure:	Fair
Width (m):	13	Health:	Good
DBH (cm):	85 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 3.1 Works priority: N/A
TPZ (m): 10.2 *Construction Proximity: 6.1*
mTPZ (m): =TPZ

Tree ID: 64

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	6	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	9 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 2.8*
mTPZ (m): =TPZ

Tree ID: 65

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	6	Structure:	Poor
Width (m):	3	Health:	Fair
DBH (cm):	19 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.3 *Construction Proximity: 2.4*
mTPZ (m): =TPZ

Tree ID: 66

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	5	Structure:	Good
Width (m):	2	Health:	Fair
DBH (cm):	15 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.8*
mTPZ (m): =TPZ

Tree ID: 67

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	6	Structure:	Poor
Width (m):	4	Health:	Poor
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2 Works priority: Very low
TPZ (m): 3.6 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 68

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	5	Structure:	Good
Width (m):	1	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 69

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Good
Width (m):	1	Health:	Good
DBH (cm):	8 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 70

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Good
Width (m):	1	Health:	Good
DBH (cm):	8 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 71

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Poor
Width (m):	1	Health:	Good
DBH (cm):	9 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 72

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	6	Structure:	Poor
Width (m):	2	Health:	Good
DBH (cm):	12 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 73

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	12 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 1.1*

mTPZ (m): =TPZ

Tree ID: 74

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	18 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.2 *Construction Proximity: 1.6*

mTPZ (m): =TPZ

Tree ID: 75

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 1.1*

mTPZ (m): =TPZ

Tree ID: 76

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	2	Health:	Good
DBH (cm):	14 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 1.7*

mTPZ (m): =TPZ

Tree ID: 77

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	14 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 78

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	5	Structure:	Poor
Width (m):	4	Health:	Poor
DBH (cm):	23 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Fair

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 1.7 Works priority: Very low
TPZ (m): 2.8 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 79

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	8	Structure:	Very poor
Width (m):	7	Health:	Very poor
DBH (cm):	80 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 3 Works priority: Very low
TPZ (m): 9.6 *Construction Proximity: 4.4*
mTPZ (m): =TPZ

Tree ID: 80

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	14	Structure:	Poor
Width (m):	13	Health:	Fair
DBH (cm):	71 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A
TPZ (m): 8.5 *Construction Proximity: 9*
mTPZ (m): =TPZ

Tree ID: 81

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Poor
Width (m):	6	Health:	Fair
DBH (cm):	23 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.7 Works priority: N/A

TPZ (m): 2.8 *Construction Proximity: 2.7*

mTPZ (m): =TPZ

Tree ID: 82

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	12 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 83

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Poor
Width (m):	3	Health:	Fair
DBH (cm):	15 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 84

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	12	Structure:	Poor
Width (m):	11	Health:	Poor
DBH (cm):	58 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.7 Works priority: N/A
TPZ (m): 7.0 *Construction Proximity: 8.6*
mTPZ (m): =TPZ

Tree ID: 85

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	10	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2 Works priority: N/A
TPZ (m): 3.6 *Construction Proximity: 4.4*
mTPZ (m): =TPZ

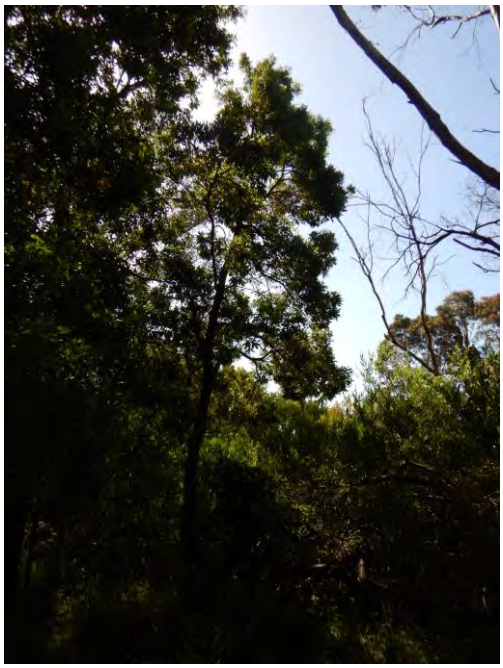
Tree ID: 86

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	9	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	16 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 3.2*
mTPZ (m): =TPZ



Tree ID: 87

Genus / species: *Acacia sophorae*

Evergreen Coast Wattle

Height (m):	4	Structure:	Poor
Width (m):	6	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 1.6 Works priority: Very low

TPZ (m): 2.4 *Construction Proximity: 1*

mTPZ (m): =TPZ

Tree ID: 88

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	8	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	16 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 5*

mTPZ (m): =TPZ

Tree ID: 89

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	10	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	17 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 7*

mTPZ (m): =TPZ

Tree ID: 90

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	8	Structure:	Good
Width (m):	2	Health:	Fair
DBH (cm):	13 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 7*

mTPZ (m): =TPZ

Tree ID: 91

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	10	Structure:	Poor
Width (m):	6	Health:	Good
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 1.3*

mTPZ (m): =TPZ

Tree ID: 92

Genus / species: *Pittosporum undulatum*

Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 1*

mTPZ (m): =TPZ

Tree ID: 93

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Poor
Width (m):	3	Health:	Poor
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 94

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	2	Health:	Poor
DBH (cm):	11 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 95

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	13 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 96

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	18 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.2 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 97

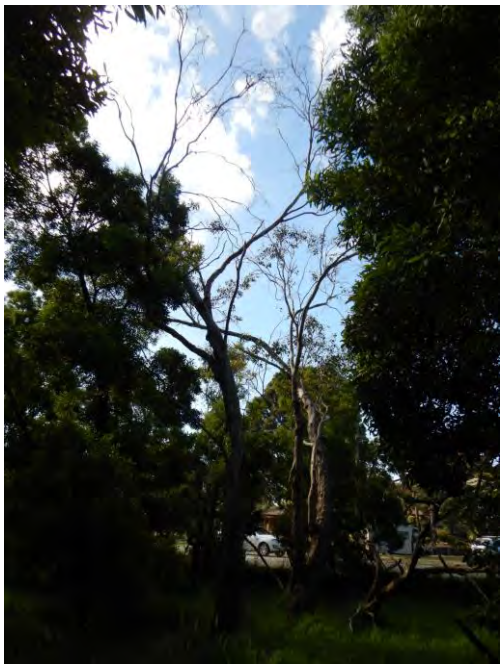
Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	12	Structure:	Fair
Width (m):	7	Health:	Dead
DBH (cm):	40 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Removed	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 98



Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	12	Structure:	Fair
Width (m):	6	Health:	Dead
DBH (cm):	40 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 3.9*
mTPZ (m): =TPZ

Tree ID: 99

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	8	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	25 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 3.6*

mTPZ (m): =TPZ

Tree ID: 100

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Poor
Width (m):	3	Health:	Good
DBH (cm):	11 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6*

mTPZ (m): =TPZ

Tree ID: 101

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	7	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	16 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 8*

mTPZ (m): =TPZ

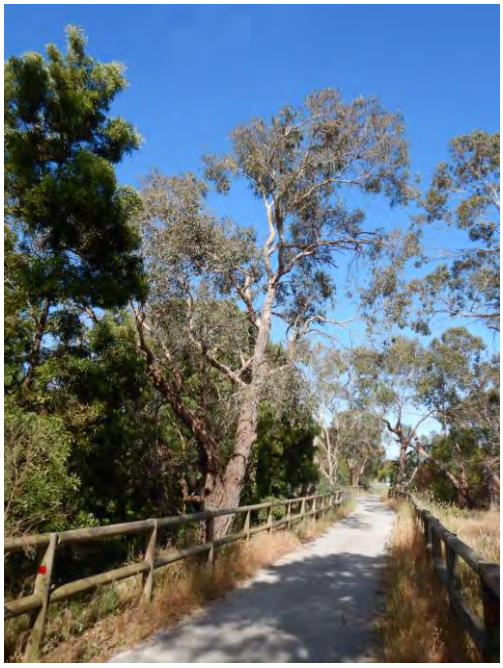
Tree ID: 102

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	15	Structure:	Fair
Width (m):	13	Health:	Fair
DBH (cm):	89 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 3.1 Works priority: N/A
TPZ (m): 10.7 *Construction Proximity: 7*
mTPZ (m): =TPZ



Tree ID: 103

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	6	Structure:	Poor
Width (m):	3	Health:	Good
DBH (cm):	11 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 4.6*
mTPZ (m): =TPZ

Tree ID: 104

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	9	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	19 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.3 *Construction Proximity: 1.4*
mTPZ (m): =TPZ

Tree ID: 105

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	10	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	26 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.1 *Construction Proximity: 0.4*

mTPZ (m): =TPZ

Tree ID: 106

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	15	Structure:	Poor
Width (m):	12	Health:	Dead
DBH (cm):	70 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Removed	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.9 Works priority: Very low

TPZ (m): 8.4 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 107

Genus / species: *Pittosporum undulatum*

Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 108

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	11	Structure:	Poor
Width (m):	9	Health:	Poor
DBH (cm):	44 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2.5 Works priority: Very low
TPZ (m): 5.3 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 109

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	6	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	19 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.3 *Construction Proximity: 0.6*
mTPZ (m): =TPZ

Tree ID: 110

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	11	Structure:	Good
Width (m):	6	Health:	Good
DBH (cm):	27 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 1.9 Works priority: N/A
TPZ (m): 3.2 *Construction Proximity: 2.4*
mTPZ (m): =TPZ

Tree ID: 111

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	8	Structure:	Poor
Width (m):	2	Health:	Fair
DBH (cm):	13 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Moderate

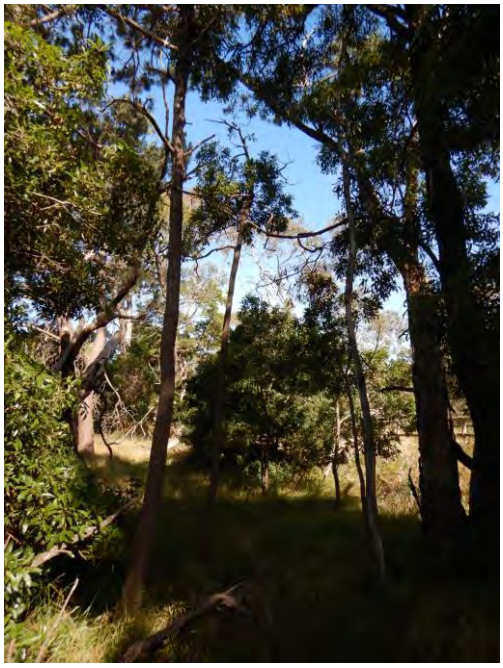
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 1*

mTPZ (m): =TPZ

Tree ID: 112



Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Fair
Width (m):	1	Health:	Poor
DBH (cm):	8 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Moderate

Works Required: B Removal.

