NOTICE OF AN APPLICATION FOR PLANNING PERMIT

Form 2

The land affected by the application is located at:	**Middle Street LAKES ENTRANCE 3909 TBA: BETWEEN 1/17 MIDDLE STREET AND 1/4 PRINCES HIGHWAY**
The application is for a permit to:	**Buildings and works and removal of vegetation associated with Krauatungalung Walk Stage 4 (Lakes Entrance Foreshore)**
A permit is required under the following clauses of the planning scheme:	
Planning Scheme Clause	**Matter for which a permit is required**
36.03-2 (PCRZ)	Construct a building or construct or carry out works
52.17-1	Remove, destroy or lop native vegetation, including dead native vegetation
The applicant for the permit is:	**Development Solutions Victoria Pty Ltd**
The application reference number is:	**5.2024.373.1**

You may look at the application and any documents that support the application free of charge at: https://www.eastgippsland.vic.gov.au/building-and-development/advertised-planning-permit-applications

You may also call 5153 9500 to arrange a time to look at the application and any documents that support the application at the office of the responsible authority, East Gippsland Shire. This can be done during office hours and is free of charge.

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority.

An objection must

- **be made to the Responsible Authority in writing,**
- **include the reasons for the objection, and**
- **state how the objector would be affected.**

The responsible authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

The Responsible Authority will not decide on the application before:	**Subject to the applicant giving notice**

If you object, the Responsible Authority will tell you its decision**.**

East Gippsland Shire Council

273 Main Street (PO Box 1618)
Bairnsdale VIC 3875
Website www.eastgippsland.vic.gov.au
Email feedback@egipps.vic.gov.au
Follow us on Twitter @egsc

Telephone: (03) 5153 9500
Fax: (03) 5153 9576
National Relay Service: 133 677
ABN: 81 957 967 765

Planning Permit Application

Applicant Details:

Name:								
Business trading name: (if applicable)	DEVELOPMENT SOLUTIONS VICTORIA PTY LTD							
Email address:	ADMIN@DEVSOLVIC.COM.AU							
Postal address:	48 BAILEY STREET BAIRNSDALE							
			Postcode	3	8	7	5	
Phone number: Home:	Work: 03 5152 4858	Mobile:						

Owners Details: (if not the applicant)

Name:	DEPARTMENT OF ENERGY, ENVIRONMENT AND CLIMATE ACTION							
Business trading name: (if applicable)								
Email address:	ADMIN@DEVSOLVIC.COM.AU							
Postal address:	48 BAILEY STREET BAIRNSDALE							
			Postcode	3	8	7	5	
Phone number: Home:	Work: 03 5152 4858	Mobile:						

Description of the Land:

Street number:	Street name:							
Town:	LAKES ENTRANCE FORESHORE - CUNNINGHAM ARM		Postcode					
Legal Description:	BETWEEN 1/17 MIDDLE STREET AND 1/4 PRINCES HIGHWAY, LAKES ENTRANCE							
Lot Number:	☐ Lodged plan ☐ Title plan ☐ Plan of Subdivision	Number:						
Crown Allotment Number:	Section Number:							
Parish/Township Name:								
Has there been a pre-application meeting: ☐ Yes ☑ No	Officers name:							
Your reference number:	24094							

The East Gippsland Shire Council asks for details about you to collect rates, approve permits and licences, and run a range of community services. The information you give to us on this form is used only for the reasons set out in the form and is not given to anybody else. Sometimes we may supply details about you to someone else, but only if we are allowed by law, or to protect someone or property.

When submitting documents to Council you are confirming that you have authority to use those documents. In the event that the giving of notice is required pursuant to Section 52 of the Planning and Environment Act 1987, you permit documents submitted as part of this application, including your full contact information to be made available for public viewing on Council's website

When information is given out, Council will always try to make sure your privacy is protected in line with the *Privacy and Data Protection Act* 2014. You may ask for more information about Council's Privacy Policy by contacting our Information Privacy Officer on 03 5153 9500 or e-mail feedback@egipps.vic.gov.au

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ABN: 81 957 967 765

Privacy Statement

Is there any encumbrance on the Title such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?	☐ Yes ☑ No
Will the proposal result in a breach of a registered covenant restriction or agreement?	☐ Yes ☑ No

Description of proposal: Describe the use, development or other matter which needs a permit:

BUILDINGS, WORKS AND VEGETATION REMOVAL ASSOCIATED WITH KRAUATUNGALUNG WALK STAGE 4

Existing conditions: Describe how the land is used and developed currently:

VACANT LAND OWNED BY THE DEPARTMENT OF ENERGY, ENVIRONMENT AND CLIMATE ACTION

Estimated cost of development: Note: You may be required to verify this estimate	$ 963,000

If you need more space or have more information, please attach with this form.

Please make sure that:

☐ Form is filled in fully and signed

☐ The correct fee is paid or payment enclosed

☐ Attached any supporting information or documents

- **Required** - Title (must have been generated within the past 30 days)
- Covenants or Section 173 agreements
- Site plan/floor - plan/elevations
- Planning report
- Supporting information/reports (e.g. – Land Capability Assessment, Bushfire Management Statement, Geotechnical report/waiver)

Privacy Statement
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Section 52 of the Planning and Environment Act 1987, you permit documents submitted as part of this application, including your full contact information to be made

Declaration:

I declare that I am the applicant and that all the information in this application is true and correct and the owner (if not myself) has been notified of the permit application.

I confirm that I have authority to use the relevant documents.

In the event that the giving of notice is required pursuant to Section 52 of the Planning and Environment Act 1987, I permit documents submitted as part of this application, including my full contact information, to be made available for public viewing on Council's website.

Applicant signature: _____

Name: DEVELOPMENT SOLUTIONS VICTORIA PTY LTD Date: 1 / 11 / 2024

Office Use Only:

Reference Number: AP/D/PP/_____ Method of Payment: ☐ Cash ☐ Cheque ☐ Credit Card ☐ Eftpos

Amount Paid: $_____ Receipt Number:_____ Receipt Date: _____/_____/_____

Submitting your application:

Electronic	Fax to 03 5153 9576 Email to planning@egipps.vic.gov.au	
Mail	Post the signed, completed form together with any applicable fees or copies of any documentation to; PO Box 1618 BAIRNSDALE VIC 3875.	
In Person	Bring the completed form and supporting documents to any of the following locations;	
	Service Centre Opening Hours: 8:30am to 5:00pm. Monday to Friday.	Bairnsdale Corporate Centre: 273 Main Street. Bairnsdale Service Centre: 24 Service Street. Bairnsdale Business Centre: 34 Pyke Street. Lakes Entrance Service Centre: 18 Mechanics Street. Omeo Service Centre: 179 Day Avenue. Orbost Service Centre: 1 Ruskin Street. Paynesville Service Centre: 55 The Esplanade.
	Mallacoota Service Centre Opening Hours: Monday and Tuesday 10.00am to 2.00pm Wednesday, Thursday, Friday 2.00pm to 5.00pm	Mallacoota Service Centre: 70 Maurice Avenue

Privacy Statement
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but only if we are allowed by law, or to protect someone or property.

Department of Energy, Environment and Climate Action

71 Hotham Street
Traralgon Vic 3844
Telephone: 03 5172 2111
deeca.vic.gov.au

Date: 9 July 2024

Mark Tickner
Senior project Development Officer
East Gippsland Shire Council
PO Box 1618
BAIRNSDALE, VIC, 3875

Ref: 1601976

Dear Mark,

APPLICATION FOR CONSENT TO APPLY FOR A PLANNING PERMIT

I refer to East Gippsland Shire Council's request for consent to apply for a planning permit to construct a walkway over part of the Lakes Entrance Foreshore Reserve, associated with stage 4 of the Krauatungalung Walk.

The Department of Energy, Environment and Climate Action, as public land manager for Crown land described as Crown allotment 2012, Parish of Colquhoun, acknowledges your application for consent pursuant to Clause. 36.02 Public Park and Recreation Zone of the East Gippsland Shire Council Planning Scheme. The department hereby consents to:

- a planning permit application being made in relation to this land for the above-mentioned purpose.

The department reserves the right to comment (including the right to object or recommend conditions) on the permit application at a later date.

For the purposes of section 48 of the *Planning and Environment Act 1987*, this letter also acknowledges that the applicant has notified the landowner about the proposed development.

Should you have any questions, please contact Tracey West on or email

Yours sincerely

SBrown

Sarah Brown
Program Officer
Land and Built Environment, Gippsland

Final Report

Biodiversity Assessment: Krautungalung Walk: Stage 4, Lakes Entrance, Victoria

Prepared for

Elevate Consulting Engineers

October 2024

Ecology and Heritage Partners Pty Ltd

MELBOURNE: 292 Mt Alexander Road, Ascot Vale VIC 3032 **GEELONG:** 230 Latrobe Terrace, Geelong West VIC 3218
BRISBANE: Level 22, 127 Creek Street, Brisbane QLD 4000 **ADELAIDE:** 78 Edmund Avenue, Unley SA 5061
CANBERRA: 19-23 Moor Street, Turner ACT 2612 **SYDNEY:** Level 5, 616 Harris Street, Ultimo NSW 2007
www.ehpartners.com.au | 1300 839 325

DOCUMENT CONTROL

Assessment type	Biodiversity Assessment
Address	Krautungalung Walk: Stage 4, Lakes Entrance, Victoria
Project number	16453
Project manager	Claire Ranyard (Associate Botanist)
Other EHP staff	Charles Geddes (Graduate Botanist)
Mapping	Petra Sorenson (GIS Officer)
File name	16453_EHP_BA_Stage4_Krautungalung_Final_23102024
Client	Elevate Consulting Engineers
Bioregion	Gippsland Plain
Catchment Management Authority	East Gippsland
Council	East Gippsland Shire Council

VERSION CONTROL

Report version	Comments	Report updated by:	Report reviewed by:	Date submitted
Draft	Report sent to the client for review	CG & CR	SLB	27/06/2024
Final	Minor updates	CR	-	23/10/2024

Ecology and Heritage Partners acknowledge the Traditional Owners of the country we live and work on, and we pay our respect to Elders past and present.

CONTENTS

SUMMARY OF CLAUSE 52.17 APPLICATION REQUIREMENTS

Clause 52.17 Native Vegetation outlines the requirements for a permit to remove, destroy or lop native vegetation, including dead vegetation, under the Victoria Planning Provisions. There are nine application requirements under the Intermediate Assessment Pathway that must be met in order to satisfy this clause (Table S1).

Table S1. Application requirements for a permit to remove native vegetation (Table 6 in DELWP 2017).

No.	Application Requirement	Response
Application requirements under the Intermediate Assessment Pathway		
1	Information about the native vegetation to be removed, including: • The assessment pathway and reason for the assessment pathway; • A description of the native vegetation to be removed; • Maps showing the native vegetation and property in context; and • The offset requirement that will apply if the native vegetation is approved to be removed.	Refer to Section 3.1, Section 4.2, Figure 2, Appendix 3 (NVR Report) and Appendix 4
2	Topographic and land information relating to the native vegetation to be removed, showing ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate.	Refer to Section 1.2 and Figure 1
3	Recent dated photographs of the native vegetation to be removed.	Refer to Section 3.1
4	Details of any other native vegetation that was permitted to be removed on the same property with the same ownership as the native vegetation to be removed, where the removal occurred in the five-year period before the application to remove native vegetation is lodged.	0.116 hectares of native vegetation has been removed within the property within the past five years
5	An avoid and minimise statement. The statement describes any efforts to avoid the removal of and minimise the impacts on the biodiversity and other values of native vegetation, and how these efforts focussed on areas of native vegetation that have the most value.	Refer to Section 4.1
6	A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the *Conservation, Forests and Lands Act 1987* that applies to the native vegetation to be removed.	Not applicable
7	Where the removal of native vegetation is to create defendable space, a written statement explaining why the removal of native vegetation is necessary. This statement must have regard to other available bushfire risk mitigation measures. This statement is not required when the creation of defendable space is in conjunction with an application under the Bushfire Management Overlay.	Not applicable as the vegetation clearance is not for defendable space
8	If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations at decision guideline 8.	Not applicable as the application responds to Clause 52.17
9	An offset statement providing evidence that an offset that meets the offset requirements for the native vegetation to be removed has been identified and can be secured in accordance with the Guidelines.	Refer to Section 4.3

1 INTRODUCTION

1.1 Background

Ecology and Heritage Partners Pty Ltd was commissioned by Elevate Consulting Engineers to undertake a Biodiversity Assessment for Stage 4 of the proposed Krautungalung Walk: Stage 4, Lakes Entrance within Lakes Entrance, Victoria.

We understand that Elevate Consulting Engineers are proposing to submit a planning permit application on behalf of East Gippsland Shire in order to facilitate future development of an Indigenous-themed, all-abilities accessible walking circuit to complement and link the existing facilities of the foreshore, and to acknowledge and celebrate the rich Indigenous Heritage of Lakes Entrance.

The overall project includes four stages. Stage 1 has an approved permit and construction has commenced. Stages 2 and 3 are still in the early pre-planning phases. This report addresses Stage 4 only, and includes the past native vegetation removal associated with Stage 1. Any future native vegetation removal associated with Stages 2 and 3 will also include removal for Stages 1 and 4 to capture the projects cumulative impacts to biodiversity. Two main objectives form the Stage 4 project, being the development of a raised boardwalk and a sand renourishment program. The sand renourishment program is driven by local erosion concerns, where additional sand will be imported into the study area to supplement the existing sandy foreshore, and will include areas of revegetation with local indigenous flora species to promote sand stabilisation.

The purpose of this assessment was to identify the extent and type of native vegetation present within the study area and to determine the likely presence of significant flora and fauna species and/or ecological communities. This report presents the results of the assessment and discusses the potential ecological and legislative implications associated with the proposed action, primarily in relation to considerations under the *Planning and Environment Act 1999* (i.e. local planning scheme) and the *Flora and Fauna Guarantee Act 1988* (FFG Act).

A separate report detailing impacts on matters listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) which covers Stages 2 – 4 of the project is being prepared to support a referral under the EPBC Act. Therefore, implications under the EPBC Act are not discussed in this report.

1.2 Study Area

The study area for Stage 4 of the proposed Krautungalung Walk: Stage 4, Lakes Entrance is located within Lakes Entrance, Victoria and is approximately 265 kilometres west of Melbourne's CBD (Figure 1). The Stage 4 area is proposed to occur south of the residential properties located between 1/4 Princes Highway and 21 Middle Street, Lakes Entrance, located within the coastal reserve along the rear of these properties. The Stage 4 area covers a distance of approximately 300 meters and connects an existing concrete path at the western end of the study area to a gravel track at the eastern end, with three additional access points proposed at Short Street, Jetty Road and Middle Street.

The study area is currently used for public recreation for access to the beach and as a fishing location, with several private jetties located along with the proposed boardwalk. Much of the study area forms part of Lake King

According to the Victorian Department of Energy, Environment and Climate Action (DEECA) NatureKit Map (DEECA 2024a), the study area is located within the Gippsland Plain bioregion, East Gippsland Catchment Management Authority (CMA) and East Gippsland Shire Council municipality. The study area falls largely within a Wetland of International Importance within the Gippsland Lakes Ramsar site, which is listed in the Directory of Important Wetlands of Australia.

2 METHODS

2.1 Desktop Assessment

Relevant literature, online-resources and databases were reviewed to provide an assessment of flora and fauna values associated with the study area. The following information sources were reviewed:

- The DEECA NatureKit Map (DEECA 2024a) and Native Vegetation Regulation (NVR) Map (DEECA 2024b) for:
    - Modelled data for location risk, native vegetation patches, scattered trees and habitat for rare or threatened species; and,
    - The extent of historic and current Ecological Vegetation Classes (EVCs).
- EVC benchmarks (DEECA 2024c) for descriptions of EVCs within the relevant bioregion;
- The Victorian Biodiversity Atlas (VBA) for previously documented flora and fauna records within the project locality (DEECA 2024d);
- The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST) for matters of National Environmental Significance (NES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (DCCEEW 2024);
- Relevant listings under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), including the latest Threatened (DEECA 2024e) and Protected (DEECA 2024f) Lists;
- The online VicPlan Map (Department of Transport and Planning [DTP] 2024) to ascertain current zoning and environmental overlays in the study area;
- Aerial photography of the study area; and,
- Previous ecological assessments relevant to the study area; being;
    - Krauatungalung Walk - Environmental Values Assessment of Potential Alignments, Draft Version 2. Ethos NRM Pty Ltd 2020.
    - Biodiversity Impact Assessment & Offset Requirement: Krauatungalung Boardwalk – Phase 1 Cunninghame Arm. Ethos NRM Pty Ltd 2023.

2.2 Field Assessment

A field assessment was undertaken by a habitat hectare assessor, who is accredited by DEECA in the habitat hectare assessment methodology, on 28 February,1 March 2023 and 16 April 2024 to obtain information on flora and fauna values within the study area.

The study area was walked, with all commonly observed vascular flora and fauna species recorded, significant records mapped, and the overall condition of vegetation and habitats noted. Vegetation within the intertidal zone was mapped at low tide, to assess for the presence of sea-grass and capture the full

extent of flora within the study area. EVCs were determined with reference to DEECA pre-1750 and extant EVC mapping (DEECA 2024a) and their published descriptions (DEECA 2024c).

Where native vegetation was identified a habitat hectare assessment was undertaken following the methodology described in the Vegetation Quality Assessment Manual (Department of Sustainability and Environment [DSE] 2004).

2.3 Removal, Destruction or Lopping of Native Vegetation (the Guidelines)

Under the *Planning and Environment Act 1987,* Clause 52.17 of the East Gippsland Planning Scheme requires a planning permit to remove, destroy or lop any native vegetation, including dead vegetation. The assessment process for the clearing of vegetation follows the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines) (DELWP 2017).

2.3.1 Current Wetlands (DEECA)

Wetlands can be difficult to map and assess accurately as they respond quite quickly to changes in environmental condition, especially rainfall. After a period of no or low rainfall they can disappear or appear very degraded. They do, however, recover rapidly after periods of increased rainfall. As a result, under the Guidelines (DELWP 2017) all mapped wetlands (based on 'Current Wetlands' layer in DEECA's NatureKit Map) that are to be impacted must be included as native vegetation, with the modelled condition score assigned to them (DEECA 2024b).

Note that mapped wetlands do not apply if they are covered by a hardened, man-made surface, for example, a roadway. If covered by any vegetation including crops, bare soil, a mapped wetland must be treated as a native patch.

2.4 Assessment Qualifications and Limitations

This report has been written based on the quality and extent of the ecological values and habitat considered to be present or absent at the time of the desktop and/or field assessments being undertaken.

The 'snapshot' nature of a standard biodiversity assessment meant that migratory, transitory or uncommon fauna species may have been absent from typically occupied habitats at the time of the field assessment. In addition, annual or cryptic flora species such as those that persist via underground tubers may also be absent.

A comprehensive list of all terrestrial flora and fauna present within the study area was not undertaken as this was not the objective of the assessment. Rather a list of commonly observed species was recorded to inform the habitat hectare assessment and assist in determining the broader biodiversity values present within the study area.

Ecological values identified within the study area were recorded using a hand-held GPS or tablet with an accuracy of +/-3 metres. This level of accuracy is considered to provide an accurate assessment of the ecological values present within the study area; however, this data should not be used for detailed surveying purposes.

The terrestrial flora and fauna data collected during the field assessment and information obtained from relevant desktop sources is considered to inform an accurate assessment of the ecological values present within the study area.

3 RESULTS

3.1 Vegetation Condition

Several patches of native vegetation were recorded within the study area. The remainder of the study area comprised either bare sand or areas dominated by exotic grass or planted gardens extending from the residential properties bordering the study area northern boundary.

Eighteen (18) flora species were observed within the study area, including 12 indigenous and six non-indigenous species. A list of all flora species recorded during the field assessment are provided in Appendix 1.1. Specific details relating to observed EVCs are provided below.

3.1.1 Patches of Native Vegetation

Native vegetation in the study area is representative of four EVCs: Mangrove Shrubland (EVC 140), Coast Banksia Woodland (EVC 2), Damp Sands Herb-rich Woodland (EVC 3) and Estuarine Flats Grassland (EVC 914). The presence of these EVCs is generally consistent with the modelled extent (2005) native vegetation mapping within the local area (DEECA 2024a).

The results of the habitat hectare assessment are provided in Appendix 1.2.

Mangrove Shrubland

Mangrove Shrubland is described as a shrubland to two meters tall, confined to low energy coastal environments generally on mud flats within the tidal zone (DEECA 2024c).

Several patches of Mangrove Shrubland were mapped within the study area (Figure 2). The patches were all characterised by the presence of Grey Mangrove *Avicennia marina* subsp. *australasica*, with the mapped extent also capturing areas of pneumatophores (aerial roots) (Plate 1; Plate 2). All mapped Grey Mangrove were young plants, less than one metre tall.

Plate 1. Grey Mangrove mapped within the study area (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Plate 2. Several small Grey Mangrove mapped within the study area (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Coast Banksia Woodland

Coast Banksia Woodland is characterised by a woodland dominated by Coast Banksia *Banksia integrifolia* (DEECA 2024c). It occupies secondary dune systems near coastal locations, often behind Coastal Dune Scrub (DEECA 2024c).

A stand of Coast Banksia Woodland was observed within the eastern side of study area, with the patch extending further east out of the current study area. Within the Stage 4 area, the EVC was characterised by the presence of Coast Banksia canopy (Plate 3). The understorey was dominated by exotic grasses (Plate 4).

Plate 3. Looking east towards the Coast Banksia Woodland EVC (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Plate 4. Looking west towards the Stage 4 study area from the Coast Banksia Woodland EVC, with understorey dominated by exotic grasses (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Damp Sands Herb-rich Woodland

Damp Sands Herb-rich Woodland is characterised by an open woodland to 15 meters tall, with a diverse shrub layer and understorey of herbs and grasses (DEECA 2024c).

Damp Sands Herb-rich woodland within the study area was present in a modified state, growing in a narrow section located between the concrete pathway and constructed wall along the edge of Lake King. The habitat zone contained two native flora species, Coast Banksia and Common Reed *Phragmites australis* (Plate 5; Plate 6).

Plate 5. A patch of modified Damp Sands Herb-rich Woodland (Ecology and Heritage Partners Pty Ltd 18/04/2024).

Plate 6. Common Reed growing between Coast Banksia in the study area (Ecology and Heritage Partners Pty Ltd 18/04/2024).

Estuarine Flats Grassland

Estuarine Flats Grassland is described as an open grassland to 1.5 meters, with occasional emergent shrubs present on beach berms or sand sheets (DEECA 2024c).

Small patches of modified Estuarine Flats Grassland were recorded in the northern half of the study area, on higher sandy sections. The patches comprised a low diversity of native species, represented by Coast Saltbush *Atriplex cinerea*, Australian Salt-grass *Distichlis distichophylla* and Common Reed (Plate 7; Plate 8).

Plate 7. Modified patches of Estuarine Flats Grassland along the high tide line (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Plate 8. Modified patches of Estuarine Flats Grassland along the high tide line (Ecology and Heritage Partners Pty Ltd 16/04/2024).

3.1.2 Large Trees in Patches

One large Coast Banksia was mapped within the Stage 4 area of the Coast Banksia Woodland EVC (Plate 9; Figure 2).

Plate 9. Large Coast Banksia mapped at the eastern end of the study area (Ecology and Heritage Partners Pty Ltd 16/04/2024).

3.1.3 Scattered Trees

No scattered trees were present within the Stage 4 study area.

3.1.4 Introduced and Planted Vegetation

Most of the study area was dominated by native vegetation or sandy beaches and sand flats within the intertidal zone. Small areas of exotic grass had outcompeted native vegetation, such as in areas located between the Coast Banksia Woodland and the Estuarine Flats Grassland habitat zones. Exotic grass species commonly included Kikuyu and Rat-tail Grass *Sporobolus africans* (Plate 10; Plate 11).

Plate 10. Exotic grass in open area between Coast Banksia Woodland and Estuarine Flats Grassland (Ecology and Heritage Partners Pty Ltd 16/04/2024).

Plate 11. Exotic grass in understorey of Coast Banksia Woodland (Ecology and Heritage Partners Pty Ltd 16/04/2024).

3.2 Fauna Habitat

Several different types of fauna habitat were present within the study area, including a large waterbody, low lying coastal vegetation and woodlands.

The primary habitat type within the study area was the waterbody of Lake King. The study area occurs along the intertidal edge of the lake, providing foraging opportunities for a range of waterbirds, such as Black Swan *Cygnus atratus* and Royal Spoonbill *Platalea regia* which were observed within the study area. Additional fauna observed within the surrounding area included Pelican *Pelecanus conspicillatus*, Silver Gull *Chroicocephalus novaehollandiae*, Pied Oystercatcher *Haematopus longirostris*, White-faced Heron *Egretta novaehollandiae*, Australian White Ibis *Threskiornis moluccus* and Little Black Cormorant *Phalacrocorax sulcirostris*.

Reptiles such as skinks and snakes are likely to occur along the verges of the terrestrial vegetation, such as amongst the Coast Banksia Woodland and Estuarine Flats Grassland mapped within the study area, and within the areas of planted gardens.

Woodland birds are likely to occur within the Coast Banksia Woodland vegetation and residential gardens backing on to the study area, such as Red Wattlebird *Anthochaera carunculata*, Crimson Rosella *Platycercus elegans*, Superb Fairy-wren *Malurus cyaneus*, Silvereye *Zosterops lateralis*, Grey Fantail *Rhipidura albiscapa*, Australian Magpie *Gymnorhina tibicen* and Rainbow Lorikeet *Trichoglossus moluccanus*.

3.3 Significance Assessment

3.3.1 Flora

The VBA contains records of two nationally significant (i.e. under the EPBC Act) and 48 State significant (i.e. under the FFG Act) flora species previously recorded within 10 kilometres of the study area (DEECA 2024d) (Figure 3). The PMST nominated an additional 11 nationally significant species which have not been previously recorded but have the potential to occur in the locality (DCCEEW 2024) (Appendix 1.3).

One State significant flora species was mapped within the study area, Grey Mangrove. A total of 151 individuals were mapped, all present as young plants (< one meter tall).

No nationally significant flora species or additional State significant flora species were recorded during the site assessment and based on most of the study area being within the intertidal zone with a sandy substrate, additional significant flora species are unlikely to occur.

3.3.2 Fauna

The VBA contains records of 35 nationally significant (i.e. under the EPBC Act) and 37 State significant (i.e. under the FFG Act) fauna species previously recorded within 10 kilometres of the study area (DEECA 2024d) (Figure 4). The PMST nominated an additional 23 nationally significant species which have not been previously recorded but have the potential to occur in the locality (DCCEEW 2024) (Appendix 2.1).

A variety of nationally and State significant waterbirds have been mapped within proximity to the study area, within Lake King and the adjacent coastal reserve. The surrounding habitat near the study area provides suitable habitat for a range of these species, such as the nationally significant Curlew Sandpiper *Calidris*

ferruginea, Eastern Curlew *Numenius madagascariensis*, Fairy Tern *Sternula nereis* and Bar-tailed Godwit *Limosa lapponica*, and State significant Caspian Tern *Hydroprogne caspia*, Eastern Great Egret *Ardea alba modesta*, Little Tern *Sternula albifrons* and Australian Shoveler *Anas rhynchotis*.

Based on the areas of suitable surrounding habitat and connectivity to the study area, it is likely that the above species would occur within the study area on occasion, primarily for foraging purposes in the exposed flats at low tide, but would not rely upon this habitat given the higher quality areas nearby (i.e. within the coastal reserve).

3.3.3 Ecological Communities

Six nationally listed ecological communities are predicted to occur within 10 kilometres of the study area (DCCEEW 2024):

- Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland;
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia;
- River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria;
- Subtropical and Temperate Coastal Saltmarsh;
- Natural Damp Grassland of the Victorian Coastal Plains; and,
- White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

The native vegetation mapped within the study area did not contain any of the floristic characteristics that define any of the above ecological communities. The main vegetation present was scattered Grey Mangrove and areas of Coastal Saltbush.

No State significant ecological communities were recorded within the study area.

3.3.4 Ramsar Wetlands

The study area sits largely within the nationally significant Gippsland Lakes Ramsar Wetland, which is recognised as a matter of national significance under the EPBC Act. The Ramsar site covers a total area of 60,015 hectares, extending far beyond the limits of the Stage 4 study area.

Ramsar wetlands are recognised as internationally important wetlands under the Ramsar Convention 1971 and are recognised as matters of NES under the EPBC Act. They are known to support migratory shorebirds, which rely on these intertidal wetlands in Australia as non-breeding stopovers. Migratory shorebirds must build sufficient energy reserves, in order to travel long distances back to breeding grounds often in the northern hemisphere.

Gippsland Lakes was listed as a wetland of international importance under the Convention on Wetlands of International Importance in 1982, with an emphasis on its importance as one of the largest coastal lagoon systems, important habitat for threatened fauna species and waterfowl habitat and important habitat and feeding areas for a range of aquatic species.

4 REMOVAL, DESTRUCTION OR LOPPING OF NATIVE VEGETATION (THE GUIDELINES)

4.1 Avoid and Minimise Statement

The proposed construction of Stage 4 of the Krauatungalung Walk provides a missing link between the end of an existing concrete path to the west and existing gravel path to the east. The project forms part of the broader project where a circuit walk around the eastern end of Cunninghame Arm is proposed for development, with Stage 1 already approved and under construction.

The primary impact for the project will result from the sand nourishment program proposed to prevent erosion along the lake edge through the provision of additional sand and installation of a stabilisation wall using Elcorock geosynthetic containers. The proposed impact area for the sand nourishment includes the footprint of the boardwalk, as the boardwalk is designed to run near the southern edge of the sand nourishment area, restricting the impacts to the same area. A diagram of the proposed sand nourishment area and boardwalk is provided below (Plate 12).

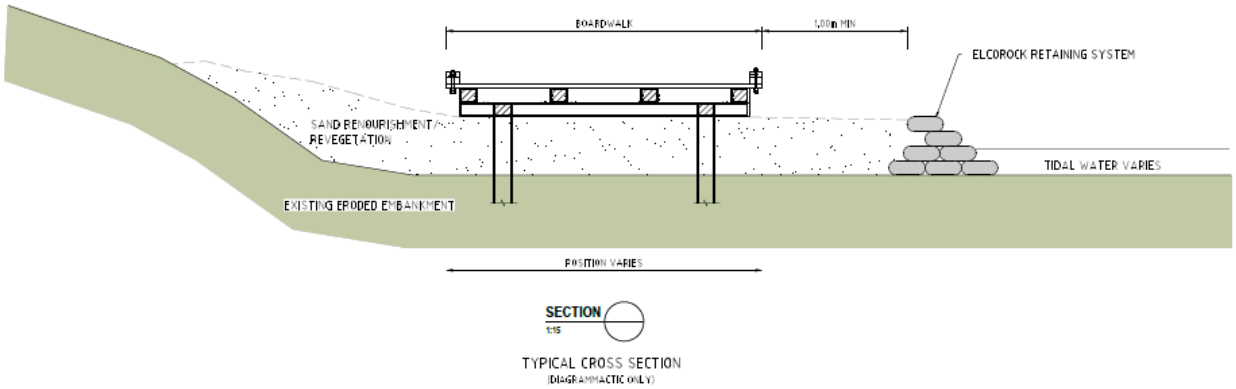

Plate 12. Diagram showing proposed sand nourishment, boardwalk and Elcorock retaining wall (Elevate Consulting Engineers 2024).

The native vegetation mapped within the the sand nourishment area was mainly Grey Mangroves. The objective of the sand nourishment program, to increase and stabilise the amount of sand within this area, will result in all Grey Mangroves within this location being impacted. As the height of the current sand level will be raised, it was not feasible to retain individuals of Grey Mangrove.

The impact areas outside of the sand nourishment area includes a portion of Damp Sands Herb-rich Woodland. The section of boardwalk that intersects the Damp Sands Herb-rich Woodland area will impact upon a section of Common Reed, which is located between two mature Coast Banksia trees. Both of the

Coast Banksia are avoided, with the alignment designed to retain these trees (Plate 5 shows the location of these trees).

The eastern section of the boardwalk alignment intercepts a fragment of an Estuarine Flats Grassland patch, where the southern tip of the EVC falls within the alignment (EFG2 on Figure 2). The rest of the patch is located within the sand nourishment area, and whilst may be physically retained on site, the change in surrounding surface levels and associated works in the area may compromise the vegetation, therefore is included as assumed loss.

The alignment proceeds further east towards the area of Coast Banksia Woodland, however no impacts are anticipated at this location, as the boardwalk ends at the existing gravel path, and the understorey of the Coast Banksia Woodland habitat zone at this location was entirely dominated by exotic grass (see Plate 11).

Based on the objectives of the sand nourishment program and the objectives of providing connectivity at the eastern and western ends of the study area through the creation of the new boardwalk, there are no further feasible opportunities to avoid or minimise impacts to native vegetation within the study area without undermining the feasibility of the proposal. Mitigation measures to reduces the overall impacts to biodiversity are provided in Section 6.

4.2 Residual Impacts to Native Vegetation

The below clearing scenario is based on the impacts associated with the sand nourishment and boardwalk construction, based on the development plan provided by the client on 14th October 2024. The sand nourishment area largely coincides with the boardwalk area, so minimal additional impacts will result from the creation of the boardwalk. A summary of the proposed impacts are provided below:

- 0.0105 hectares Damp Sands Herb-rich Woodland
- 0.011 hectares Mangrove Shrubland
- 0.042 hectares Estuarine Flats Grassland

The width of the boardwalk averages two metres, which will be a raise platform above the high tide level, and set back from the edges of residential properties (i.e. the alignment primarily runs through the intertidal area).

No impacts to the modelled current wetland are included in the impact assessment, as the wetland assessment was carried out when the wetland had been inundated for at least one month and native vegetation associated within the wetland could be accurately assessed (assessed at low tide) (DELWP 2021).

4.2.1 Vegetation proposed to be removed

The study area is within Location 2, with 0.18 hectares of native vegetation proposed to be removed, which includes 0.064 hectares of proposed removal and 0.166 hectares of past removal. As such, the permit application falls under the Intermediate assessment pathway (Table 1).

Condition scores for patches of native vegetation proposed to be impacted that are located outside of the Current Wetland area are provided in Appendix 1.2.

Table 1. Removal of Native Vegetation (the Guidelines) (DELWP 2017).

Assessment pathway	Intermediate
Location Category	2
Total Extent (past and proposed) (ha)	0.18
Extent of past removal (ha)	0.116
Extent of proposed removal (ha)	0.064
Large Trees (scattered and in patches) to be removed (no.)	0
Small scattered trees to be removed (no.)	0
EVC Conservation Status of vegetation to be removed	Endangered (Estuarine Flats Grassland) Vulnerable (Coast Banksia Woodland and Damp Sands Herb-rich Woodland) Least Concern (Mangrove Shrubland)

4.2.2 Offset Targets

The offset requirements for native vegetation removal for the proposed development are 0.035 General Habitat Units.

A summary of the offset requirements associated with the proposed vegetation losses is presented in Table 2 and the Native Vegetation Removal (NVR) report is presented in Appendix 3.

Table 2. Offset Targets.

General Offsets Required	0.035 General Habitat Units
Large Trees	0
Vicinity (catchment/council)	East Gippsland CMA / East Gippsland Shire Council municipality
Minimum Strategic Biodiversity Value*	0.4680

***The minimum Strategic Biodiversity Value is 80% of the weighted average score across habitat zones where a General offset is required.

4.3 Offset Strategy

According to DEECAs Native Vegetation Offset Register (DEECA 2024g), there are nine offset sites within the East Gippsland CMA or East Gippsland Shire Council municipality that can be used to satisfy the General Habitat Unit offset requirements.

An offset register search statement identifying the relevant offsite sites is provided in Appendix 4, which provides evidence that the offset obligation can be secured without any difficulty should a permit be provided for the project.

5 LEGISLATIVE AND POLICY IMPLICATIONS

5.1 *Flora and Fauna Guarantee Act 1988* (Victoria)

A total of 151 Grey Mangrove, listed as Threatened under the FFG Act, were mapped within the Stage 4 area, and of these, 80 are proposed to be impacted. A permit under the FFG Act will be required as the study area is located on public land. The proponent should allow up to six weeks to obtain an FFG Act permit through DEECA.