SRZ (m): 1.5 Works priority: Very low

TPZ (m): 2.0 *Construction Proximity: 1.5*

mTPZ (m): =TPZ

Tree ID: 113

Genus / species: *Pittosporum undulatum*

Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 114

Genus / species: *Pittosporum undulatum*

Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 115

Genus / species: *Pinus halepensis*

Evergreen Allepo Pine

Height (m):	24	Structure:	Good
Width (m):	18	Health:	Good
DBH (cm):	98 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Removed	Form:	Good

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: I 50mm dead wood

SRZ (m): 3.3 Works priority: Very low

TPZ (m): 11.8 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 116

Genus / species: *Pittosporum undulatum*

Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Fair
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 117

Genus / species: *Pinus halepensis*
Evergreen Allepo Pine

Height (m):	15	Structure:	Good
Width (m):	8	Health:	Good
DBH (cm):	48 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.8 *Construction Proximity: 1.3*
mTPZ (m): =TPZ

Tree ID: 118

Genus / species: *Pinus halepensis*
Evergreen Allepo Pine

Height (m):	16	Structure:	Good
Width (m):	8	Health:	Good
DBH (cm):	48 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.8 *Construction Proximity: 2*
mTPZ (m): =TPZ

Tree ID: 119

Genus / species: *Pittosporum undulatum*
Evergreen Sweet Pittosporum

Height (m):	5	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	11 Measured	Maturity:	Immature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 7.4*
mTPZ (m): =TPZ

Tree ID: 120

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Fair
Width (m):	2	Health:	Fair
DBH (cm):	9 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m):	*1.5*	Works priority:	N/A
TPZ (m):	*2.0*	*Construction Proximity:*	*7.4*
mTPZ (m):	*=TPZ*		

Tree ID: 121

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Fair
Width (m):	2	Health:	Poor
DBH (cm):	8 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m):	*1.5*	Works priority:	Very low
TPZ (m):	*2.0*	*Construction Proximity:*	*5.3*
mTPZ (m):	*=TPZ*		

Tree ID: 122

Genus / species: *Eucalyptus sp.*

Evergreen Gum

Height (m):	12	Structure:	Poor
Width (m):	7	Health:	Dead
DBH (cm):	48 Estimated	Maturity:	Mature
Origin:	Australian	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m):	*2.5*	Works priority:	Very low
TPZ (m):	*5.8*	*Construction Proximity:*	*3.2*
mTPZ (m):	*=TPZ*		

Tree ID: 123

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	15	Structure:	Poor
Width (m):	12	Health:	Fair
DBH (cm):	123 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: High
Works Required: I 50mm dead wood

SRZ (m): 3.6 Works priority: Very low
TPZ (m): 14.8 *Construction Proximity: 15*
mTPZ (m): =TPZ

Tree ID: 124

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	6	Structure:	Poor
Width (m):	5	Health:	Very poor
DBH (cm):	30 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2 Works priority: Very low
TPZ (m): 3.6 *Construction Proximity: 12*
mTPZ (m): =TPZ

Tree ID: 125

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	13	Structure:	Poor
Width (m):	9	Health:	Poor
DBH (cm):	50 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 2.6 Works priority: Very low
TPZ (m): 6.0 *Construction Proximity: 5.5*
mTPZ (m): =TPZ

Tree ID: 126

Genus / species: *Eucalyptus camaldulensis*
Evergreen River Red Gum

Height (m):	17	Structure:	Good
Width (m):	7	Health:	Fair
DBH (cm):	46 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.5 *Construction Proximity: 6.9*
mTPZ (m): =TPZ

Tree ID: 127

Genus / species: *Pittosporum undulatum*
Evergreen Sweet Pittosporum

Height (m):	6	Structure:	Good
Width (m):	5	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 128

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	4	Structure:	Fair
Width (m):	3	Health:	Fair
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 129

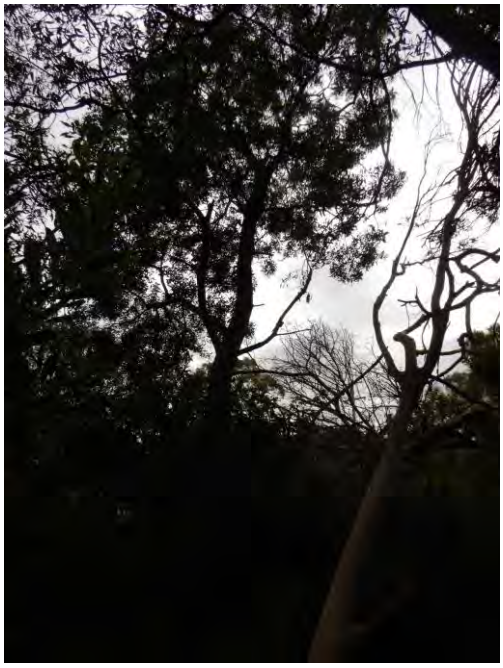
Genus / species: *Eucalyptus camaldulensis*
Evergreen River Red Gum

Height (m):	21	Structure:	Fair
Width (m):	12	Health:	Good
DBH (cm):	76 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.1 *Construction Proximity: 4.5*
mTPZ (m): =TPZ

Tree ID: 130



Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	8	Structure:	Fair
Width (m):	3	Health:	Fair
DBH (cm):	22 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.7 Works priority: N/A
TPZ (m): 2.6 *Construction Proximity: 2.5*
mTPZ (m): =TPZ

Tree ID: 131

Genus / species: *Acacia melanoxylon*
Evergreen Blackwood

Height (m):	10	Structure:	Fair
Width (m):	7	Health:	Fair
DBH (cm):	34 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.1 *Construction Proximity: 6.3*
mTPZ (m): =TPZ

Tree ID: 132

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	15	Health:	Good
DBH (cm):	40 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 4.8 *Construction Proximity: 8.7*
mTPZ (m): =TPZ

Tree ID: 133

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	5	Structure:	Poor
Width (m):	5	Health:	Very poor
DBH (cm):	15 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.5 Works priority: Very low
TPZ (m): 2.0 *Construction Proximity: 5.5*
mTPZ (m): =TPZ

Tree ID: 134

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	6	Structure:	Poor
Width (m):	6	Health:	Poor
DBH (cm):	20 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 1.6 Works priority: Very low
TPZ (m): 2.4 *Construction Proximity: 4.4*
mTPZ (m): =TPZ

Tree ID: 135

Genus / species: *Acacia sophorae*

Evergreen Coast Wattle

Height (m):	5	Structure:	Fair
Width (m):	4	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.6 Works priority: N/A

TPZ (m): 2.4 *Construction Proximity: 11.5*

mTPZ (m): =TPZ

Tree ID: 136

Genus / species: *Eucalyptus pryoriana*

Evergreen Gippsland Manna Gum

Height (m):	15	Structure:	Fair
Width (m):	9	Health:	Good
DBH (cm):	80 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: J No works.

SRZ (m): 3 Works priority: N/A

TPZ (m): 9.6 *Construction Proximity: 13*

mTPZ (m): =TPZ

Tree ID: 137

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	10	Health:	Good
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

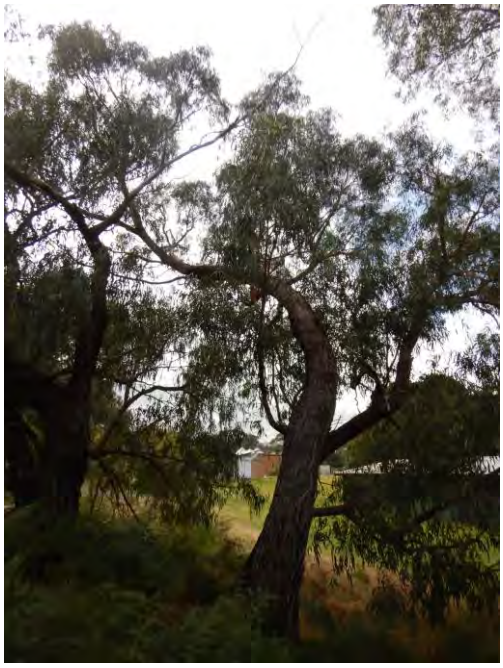
Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 13*

mTPZ (m): =TPZ

Tree ID: 138



Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	12	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	53 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 6.4 *Construction Proximity: 12.8*
mTPZ (m): =TPZ

Tree ID: 139

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	10	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	39 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.7 *Construction Proximity: 13*
mTPZ (m): =TPZ

Tree ID: 140

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	13	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	80 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.6 *Construction Proximity: 10.8*
mTPZ (m): =TPZ

Tree ID: 141

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	9	Structure:	Very poor
Width (m):	10	Health:	Fair
DBH (cm):	80 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 3 Works priority: Very low
TPZ (m): 9.6 *Construction Proximity: 2.6*
mTPZ (m): =TPZ

Tree ID: 142

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	6	Structure:	Poor
Width (m):	4	Health:	Dead
DBH (cm):	20 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.6 Works priority: Very low
TPZ (m): 2.4 *Construction Proximity: 1.7*
mTPZ (m): =TPZ

Tree ID: 143

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	5	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	10 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Removed	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 144

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	11	Structure:	Fair
Width (m):	12	Health:	Good
DBH (cm):	45 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: G Broken branch/s.