5.2 *Planning and Environment Act 1987* (Victoria)

5.2.1 Local Planning Scheme

The study area is located within the East Gippsland Shire Council and zoned Public Conservation and Resource Zone (PCRZ) (DTP 2024). No overlays apply to the study area.

5.2.2 The Guidelines

The State Planning Policy Framework and the decision guidelines at Clause 12.01 Biodiversity and Clause 52.17 Native Vegetation require Planning and Responsible Authorities to have regard for the Guidelines (DELWP 2017).

5.2.3 Implications

The study area is within Location 2, with 0.18 hectares of native vegetation proposed to be removed from the impact area. This includes 0.072 hectares of proposed removal and 0.116 hectares of past removal. As such, the permit application falls under the Intermediate assessment pathway.

The offset requirement for native vegetation removal is 0.035 General Habitat Units.

A planning permit from the East Gippsland Shire Council is required to remove, destroy or lop any native vegetation under Clause 52.17 of the local planning scheme. In this instance, the application is required to be referred to DEECA because the study area is located on Crown land managed by the responsible authority.

5.3 *Water Act 1989* (Victoria)

A 'works on waterways' permit from the East Gippsland CMA is likely to be required where any action impacts on waterways within the study area. Additionally, where structures are installed within or across waterways that potentially interfere with the passage of fish or the quality of aquatic habitat, these activities should be referred to DEECA with the East Gippsland CMA included for comment.

6 MITIGATION MEASURES

Recommended measures to mitigate impacts upon terrestrial and aquatic values present within the study area include:

- Minimise impacts to native vegetation and habitats through construction and micro-siting techniques, including fencing retained areas of native vegetation during construction. If indeed necessary, trees should be lopped or trimmed rather than removed. Similarly, soil disturbance and sedimentation during works within the intertidal zone should be avoided or kept to a minimum, to avoid, or minimise impacts to fauna habitats;
- All contractors should be aware of ecologically sensitive areas to minimise the likelihood of inadvertent disturbance to areas marked for retention. Native vegetation (areas of sensitivity) should be included as a mapping overlay on any construction plans;
- Undertake supplementary planting around the area of Estuarine Flats Grassland to minimise the impacts to native vegetation at this location. Recommended flora species include Australian Salt-grass, Coast Saltbush, Hairy Spinifex *Spinifex sericeus* and Knobby Club-sedge *Ficinia nodosa*;
- Undertake understorey plantings in the area of Coast Banksia Woodland where the understorey was dominated by exotic grasses. Recommended species include Seaberry Saltbush *Rhagodia candolleana*, Common Boobialla *Myoporum insulare*, Coast Beard-heath *Leucopogon parviflorus*, Australian Salt-grass, Knobby Club-sedge, and Coast Saltbush;
- Salvage and translocation of Grey Mangroves located within the impact area into nearby suitable locations;
- Tree Protection Zones (TPZs) must be implemented to prevent indirect losses of native vegetation to be retained during construction activities (Standards Australia 2009). A TPZ applies to a tree and is a specific area above and below the ground, with a radius 12 x the Diameter at Breast Height (DBH). At a minimum standard a TPZ should consider the following:
    - A TPZ of trees should be a radius no less than two metres or greater than 15 metres;
    - Construction, related activities and encroachment (i.e. earthworks such as trenching that disturb the root zone) should be excluded from the TPZ;
    - Where encroachment is 10% or more of the total area of the TPZ, the tree should be considered as lost and offset accordingly (unless an arboricultural report specifies otherwise);
    - Directional drilling may be used for works within the TPZ without being considered encroachment. The directional bore should be at least 600 millimetres deep;
    - The above guidelines may be varied if a qualified arborist confirms the works will not significantly damage the tree (including stags / dead trees). In this case the tree would be retained, and no offset would be required; and,
    - Where the minimum standard for a TPZ has not been met an offset may be required.

- Construction stockpiles, machinery, roads, and other infrastructure should be placed away from areas supporting native vegetation and within the intertidal zone of Lake King; and,
- Ensure that best practice sedimentation and pollution control measures are undertaken at all times, in accordance with Environment Protection Authority (EPA) guidelines (EPA 2020a; EPA 2020b; Victorian Stormwater Committee 1999) to prevent offsite impacts to waterways and wetlands.

7 SUMMARY OF PLANNING IMPLICATIONS

Further requirements associated with development of the study area, as well as additional studies or reporting that may be required, are provided in Table 3. Implications under the EPBC Act are addressed in a separate report prepared for Stages 2 – 4 of the project, which will support an EPBC Act referral.

Table 3. Further requirements associated with development of the study area.

Relevant Legislation	Implications	Further Action
Flora and Fauna Guarantee Act 1988	A total of 151 Grey Mangrove, listed as Threatened under the FFG Act, were mapped within the Stage 4 area, and of these, 80 are proposed to be impacted. A permit under the FFG Act will be required as the study area is located on public land. The proponent should allow up to six weeks to obtain an FFG Act permit through DEECA.	Prepare and submit an FFG Act permit application to DEECA.
Planning and Environment Act 1987	The study area is within Location 2, with 0.18 hectares of native vegetation proposed to be removed. As such, the permit application falls under the Intermediate assessment pathway. The offset requirement for native vegetation removal is 0.035 General Habitat Units. A planning permit from the East Gippsland Shire Council is required to remove, destroy or lop any native vegetation under Clause 52.17 of the Planning Scheme. In this instance, the application is required to be referred to DEECA.	Prepare and submit a Planning Permit application.
Water Act 1989	A 'works on waterways' permit is likely to be required from the East Gippsland CMA where any action impacts on waterways within the study area.	Obtain a 'works on waterways' permit from the East Gippsland CMA.

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FIGURES

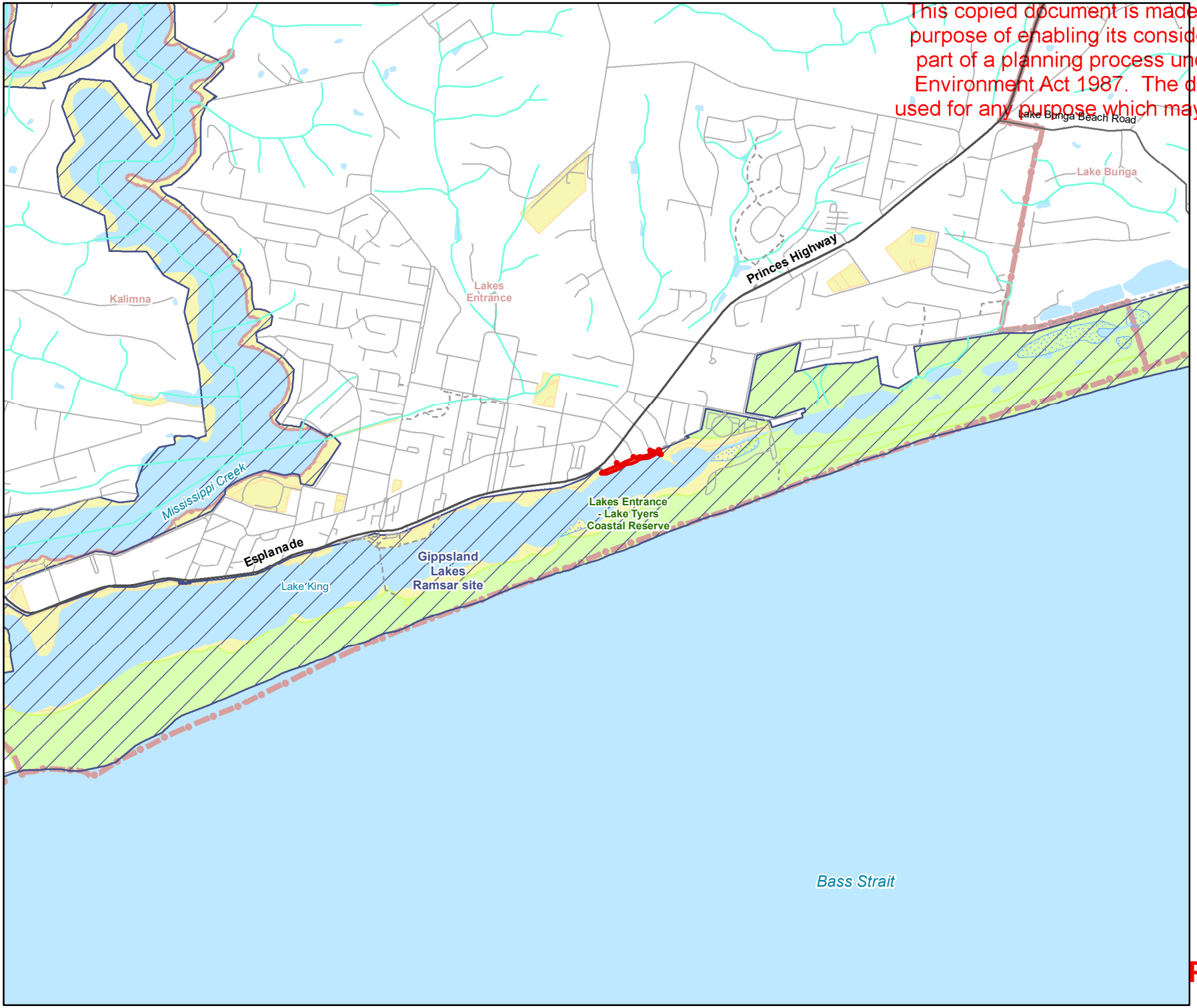

Figure 1

Location of the study area

Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

0 250 500
Metres

Map Scale: 1:25,000 @ A4
Coordinate System: GDA 1994 MGA Zone 55

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Legend

- Study Area
- Impact area
- Boardwalk
- Sand nourishment and revegetation
- Current Wetlands
- FFG Act Listed Flora
- Large Tree in patch

Ecological Vegetation Classes

- Coast Banksia Woodland (EVC 2)
- Damp Sands Herb-rich Woodland (EVC 3)
- Estuarine Flats Grassland (EVC 914)
- Mangrove Shrubland (EVC 140)
- Impacted vegetation

Figure 2 Overview

Ecological features

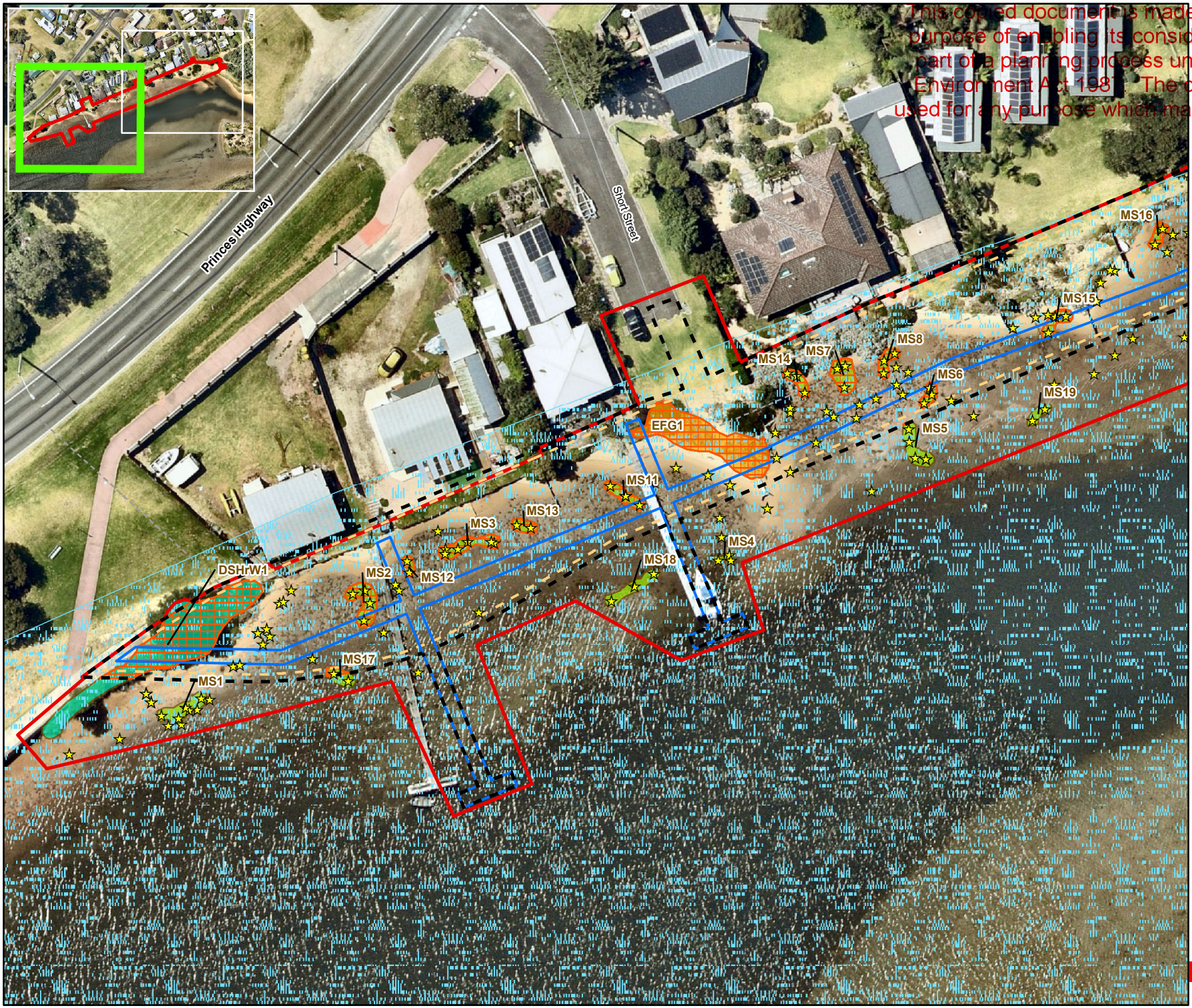
Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

0 20 40
Metres

Map Scale: 1:1,400 @ A4
Coordinate System: GDA 1994 MGA Zone 55

ecology & heritage partners

Aerial source: Nearmap 2024



Legend

- Study Area
- Impact area
- Boardwalk
- Sand nourishment and revegetation
- Current Wetlands
- FFG Act Listed Flora

Ecological Vegetation Classes

- Damp Sands Herb-rich Woodland (EVC 3)
- Estuarine Flats Grassland (EVC 914)
- Mangrove Shrubland (EVC 140)
- Impacted vegetation

Figure 2a

Ecological features

Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

N

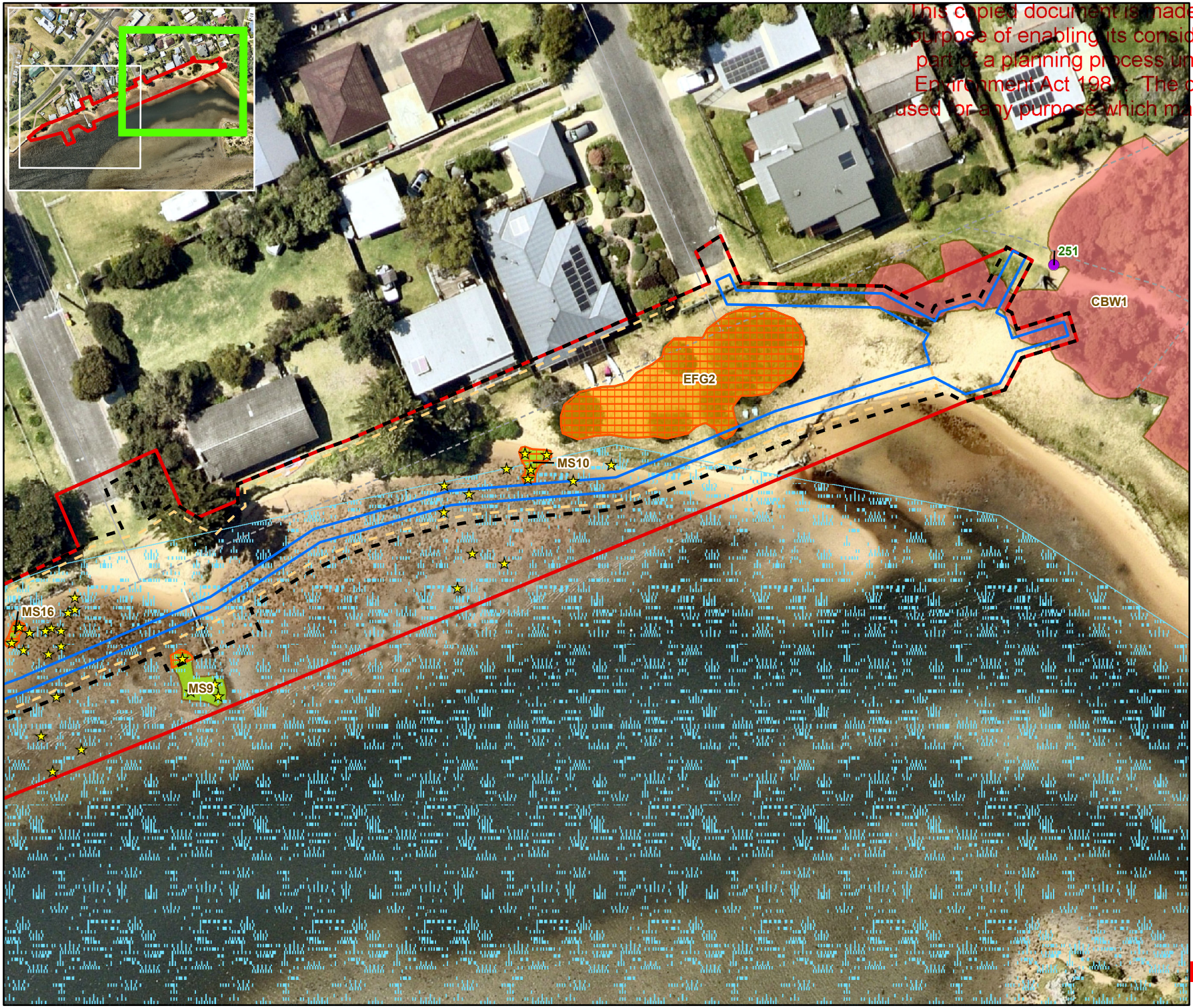
0 10 20

Metres

Map Scale: 1:700 @ A4
Coordinate System: GDA 1994 MGA Zone 55

ecology & heritage partners

Aerial source: Nearmap 2024



Legend

- Study Area
- Impact area
- Boardwalk
- Sand nourishment and revegetation
- Current Wetlands
- FFG Act Listed Flora
- Large Tree in patch