SRZ (m): 2.5 Works priority: Very low
TPZ (m): 5.4 *Construction Proximity: 8.9*
mTPZ (m): =TPZ

Tree ID: 145

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	10	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	29 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Removed	Form:	Good

Retention Value: High
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2 Works priority: N/A
TPZ (m): 3.5 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 146

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.7*
mTPZ (m): =TPZ

Tree ID: 147

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Good
Width (m):	5	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.9*
mTPZ (m): =TPZ

Tree ID: 148

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	4	Structure:	Good
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.2*
mTPZ (m): =TPZ

Tree ID: 149

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	5	Structure:	Poor
Width (m):	4	Health:	Dead
DBH (cm):	15 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.5 Works priority: Very low
TPZ (m): 2.0 *Construction Proximity: 9*
mTPZ (m): =TPZ

Tree ID: 150

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 8*

mTPZ (m): =TPZ

Tree ID: 151

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6.1*

mTPZ (m): =TPZ

Tree ID: 152

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6.3*

mTPZ (m): =TPZ

Tree ID: 153

Genus / species: *Pinus halepensis*
Evergreen Allepo Pine

Height (m):	14	Structure:	Good
Width (m):	9	Health:	Fair
DBH (cm):	56 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.7 Works priority: N/A
TPZ (m): 6.7 *Construction Proximity: 5*
mTPZ (m): =TPZ

Tree ID: 154

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	6	Structure:	Poor
Width (m):	11	Health:	Poor
DBH (cm):	81 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.7 *Construction Proximity: 12*
mTPZ (m): =TPZ

Tree ID: 155

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	6	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 11*
mTPZ (m): =TPZ

Tree ID: 156

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	6	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 157

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	1	Health:	Good
DBH (cm):	8 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 8*

mTPZ (m): =TPZ

Tree ID: 158

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	1	Health:	Good
DBH (cm):	8 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 7*

mTPZ (m): =TPZ

Tree ID: 159

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 5.2*
mTPZ (m): =TPZ

Tree ID: 160

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	6	Structure:	Poor
Width (m):	3	Health:	Fair
DBH (cm):	13 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.8*
mTPZ (m): =TPZ

Tree ID: 161

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 2*
mTPZ (m): =TPZ

Tree ID: 162

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.6*
mTPZ (m): =TPZ

Tree ID: 163

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	8 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 1.2*
mTPZ (m): =TPZ

Tree ID: 164

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	5	Structure:	Very poor
Width (m):	9	Health:	Poor
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 165

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	13	Structure:	Good
Width (m):	8	Health:	Good
DBH (cm):	50 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A

TPZ (m): 6.0 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 166

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	9	Structure:	Fair
Width (m):	9	Health:	Fair
DBH (cm):	35 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.2 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 167

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	7	Health:	Good
DBH (cm):	23 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.7 Works priority: N/A

TPZ (m): 2.8 *Construction Proximity: 10.5*

mTPZ (m): =TPZ

Tree ID: 168

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	9	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	24 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 2.9 *Construction Proximity: 9.5*

mTPZ (m): =TPZ

Tree ID: 169

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	7	Health:	Fair
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 6.9*

mTPZ (m): =TPZ

Tree ID: 170

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Fair
Width (m):	9	Health:	Good
DBH (cm):	35 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.2 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 171

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	9	Structure:	Fair
Width (m):	8	Health:	Fair
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 9.5*

mTPZ (m): =TPZ

Tree ID: 172

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	9	Structure:	Poor
Width (m):	9	Health:	Poor
DBH (cm):	35 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 2.2 Works priority: Very low

TPZ (m): 4.2 *Construction Proximity: 6.3*

mTPZ (m): =TPZ

Tree ID: 173

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	9	Structure:	Poor
Width (m):	9	Health:	Poor
DBH (cm):	30 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 2 Works priority: Very low

TPZ (m): 3.6 *Construction Proximity: 6.5*

mTPZ (m): =TPZ

Tree ID: 174

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	8	Health:	Fair
DBH (cm):	34 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.1 *Construction Proximity: 5.3*

mTPZ (m): =TPZ

Tree ID: 175

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	6	Health:	Poor
DBH (cm):	30 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 3.5*

mTPZ (m): =TPZ

Tree ID: 176

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	6	Structure:	Poor
Width (m):	9	Health:	Fair
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 4.8 *Construction Proximity: 2.7*

mTPZ (m): =TPZ

Tree ID: 177

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	20 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.6 Works priority: N/A

TPZ (m): 2.4 *Construction Proximity: 0.6*

mTPZ (m): =TPZ

Tree ID: 178

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	35 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.2 *Construction Proximity: 9.5*

mTPZ (m): =TPZ

Tree ID: 179

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	6	Health:	Fair
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 9*

mTPZ (m): =TPZ

Tree ID: 180

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	6	Structure:	Poor
Width (m):	5	Health:	Fair
DBH (cm):	30 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 14*

mTPZ (m): =TPZ

Tree ID: 181

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	4	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.6 Works priority: N/A

TPZ (m): 2.4 *Construction Proximity: 14*

mTPZ (m): =TPZ

Tree ID: 182

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Good
Width (m):	3	Health:	Fair
DBH (cm):	17 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 8*

mTPZ (m): =TPZ

Tree ID: 183

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Fair
Width (m):	4	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.6 Works priority: N/A

TPZ (m): 2.4 *Construction Proximity: 6.4*

mTPZ (m): =TPZ

Tree ID: 184

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	6	Structure:	Very poor
Width (m):	15	Health:	Poor
DBH (cm):	45 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 2.5 Works priority: Very low

TPZ (m): 5.4 *Construction Proximity: 6.5*

mTPZ (m): =TPZ

Tree ID: 185

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Poor
Width (m):	5	Health:	Fair
DBH (cm):	33 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A

TPZ (m): 4.0 *Construction Proximity: 4.5*

mTPZ (m): =TPZ

Tree ID: 186

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Fair
Width (m):	6	Health:	Poor
DBH (cm):	35 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.2 *Construction Proximity: 4.5*

mTPZ (m): =TPZ

Tree ID: 187

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	4	Health:	Poor
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 1.8 Works priority: Very low

TPZ (m): 3.0 *Construction Proximity: 2.2*

mTPZ (m): =TPZ

Tree ID: 188

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	14	Structure:	Good
Width (m):	8	Health:	Fair
DBH (cm):	50 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A

TPZ (m): 6.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 189

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	11	Structure:	Good
Width (m):	3	Health:	Fair
DBH (cm):	25 Measured	Maturity:	Immature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 190

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	11	Structure:	Good
Width (m):	4	Health:	Fair
DBH (cm):	25 Measured	Maturity:	Immature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 191

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	11	Structure:	Good
Width (m):	4	Health:	Fair
DBH (cm):	28 Measured	Maturity:	Immature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.9 Works priority: N/A

TPZ (m): 3.4 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 192

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	8	Structure:	Fair
Width (m):	5	Health:	Dead
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 4.8 *Construction Proximity: 1*

mTPZ (m): =TPZ

Tree ID: 193

Genus / species: *Pinus pinaster*

Evergreen Maritime Pine

Height (m):	14	Structure:	Good
Width (m):	7	Health:	Good
DBH (cm):	50 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A

TPZ (m): 6.0 *Construction Proximity: 1.8*

mTPZ (m): =TPZ

Tree ID: 194

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	11	Structure:	Fair
Width (m):	7	Health:	Poor
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 4.8 *Construction Proximity: 1.9*

mTPZ (m): =TPZ

Tree ID: 195

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Very poor
Width (m):	9	Health:	Fair
DBH (cm):	30 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 2 Works priority: N/A

TPZ (m): 3.6 *Construction Proximity: 1.2*

mTPZ (m): =TPZ

Tree ID: 196

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 197

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.6*

mTPZ (m): =TPZ

Tree ID: 198

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	6	Structure:	Poor
Width (m):	7	Health:	Poor
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 8.5*
mTPZ (m): =TPZ

Tree ID: 199

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	4	Health:	Poor
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.8 Works priority: Very low
TPZ (m): 3.0 *Construction Proximity: 2.4*
mTPZ (m): =TPZ

Tree ID: 200

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	7	Health:	Poor
DBH (cm):	20 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.6 Works priority: Very low
TPZ (m): 2.4 *Construction Proximity: 5.5*
mTPZ (m): =TPZ

Tree ID: 201

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	15	Structure:	Fair
Width (m):	13	Health:	Poor
DBH (cm):	84 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: High
Works Required: I 50mm dead wood

SRZ (m): 3.1 Works priority: Very low
TPZ (m): 10.1 *Construction Proximity: 14*
mTPZ (m): =TPZ

Tree ID: 202

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	15	Structure:	Fair
Width (m):	15	Health:	Fair
DBH (cm):	74 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: I 50mm dead wood

SRZ (m): 3 Works priority: Very low
TPZ (m): 8.9 *Construction Proximity: 14*
mTPZ (m): =TPZ

Tree ID: 203

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	8	Structure:	Very poor
Width (m):	9	Health:	Fair
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: High
Works Required: B Removal.

SRZ (m): 2.4 Works priority: Very low
TPZ (m): 4.8 *Construction Proximity: 13.5*
mTPZ (m): =TPZ

Tree ID: 204

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	10	Structure:	Fair
Width (m):	9	Health:	Poor
DBH (cm):	54 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.7 Works priority: N/A
TPZ (m): 6.5 *Construction Proximity: 14*
mTPZ (m): =TPZ

Tree ID: 205

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	10	Structure:	Poor
Width (m):	9	Health:	Fair
DBH (cm):	45 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.4 *Construction Proximity: 5.5*
mTPZ (m): =TPZ

Tree ID: 206

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Very poor
Width (m):	7	Health:	Poor
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 1.8 Works priority: Very low
TPZ (m): 3.0 *Construction Proximity: 7.7*
mTPZ (m): =TPZ

Tree ID: 207

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	2	Structure:	Very poor
Width (m):	10	Health:	Poor
DBH (cm):	45 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.5 Works priority: Very low

TPZ (m): 5.4 *Construction Proximity: 6.3*

mTPZ (m): =TPZ

Tree ID: 208

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	3	Structure:	Very poor
Width (m):	10	Health:	Poor
DBH (cm):	45 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	0
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.5 Works priority: Very low

TPZ (m): 5.4 *Construction Proximity: 5.6*

mTPZ (m): =TPZ

Tree ID: 209

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	7	Health:	Good
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 4*

mTPZ (m): =TPZ

Tree ID: 210

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Poor
Width (m):	7	Health:	Good
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m):	*1.8*	Works priority:	N/A
TPZ (m):	*3.0*	*Construction Proximity:*	*5.9*
mTPZ (m):	*=TPZ*		

Tree ID: 211

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	3	Structure:	Poor
Width (m):	6	Health:	Fair
DBH (cm):	30 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m):	*2*	Works priority:	Very low
TPZ (m):	*3.6*	*Construction Proximity:*	*7.1*
mTPZ (m):	*=TPZ*		

Tree ID: 212

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	5	Structure:	Poor
Width (m):	6	Health:	Fair
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m):	*1.8*	Works priority:	N/A
TPZ (m):	*3.0*	*Construction Proximity:*	*6.9*
mTPZ (m):	*=TPZ*		

Tree ID: 213

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Poor
Width (m):	6	Health:	Poor
DBH (cm):	26 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 1.8 Works priority: Very low

TPZ (m): 3.1 *Construction Proximity: 6.5*

mTPZ (m): =TPZ

Tree ID: 214

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Poor
Width (m):	6	Health:	Very poor
DBH (cm):	25 Estimated	Maturity:	Over mature
Origin:	Victorian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 1.8 Works priority: Very low

TPZ (m): 3.0 *Construction Proximity: 5.7*

mTPZ (m): =TPZ

Tree ID: 215

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	6	Structure:	Fair
Width (m):	5	Health:	Fair
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 7.5*

mTPZ (m): =TPZ

Tree ID: 216

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Very poor
Width (m):	10	Health:	Fair
DBH (cm):	40 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 4.8 *Construction Proximity: 9*
mTPZ (m): =TPZ

Tree ID: 217

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	4	Structure:	Very poor
Width (m):	6	Health:	Fair
DBH (cm):	25 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A
TPZ (m): 3.0 *Construction Proximity: 8*
mTPZ (m): =TPZ