Ecological Vegetation Classes

- Coast Banksia Woodland (EVC 2)
- Estuarine Flats Grassland (EVC 914)
- Mangrove Shrubland (EVC 140)
- Impacted vegetation

Figure 2b

Ecological features

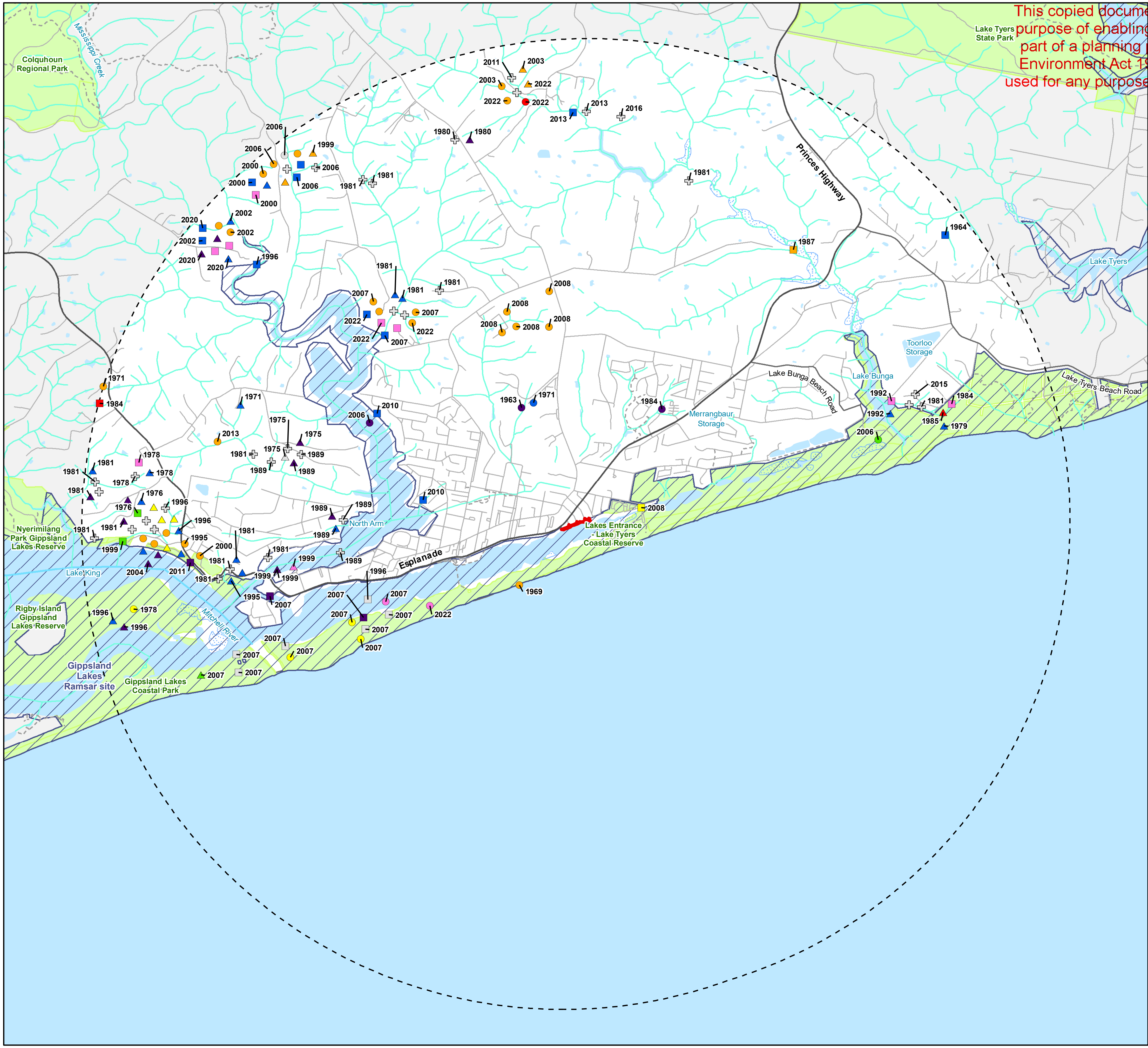
Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

0 10 20
Metres

Map Scale: 1:700 @ A4
Coordinate System: GDA 1994 MGA Zone 55

ecology & heritage partners

Aerial source: Nearmap 2024



Legend

Study Area

Significant flora

- Austral Crane's-bill
- Cabbage Fan-palm
- Coast Grey-box
- Coast Mistletoe
- Coastal Greenhood
- Creeping Rush
- Dune Fan-flower
- Dune Groundsel
- Dune Wood-sorrel
- Eastern Bitter-cress
- Eastern Water-ribbons
- Grey Mangrove
- Jointed Mistletoe
- Limestone Blue Wattle
- Limestone Pomaderris
- Ochre Cassinia
- Pinkwood
- Rough Blown-grass
- Sandfly Zieria
- Spicy Everlasting
- Spotted Gum
- Viscid Daisy-bush
- Wallaby-bush
- Yellow Milk-vine
- Yellow-wood

Figure 3

Previously documented significant flora within 5km of the study area

Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

N

0 1 2

Kilometres

Map Scale: 1:38,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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Victorian Biodiversity Atlas (VBA). Sourced from: 'VBA_FLORA25', 'VBA_FLORA100', 'VBA_FAUNA25' and 'VBA_FAUNA100', Updated March 2024 © The State of Victoria, Department of Energy, Environment and Climate Action. Records prior to 1949 not shown.
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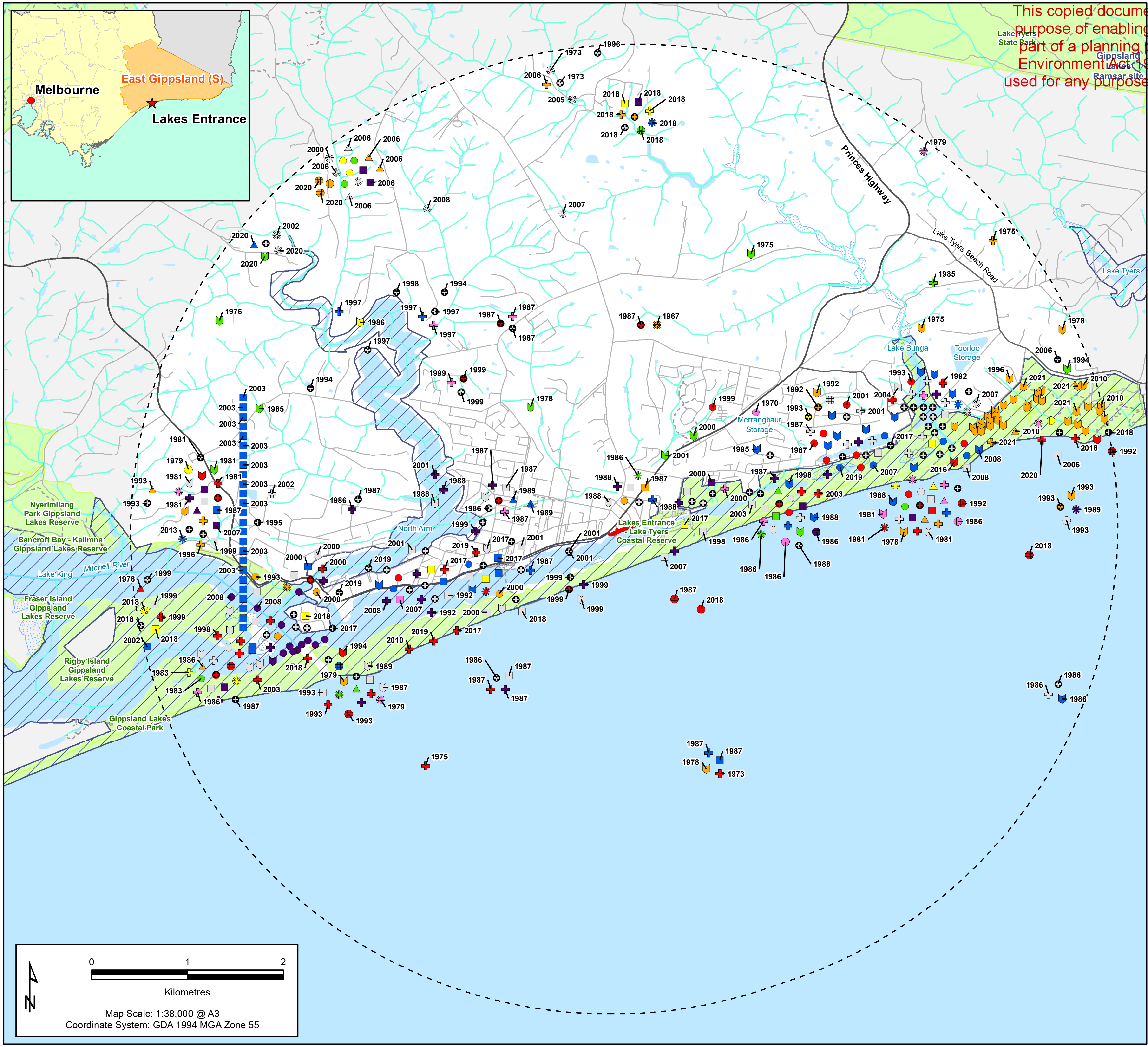
16453_Fig03_SigFlora 12/06/2024 dvaladares



Legend

Study Area

Significant fauna

- Australasian Bittern
- Australasian Shoveler
- Bar-tailed Godwit
- Barking Owl
- Black Falcon
- Blue-billed Duck
- Brush-tailed Phascogale
- Burrunan Dolphin
- Caspian Tern
- Common Greenshank
- Eastern Curlew
- Eastern Great Egret
- Eastern Horseshoe Bat
- Fairy Tern
- Freckled Duck
- Gang-gang Cockatoo
- Glossy Black-Cockatoo
- Green and Golden Bell Frog
- Grey Goshawk
- Grey Plover
- Grey-headed Albatross
- Grey-headed Flying-fox
- Ground Parrot
- Growling Grass Frog
- Hardhead
- Hooded Plover
- Lace Monitor
- Latham's Snipe
- Leathery Turtle
- Lewin's Rail
- Little Eagle
- Little Egret
- Little Tern
- Long-nosed Fur Seal
- Long-nosed Potoroo
- Magpie Goose
- Masked Owl
- Musk Duck
- Pacific Golden Plover
- Plumed Egret
- Powerful Owl
- Red Knot
- Regent Honeyeater
- Ruddy Turnstone
- Shy Albatross
- Sooty Owl
- Southern Brown Bandicoot
- Southern Giant-Petrel
- Southern Greater Glider
- Southern Right Whale
- Southern Toadlet
- Spot-tailed Quoll
- Square-tailed Kite
- Subantarctic Fur Seal
- Swift Parrot
- Wandering Albatross
- White-bellied Sea-Eagle
- White-throated Needletail
- Yellow-bellied Glider
- Yellow-bellied Sheathtail Bat

Figure 4

Previously documented significant fauna within 5km of the study area

Biodiversity Assessment for Krauatungalung Walk Stage 4, Lakes Entrance

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Victorian Biodiversity Atlas (VBA). Sourced from: 'VBA_FLORA25', 'VBA_FLORA100', 'VBA_FAUNA25' and 'VBA_FAUNA100', Updated March 2024 © The State of Victoria, Department of Energy, Environment and Climate Action. Records prior to 1949 not shown.
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16453_Fig04_SigFauna 12/06/2024 dvaladares

APPENDIX 1 FLORA

Appendix 1.1 Flora Results

Legend:

En Listed as endangered under the FFG Act (DEECA 2024e)
- Naturally growing (i.e. non-planted) indigenous species to the study area
+ Naturally growing indigenous species that also occurs as planted indigenous vegetation to the study area
** Planted indigenous species to the study area
# Planted Victorian (non-indigenous) and Australian species

Table A1.1. Flora within the study area.

Scientific Name	Common Name	Notes
INDIGENOUS SPECIES		
Acacia longifolia subsp. *sophorae*	Coast Wattle	-
Atriplex cinerea	Coast Saltbush	-
Avicennia marina subsp. *australasica*	Grey Mangrove	En
Banksia integrifolia subsp. *integrifolia*	Coast Banksia	-
Distichlis distichophylla	Australian Salt-grass	-
Ficinia nodosa	Knobby Club-sedge	-
Leptospermum laevigatum	Coast Tea-tree	-
Leucopogon parviflorus	Coast Beard-heath	-
Phragmites australis	Common Reed	-
Rhagodia candolleana	Seaberry Saltbush	-
Spinifex sericeus	Hairy Spinifex	-
Tetragonia implexicoma	Bower Spinach	-
NON-INDIGENOUS OR INTRODUCED SPECIES		
Ammophila arenaria	Marram Grass	-
Cynodon dactylon	Couch	-
Pennisetum clandestinum	Kikuyu	-
Hypochaeris radicata	Flatweed	-
Lagurus ovatus	Hare's-tail Grass	-
Sporobolus africanus	Rat-tail Grass	-

Appendix 1.2 Habitat Hectare Assessment

Table A1.2. Habitat Hectare Assessment Table.

Vegetation Zone		EFG1 & EFG2	CBW	MS1-17	DSHrW
Bioregion		Gippsland Plain	Gippsland Plain	Gippsland Plain	Gippsland Plain
EVC		Estuarine Flats Grassland	Coast Banksia Woodland	Mangrove Shrubland	Damp Sands Herb-rich Woodland
EVC Number		914	2	140	3
EVC Conservation Status		Endangered	Vulnerable	Least Concern	Vulnerable
Site Condition /75	Large Trees /10	N/A	5	N/A	0
	Tree Canopy Cover /5	N/A	3	N/A	0
	Lack of Weeds /15	10	15	25	5
	Understorey /25	9	15	15	15
	Recruitment /10	3	10	10	5
	Organic Matter /5	3	5	N/A	5
	Logs /5	N/A	2	N/A	0
	Treeless EVC Multiplier	1.36	1.00	1.36	1.00
	Subtotal =	34.00	55.00	68.00	30.00
Landscape Context /25	Patch Size /10	1	2	1	1
	Neighbourhood /10	2	3	2	2
	Distance to Core Area /5	4	4	4	4
	Subtotal =	7	9	7	7
Habitat Points /100		41	64	75	37
Habitat Score		**0.41**	**0.64**	**0.75**	**0.37**

Appendix 1.3 Significant Flora Species

Significant flora within 10 kilometres of the study area is provided in the Table A1.3.3 at the end of this section, with Tables A1.3.1 and A1.3.2 below providing the background context for the values in Table 1.3.3.

Table A1.4.1 Conservation status of each species for each Act/policy. The values in this table correspond to Columns 5 to 7 in Table A1.4.3.

EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*):		FFG Act (*Flora and Fauna Guarantee Act 1988*):	
EX	Extinct	L	Listed as threatened
CR	Critically endangered	N	Nominated for listing as threatened
EN	Endangered	D	Delisted as threatened
VU	Vulnerable	I	Rejected for listing as threatened; taxon invalid
#	Listed on the Protected Matters Search Tool	X	Rejected for listing as threatened; taxon ineligible

Table A1.3.2 Likelihood of occurrence rankings: Habitat characteristics assessment of significant flora species previously recorded within 10 kilometres of the study area, or that may potentially occur within the study area to determine their likelihood of occurrence. The values in this table correspond to Column 8 in Table A1.3.3.

1	Known Occurrence	• Recorded within the study area recently (i.e. within ten years).
2	High Likelihood	• Previous records of the species in the local vicinity; and/or, • The study area contains areas of high-quality habitat.
3	Moderate Likelihood	• Limited previous records of the species in the local vicinity; and/or • The study area contains poor or limited habitat.
4	Low Likelihood	• Poor or limited habitat for the species, however other evidence (such as lack of records or environmental factors) indicates there is a very low likelihood of presence.
5	Unlikely	• No suitable habitat and/or outside the species range.

Table A1.3.3 Significant flora recorded within 10 kilometres of the study area.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
NATIONAL SIGNIFICANCE							
Acacia caerulescens	Limestone Blue Wattle	41	2022	VU	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Amphibromus fluitans #	River Swamp Wallaby-grass	-	-	VU	-	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Astrotricha sp. Wingan Inlet (J.A.Jeanes 2268) #	Wingan Star-hair	-	-	EN	-	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Caladenia tessellata	Thick-lip Spider-orchid	13	2011	VU	-	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Commersonia prostrata #	Dwarf Kerrawang	-	-	EN	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Dianella amoena #	Matted Flax-lily	-	-	EN	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Glycine latrobeana #	Clover Glycine	-	-	VU	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Grevillea celata #	Colquhoun Grevillea	-	-	VU	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Prasophyllum spicatum #	Dense Leek-orchid	-	-	VU	cr	5	Study area primarily within the intertidal zone of

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							Lake King or sandy beach. No suitable habitat present.
Pterostylis chlorogramma #	Green-striped Greenhood	-	-	VU	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Thelymitra epipactoides #	Metallic Sun-orchid	-	-	EN	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Thesium australe #	Austral Toadflax, Toadflax	-	-	VU	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Xerochrysum palustre #	Swamp Everlasting	-	-	VU	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
STATE SIGNIFICANCE							
Acronychia oblongifolia	Yellow-wood	48	2022	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Asplenium trichomanes subsp. *quadrivalens*	Common Spleenwort	1	1992	-	en	5	
Avicennia marina subsp. *australasica*	Grey Mangrove	1	2008	-	en	1	Species mapped within the study area (Figure 2)
Beyeria lanceolata	Pinkwood	3	1975	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Beyeria lasiocarpa	Wallaby-bush	1	1999	-	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							present.
Billardiera scandens s.s.	Velvet Apple-berry	1	2008	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Botrychium australe	Austral Moonwort	4	1999	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Caladenia osmera	Pungent Spider-orchid	1	2011	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Caladenia peisleyi	Heath Spider-orchid	8	2011	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Cardamine microthrix	Eastern Bitter-cress	1	1984	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Cardamine papillata	Forest Bitter-cress	1	1984	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Cardamine tryssa	Dainty Bitter-cress	2	1995	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Cassinia nivalis	Ochre Cassinia	5	2011	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Corunastylis nuda	Tiny Midge-orchid	1	1980	-	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Corybas aconitiflorus	Spurred Helmet-orchid	6	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Corybas fimbriatus	Fringed Helmet-orchid	8	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Corymbia maculata	Spotted Gum	1	2007	-	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Cycnogeton microtuberosum	Eastern Water-ribbons	3	1987	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Dipodium pardalinum	Spotted Hyacinth-orchid	4	2023	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Dipodium variegatum	Blotched Hyacinth-orchid	3	2017	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Echinopogon caespitosus var. *caespitosus*	Bushy Hedgehog-grass	2	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Eucalyptus bosistoana	Coast Grey-box	51	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Eucalyptus mackintii	Gippsland Stringybark	11	2021	-	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Eucalyptus polyanthemos subsp. *longior*	Forest Red-box	2	2020	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Eupomatia laurina	Bolwarra	1	1992	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Geranium solanderi var. *solanderi s.s.*	Austral Crane's-bill	2	2006	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Juncus revolutus	Creeping Rush	2	1980	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Korthalsella rubra subsp. *rubra*	Jointed Mistletoe	2	1999	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Lachnagrostis rudis subsp. *rudis*	Rough Blown-grass	3	1985	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Lawrencia spicata	Salt Lawrencia	5	2007	-	en	3	Suitable habitat present however not observed during site assessment. Vegetation primarily consisted of Grey Mangrove growing within intertidal zone.
Leichhardtia flavescens	Yellow Milk-vine	21	2020	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Livistona australis	Cabbage Fan-palm	1	2022	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Lysimachia japonica	Creeping Loosestrife	2	1997	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Muellerina celastroides	Coast Mistletoe	5	2007	-	cr	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Olearia viscosa	Viscid Daisy-bush	36	2020	-	cr	4	Limited areas of suitable habitat present at eastern end of study area, however not observed during site assessment. Vegetation primarily consisted of Grey Mangrove growing within intertidal zone.
Oxalis rubens	Dune Wood-sorrel	6	2007	-	en	4	Limited areas of suitable habitat present in sandy berms however not observed during site assessment. Vegetation primarily consisted of Grey Mangrove growing within intertidal zone.
Ozothamnus argophyllus	Spicy Everlasting	7	1999	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Platysace ericoides	Heath Platysace	16	2011	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Pomaderris aurea	Golden Pomaderris	2	2020	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Pomaderris oraria subsp. calcicola	Limestone Pomaderris	40	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Pterostylis alveata	Coastal Greenhood	4	2006	-	vu	5	Study area primarily within the intertidal zone of

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							Lake King or sandy beach. No suitable habitat present.
Pterostylis grandiflora	Cobra Greenhood	2	2008	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Pterostylis tunstallii	Granite Greenhood	2	2007	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Scaevola calendulacea	Dune Fan-flower	3	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Senecio spathulatus var. latifructus	Dune Groundsel	6	2006	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Sicyos australis	Star Cucumber	3	2001	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Wurmbea uniflora	One-flower Early Nancy	1	1980	-	vu	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.
Zieria smithii	Sandfly Zieria	7	2022	-	en	5	Study area primarily within the intertidal zone of Lake King or sandy beach. No suitable habitat present.

Data Sources: Victorian Biodiversity Atlas (DEECA 2024d); Protected Matters Search Tool (DCCEEW 2024).

APPENDIX 2 FAUNA

Appendix 2.1 Significant Fauna Species

Significant fauna within 10 kilometres of the study area is provided in the Table A2.1.3 at the end of this section, with Tables A2.1.1 and A2.1.2 below providing the background context for the values in Table 2.1.3.

Table A2.1.1 Conservation status of each species for each Act/policy. The values in this table correspond to Columns 5 to 8 in Table A2.1.3.

EPBC (*Environment Protection and Biodiversity Conservation Act 1999*):				FFG (*Flora and Fauna Guarantee Act 1988*):			
EX	Extinct	VU	Vulnerable	ex	Extinct	vu	Vulnerable
CR	Critically endangered	CD	Conservation Dependent	cr	Critically endangered	cd	Conservation Dependent
EN	Endangered	#	Listed on the Protected Matter Search Tool	en	Endangered		

Table A2.1.2 Likelihood of occurrence rankings: Habitat characteristics assessment of significant fauna species previously recorded within 10 kilometres of the study area, or that may potentially occur within the study area to determine their likelihood of occurrence. The values in this table correspond to Column 9 in Table A2.1.3.

1	Known Occurrence	• Recorded within the project area recently (i.e. within 10 years).
2	High Likelihood	• Likely resident in the study area based on site observations, database records, or expert advice; and/or, • Recent records (i.e. within five years) of the species in the local area (DELWP 2018); and/or, • The study area contains the species' preferred habitat.
3	Moderate Likelihood	• The species is likely to visit the study area regularly (i.e. at least seasonally); and/or, • Previous records of the species in the local area (DELWP 2021); and/or, • The study area contains some characteristics of the species' preferred habitat.
4	Low Likelihood	• The species is likely to visit the study area occasionally or opportunistically whilst en route to more suitable sites; and/or, • There are only limited or historical records of the species in the local area (i.e. more than 20 years old); and/or, • The study area contains few or no characteristics of the species' preferred habitat.

5	Unlikely	• No previous records of the species in the local area; and/or, • The species may fly over the study area when moving between areas of more suitable habitat; and/or, • Out of the species' range; and/or, • No suitable habitat present.

Table A2.1.3. Significant fauna within 10 kilometres of the study area.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
NATIONAL SIGNIFICANCE							
Anthochaera phrygia	Regent Honeyeater	4	1967	CR	cr	5	No recent records and habitat within the study area primarily within the intertidal zone.
Arctophoca tropicalis	Subantarctic Fur Seal	1	1997	EN	-	5	No recent past records or preferred habitat present (i.e. coastal rocky platforms)
Ardenna grisea #	Sooty Shearwater	-	-	VU	-	5	No past records within proximity to the study area. No suitable terrestrial habitat present within the study area.
Arenaria interpres	Ruddy Turnstone	16	2018	VU	en	3	May forage within the intertidal zone within the study area on occasion.
Botaurus poiciloptilus	Australasian Bittern	9	1992	EN	cr	5	No recent past records or preferred habitat present (forages in freshwater wetlands).
Calidris acuminata	Sharp-tailed Sandpiper	51	2005	VU	-	3	May forage within the intertidal zone within the study area on occasion.
Calidris canutus	Red Knot	7	2017	VU	en	3	May forage within the intertidal zone within the study area on occasion.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Calidris ferruginea	Curlew Sandpiper	8	2017	CR	cr	3	May forage within the intertidal zone within the study area on occasion.
Calidris tenuirostris	Great Knot	3	2003	VU	cr	3	May forage within the intertidal zone within the study area on occasion.
Callocephalon fimbriatum	Gang-gang Cockatoo	128	2018	EN	en	4	Limited recent records and habitat within the study area primarily within the intertidal zone. Limited foraging habitat within the Coastal Banksia Woodland.
Calyptorhynchus lathami	Glossy Black-Cockatoo	16	2020	VU	vu	4	Limited recent records and habitat within the study area primarily within the intertidal zone. Limited foraging habitat within the Coastal Banksia Woodland.
Carcharodon carcharias #	Great White Shark	-	-	VU	en	5	No suitable habitat within the study area. Marine species occurring in open ocean waters.
Caretta caretta #	Loggerhead Turtle	-	-	EN	-	5	Oceanic species, no preferred habitat within the study area or past records within proximity to the study area.
Charadrius leschenaultii #	Greater Sand Plover	-	-	VU	vu	4	No past records within proximity to the study area. Some preferred foraging habitat present.
Charadrius mongolus	Lesser Sand Plover	2	1999	EN	en	4	Species does not breed in Australia. Suitable foraging habitat present, although no recent records within proximity to the study area.
Chelonia mydas #	Green Turtle	-	-	VU	-	5	No past records within proximity to the

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							study area and no preferred habitat present.
Climacteris picumnus	Brown Treecreeper	3	2012	VU	-	5	No recent records and habitat within the study area primarily within the intertidal zone.
Dasyornis brachypterus	Eastern Bristlebird	2	1988	EN	cr	5	No recent records and habitat within the study area primarily within the intertidal zone.
Dasyurus maculatus maculatus	Spot-tailed Quoll	7	1999	EN	en	5	No recent records and habitat within the study area primarily within the intertidal zone.
Dermochelys coriacea	Leathery Turtle	2	1985	EN	cr	5	No recent records within proximity to the study area and no preferred habitat present.
Falco hypoleucos #	Grey Falcon	-	-	VU	vu	5	No past records within proximity to the study area and no preferred habitat present.
Fregetta grallaria grallaria #	White-bellied Storm-Petrel (Australasian)	-	-	VU	-	5	No past records within proximity to the study area and no preferred habitat.
Galaxiella pusilla #	Dwarf Galaxias	-	-	EN	en	5	No recent records and habitat within the study area primarily within the intertidal zone.
Galeorhinus galeus #	School Shark	-	-	CD	-	5	No suitable habitat within the study area. Marine species occurring in open ocean waters.
Gallinago hardwickii	Latham's Snipe	10	2018	VU	-	4	Some nearby past records however no preferred habitat within the study area (i.e. freshwater wetlands).

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Grantiella picta	Painted Honeyeater	3	2006	VU	vu	5	No recent records and habitat within the study area primarily within the intertidal zone.
Halobaena caerulea #	Blue Petrel	-	-	VU	-	5	No past records within proximity to the study area.
Heleioporus australiacus #	Giant Burrowing Frog	-	-	VU	cr	5	No recent records and habitat within the study area primarily within the intertidal zone.
Hirundapus caudacutus	White-throated Needletail	101	2018	VU	vu	4	Predominately aerial species, unlikely to rely on habitat within the study area for foraging or breeding
Isoodon obesulus obesulus	Southern Brown Bandicoot	7	2010	EN	en	5	No recent records and habitat within the study area primarily within the intertidal zone of Lake King.
Lathamus discolor	Swift Parrot	8	2008	CR	cr	4	Few past records and limited preferred habitat present within the study area.
Limosa lapponica	Bar-tailed Godwit	77	2008	VU	vu	3	Recent past records within proximity to the study area and some preferred foraging habitat present.
Lissolepis coventryi #	Swamp Skink	-	-	EN	en	4	No past records within proximity to the study area, limited suitable habitat present.
Litoria aurea	Green and Golden Bell Frog	2	1978	VU	-	5	No recent past records within proximity to the study area, and no preferred habitat.
Macronectes giganteus	Southern Giant-Petrel	3	1989	EN	en	5	No past records and primarily marine oceanic species.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Macronectes halli #	Northern Giant Petrel	-	-	VU	en	5	No past records and primarily marine oceanic species.
Melanodryas cucullata	Hooded Robin	3	1980	EN	vu	4	No recent records and limited terrestrial habitat present within the study area
Neophema chrysostoma	Blue-winged Parrot	4	1999	VU	-	4	No recent records within proximity to the study area and no preferred habitat present.
Numenius madagascariensis #	Eastern Curlew	-	-	CR	cr	4	No past records within proximity to the study area, limited suitable habitat present.
Pachyptila turtur subantarctica #	Fairy Prion (southern)	-	-	VU	-	4	No past records within proximity to the study area, limited suitable habitat present.
Petauroides volans	Southern Greater Glider	33	2020	EN	en	5	No suitable habitat within the study area (primarily coastal/aquatic habitat with no hollow-bearing trees present).
Petaurus australis	Yellow-bellied Glider	91	2022	VU	vu	5	No suitable habitat within the study area (primarily coastal/aquatic habitat with no hollow-bearing trees present).
Pluvialis squatarola	Grey Plover	5	1980	VU	vu	4	Breeds in the northern hemisphere. Limited preferred foraging habitat present.
Potorous tridactylus trisulcatus	Long-nosed Potoroo	96	2021	VU	vu	4	Limited suitable terrestrial habitat. May pass through the eastern section of the study area on occasion however unlikely due to residential nature of the broader surroundings.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Prototroctes maraena #	Australian Grayling	-	-	VU	en	5	No past records within proximity of the study area or preferred habitat within the study area.
Pseudomys novaehollandiae #	New Holland Mouse	-	-	VU	en	5	No past records within proximity of the study area and no preferred habitat within the study area
Pterodroma leucoptera leucoptera #	Gould's Petrel	-	-	EN	-	5	Pelagic marine species, no preferred habitat within the study area.
Pteropus poliocephalus	Grey-headed Flying-fox	7	2020	VU	vu	5	Limited recent past records within proximity of the study area and
Pycnoptilus floccosus	Pilotbird	4	2008	VU	vu	4	Relatively sedentary bird, limited preferred habitat within the study area.
Rhincodon typus #	Whale Shark	-	-	VU	-	5	No suitable habitat within the study area. Marine species occurring in open ocean waters.
Rostratula australis #	Australian Painted Snipe	-	-	EN	cr	4	No past records within proximity to the study area, limited suitable habitat present.
Seriolella brama #	Blue Warehou	-	-	CD	cd	5	No suitable habitat within the study area. Marine species occurring in open ocean waters.
Stagonopleura guttata	Diamond Firetail	2	2000	VU	vu	4	Limited past records within proximity to the study area and limited preferred habitat.
Sternula nereis	Fairy Tern	381	2019	VU	cr	3	Recent records within proximity to the study area and some preferred habitat present.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Thinornis cucullatus	Hooded Plover	184	2020	VU	vu	3	Recent records within proximity to the study area and limited preferred habitat present.
Thunnus maccoyii #	Southern Bluefin Tuna	-	-	CD	cd	5	No suitable habitat within the study area. Marine species occurring in open ocean waters.
Tringa nebularia	Common Greenshank	3	1980	EN	en	4	No recent records however some suitable foraging within the intertidal zone of the study area.
Uperoleia martini #	Martin's Toadlet	-	-	EN	cr	5	No records within proximity to the study area and no preferred habitat.
STATE SIGNIFICANCE							
Accipiter novaehollandiae	Grey Goshawk	84	2019	-	en	3	Past records within proximity to the study area however limited preferred habitat present. May fly over on occasion.
Anseranas semipalmata	Magpie Goose	5	1995	-	vu	4	No recent records within proximity to the study area and no preferred habitat present.
Arctophoca forsteri	Long-nosed Fur Seal	4	2016	-	vu	4	Limited recent records within proximity to the study area and no preferred habitat present.
Ardea alba modesta	Eastern Great Egret	29	2019	-	vu	3	Recent past records within proximity to the study area and limited preferred habitat present.
Ardea intermedia plumifera	Plumed Egret	15	2004	-	cr	3	Several past records within proximity to the study area and limited preferred

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							habitat present.
Aythya australis	Hardhead	71	2019	-	vu	3	Recent past records within proximity to the study area and limited preferred habitat present.
Biziura lobata	Musk Duck	112	2017	-	vu	3	Recent past records within proximity to the study area and limited preferred habitat present.
Egretta garzetta	Little Egret	161	2019	-	en	3	Recent past records within proximity to the study area and limited preferred habitat present.
Falco subniger	Black Falcon	11	2006	-	cr	4	Few recent records in proximity to the study area however limited preferred habitat present.
Haliaeetus leucogaster	White-bellied Sea-Eagle	523	2020	-	en	3	Numerous records within proximity to the study area however limited preferred habitat present. May fly over on occasion.
Hieraaetus morphnoides	Little Eagle	135	2013	-	vu	4	Past records within proximity to the study area however limited preferred habitat present.
Hydroprogne caspia	Caspian Tern	232	2019	-	vu	3	Recent past records within proximity to the study area and some preferred habitat present.
Lewinia pectoralis	Lewin's Rail	17	1997	-	vu	4	No recent records and no preferred habitat present.
Lophoictinia isura	Square-tailed Kite	6	2018	-	vu	4	Few recent records in proximity to the study area however limited preferred habitat present.

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
Miniopterus orianae oceanensis	Eastern Bent-winged Bat	5	2012	-	cr	4	Few recent records in proximity to the study area however limited preferred habitat present.
Ninox connivens	Barking Owl	2	2006	-	cr	4	Limited suitable foraging habitat and no suitable nesting habitat present.
Ninox strenua	Powerful Owl	42	2020	-	vu	4	Some recent past records within proximity to the study area however limited preferred habitat present.
Numenius phaeopus	Whimbrel	2	1999	-	en	4	No recent records within proximity to the study area however some preferred foraging habitat present.
Oxyura australis	Blue-billed Duck	17	2019	-	vu	3	Recent past records within proximity to the study area and limited preferred habitat present.
Pezoporus wallicus	Ground Parrot	4	1981	-	en	5	No recent records within proximity to the study area and no preferred habitat present.
Phascogale tapoatafa	Brush-tailed Phascogale	1	1970	-	vu	5	No recent records within proximity to the study area and no preferred habitat present.
Pluvialis fulva	Pacific Golden Plover	2	1977	-	vu	5	No recent records and limited preferred habitat present.
Pseudophryne semimarmorata	Southern Toadlet	31	2020	-	en	5	No suitable habitat within the study area.
Pyrrholaemus sagittatus	Speckled Warbler	1	1986	-	en	5	No recent records and limited preferred habitat present.
Rhinolophus megaphyllus	Eastern Horseshoe Bat	60	2012	-	en	4	Few recent records in proximity to the

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
megaphyllus							study area however limited preferred habitat present.
Saccolaimus flaviventris	Yellow-bellied Sheathtail Bat	1	1993	-	vu	5	No recent records and limited preferred habitat present.
Sminthopsis leucopus	White-footed Dunnart	8	2013	-	vu	4	Few past records in proximity to the study area however limited preferred habitat present.
Spatula rhynchotis	Australasian Shoveler	56	2019	-	vu	3	Recent past records within proximity to the study area and some preferred habitat present.
Sternula albifrons	Little Tern	639	2019	-	cr	2	Numerous recent records in proximity to the study area and suitable foraging habitat present.
Stictonetta naevosa	Freckled Duck	2	2007	-	en	4	Few recent past records within proximity to the study area and limited preferred habitat present.
Synoicus chinensis	King Quail	1	1988	-	en	5	No recent records and no preferred habitat present.
Thylogale billardierii	Rufous-bellied Pademelon	1	1909	-	th	5	No recent records and limited preferred habitat present.
Tringa brevipes	Grey-tailed Tattler	1	1992	-	cr	5	No recent records and limited preferred habitat present.
Tursiops australis	Burrunan Dolphin	23	2016	-	cr	4	Recent past records in proximity to the study area however limited preferred habitat present.
Tyto novaehollandiae	Masked Owl	29	2020	-	cr	4	Some recent past records within proximity to the study area however

Scientific name	Common name	Total # of documented records	Last documented record	EPBC	FFG	Likely occurrence in study area	Rationale for likelihood of occurrence
							limited preferred habitat present.
Tyto tenebricosa	Sooty Owl	31	2020	-	en	4	Some recent past records within proximity to the study area however limited preferred habitat present.
Varanus varius	Lace Monitor	23	2021	-	en	4	Limited suitable terrestrial habitat. May pass through the eastern section of the study area on occasion.