Tree ID: 218

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	9	Structure:	Fair
Width (m):	12	Health:	Poor
DBH (cm):	62 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2.8 Works priority: Very low
TPZ (m): 7.4 *Construction Proximity: 5.3*
mTPZ (m): =TPZ

Tree ID: 219

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	12	Structure:	Fair
Width (m):	12	Health:	Very poor
DBH (cm):	58 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2.7 Works priority: Very low
TPZ (m): 7.0 *Construction Proximity: 5.2*
mTPZ (m): =TPZ

Tree ID: 220

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	19	Structure:	Fair
Width (m):	11	Health:	Fair
DBH (cm):	105 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 3.4 Works priority: N/A
TPZ (m): 12.6 *Construction Proximity: 14.3*
mTPZ (m): =TPZ

Tree ID: 221

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	13	Structure:	Fair
Width (m):	7	Health:	Very poor
DBH (cm):	53 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 2.6 Works priority: Very low
TPZ (m): 6.4 *Construction Proximity: 10.5*
mTPZ (m): =TPZ

Tree ID: 222

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	15	Structure:	Very poor
Width (m):	8	Health:	Dead
DBH (cm):	92 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 3.2 Works priority: Very low

TPZ (m): 11.0 *Construction Proximity: 15*

mTPZ (m): =TPZ

Tree ID: 223

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	17	Structure:	Very poor
Width (m):	9	Health:	Dead
DBH (cm):	86 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 3.1 Works priority: N/A

TPZ (m): 10.3 *Construction Proximity: 20*

mTPZ (m): =TPZ

Tree ID: 224

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	17	Structure:	Fair
Width (m):	8	Health:	Fair
DBH (cm):	65 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: I 50mm dead wood

SRZ (m): 2.9 Works priority: Very low

TPZ (m): 7.8 *Construction Proximity: 11.2*

mTPZ (m): =TPZ

Tree ID: 225

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	7	Structure:	Fair
Width (m):	5	Health:	Fair
DBH (cm):	32 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A
TPZ (m): 3.8 *Construction Proximity: 12*
mTPZ (m): =TPZ

Tree ID: 226

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	18	Structure:	Fair
Width (m):	14	Health:	Poor
DBH (cm):	92 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: High
Works Required: I 50mm dead wood

SRZ (m): 3.2 Works priority: Very low
TPZ (m): 11.0 *Construction Proximity: 8.3*
mTPZ (m): =TPZ

Tree ID: 227

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	17	Structure:	Fair
Width (m):	8	Health:	Poor
DBH (cm):	84 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 3.1 Works priority: Very low
TPZ (m): 10.1 *Construction Proximity: 6.7*
mTPZ (m): =TPZ

Tree ID: 228

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	7	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	40 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 4.8 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 229

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	7	Structure:	Fair
Width (m):	9	Health:	Good
DBH (cm):	63 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A

TPZ (m): 7.6 *Construction Proximity: 0.9*

mTPZ (m): =TPZ

Tree ID: 230

Genus / species: *Acacia sophorae*

Evergreen Coast Wattle

Height (m):	5	Structure:	Fair
Width (m):	5	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Fair

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m): 1.6 Works priority: Very low

TPZ (m): 2.4 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 231

Genus / species: *Eucalyptus cladocalyx 'Nana'*
Evergreen Dwarf Sugar Gum

Height (m):	7	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	24 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A
TPZ (m): 2.9 *Construction Proximity: 2*
mTPZ (m): =TPZ

Tree ID: 232

Genus / species: *Eucalyptus cladocalyx 'Nana'*
Evergreen Dwarf Sugar Gum

Height (m):	8	Structure:	Fair
Width (m):	7	Health:	Good
DBH (cm):	43 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 5.2 *Construction Proximity: 1.5*
mTPZ (m): =TPZ

Tree ID: 233

Genus / species: *Eucalyptus cladocalyx 'Nana'*
Evergreen Dwarf Sugar Gum

Height (m):	9	Structure:	Poor
Width (m):	7	Health:	Fair
DBH (cm):	38 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.6 *Construction Proximity: 2*
mTPZ (m): =TPZ

Tree ID: 234

Genus / species: *Eucalyptus gomphocephala*
Evergreen Tuart

Height (m):	6	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	29 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2 Works priority: N/A
TPZ (m): 3.5 *Construction Proximity: 4.1*
mTPZ (m): =TPZ

Tree ID: 235

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	8	Structure:	Good
Width (m):	7	Health:	Good
DBH (cm):	38 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.6 *Construction Proximity: 3.4*
mTPZ (m): =TPZ

Tree ID: 236

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle

Height (m):	4	Structure:	Poor
Width (m):	5	Health:	Good
DBH (cm):	39 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Removed	Form:	Poor

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.7 *Construction Proximity: 0.5*
mTPZ (m): =TPZ

Tree ID: 237

Genus / species: *Agonis flexuosa*

Evergreen West Australian Willow Myrtle

Height (m):	6	Structure:	Fair
Width (m):	3	Health:	Fair
DBH (cm):	17 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 4.2*

mTPZ (m): =TPZ

Tree ID: 238

Genus / species: *Hesperocyparis arizonica*

Evergreen Arizona Cypress

Height (m):	5	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	40 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 4.8 *Construction Proximity: 2.7*

mTPZ (m): =TPZ

Tree ID: 239

Genus / species: *Angophora costata*

Evergreen Sydney Apple Gum

Height (m):	22	Structure:	Good
Width (m):	13	Health:	Good
DBH (cm):	71 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Fair

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A

TPZ (m): 8.5 *Construction Proximity: 5.3*

mTPZ (m): =TPZ

Tree ID: 240

Genus / species: *Agonis flexuosa*

Evergreen West Australian Willow Myrtle

Height (m):	5	Structure:	Good
Width (m):	5	Health:	Good
DBH (cm):	31 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m):	*2*	Works priority:	N/A
TPZ (m):	*3.7*	*Construction Proximity:*	*1.7*
mTPZ (m):	*=TPZ*		

Tree ID: 241

Genus / species: *Hesperocyparis arizonica*

Evergreen Arizona Cypress

Height (m):	5	Structure:	Fair
Width (m):	4	Health:	Fair
DBH (cm):	26 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m):	*1.8*	Works priority:	N/A
TPZ (m):	*3.1*	*Construction Proximity:*	*3.3*
mTPZ (m):	*=TPZ*		

Tree ID: 242

Genus / species: *Melaleuca sp.*

Evergreen Paperbark

Height (m):	5	Structure:	Poor
Width (m):	4	Health:	Poor
DBH (cm):	15 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: B Removal.

SRZ (m):	*1.5*	Works priority:	Very low
TPZ (m):	*2.0*	*Construction Proximity:*	*1.6*
mTPZ (m):	*=TPZ*		

Tree ID: 243

Genus / species: *Leptospermum laevigatum*
Evergreen Coast Tea Tree

Height (m):	5	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	39 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.7 *Construction Proximity: 0.8*
mTPZ (m): =TPZ

Tree ID: 244

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	14	Structure:	Fair
Width (m):	9	Health:	Good
DBH (cm):	53 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 6.4 *Construction Proximity: 3.4*
mTPZ (m): =TPZ

Tree ID: 245

Genus / species: *Eucalyptus pryoriana*
Evergreen Gippsland Manna Gum

Height (m):	10	Structure:	Fair
Width (m):	7	Health:	Good
DBH (cm):	52 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 6.2 *Construction Proximity: 3.1*
mTPZ (m): =TPZ

Tree ID: 246

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	16	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	45 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.4 *Construction Proximity: 2.3*
mTPZ (m): =TPZ

Tree ID: 247

Genus / species: *Hakea salicifolia*
Evergreen Willow Hakea

Height (m):	5	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	32 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A
TPZ (m): 3.8 *Construction Proximity: 2.7*
mTPZ (m): =TPZ

Tree ID: 248

Genus / species: *Araucaria heterophylla*
Evergreen Norfolk Island Pine

Height (m):	5	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	25 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A
TPZ (m): 3.0 *Construction Proximity: 0.9*
mTPZ (m): =TPZ

Tree ID: 249

Genus / species: *Leptospermum petersonii*

Evergreen Lemon Scented Tea Tree

Height (m):	4	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	10 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Removed	Form:	Good

Retention Value: Very low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 250

Genus / species: *Eucalyptus cladocalyx*

Evergreen Sugar Gum

Height (m):	7	Structure:	Very poor
Width (m):	6	Health:	Very poor
DBH (cm):	34 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	0
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.1 *Construction Proximity: 1.9*

mTPZ (m): =TPZ

Tree ID: 251

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	7	Structure:	Very poor
Width (m):	5	Health:	Dead
DBH (cm):	35 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A

TPZ (m): 4.2 *Construction Proximity: 1.9*

mTPZ (m): =TPZ

Tree ID: 252

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum
Height (m): 9 Structure: Fair
Width (m): 7 Health: Good
DBH (cm): 39 Measured Maturity: Mature
Origin: Melbourne ULE (years): 15 - 30
Retained?: Removed Form: Fair
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.7 *Construction Proximity: 0.9*
mTPZ (m): =TPZ

Tree ID: 253

Genus / species: *Agonis flexuosa*
Evergreen West Australian Willow Myrtle
Height (m): 8 Structure: Fair
Width (m): 8 Health: Good
DBH (cm): 64 Measured Maturity: Mature
Origin: Australian ULE (years): 15 - 30
Retained?: Retained Form: Poor
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A
TPZ (m): 7.7 *Construction Proximity: 1*
mTPZ (m): =TPZ

Tree ID: 254

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle
Height (m): 5 Structure: Fair
Width (m): 5 Health: Good
DBH (cm): 18 Measured Maturity: Mature
Origin: Melbourne ULE (years): 5 - 15
Retained?: Removed Form: Fair
Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.2 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 255

Genus / species: *Pinus halepensis*

Evergreen Allepo Pine

Height (m):	20	Structure:	Good
Width (m):	20	Health:	Good
DBH (cm):	92 Measured	Maturity:	Mature
Origin:	Exotic	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: I 50mm dead wood

SRZ (m): 3.2 Works priority: Very low

TPZ (m): 11.0 *Construction Proximity: 12.8*

mTPZ (m): =TPZ

Tree ID: 256

Genus / species: *Eucalyptus prava*

Evergreen Orange Gum

Height (m):	12	Structure:	Good
Width (m):	12	Health:	Good
DBH (cm):	63 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A

TPZ (m): 7.6 *Construction Proximity: 1.3*

mTPZ (m): =TPZ

Tree ID: 257

Genus / species: *Lophostemon confertus*

Evergreen Queensland Brush Box

Height (m):	12	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	59 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Moderate

Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A

TPZ (m): 7.1 *Construction Proximity: 2.2*

mTPZ (m): =TPZ

Tree ID: 258

Genus / species: *Eucalyptus nicholii*
Evergreen Willow Leaf Peppermint

Height (m):	13	Structure:	Fair
Width (m):	10	Health:	Fair
DBH (cm):	64 Measured	Maturity:	Over mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A
TPZ (m): 7.7 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 259

Genus / species: *Callistemon citrinus*
Evergreen Crimson Bottle Brush

Height (m):	5	Structure:	Fair
Width (m):	6	Health:	Fair
DBH (cm):	15 Measured	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Removed	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 260

Genus / species: *Melaleuca linariifolia*
Evergreen Flax Leaf Paperbark

Height (m):	7	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	70 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A
TPZ (m): 8.4 *Construction Proximity: 2.2*
mTPZ (m): =TPZ

Tree ID: 261

Genus / species: *Melaleuca linariifolia*

Evergreen Flax Leaf Paperbark

Height (m):	6	Structure:	Fair
Width (m):	3	Health:	Good
DBH (cm):	45 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A

TPZ (m): 5.4 *Construction Proximity: 2.3*

mTPZ (m): =TPZ

Tree ID: 262

Genus / species: *Eucalyptus cephalocarpa*

Evergreen Silver Leaf Stringybark

Height (m):	7	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	16 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 2.4*

mTPZ (m): =TPZ

Tree ID: 263

Genus / species: *Corymbia ficifolia*

Evergreen Flowering Gum

Height (m):	9	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	42 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A

TPZ (m): 5.0 *Construction Proximity: 1.8*

mTPZ (m): =TPZ

Tree ID: 264

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	9	Structure:	Good
Width (m):	7	Health:	Good
DBH (cm):	45 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.4 *Construction Proximity: 1.4*
mTPZ (m): =TPZ

Tree ID: 265

Genus / species: *Corymbia calophylla*
Evergreen Marri

Height (m):	10	Structure:	Good
Width (m):	9	Health:	Good
DBH (cm):	42 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 5.0 *Construction Proximity: 1.9*
mTPZ (m): =TPZ

Tree ID: 266

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	10	Structure:	Good
Width (m):	9	Health:	Good
DBH (cm):	40 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 4.8 *Construction Proximity: 1.7*
mTPZ (m): =TPZ

Tree ID: 267

Genus / species: *Melaleuca linariifolia*

Evergreen Flax Leaf Paperbark

Height (m):	7	Structure:	Good
Width (m):	6	Health:	Good
DBH (cm):	72 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A

TPZ (m): 8.6 *Construction Proximity: 1.3*

mTPZ (m): =TPZ

Tree ID: 268

Genus / species: *Angophora costata*

Evergreen Sydney Apple Gum

Height (m):	19	Structure:	Fair
Width (m):	16	Health:	Good
DBH (cm):	83 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Retained	Form:	Good

Retention Value: High

Removal / retention reason: N/A.

Amenity value: High

Works Required: J No works.

SRZ (m): 3.1 Works priority: N/A

TPZ (m): 10.0 *Construction Proximity: 5.1*

mTPZ (m): =TPZ

Tree ID: 269

Genus / species: *Eucalyptus leucoxylon*

Evergreen Yellow Gum

Height (m):	7	Structure:	Fair
Width (m):	4	Health:	Poor
DBH (cm):	19 Measured	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Remove.

Removal / retention reason: Health ULE.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: Very low

TPZ (m): 2.3 *Construction Proximity: 5*

mTPZ (m): =TPZ

Tree ID: 270

Genus / species: *Callistemon 'Kings Park Special'*
Evergreen Crimson Bottle Brush

Height (m):	6	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	24 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A
TPZ (m): 2.9 *Construction Proximity: 5*
mTPZ (m): =TPZ

Tree ID: 271

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	19	Structure:	Good
Width (m):	11	Health:	Fair
DBH (cm):	55 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 2.7 Works priority: N/A
TPZ (m): 6.6 *Construction Proximity: 1.6*
mTPZ (m): =TPZ

Tree ID: 272

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	19	Structure:	Fair
Width (m):	13	Health:	Good
DBH (cm):	64 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Removed	Form:	Fair

Retention Value: High
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 2.8 Works priority: N/A
TPZ (m): 7.7 *Construction Proximity: 1.9*
mTPZ (m): =TPZ

Tree ID: 273

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	9	Structure:	Fair
Width (m):	8	Health:	Good
DBH (cm):	38 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.6 *Construction Proximity: 0.6*
mTPZ (m): =TPZ

Tree ID: 274

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	11	Structure:	Good
Width (m):	9	Health:	Good
DBH (cm):	38 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Removed	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A
TPZ (m): 4.6 *Construction Proximity: 0.3*
mTPZ (m): =TPZ

Tree ID: 275

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	11	Structure:	Good
Width (m):	8	Health:	Good
DBH (cm):	41 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	30 - 60
Retained?:	Removed	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.4 Works priority: N/A
TPZ (m): 4.9 *Construction Proximity: 1.5*
mTPZ (m): =TPZ

Tree ID: 276

Genus / species: *Eucalyptus cladocalyx 'Nana'*
Evergreen Dwarf Sugar Gum

Height (m):	11	Structure:	Poor
Width (m):	8	Health:	Fair
DBH (cm):	53 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	1 - 5
Retained?:	Removed	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 2.6 Works priority: Very low
TPZ (m): 6.4 *Construction Proximity: 0.8*
mTPZ (m): =TPZ

Tree ID: 277

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	4	Structure:	Fair
Width (m):	4	Health:	Fair
DBH (cm):	20 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.6 Works priority: N/A
TPZ (m): 2.4 *Construction Proximity: 0.9*
mTPZ (m): =TPZ

Tree ID: 278

Genus / species: *Corymbia calophylla*
Evergreen Marri

Height (m):	11	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	36 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.3 *Construction Proximity: 2.7*
mTPZ (m): =TPZ

Tree ID: 279

Genus / species: *Eucalyptus conferruminata*
Evergreen Bushy Yate

Height (m):	7	Structure:	Fair
Width (m):	7	Health:	Fair
DBH (cm):	33 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A
TPZ (m): 4.0 *Construction Proximity: 4.7*
mTPZ (m): =TPZ

Tree ID: 280

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	4	Structure:	Poor
Width (m):	4	Health:	Good
DBH (cm):	23 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Very low
Works Required: B Removal.

SRZ (m): 1.7 Works priority: Very low
TPZ (m): 2.8 *Construction Proximity: 0.1*
mTPZ (m): =TPZ

Tree ID: 281

Genus / species: *Melaleuca styphelioides*
Evergreen Prickly Paperbark

Height (m):	5	Structure:	Fair
Width (m):	6	Health:	Good
DBH (cm):	52 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.6 Works priority: N/A
TPZ (m): 6.2 *Construction Proximity: 1.6*
mTPZ (m): =TPZ

Tree ID: 282

Genus / species: *Eucalyptus cladocalyx 'Nana'*
Evergreen Dwarf Sugar Gum

Height (m):	8	Structure:	Poor
Width (m):	6	Health:	Good
DBH (cm):	44 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.5 Works priority: N/A
TPZ (m): 5.3 *Construction Proximity: 2.4*
mTPZ (m): =TPZ

Tree ID: 283

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	7	Structure:	Fair
Width (m):	7	Health:	Fair
DBH (cm):	37 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.4 *Construction Proximity: 2.9*
mTPZ (m): =TPZ

Tree ID: 284

Genus / species: *Angophora costata*
Evergreen Sydney Apple Gum

Height (m):	7	Structure:	Good
Width (m):	7	Health:	Good
DBH (cm):	32 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A
TPZ (m): 3.8 *Construction Proximity: 5.4*
mTPZ (m): =TPZ

Tree ID: 285

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	6	Structure:	Good
Width (m):	7	Health:	Good
DBH (cm):	32 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 2.1 Works priority: N/A
TPZ (m): 3.8 *Construction Proximity: 2.8*
mTPZ (m): =TPZ

Tree ID: 286

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	5	Structure:	Poor
Width (m):	5	Health:	Very poor
DBH (cm):	30 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Removed	Form:	Poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 2 Works priority: Very low
TPZ (m): 3.6 *Construction Proximity: 11*
mTPZ (m): =TPZ

Tree ID: 287

Genus / species: *Eucalyptus ovata*
Evergreen Swamp Gum

Height (m):	4	Structure:	Poor
Width (m):	1	Health:	Dead
DBH (cm):	9 Estimated	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 11*
mTPZ (m): =TPZ

Tree ID: 288

Genus / species: *Eucalyptus ovata*

Evergreen Swamp Gum

Height (m):	4	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	7 Estimated	Maturity:	Immature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 289

Genus / species: *Acacia melanoxylon*

Evergreen Blackwood

Height (m):	5	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	7 Estimated	Maturity:	Immature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Good

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A

TPZ (m): 2.0 *Construction Proximity: 11*

mTPZ (m): =TPZ

Tree ID: 290

Genus / species: *Leptospermum laevigatum*

Evergreen Coast Tea Tree

Height (m):	4	Structure:	Poor
Width (m):	7	Health:	Dead
DBH (cm):	45 Estimated	Maturity:	Over mature
Origin:	Victorian	ULE (years):	0
Retained?:	Removed	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Very low

Works Required: B Removal.

SRZ (m): 2.5 Works priority: N/A

TPZ (m): 5.4 *Construction Proximity: 0.1*

mTPZ (m): =TPZ

Tree ID: 291

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	16	Structure:	Poor
Width (m):	14	Health:	Good
DBH (cm):	75 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: High
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.0 *Construction Proximity: 4.9*
mTPZ (m): =TPZ

Tree ID: 292

Genus / species: *Melaleuca linariifolia*
Evergreen Flax Leaf Paperbark

Height (m):	12	Structure:	Fair
Width (m):	11	Health:	Poor
DBH (cm):	81 Measured	Maturity:	Over mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Good

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: High
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.7 *Construction Proximity: 1*
mTPZ (m): =TPZ

Tree ID: 293

Genus / species: *Agonis flexuosa*
Evergreen West Australian Willow Myrtle

Height (m):	5	Structure:	Fair
Width (m):	5	Health:	Good
DBH (cm):	31 Measured	Maturity:	Over mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Removed	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2 Works priority: N/A
TPZ (m): 3.7 *Construction Proximity: 0.5*
mTPZ (m): =TPZ

Tree ID: 294

Genus / species: *Acacia sophorae*
Evergreen Coast Wattle

Height (m):	3	Structure:	Fair
Width (m):	3	Health:	Poor
DBH (cm):	5 Estimated	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Removed	Form:	Good

Retention Value: Very low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 1.5 Works priority: N/A
TPZ (m): 2.0 *Construction Proximity: 3.1*
mTPZ (m): =TPZ

Tree ID: 295

Genus / species: *Melaleuca armillaris*
Evergreen Giant Honey Myrtle

Height (m):	8	Structure:	Good
Width (m):	9	Health:	Good
DBH (cm):	75 Estimated	Maturity:	Over mature
Origin:	Victorian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Poor

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: J No works.