Data Sources: Victorian Biodiversity Atlas (DEECA 2024d); Protected Matters Search Tool (DCCEEW 2024).

APPENDIX 3 NATIVE VEGETATION REMOVAL (NVR) REPORT

Native Vegetation Removal Report

NVRR ID: 319_20241023_4IJ

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 Guidelines). This report is **not an assessment by DEECA** 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.

Report details

Date created: 23/10/2024

Local Government Area: EAST GIPPSLAND SHIRE

Shapefile name:
EHP16453_LakesEntrance_St4_VG20_23102024_Patches.shp

Site assessor name:
Claire Ranyard
Ethos NRM

Registered Aboriginal Party: Gunaikurnai

Coordinates: 147.99614, -37.88145

Address:
596 ESPLANADE LAKES ENTRANCE 3909
ESPLANADE LAKES ENTRANCE 3909
594 ESPLANADE LAKES ENTRANCE 3909
240 ESPLANADE LAKES ENTRANCE 3909
288 ESPLANADE LAKES ENTRANCE 3909
6 BULLOCK ISLAND ROAD LAKES ENTRANCE 3909
400 ESPLANADE LAKES ENTRANCE 3909
380 ESPLANADE LAKES ENTRANCE 3909
470 ESPLANADE LAKES ENTRANCE 3909
286 ESPLANADE LAKES ENTRANCE 3909
(4 additional addresses not listed)

Regulator Notes

Removal polygons are located:

- Within a DEECA Mapped Wetland area
- On Crown Land

Summary of native vegetation to be removed

Assessment pathway	**Intermediate Assessment Pathway**		
Location category	Location 2 The native vegetation extent map indicates that this area is typically characterised as supporting native vegetation. Additionally, it is modelled as encompassing an endangered Ecological Vegetation Class, sensitive wetland or sensitive coastal area. The removal of less than 0.5 hectares of native vegetation in this area will not require a Species Offset.		
Total extent including past and proposed removal (ha) *Includes endangered EVCs (ha): 0.042*	**0.18**	*Extent of past removal (ha)*	*0.116*
		Extent of proposed removal - Patches (ha)	*0.064*
		Extent of proposed removal - Scattered Trees (ha)	*0.000*
No. Large Trees proposed to be removed	**0**	*No. Large Patch Trees*	*0*
		No. Large Scattered Trees	*0*
No. Small Scattered Trees	0		

Offset requirements if approval is granted

Any approval granted will include a condition to secure an offset, before the removal of native vegetation, that meets the following requirements:

General Offset amount [1]	**0.035 General Habitat Units**
Minimum strategic biodiversity value score [2]	0.4680
Large Trees	0
Vicinity	East Gippsland CMA or EAST GIPPSLAND SHIRE LGA

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

The availability of third-party offset credits can be checked using the Native Vegetation Credit Register (NVCR) Search Tool - https://nvcr.delwp.vic.gov.au

1. The General Offset amount required is the sum of all General Habitat Units in Appendix 1.
2. Minimum strategic biodiversity value score is 80 per cent of the weighted average score across habitat zones where a General Offset is required.
3. The Species Offset amount(s) required is the sum of all Species Habitat Units in Appendix 1.

Application requirements

Applications to remove, destroy or lop native vegetation must include all the below information. If an appropriate response has not been provided the application is not complete.

Application Requirement 1 - Native vegetation removal information

If the native vegetation removal is mapped correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 1.

Application Requirement 2 - Topographical and land information

This statement describes the topographical and land features in the vicinity of the proposed works, including the location and extent of any ridges, hilltops, wetlands and waterways, slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

Application Requirement 3 - Photographs of the native vegetation to be removed

Application Requirement 3 is not addressed in this Native Vegetation Removal Report. All applications must include recent, timestamped photos of each Patch, Large Patch Tree and Scattered Tree which has been mapped in this report.

Application Requirement 4 - Past removal

If past removal has been considered correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 4.

Application Requirement 5 - Avoid and minimise statement

This statement describes what has been done to avoid and minimise impacts on native vegetation and associated biodiversity values.

Application Requirement 6 - Property Vegetation Plan

This requirement only applies if an approved Property Vegetation Plan (PVP) applies to the property
Does a PVP apply to the proposal?

Application Requirement 7 - Defendable space statement

Where the removal of native vegetation is to create defendable space, this statement:

- Describes the bushfire threat; and

- Describes how other bushfire risk mitigation measures were considered to reduce the amount of native vegetation proposed for removal (this can also be part of the avoid and minimise statement).

This statement is not required if, If the proposed defendable space is within the Bushfire Management Overlay (BMO), and in accordance with the 'Exemption to create defendable space for a dwelling under Clause 44.06 of local planning schemes' in Clause 52.12-5.

Application Requirement 8 - Native Vegetation Precinct Plan

This requirement is only applicable if you are removing native vegetation from within an area covered by Native Vegetation Precinct Plan (NVPP), and the proposed removal is not identified as 'to be removed' within the NVPP.
Does an NVPP apply to the proposal?

Application Requirement 9 - Offset statement

This statement demonstrates that an offset is available and describes how the required offset will be secured. The Applicant's Guide provides information relating to this requirement.

Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in the Guidelines. If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority (e.g. local Council). This Native vegetation removal report must be submitted with your application and meets most of the application requirements. The following requirements need to be addressed, as applicable.

Application Requirement 3 - Photographs of the native vegetation to be removed

Recent, dated photographs of the native vegetation to be removed **must be provided** with the application. All photographs must be clear, show whether the vegetation is a Patch of native vegetation, Patch Tree or Scattered Tree, and identify any Large Trees. If the area of native vegetation to be removed is large, provide photos that are indicative of the native vegetation.

Ensure photographs are attached to the application. If appropriate photographs have not been provided the application is not complete.

Application Requirement 6 - Property Vegetation Plan

If a PVP is applicable, it must be provided with the application.

Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines

General Habitat Units = extent without overlap x condition score 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.

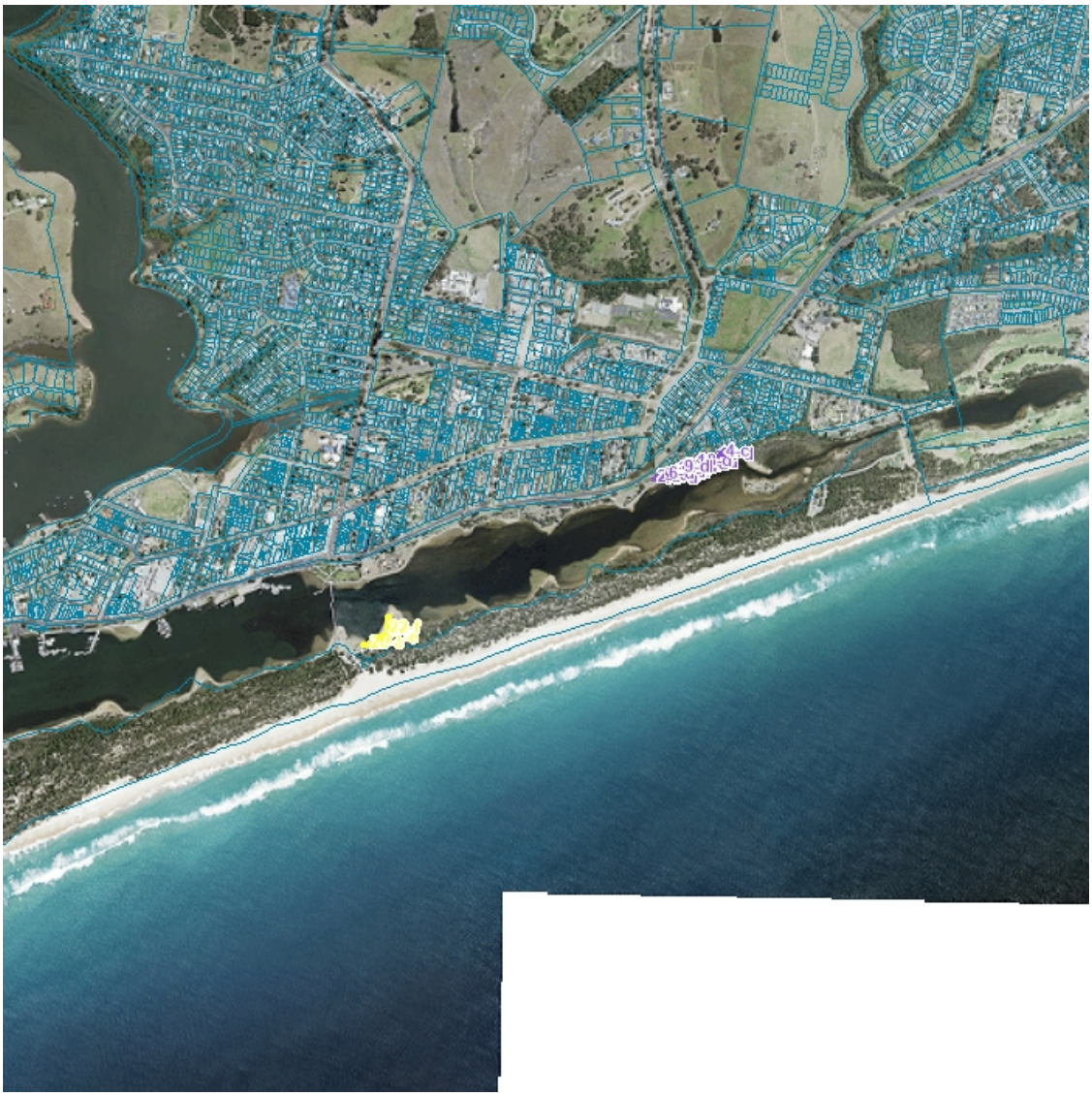
Native vegetation to be removed

Information provided by or on behalf of the applicant							Information calculated by NVR Map				
Zone	**Type**	**DBH (cm)**	**EVC code**	**Bioregional conservation status**	**Partial Removal**	**Condition score**	**Large Tree(s)**	**Polygon extent (ha)**	**Extent without overlap (ha)**	**SBV score**	**General Habitat Units**
10-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.000
11-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.000	0.000	0.260	0.000
12-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.321	0.001
13-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.001
14-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.000	0.000	0.260	0.000
15-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.000
16-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.000
17-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.001
18-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.000
19-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.000	0.000	0.260	0.000

Information provided by or on behalf of the applicant							Information calculated by NVR Map				
Zone	**Type**	**DBH (cm)**	**EVC code**	**Bioregional conservation status**	**Partial Removal**	**Condition score**	**Large Tree(s)**	**Polygon extent (ha)**	**Extent without overlap (ha)**	**SBV score**	**General Habitat Units**
2-b	Patch	-	GipP0003	Vulnerable	no	0.370	-	0.010	0.010	0.260	0.004
20-e	Patch	-	GipP0002	Vulnerable	no	0.680	-	0.049	0.049		
21-e	Patch	-	GipP0002	Vulnerable	no	0.680	-	0.029	0.029		
22-f	Patch	-	GipP0009	Least Concern	no	0.820	-	0.038	0.038		
3-c	Patch	-	GipP0914	Endangered	no	0.410	-	0.008	0.008	0.260	0.003
4-c	Patch	-	GipP0914	Endangered	no	0.410	-	0.034	0.034	0.870	0.020
5-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.002	0.002	0.260	0.001
6-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.001
7-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.000	0.000	0.260	0.000
8-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.000
9-d	Patch	-	GipP0140	Least Concern	no	0.750	-	0.001	0.001	0.260	0.001

Appendix 2: Images of mapped native vegetation

1. Property in context



Proposed Removal
Past Removal
Partial Removal
Property Boundaries

N

550 m

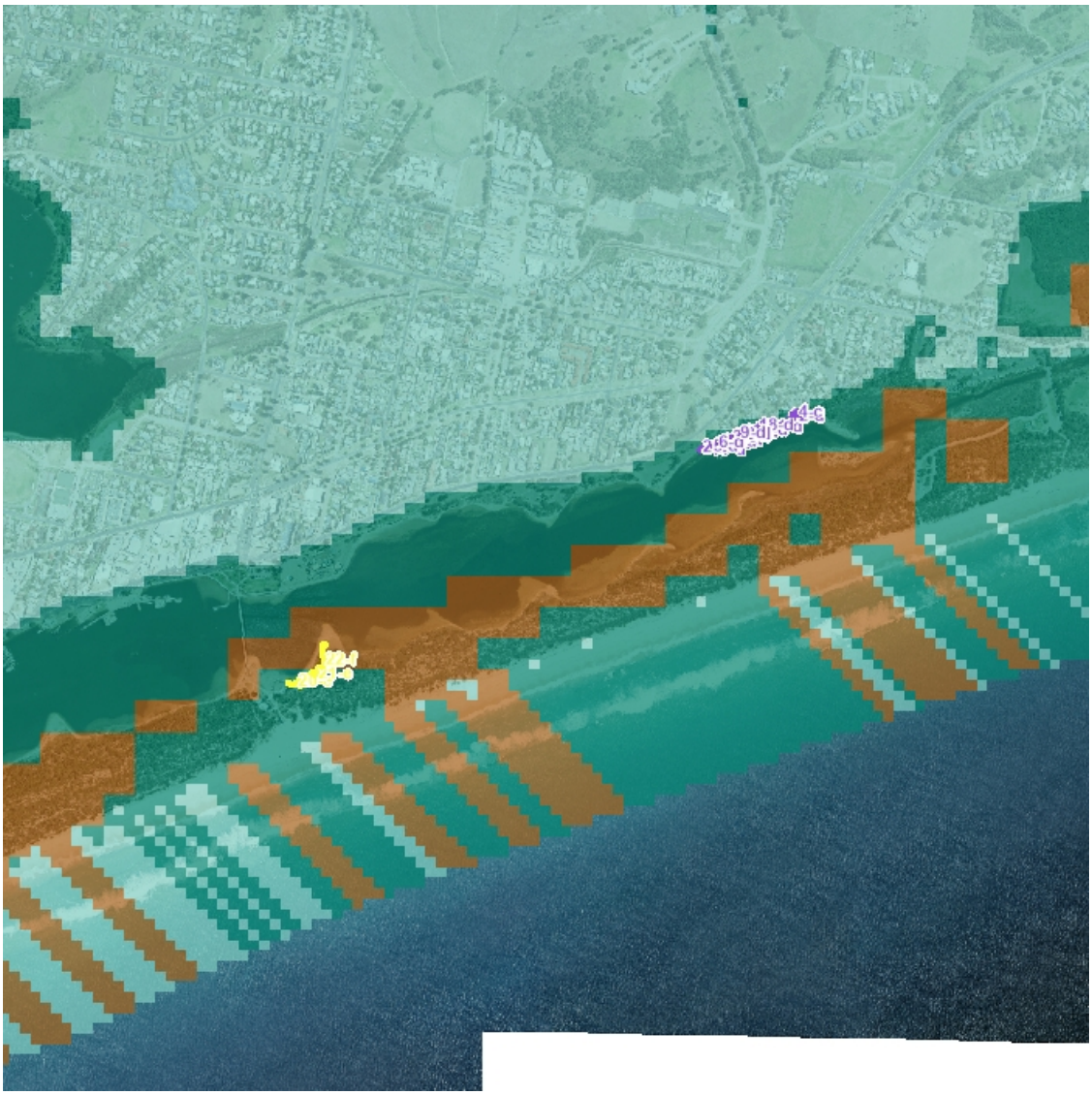
2. Aerial photograph showing mapped native vegetation

Proposed Removal
Past Removal
Partial Removal

N

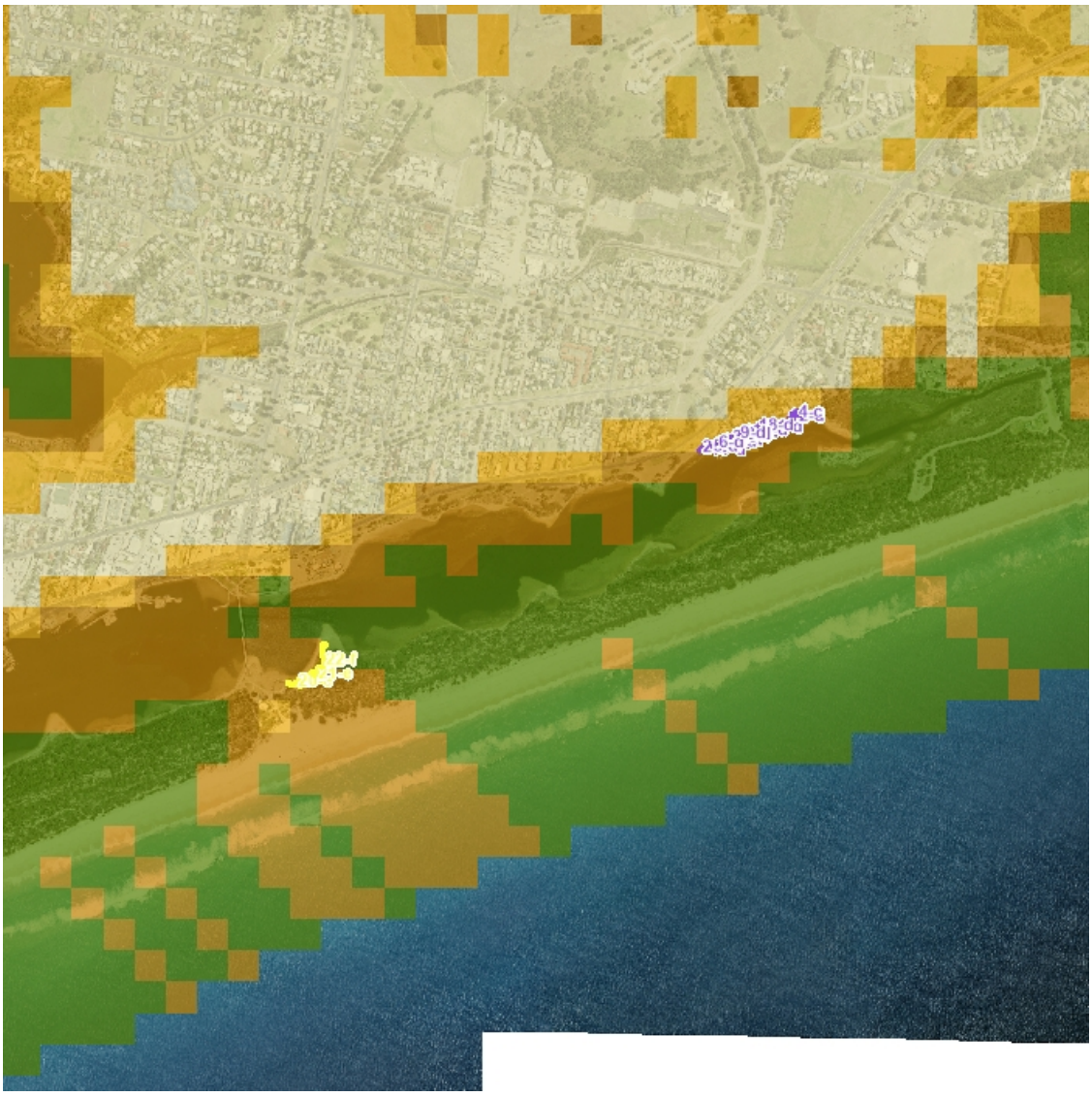
400 m

3. Location Risk Map



4. Strategic Biodiversity Value Score Map

5. Condition Score Map



6. Endangered EVCs

Proposed Removal
Past Removal
Partial Removal
Endangered 1750 Ecological Vegetation Classes