SRZ (m): 3 Works priority: N/A
TPZ (m): 9.0 *Construction Proximity: 1.5*
mTPZ (m): =TPZ

Tree ID: 296

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	10	Structure:	Poor
Width (m):	8	Health:	Fair
DBH (cm):	85 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: J No works.

SRZ (m): 3.1 Works priority: Very low
TPZ (m): 10.2 *Construction Proximity: 6.6*
mTPZ (m): =TPZ

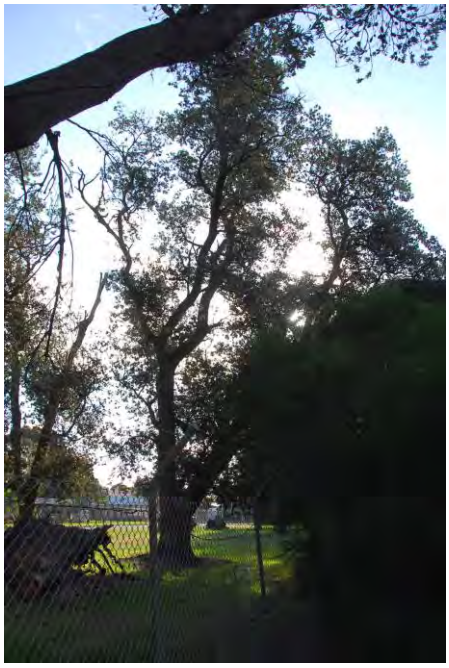
Tree ID: 297

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	18	Structure:	Poor
Width (m):	13	Health:	Very poor
DBH (cm):	95 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Moderate
Works Required: B Removal.

SRZ (m): 3.2 Works priority: N/A
TPZ (m): 11.4 *Construction Proximity: 10*
mTPZ (m): =TPZ



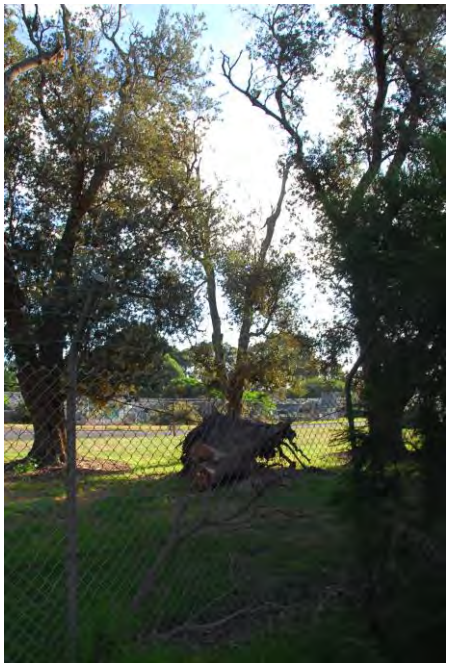
Tree ID: 298

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	11	Structure:	Fair
Width (m):	6	Health:	Poor
DBH (cm):	45 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Moderate
Works Required: J No works.

SRZ (m): 2.5 Works priority: Very low
TPZ (m): 5.4 *Construction Proximity: 14.5*
mTPZ (m): =TPZ



Tree ID: 299

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	17	Structure:	Fair
Width (m):	12	Health:	Very poor
DBH (cm):	90 Estimated	Maturity:	Over mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Fair

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: B Removal.

SRZ (m): 3.2 Works priority: N/A
TPZ (m): 10.8 *Construction Proximity: 14.7*
mTPZ (m): =TPZ

Tree ID: 300

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	5	Structure:	Fair
Width (m):	5	Health:	Poor
DBH (cm):	39 Measured	Maturity:	Mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: High

Works Required: J No works.

SRZ (m): 2.3 Works priority: N/A

TPZ (m): 4.7 *Construction Proximity: 2.5*

mTPZ (m): =TPZ

Tree ID: 301

Genus / species: *Angophora costata*

Evergreen Sydney Apple Gum

Height (m):	19	Structure:	Fair
Width (m):	12	Health:	Good
DBH (cm):	71 Measured	Maturity:	Mature
Origin:	Australian	ULE (years):	15 - 30
Retained?:	Retained	Form:	Good

Retention Value: Very high

Removal / retention reason: N/A.

Amenity value: Low

Works Required: J No works.

SRZ (m): 2.9 Works priority: N/A

TPZ (m): 8.5 *Construction Proximity: 5.4*

mTPZ (m): =TPZ

Tree ID: 302

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	10	Structure:	Good
Width (m):	3	Health:	Good
DBH (cm):	25 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Poor

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: High

Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A

TPZ (m): 3.0 *Construction Proximity: 4.1*

mTPZ (m): =TPZ

Tree ID: 303

Genus / species: *Banksia integrifolia*
Evergreen Coast Banksia

Height (m):	7	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	25 Measured	Maturity:	Mature
Origin:	Melbourne	ULE (years):	> 60
Retained?:	Retained	Form:	Poor

Retention Value: Moderate
Removal / retention reason: N/A.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.8 Works priority: N/A
TPZ (m): 3.0 *Construction Proximity: 4.1*
mTPZ (m): =TPZ

Tree ID: 304

Genus / species: *Hakea salicifolia*
Evergreen Willow Hakea

Height (m):	5	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	20 Estimated	Maturity:	Mature
Origin:	Australian	ULE (years):	> 60
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.
Removal / retention reason: Health ULE.
Amenity value: Low
Works Required: J No works.

SRZ (m): 1.6 Works priority: Very low
TPZ (m): 2.4 *Construction Proximity: 3.6*
mTPZ (m): =TPZ

Tree ID: 305

Genus / species: *Eucalyptus leucoxylon*
Evergreen Yellow Gum

Height (m):	4	Structure:	Poor
Width (m):	7	Health:	Dead
DBH (cm):	35 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	0
Retained?:	Retained	Form:	Fair

Retention Value: Low
Removal / retention reason: N/A.
Amenity value: Very low
Works Required: B Removal.,J No works.

SRZ (m): 2.2 Works priority: N/A
TPZ (m): 4.2 *Construction Proximity: 4.5*
mTPZ (m): =TPZ

Tree ID: 306

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	5	Structure:	Poor
Width (m):	9	Health:	Good
DBH (cm):	70 Estimated	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: B Removal.,J No works.

SRZ (m): 2.9 Works priority: N/A

TPZ (m): 8.4 *Construction Proximity: 1.6*

mTPZ (m): =TPZ

Tree ID: 307

Genus / species: *Melaleuca armillaris*

Evergreen Giant Honey Myrtle

Height (m):	6	Structure:	Poor
Width (m):	7	Health:	Good
DBH (cm):	45 Estimated	Maturity:	Over mature
Origin:	Victorian	ULE (years):	5 - 15
Retained?:	Retained	Form:	Fair

Retention Value: Low

Removal / retention reason: N/A.

Amenity value: Low

Works Required: B Removal.,J No works.

SRZ (m): 2.5 Works priority: N/A

TPZ (m): 5.4 *Construction Proximity: 1.5*

mTPZ (m): =TPZ

Tree ID: 308

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	6	Structure:	Fair
Width (m):	4	Health:	Good
DBH (cm):	20 Estimated	Maturity:	Immature
Origin:	Melbourne	ULE (years):	5 - 15
Retained?:	Retained	Form:	Poor

Retention Value: Moderate

Removal / retention reason: N/A.

Amenity value: Low

Works Required: B Removal.,J No works.

SRZ (m): 1.6 Works priority: N/A

TPZ (m): 2.4 *Construction Proximity: 2.1*

mTPZ (m): =TPZ

Tree ID: 309

Genus / species: *Banksia integrifolia*

Evergreen Coast Banksia

Height (m):	1	Structure:	Good
Width (m):	2	Health:	Good
DBH (cm):	45 Estimated	Maturity:	Mature
Origin:	Melbourne	ULE (years):	1 - 5
Retained?:	Retained	Form:	Very poor

Retention Value: Remove.

Removal / retention reason: N/A.

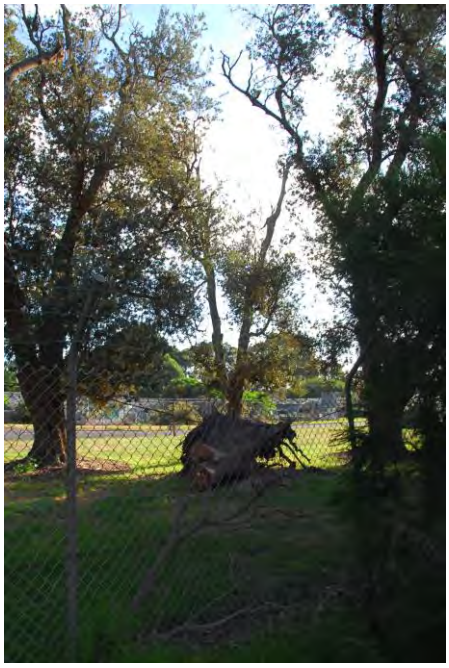
Amenity value: Low

Works Required: B Removal.,J No works.

SRZ (m): 2.5 Works priority: N/A

TPZ (m): 5.4 *Construction Proximity: 10.9*

mTPZ (m): = TPZ



20. Appendix 3 – Arboricultural information

The following sections are presented to provide an introduction to the process of tree root system protection. A trees root system is the critical element to be protected during the development process and if the trees roots are adequately protected then the rest of the tree will generally survive without significant injury.

20.1. Root plate estimation

One of the primary purposes of this report is to estimate the impact of the development on the trees on this site. This is mainly achieved by estimating the extent of the root plate area of the trees that are proposed to be retained and the proportion of this area that is likely to be excised or affected during the construction process.

In this report two elements of the tree root area are described. These are:

20.1.1. Structural Root Zone

This is an estimate of the radius that is likely to encompass the major scaffold roots of the tree. These roots are critical to anchoring the tree and damage to these roots will increase the risk of entire tree failure (i.e. uprooting). This radius is based on AS 4970-2009.

20.1.2. Tree Protection Zone

This is an estimate of the radius that is likely to encompass enough of the smaller absorbing roots to allow the tree to obtain sufficient nutrients and water to allow it to survive in the long term. This is radius is based on AS 4970-2009 and is based on the size of the tree.

Estimation of the likely root plate radius for both methods are based on the DBH (Diameter at Breast Height) of each tree. This is usually measured but where the tree is inaccessible or has numerous trunks a visual estimation may be used. Whether the DBH is estimated or measured is noted within the ”Tree Data” section of the report.

The two elements of each trees’ root zone is transposed over the site survey and building footprint and the degree of root injury is calculated from this.

20.2. Tree rooting patterns

Contrary to common belief, trees usually have a broad flat plate of roots that may extend 1.5 – 3 times the radius of the canopy (Harris, Matheny & Clark, 1999; Coder, 1996; Hitchmough, 1994). Relatively few trees have deep roots and Harris, Matheny and Clark (2004) note that most tree roots will be found in the top 1.0 metre of the soil profile.

While the models used to approximate the size of tree root plates assume a uniformly radial root system, in highly disturbed urban soils root systems often develop in a highly asymmetric manner (Matheny & Clarke, 2004). This may require the modification of the models used where it is likely that the root system is asymmetric.

20.3. Construction impacts

Construction in the vicinity of trees can have several negative impacts on their health, longevity and structural stability. Harris, Matheny and Clark (2004) note that some level of tree root injury or root zone change is almost inevitable during construction around trees and maintain that the goal of tree preservation is to reduce the injury or change to a level that will enable the long term preservation of the retained trees.

Negative impacts can include:

- Root severance from trenching and grading activities. Damage to the transport and absorbing root system may deprive the tree of the ability to absorb nutrients and water and damage to the structural scaffold roots that support the tree may result in instability and uprooting. Depending on the percentage of the root plate affected and proximity to the tree, the affects can range from minor degradation of health through to total root plate failure (i.e. uprooting).
- Compaction and root injury. Most trees require a well aerated and friable soil to allow normal physiological processes to occur and to allow root growth. Soil compaction from pedestrian or vehicular traffic can result in direct injury to the roots, indirect injury through soil drainage changes, reduced soil aeration or decreased soil penetrability. If severe enough soil compaction can lead to a rapid decline in many tree species and may eventually result in instability and uprooting.
- Changes in drainage patterns. Changes in drainage patterns may result from hard surfacing, trenching, land shaping and other construction activities. These can result in either drought stress or waterlogging, both of which can cause a rapid decline in trees and may result in instability and uprooting.

20.3.1. Construction impact rating

In this report Construction Impact is rated according to the extent to which the proposed works intrude into the TPZ for any tree. The TPZ intrusion is based on a straight line TPZ intrusion that extends directly across the TPZ.

Where the TPZ intrusion does not extend directly across the TPZ, the closest point of construction to the tree is taken as being the Construction Proximity.

Category	Description
Extreme	The tree is either within the proposed works or within 1 metre of the proposed works. The tree generally will not remain viable.
High	The proposed works will occupy between 25 and 45% of the trees TPZ. The tree generally will not remain viable.
Moderate	The proposed works will occupy approximately between 10 and 25% of the trees TPZ. The tree may remain viable.
Low	The proposed works will occupy approximately between 0% and 10% of the trees TPZ. The tree is expected to remain viable.
None	The proposed works do not intrude onto the trees TPZ.

21. Appendix 4 - AS 4970 -*2009*

This report generally conforms to *AS 4970 – 2009 Protection of Trees on Development Sites* except in the following areas.

1. AS 4970 notes that the project arborist should verify the accuracy of feature survey for the subject site.
    a. This is generally not feasible and the feature survey is taken as being an accurate representation of the features of the site.
    b. However if trees are found on the site that are not represented in the feature survey then these trees will be added to the report plans based on a visual estimation of their location.
        i. Accordingly the location of these trees may not be sufficiently accurate for the purposes of the report.
        ii. The location of these trees should verified by a qualified surveyor where appropriate.
2. *AS 4970-2009 Protection of Trees on Development Sites* makes no differentiation between the Tree Protection Zone (TPZ) derived from the trees DBH and the modified TPZ derived from the trees canopy where it extends past the DBH derived TPZ. As the two forms of TPZ are independent a differentiation between the two forms of TPZ needs to be made. In this report:
    a. "TPZ" refers to the DBH derived Tree Protection Zone (12 x DBH) and "mTPZ" pertains to the TPZ where it is modified to account for a canopy that extends beyond the DBH derived TPZ.
    b. The modified Tree Protection Zone (mTPZ) for all trees is taken as being identical to the Tree Protection Zone (TPZ) except where the canopy of the tree extends beyond the TPZ. Where this is the case the TPZ is shown on the site plans and any tree canopy impacts are addressed as required within the report. Otherwise the mTPZ is recorded within this report as "= TPZ".

22. Appendix 5 - Explanation of terms

The assessment of Health, Structure, Condition, U.L.E. (Useful Life Expectancy), Origin, Maturity, Form and Retention value are based on the following definitions. In the case of health and structure these definitions encompass only the more common indicators for these assessments. Other indicators not included in these definitions may lead to the ascribing of a particular health or structure category.

22.1. Origin

The notation of "Origin" is based on the following categories.

Category	Description
Melbourne	Native to the greater Melbourne metropolitan area as defined by Flora of Melbourne (S. G. A. P. M., 1991).
Victorian	Native to Victoria but not the greater Melbourne Metropolitan area.
Australian	Native to Australia but not Victoria.
Exotic	Not native to Australia.

22.2. Maturity

The notation of "Maturity" is based on the following categories.

Category	Description
Immature	Less than 20% of the life expectancy for that tree.
Mature	20 – 80% of the life expectancy for that tree.
Over mature	> 80% of the life expectancy for that tree.

22.3. Works required

The works required listed in this report are of a general nature only and should be reviewed following the completion of any works on the site.

Where a tree is recommended for removal (Recommendation) it is not listed in the Works required section of the report.

22.4. Priority

The priority accorded particular works is based on a projected increased site usage following the completion of a development on the site. The priority is of a general nature only and should be reviewed following the completion of any works on the site.

"Priority" is based on the following categories.

Category	Description
➢ **N/A.**	No tree works are required
➢ **Very low**	Tree works are optional and could be performed at any time..
➢ **Low**	Works should be performed within five years.
➢ **Moderate**	Works should be performed within 3 years.
➢ **High**	Works should be performed within 12 months.
➢ **Urgent**	Works should be performed immediately.

22.5. Retention value (RV)

The Retention value ascribed to each tree in this report is not definitive and should be used as a guide only. Many factors influence the comparative value of a tree and a number of these factors are outside the scope of arboricultural assessment. These factors cannot therefore be addressed in a single rating system.

Retention value is comprised of two parts. These are the Amenity Value of the tree rated as Very Low to Very high and the Useful Life Expectancy (ULE) of the tree.

The Amenity Value of the tree relates to the contribution of the tree to the aesthetic amenity of the area. The primary determinants of amenity value are tree health, size and form.

The Amenity Value is then modified by the ULE of the tree with short ULE values reducing the RV of the tree and long ULE values increasing the RV of the tree.

Trees that are listed on a register of heritage or significant trees are not accommodated within this rating system as these values are often independent from the arboricultural attributes of the tree. Heritage and significant trees may be ascribed a very low retention value despite their listing on any register. Where known, any heritage or significant register listing it will be noted in the report.

RV is assessed on each tree as a single entity. The value of a group of trees is not considered in this context and each tree within the group will be assessed as an individual.

Amenity value is based on the following categories and is ascribed an Amenity Value Value (AVV) ranging from 2 - 10.

Category	Example	AVV
➢ **Very high**	Generally a very large tree that exhibits excellent health and/or form or a tree that is listed on a heritage or significant tree register.	10
➢ **High**	Generally a large tree that exhibits good health and/or form.	8
➢ **Medium**	Generally a medium tree that exhibits good health and/or form. May be a large tree that exhibits fair health and/or form.	6
➢ **Low**	Generally a small tree that exhibits good health and/or form. May be a large or medium tree that exhibits fair or poor health and/or form.	4
➢ **Very low**	Generally a small tree that exhibits poor health and/or form. May be a large or medium tree that exhibits poor, or worse, health and/or form.	2

U.L.E. is based on the following categories each of which have a modifier (ULEM) ranging from 0 – 12.

Category	Example	ULEM
➢ **0**	The tree is dead or almost dead or constitutes an immediate and unacceptable hazard.	0
➢ **0 – 5**	The tree is unlikely to provide useful amenity for longer than 5 years. The tree is in serious decline, poses an unacceptable hazard and/or requires a level of maintenance disproportionate with its' value.	4
➢ **5 – 15**	The tree is unlikely to provide useful amenity for longer than 15 years. The tree may be in serious decline, be a very short lived species, present a moderately elevated hazard and/or require high levels of maintenance.	7
➢ **15 – 25**	The tree is unlikely to provide useful amenity for longer than 25 years. The tree may be in moderate decline, a short lived species, present a slightly elevated hazard and/or require moderate levels of maintenance.	10

➢ **25 – 50**	The tree is likely to provide useful amenity for up to 50 years. The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance.	11
➢ **> 50**	The tree is likely to provide useful amenity for greater than 50 years. The tree may be in good to excellent condition, a long lived species, present a low level of hazard and/or require low levels of maintenance.	12

RV is then derived from the multiplication of AVV by ULEM and the resulting score is categorised as Very high to Very low.

Category	Example	RV value
➢ **Very high**	Every effort should be made to preserve trees in this category	96 - 120
➢ **High**	These trees should be retained if at all possible	72 - 95
➢ **Moderate**	These trees should be retained if they do not overly constrain development on the site.	48 - 71
➢ **Low**	These trees should not create a material constraint on development of the site. These trees should be removed where they conflict with development of the site.	24 - 47
➢ **Very low**	Generally a small tree that exhibits poor health and/or form. May be a large or medium tree that exhibits poor, or worse, health and/or form. These trees should generally be removed.	1 – 23
➢ **Remove**	These trees are not suitable for retention within the site and are recommended to be removed.	0

22.6. Health

Pertains to the health and growth potential of the tree.

The notation of "Health" is based on the following categories.

Category	Example
➢ **Good**	Crown full, with good foliage density. Foliage is entire with average colour, minimal or no pathogen damage. Above average growth indicators such as extension growth, leaf size and canopy density. Little or no canopy die-back. Generally no dead wood on the perimeter of the canopy. Good wound wood development. **Tree exhibits above average health and no works are required.**
➢ **Fair**	Tree may have more than 30% dead wood, or may have minor canopy dieback. Foliage density may be slightly below average for the species. Foliage colour may be slightly lower than average and some discolouration may be present. Typical growth indicators, e.g. extension growth, leaf size, canopy density for species in location. Average wound wood development. **The tree exhibits below average health and remedial works may be employed to improve health.**
➢ **Poor**	Tree may have more than 30% dead wood and canopy die back may be present. Leaves may be discoloured and/or distorted, often small, and excessive epicormic growth may be present. Pathogens and/or stress agents may be present that could lead, or are leading to, the decline of tree. Poor wound wood development. **The tree exhibits low health and remedial works or removal may be required.**
➢ **Very poor**	The tree has more than 30% dead wood. Extensive canopy die back is present. Canopy is very sparse. Pathogens and/or stress agents are present that are leading to the decline of the tree. Very poor wound wood development. **The tree exhibits very low health and remedial works or removal are required.**
➢ **Dead**	**Tree is dead and generally should be removed.**

22.7. Structure

Pertains to the physical structure of the tree including the main scaffold branches and roots. Structure includes those attributes that may influence the probability of major trunk, root or limb failure.