N

400 m

APPENDIX 4 AVAILABLE NATIVE VEGETATION CREDITS

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: 23/10/2024 08:53 **Report ID: 26947**

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.035	0.468	0	CMA	East Gippsland
			or LGA	East Gippsland Shire

Details of available native vegetation credits on 23 October 2024 08:53

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0115	2.914	0	West Gippsland	East Gippsland Shire	Yes	Yes	No	Bio Offsets
BBA-2323	6.019	86	East Gippsland	East Gippsland Shire	Yes	Yes	No	Bio Offsets, Ethos, VegLink
BBA-2843	15.103	903	East Gippsland	East Gippsland Shire	Yes	Yes	No	VegLink
TFN-C0486	0.039	96	North East	East Gippsland Shire	Yes	Yes	No	Contact NVOR, TFN
TFN-C0698	0.087	16	West Gippsland	East Gippsland Shire	Yes	Yes	No	Bio Offsets, Ecocentric, Ethos, VegLink
TFN-C1621	1.387	1	East Gippsland	East Gippsland Shire	Yes	Yes	No	TFN
VC_CFL-3720_01	1.876	244	East Gippsland	East Gippsland Shire	Yes	Yes	No	Contact NVOR
VC_CFL-3767_01	19.943	1588	East Gippsland	East Gippsland Shire	Yes	Yes	No	Ethos, VegLink
VC_CFL-3767_01	0.677	0	East Gippsland	East Gippsland Shire	Yes	Yes	Yes	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-3777_01	14.388	531	East Gippsland	East Gippsland Shire	Yes	Yes	No	Contact NVOR

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@deeca.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 DEECA Customer Service Centre 136 186 or the Native Vegetation Credit Register at nativevegetation.offsetregister@delwp.vic.gov.au

Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the *Aboriginal Heritage Act 2006*

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the *Aboriginal Heritage Act 2006* (the "Act").

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-726-003.

SECTION 1 - Sponsor information

Sponsor:	East Gippsland Shire Council		
ABN/ACN:	81 957 967 765		
Contact Name:	Mark Tickner		
Postal Address	PO Box 1618, Bairnsdale, Vic 3875		
Business Number:	03 5153 9576	Mobile:	
Email Address:			

Sponsor's agent (if relevant)

Company:			
Contact Name:			
Postal Address			
Business Number:		Mobile:	
Email Address:			

SECTION 2 - Description of proposed activity and location

Project Name:	Krauatungalung Walkway, Mackillops Land, Lakes Entrance
Municipal district:	East Gippsland Shire Council

Clearly identify the proposed activity for which the cultural heritage managment plan is to be prepared (ie. Mining, road construction, housing subivision)

Other

SECTION 3 - Cultural Heritage Advisor

Name	Company	Email address
Anita Barker	Anita Barker	

SECTION 4 - Expected start and finish date for the cultural heritage management plan

Start Date:	21-Sep-2024	Finish Date:	30-Sep-2025

Submitted on: 21 Sep 2024

SECTION 5 - Why are you preparing this cultural heritage management plan?

- ☐ A cultural heritage management plan is required by the Aboriginal Heritage Regulations 2007

  What is the high Impact Activity as it is listed in the regulations?

  Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? 1
- ☑ Other Reasons (Voluntary)
- ☑ An Environment Effects Statement is required
- ☐ A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.
- ☐ An Impact Management Plan or Comprehensive Impact Statement is required for the activity

SECTION 6 - List the relevant registered Aboriginal parties (if any)

This section is to be completed where there are registered Aboriginal parties in relation to the management plan.

GUNAIKURNAI Land and Waters Aboriginal Corporation

SECTION 7A - List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any)

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is **no Registered Aboriginal Party.***

SECTION 7B - Describe the intended consultation process (if any)

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is **no Registered Aboriginal Party.***

SECTION 8 – State who will be evaluating this plan (mandatory)

The plan is to be evaluated by:

- ☐ Joint - Registered Aboriginal Party AND The Secretary
- ☑ A Registered Aboriginal Party

  If checked, list the relevant Registered Aboriginal Party Evaluating:
- ☐ The Secretary
- ☐ Victorian Aboriginal Heritage Council

SECTION 9 – Preliminary Aboriginal Heritage Tests (PAHTs)

List the Reference Number(s) of any PAHTs conducted in relation to the proposed activity:

SECTION 10 - Notification checklist

Ensure that any relevant registered Aboriginal party/ies is also notified. A copy of this notice with a map attached may be used for this purpose.
(A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to evaluate the management plan.)

In addition to notifying the Deputy Director and any relevant registerd Aboriginal party/ies, a Sponsor must also notify any owner and/or occupier of any land within the area to which the management plan relates. A copy of this notice with a map attached may be used for this purpose.

Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is also notified. A copy of this notice, with a map attached, may also be used for this purpose.

OCT
20
24

DEVELOPMENT SOLUTIONS VICTORIA

APPLICATION FOR PLANNING PERMIT

KRAUATUNGALUNG WALK- STAGE 4

KRAUATUNGALUNG WALK, LAKES ENTRANCE
EAST GIPPSLAND SHIRE COUNCIL
REF: 24094

CONTENTS

APPENDIX

DOCUMENT REVISION

1	Draft Report	DAC	18/10/2024
2	Final Report	CMC	24/10/2024

1. INTRODUCTION

Development Solutions Victoria Pty Ltd act on behalf the East Gippsland Shire Council the applicant for this planning permit application for the Krauatungalung Walk Project – Stage 4 at Lakes Entrance. The Krauatungalung Walk Project is an all abilities walking circuit around Cunningham Arm, Lakes Entrance east of the Footbridge. The circuit will tell stories of the local Indigenous community and provide a link to the existing facilities of Lakes Entrance.

This submission and supporting documentation provides details of the subject site, relevant planning controls and policies and delivers an assessment against the provisions of the East Gippsland Planning Scheme under the provisions of the *Planning and Environment Act 1987*.

A public boardwalk offers numerous benefits, including boosting tourism, enhancing waterfront access, and promoting outdoor recreation. It can stimulate economic growth by attracting visitors, supporting nearby businesses, and creating job opportunities. Boardwalks provide a scenic space for walking, cycling, and socialising, encouraging a healthy lifestyle. They also help preserve natural habitats by offering a designated pathway, in turn minimising environmental impact. In this instance the boardwalk also acknowledges traditional landowners and supports understanding of the rich indigenous heritage.

Address	Krauatungalung Walk, Lakes Entrance
Site Description	Foreshore area east of the central business district
Title Particulars	No title applicable
Site Area	N/A
Proposal	Krauatungalung Walk - Stage 4
Planning Scheme	East Gippsland Planning Scheme
Zone	Public Conservation and Resource Zone
Overlays	None
Aboriginal Cultural Heritage	Identified as an area of Cultural Heritage Sensitivity
Permit Triggers	Clause 36.03-2 Public Conservation and Resource Zone
Notice	No exemption applicable
Referrals	DEECA
Work Authority Licence	Not Applicable
Planning Scheme requirements	Municipal Planning Strategy – Clause 02 Settlement – Coastal settlements – Clause 02.03-1 Environmental and landscape values – Clause 02.03-2 Environmental risks and amenity – Clause 02.03-3 Built environment and heritage – Clause 02.03-5 Planning Policy Framework – Clause 10 Settlement – Clause 11 Environmental and landscape values – Clause 12 Environmental risks and amenity – Clause 13 Built environment and heritage – Clause 15 Public Conservation and Resource Zone – Clause 36.03 Decision guidelines – Clause 65

2. SITE CONTEXT

The Krauatungalung Walk is a proposed all-abilities walking circuit around the eastern portion of Cunningham Arm. The circuit will link to the footbridge and existing facilities located in the central business district of Lakes Entrance and will be approximately 4.7 kilometres in total.

The proposed walk will link to the existing foreshore pathway located on the northern side of Cunningham Arm.

The proposed Stage 4 of the walking track circuit, being the subject of this application, will be located within the foreshore reserve along the northern side of Cunningham Arm east of the existing footpath connecting to the existing walking track at MacKillops Lane.

The majority of the walk is a relatively well established path however this section requires significant upgrade to meet the all-abilities requirements. This area of the walk is predominantly sandy foreshore with patches of coastal vegetation. The area is a tidal wetland area. Details of the area are depicted in the photographs provided below.

There are several existing informal access points to the foreshore reserve area via Middle Street, Jetty Road and Short Street. Middle Street, Jetty Road and Short Street are all bitumen sealed roads with kerb and channel all traversing in a north to south direction. These streets all have residential dwellings, some with direct access to the foreshore area.

The Krauatungalung Walk in relation to Lakes Entrance as well as the surrounding land, is shown in the aerial photograph shown at ***Photograph 1.*** The plans below at ***Figure 1*** and ***Figure 2*** outline the proposed walk and the relative stages.

Figure 1 – *Locality Plan – Krauatungalung Walk, Lakes Entrance (source: eastgippsland.vic.gov.au)*

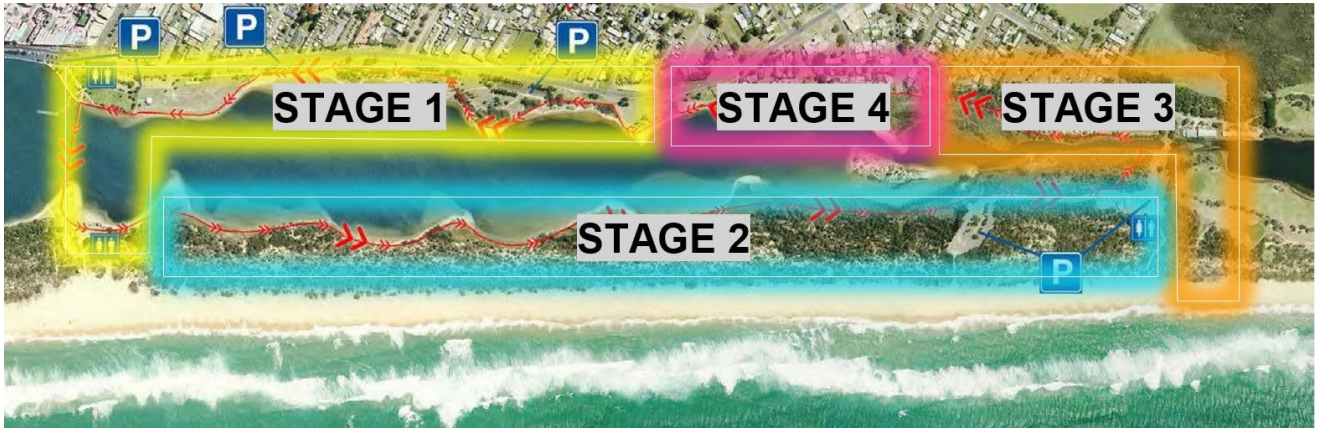
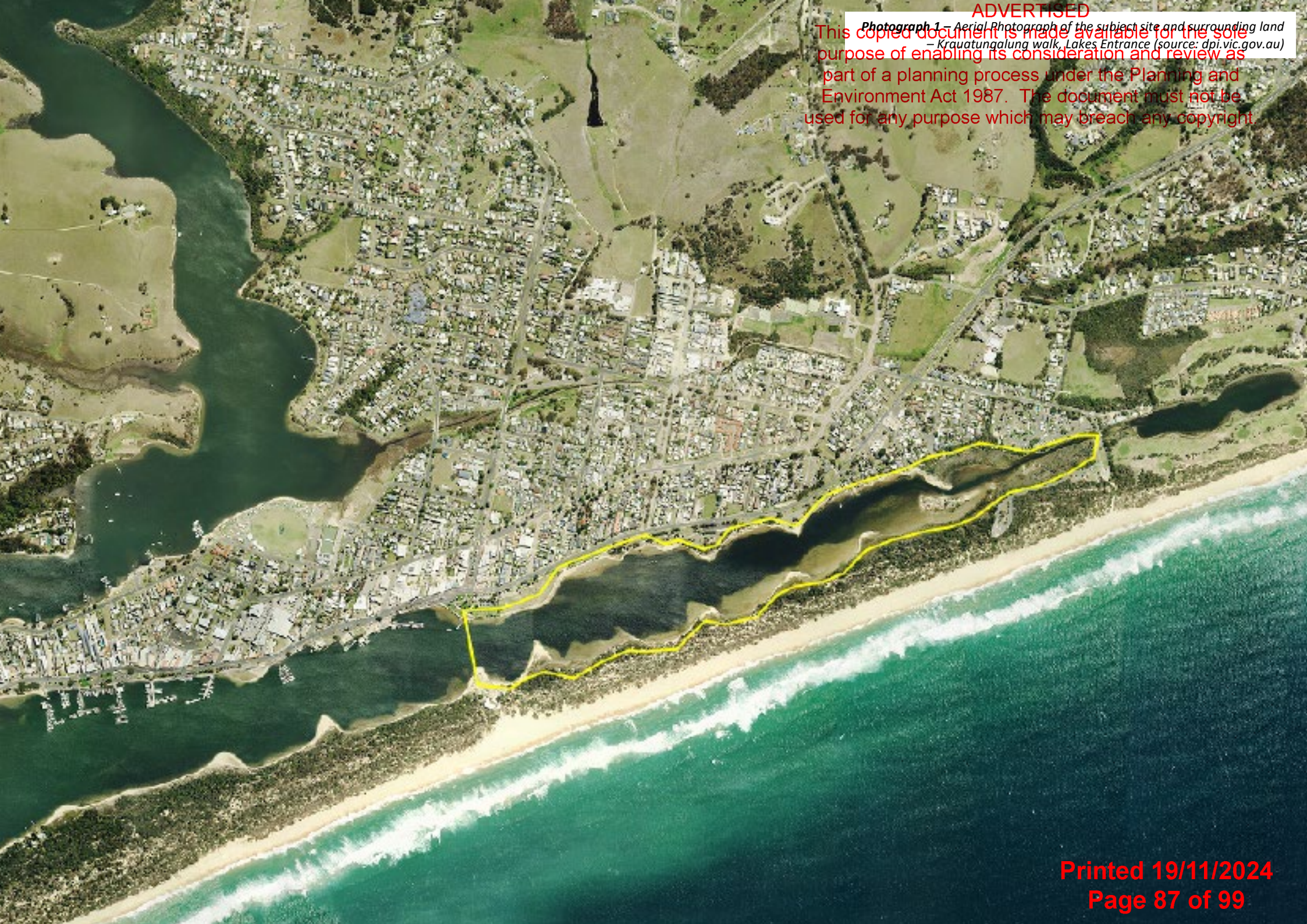


Figure 2 – *Staging Plan – Krauatungalung Walk, Lakes Entrance (source: eastgippsland.vic.gov.au)*

The land in this locality is a combination of public and residential land.

Adjoining the northern side of this section of the proposed walking circuit is developed residential land containing dwellings and associated facilities, further north is the Princes Highway. Adjoining the western portion is the existing footpath and Cunningham Arm. Adjoining the eastern end of the proposed walking circuit is coastal reserve containing an existing walking track and extensive coastal vegetation, and adjoining the southern side is Cunninghame Arm.

Lakes Entrance, a coastal township located on the Princes Highway about 40 kilometres southeast of Bairnsdale, is a popular destination for both tourists and retirees, renowned for its thriving commercial fishing industry. While Lakes Entrance offers a variety of community and commercial services, a broader range of amenities can be found in nearby Bairnsdale.



Photograph 1 *– Aerial Photograph of the subject site and surrounding land – Krauatungalung walk, Lakes Entrance (source: dpi.vic.gov.au)*

Photograph 2 – *Existing concrete footpath facing east showing Cunninghame Arm.*

Photograph 4 – *Existing sign east of the Stage 4 area facing southeast.*

Photograph 6 – *Southern portion of Jetty Road facing southeast showing proposed Krauatungalung Walk location.*

Photograph 3 – *Proposed location of boardwalk adjoining residential land facing northeast.*

Photograph 5 – *Southern portion of Jetty Road facing west showing proposed Krauatungalung Walk location.*

Photograph 7 – *Proposed location of Krauatungalung Walk facing east towards MacKillop's Lane.*

Photograph 8 – *Proposed location of Krauatungalung Walk facing west.*

Photograph 10 – *Cunninghame Arm Coastal Reserve facing east.*

Photograph 12 – *Middle Street facing north.*

Photograph 9 – *Proposed end to eastern portion of Krauatungalung Walk showing link to MacKillop's Lane.*

Photograph 11 – *Existing concrete footpath facing southwest showing Cunninghame Arm.*

Photograph 13 – *Neighbouring property adjoining the proposed eastern portion of Krauatungalung Walk at 20 Middle Street, Lakes Entrance.*

Photograph 14 – *Neighbouring property adjoining the proposed eastern portion of Krauatungalung Walk at 21 Middle Street, Lakes Entrance.*

Photograph 16 – *Southern portion of Long Street facing southwest showing intersection between Long Street and MacKillop's Lane.*

Photograph 15 – *Neighbouring properties adjoining the eastern portion of the subject site at 2 MacKillop's Lane and 21 Long Street, Lakes Entrance.*

Photograph 17 – *Cunninghame Arm Coastal Reserve facing northeast.*

3. THE PROPOSAL

This application seeks approval for works associated with Stage 4 of the Krauatungalung Walking Track. The works include a boardwalk, paths, sand renourishment works, retaining system and vegetation removal.