The notation of "Structure" is based on the following categories.

Category	Example
➢ **Good**	The tree has a well-defined and balanced crown. Branch unions appear to be strong with no defects evident in the trunk or the branches. The tree is unlikely to suffer trunk or branch failure under normal conditions. **The tree is considered a good example of the species with a well-developed form.**
➢ **Fair**	The tree has some minor problems in the structure of the crown. The crown may be slightly out of balance and some branch unions may exhibit minor structural faults or have the potential to create faults. If the tree is single trunked, this may be on a slight lean or be exhibiting minor defects. **These defects are not likely to result in catastrophic trunk or branch failure although some branch failure may occur under normal conditions.**
➢ **Poor**	The tree has significant problems in the structure of the scaffold limbs or trunk. It may be lop-sided or have few branches on one side or have large gaps in the crown. Large branches may be rubbing or crossing over. Branch unions may be poor, and faults at the point of attachment or along the branches may be evident. The tree may have a substantial lean. The tree may have suffered significant root damage. The tree may have some degree of basal or trunk damage. **These defects may predispose the tree to major trunk or branch failure.**
➢ **Very poor**	The tree has some very significant problems in the structure of the crown. It may be lop-sided or have few branches on one side or have large gaps in the crown. Branches may be rubbing or crossing over and causing damage to each other. Branch unions may be poor, and faults at the point of attachment or along the branches may be evident. The tree may have a substantial lean. The tree may have suffered major root damage. The tree may have extensive basal or trunk damage. **These defects are likely to predispose the tree to trunk or scaffold limb failure.**

22.8. U.L.E. (Useful Life Expectancy)

U.L.E. pertains to the span of time that the tree might reasonably be expected to provide useful amenity value with an acceptable level of safety at an acceptable cost. Depending on the situation, available financial resources and other factors, two identical trees may be accorded different longevity ratings.

The notation of U.L.E. is based on the following categories.

Category	Example
➢ **0**	The tree is dead or almost dead or constitutes an immediate and unacceptable hazard. **The tree should generally be removed unless other considerations require its' retention.**
➢ **0 – 5**	The tree is unlikely to provide useful amenity for longer than 5 years. The tree is in serious decline, poses an unacceptable hazard and/or requires a level of maintenance disproportionate with its' value. **The tree should generally be removed unless other considerations require its' retention.**
➢ **5 – 15**	The tree is unlikely to provide useful amenity for longer than 15 years. The tree may be in serious decline, be a very short lived species, present a moderately elevated hazard and/or require high levels of maintenance. **The tree could be retained or removed depending on the situation.**
➢ **15 – 25**	The tree is unlikely to provide useful amenity for longer than 25 years. The tree may be in moderate decline, be a short lived species, present a slightly elevated hazard and/or require moderate levels of maintenance. **The tree should generally be retained unless other factors dictate its' removal.**
➢ **25 – 50**	The tree is likely to provide useful amenity for up to 50 years. The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance. **The tree should generally be retained unless other factors dictate its' removal.**
➢ **> 50**	The tree is likely to provide useful amenity for greater than 50 years. The tree may be in good to excellent condition, a long lived species, present a low level of hazard and/or require low levels of maintenance. **The tree should generally be retained unless other factors dictate its' removal.**

23. Form

The notation of "Form" pertains to the aesthetic qualities of the trees live canopy. Generally good form is indicative of a symmetrical, well-balanced canopy although this is dependent on the particular species. Some species naturally develop an asymmetric canopy and in this case a highly irregular canopy might be described as good.

The form of a tree is considered assuming that the tree stands in isolation from any surrounding trees. This may mean that a group of trees that exhibit good form as a group, may be described as having poor form as individuals.

The notation of "Form" is based on the following categories.

Category	Example
➢ **Very good**	An outstanding specimen of that species. Generally a very evenly balanced and symmetrical canopy with no deformation. If the development of that species is naturally irregular then an outstanding specimen of that species.
➢ **Good**	A good specimen of that species. Generally a well balanced and symmetrical canopy with minor deformation. If the development of that species is naturally irregular then a good specimen of that species.
➢ **Fair**	An average specimen of that species. Generally a balanced canopy with some minor to moderate asymmetry. If the development of that species is naturally irregular then an average specimen of that species.
➢ **Poor**	A below average specimen of that species. Generally a moderate to high degree of asymmetry. If the development of that species is naturally irregular then a poor specimen of that species.
➢ **Very poor**	A very poor specimen of that species. Generally a high to extreme degree of asymmetry. If the development of that species is naturally irregular then a very poor specimen of that species.

24. Glossary / notes

Tree Protection Zone (TPZ)	Is based on AS 4970-2009 *Protection of trees on development sites* and defines the soil volume that is likely to be required to encompass enough of the trees absorbing root system to ensure the long term survival of the tree. The radius specified as the TPZ is an estimate of the minimum distance from the tree that excavation or other activities that might result in root damage should occur to avoid negative impacts on the health and longevity of the tree. AS 4970 states that intrusion of up to 10% of the surface area of the TPZ may occur without further assessment or analysis.
Structural Root Zone (SRZ)	Is based on AS 4970-2009 (Protection of trees on development sites) and defines the likely spread of the trees scaffold root system. These roots are the primary anchoring roots for the tree and damage to these roots may render the tree liable to uprooting. SRZ is based on measurement of the trunk above the root flair (AS 4970) However in this report SRZ is based on the measured or estimated DBH and there should be taken as an estimate only. Additional measurement may be required if construction near the SRZ is expected to occur.
Modified Tree Protection Zone (mTPZ)	Is based on the TPZ and includes any requirement to protect the above ground parts of the tree that project beyond the TPZ. However generally the mTPZ will be equal to the TPZ. TPZ extension beyond the TPZ to protect the tree canopy will be shown on the site plan but will not be reflected in the TPZ radius measurements quoted in this report.
DBH (Diameter at Breast Height)	Is the diameter of the tree at approximately 1.4 meters above ground level. Where a trunk is divided at or near 1.4 meters above ground the DBH is generally measured at the narrowest point of the trunk between ground level and 1.4 meters. Alternatively, where a higher level of accuracy is required with multi stemmed trees, DBH is derived from the combined cross sectional area of all trunks. The DBH of all accessible trees is measured unless otherwise stated in the Tree Data section of this report. The DBH of trees on adjoining properties is measured where access can be readily gained to the property, otherwise it is estimated.
Measured	Indicates whether the DBH has been measured or estimated. DBH may be estimated for small low value multi stem trees or trees that are inaccessible.
Retained?	Indicates whether the tree is shown as being removed or retained on the plans provided. This is generally derived from the site plans provided but the removal or retention of trees might be communicated by other means.

Recommendation reason	Pertains to the reason that removal or retention or other works are recommended. Other than trees on adjoining properties or road reserves a reason for retention is usually not given. In this case N/A is used.
Height & width	Tree height is generally measured for moderate, high and very high value trees and is measured with an Impulse Laser infrared range finder. The height of low and very low value trees is usually estimated. Canopy width is estimated unless otherwise stated.
Genus / species	The identification of trees is based on accessible visual characteristics and given that key identifying features are often not available at the time of assessment the accuracy of identification is not guaranteed. Where the species of any tree is not known, **sp.** is used.

25. Practice Note VCAT 2 — Expert Evidence

25.1. Name & address of consultant

Roger George Greenwood of 1 Como Street, Emerald, Victoria, 3782.

25.2. Qualifications & experience

Roger Greenwood has the following qualifications and experience:

- Bachelor of Applied Science (Horticulture).
- Diploma of Applied Science (Horticulture).
- Advanced Certificate of Arboriculture.
- 29 years experience in arboriculture.
  - 8 years as a partner in The Tree Works dealing with all aspects of commercial arboriculture. The Tree Works provided a range of arboricultural services to government, commercial and domestic clients.
  - 4 years as a contract climber, crew manager and consulting arborist with a range of companies while completing higher education qualifications.
  - 17 years as a consulting arborist.

25.3. Area of expertise

Roger Greenwood provides specialist technical advice in the field of arboriculture. This includes the provision of technical expertise relating to problem diagnosis, management programs, tree appraisal and valuation and the relationship between trees and the built environment.

25.4. Expertise to report

Roger Greenwood has, by training, education, experience and research, considerable knowledge relating to the care, maintenance and management of trees in a wide variety of contexts.

Significant areas of operation and expertise include the provision of tree and built structure conflict reports, hazard assessment, tree condition appraisal and broad scale tree inventories.

Considerable effort is expended in research to remain current with the latest advances in all areas relating to tree care.

25.5. Declaration

"I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance which I regard as relevant have to my knowledge been withheld from the Tribunal."

26. Assumptions & limiting conditions

1. R. Greenwood Consulting Pty Ltd (herein after referred to as Greenwood Consulting) contracts with you on the basis that you promise that all legal information which you provide, including land title and ownership of other property, are correct. Greenwood Consulting is not responsible for verifying or ascertaining any of these issues.
2. Greenwood Consulting contracts with you on the basis that your promise that all affected property complies with all applicable statutes and subordinate legislation.
3. Greenwood Consulting will take all reasonable care to obtain necessary information from reliable sources and to verify data. However Greenwood Consulting neither guarantees nor is responsible for the accuracy of information provided by others.
4. If, after delivery of this report, you later require a representative of Greenwood Consulting to attend court to give evidence or to assist in the preparation for a hearing because of this report, you must pay an additional hourly fee at our then current rate for expert evidence.
5. Alteration of this report invalidates the entire report.
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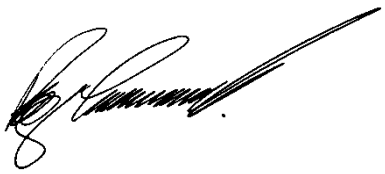
7. The contents of this report represent the professional opinion of the consultant. Greenwood Consulting's consultancy fee for the preparation of this report is in no way contingent upon the consultant reporting a particular conclusion of fact, nor upon the occurrence of a subsequent event.
8. Sketches, diagrams, graphs and photographs in this report are intended as visual aids, are not to scale unless stated to be so, and must not be construed as engineering or architectural reports or as surveys.
9. Unless expressly stated otherwise:
   - 9.1. The information in this report covers only those items which were examined and reflects the condition of those items at the time of the inspection.
   - 9.2. Our inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee, express or implied, that even if they were not present during our inspection, problems or defects in plants or property examined may not arise in the future.
10. This agreement supersedes all prior discussions and representations between Greenwood Consulting and the client on the subject, and is the entire agreement and understanding between us.

Yours sincerely,



Roger Greenwood

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