The proposed plans are contained in ***Appendix B.***

Stage 4 is a 400 metre section of the overall 4.7 kilometre walk, which comprises a combination of boardwalks and pathways.

The proposed boardwalk will be approximately 400 metres long and will be located within the foreshore area south of the existing dwellings between the existing footpath and Middle Street. The proposal includes the replacement of the existing jetties and access to the existing streets and surrounding areas.

The proposed boardwalk will connect to the existing concrete path at the southwestern end as indicated on the proposed development plans and the gravel path at the eastern end.

It is proposed to construct the walking circuit with a combination of paths and boardwalk. The majority of Stage 4 will be constructed with a boardwalk, save for connections to adjoining streets.

Boardwalk sections are used in areas largely dominated by native vegetation where no existing pathways are present. The height of the boardwalk will vary between 0.4 metres to 1.2 metres above ground level, with higher sections containing handrails for both safety and environmental protection.

The proposal includes a retaining system, sand nourishment and revegetation area along the northern side of the proposed boardwalk as indicated on the proposed development plans.

The purpose of a sand nourishment area along a foreshore boardwalk is to stabilise and preserve the shoreline by replenishing eroded sand, protecting against coastal erosion, and maintaining and enhancing the natural environment. This process helps to safeguard the boardwalk and surrounding infrastructure. Sand nourishment enhances the visual appeal and recreational value of the area, ensuring a safe and inviting space for the public to enjoy.

An indicative diagram of the proposed works is provided below in ***Figure 3*** as provided by Elevate Engineering.

An extract from the plans showing proposed stage 4 of the Krauatungalung Walking Track is provided below and in ***Appendix B.***

Native vegetation is required to be removed to facilitate the proposal. The Biodiversity Assessment provided by Ecology and Heritage Partners is contained in ***Appendix C*** that provides a detailed assessment of the existing flora and fauna mapped and the impact of the proposed works. The removal of flora and fauna within the foreshore reserve is inevitable however the proposal has sought to avoid and minimise in the first instance, with mitigation measures and revegetation to be implemented to reduce the overall environmental impact.

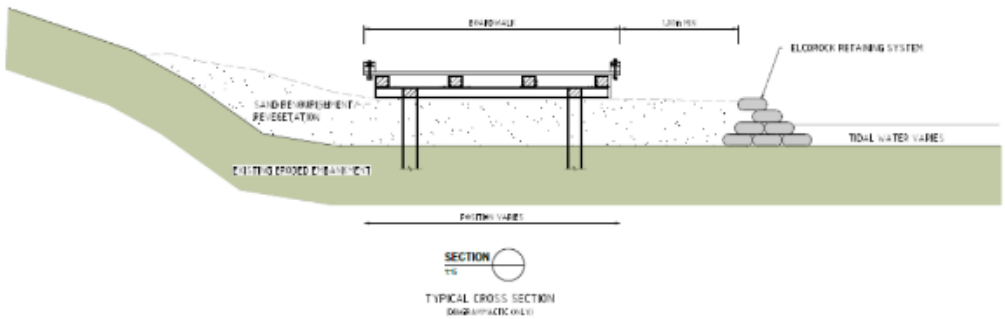


Figure 3 *– Stage 4 Proposed Works– Elevate Consulting Engineers*

The Biodiversity Assessment Report provided by Ecology and Heritage Partners as contained in ***Appendix C*** clearly outlines the extent of native vegetation removal and the required offsets in accordance with the *Removal of Native Vegetation Guidelines – DELWP 2017.* The overall extent of vegetation removal proposed is 0.064 hectares, with 0.18 hectares of previous removal also being considered. The proposal does not require the removal of any large trees. The area is identified as being Location Category 2 and as such is an Assessment pathway *Intermediate.*

There are multiple offsets within the East Gippsland CMA or East Gippsland Shire Council municipality that can be used to satisfy the offset requirements.

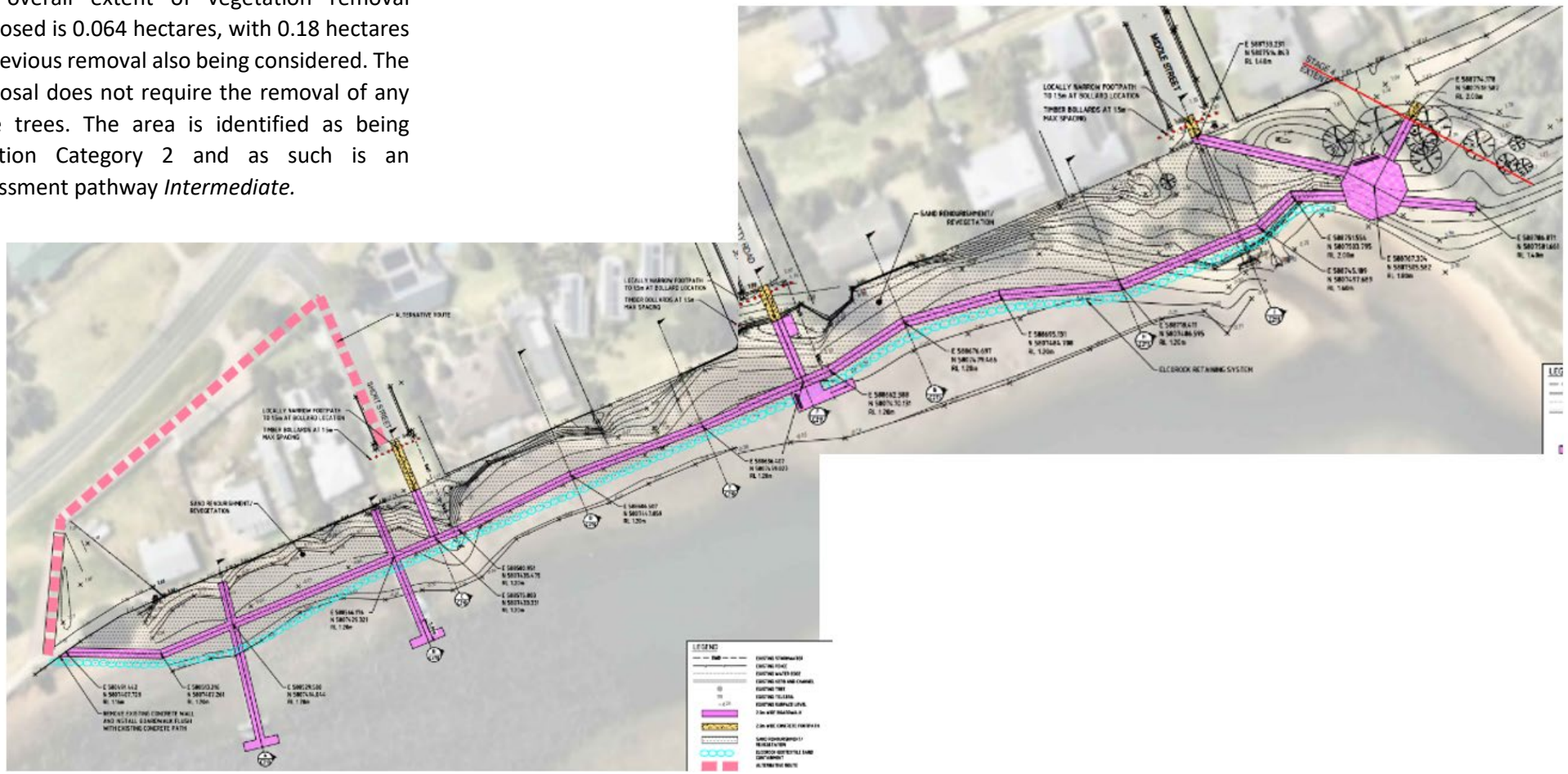


Figure 4 – *Stage 4 Site Plan– Elevate Consulting Engineers*

4. ZONES AND OVERLAYS

Public Conservation Residential Zone

The purpose of the Public Conservation Residential Zone is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.*
- *To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.*
- *To provide for appropriate resource-based uses.*

An extract of the Public Conservation Residential Zone Map is provided in ***Figure 4***.

Clause 36.03-2 provides a permit is required to construct a building or construct or carry out works. There is no exemption available in the zone or applicable schedule and as such a permit is required for the development of stage 4 of the Krauatungalung walking circuit. The relevant decision guidelines are addressed below in Section 5 of this submission.

Figure 5 – *Public Conservation Residential Zone – (source - mapshare.vic.gov.au)*

Aboriginal Cultural Heritage

Under the provisions of the *Aboriginal Heritage Act 2006* the subject site is recognised as being within an area of Aboriginal Cultural Heritage Sensitivity.

A Cultural Heritage Management Plan is required to be prepared for the works to be undertaken in this location. A notice of intent is contained in ***Appendix D.*** A Cultural Heritage Management Plan will be provided upon receipt.

An extract of the Aboriginal Cultural Heritage Map is provided to the right in ***Figure 5.***

Figure 6 – *Aboriginal Cultural Heritage Map – (source - mapshare.vic.gov.au)*

5. PLANNING ASSESSMENT

This proposal has been assessed against the objectives and standards of applicable clauses of the East Gippsland Planning Scheme and it is considered that the proposed development is appropriate for the following reasons:

- The proposal meets the objectives of the Municipal Planning Strategy at **Clause 02** and the Planning Policy Framework at **Clause 10** providing for an appropriate public facility that can be respectful of the existing surrounding development and the environment.
- Clause 02.01 recognises East Gippsland as being renowned for its remarkable diversity and the beauty of its natural environment in addition to a strong sense of community and enviable lifestyle. *"The shire has the largest navigable lakes system in Australia. Extensive and undisturbed natural areas include coasts and forests; national parks; marine parks; declared heritage rivers; Ramsar listed wetlands; and wilderness areas."*
- The proposal will contribute to a high standard of environmental sustainability, and amenity by designing the proposed walking circuit to meet the constraints of the foreshore reserve, reducing any potential negative environmental implications as sought to achieve by the Vision at **Clause 02.02** and other relevant clauses including **Clause 02.03** and **Clause 11**.
- **Clause 02.03-1** identifies Lakes Entrance as a growth area town being the largest coastal town in the Gippsland area. Lakes Entrance is a major tourist and retirement destination.
- The proposed Stage 4 of the Krauatungalung walk will connect to the existing foreshore walking track providing a critical link to the overall circuit designed to ensure accessibility for all whilst respecting the indigenous heritage values. The proposal has been designed to respond to the natural environment and environmental risks associated with the location whilst minimising land degradation and assessing the impacts of sea level rise. The proposal responds to the objectives and strategic directions outlined in Clause 02.03 by being a sensitive development that is sympathetic to the character of the area. **Clause 02.03-5** specifically identifies the need to protect the natural and cultural heritage.
- **Clause 11** – Settlement - this development is consistent with the objectives outlined for planning in general by supporting health, wellbeing and safety, a high standard of environmental sustainability, urban design and amenity, protecting, conserving and improving biodiversity, waterways and other natural resources and accessibility.
- **Clause 12** – provides that planning must implement environmental principles for ecologically sustainable development and should protect, restore and enhance sites and features of nature conservation, biodiversity, geological or landscape value. The Krauatungalung Walk is an example of quality development that respects the cultural and historical significance of the area whilst ensuring environmental values can be protected and enjoyed.
- The proposal has adequately considered and addressed the biodiversity and native vegetation management objectives outlined in Clause 12 including designing the boardwalk to avoid the removal and destruction of vegetation, minimising the impacts and ensuring there are appropriate offsets.
- **Clause 13.03-1** Floodplain management seeks to assist in the protection of life, property and community infrastructure from flood hazard, including coastal inundation, riverine and overland flows. The boardwalk has been designed to ensure there is no impact to the natural flood

carrying capacity and flood storage function of the waterways.

- The proposal incorporates erosion mitigation measures by the retaining systems and sand nourishment program responding to the objectives of **Clause 13.04**.
- **Clause 15** – Built environment and heritage seeks to ensure that development appropriately responds to its surrounding landscape and character, valued built form and cultural context. The objective of the Krauatungalung Walk is to accommodate people of all abilities, ages and cultures whilst contributing positively to the local character and sense of place. The design encourages enjoyable and engaging public space that supports human health and community wellbeing.
- **Clause 19.02-6S** requires consideration of open space which seeks to create, maintain, and enhance a diverse, well-connected network of public open spaces that fulfills the needs of the community.
- The proposal is consistent with the decision guidelines of the Public Conservation and Resource Zone at **Clause 36.03-6** which seeks to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values in addition to providing facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- As outlined previously this is Stage 4 of the Krauatungalung Walk which is a 4.7 kilometre circuit dedicated to acknowledging and respecting the indigenous heritage whilst incorporating measures to protect the environmental values of the area.
- Specific details of the works are outlined in the proposed Development Plans contained in ***Appendix B*** in addition to the detailed Biodiversity Assessment provided by Ecology and Heritage Partners contained in ***Appendix C.***
- An all-abilities walking track provides significant community benefits by promoting inclusivity, ensuring people of all ages and physical abilities can enjoy outdoor recreation. It fosters social interaction, encourages physical activity, and enhances mental well-being. Additionally, the proposed walking circuit supports tourism and local businesses by attracting visitors, while promoting environmental stewardship through increased access to nature.
- The site is identified as being within an area of Aboriginal Heritage Sensitivity and as such an intent to prepare a Cultural Heritage Management Plan is contained in ***Appendix D***.
- This submission and supporting documentation has addressed the decision guidelines of **Clause 65,** and the proposed development supports orderly planning of the area whilst taking into consideration the potential effect on the environment, human health and the amenity of the area.
- The proposal is located within the foreshore reserve area and is considered to be a positive contribution to the public realm. The rehabilitation works will ensure that the natural environment is protected and enhanced to ensure a positive outcome for the native flora and fauna.

6. CONCLUSION

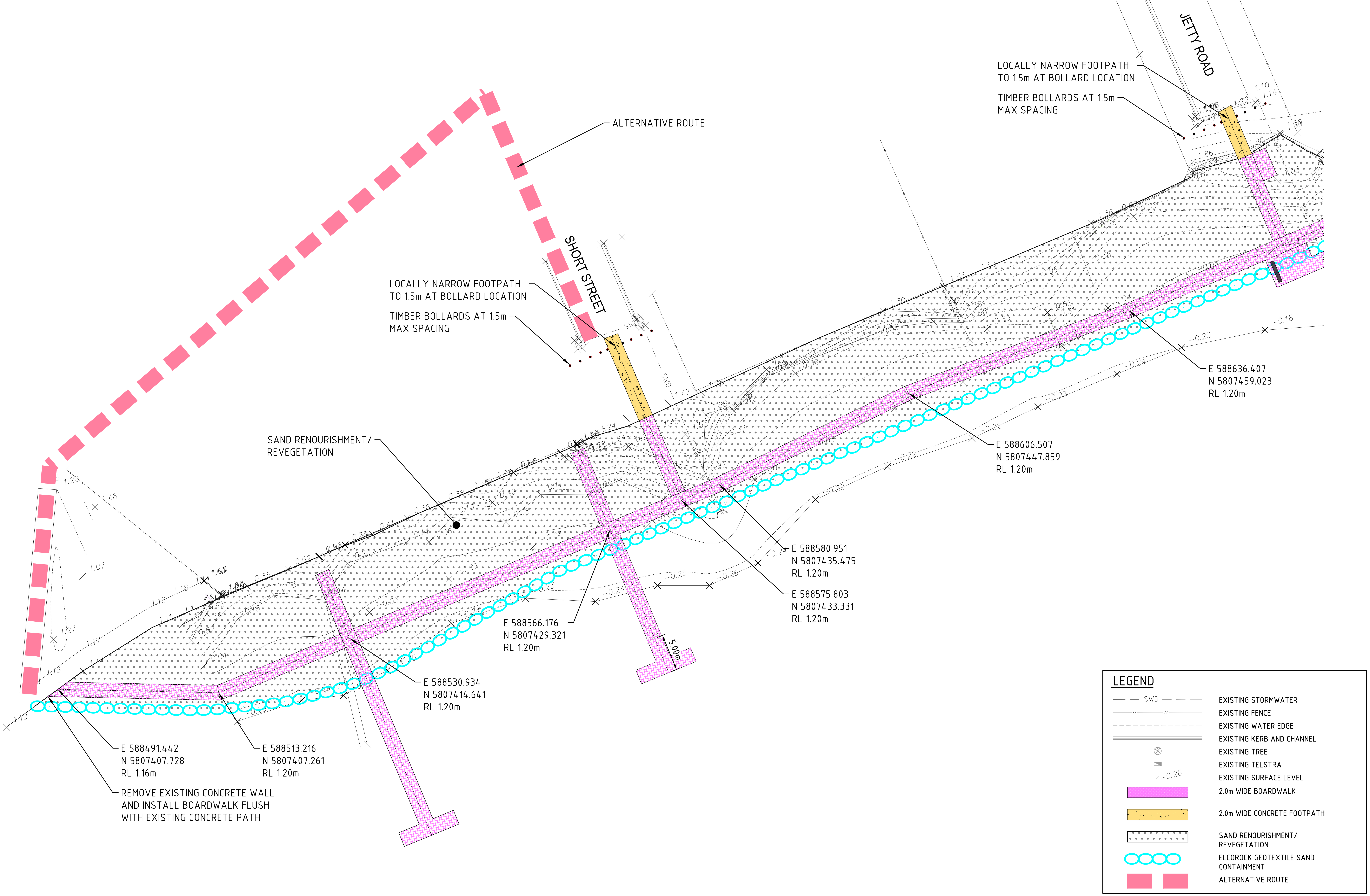
This submission is in support of a planning permit application for the development of Stage 4 of the Krauatungalung Walk Project.

The relevant provisions of the East Gippsland Planning Scheme have been addressed and it has been ascertained that the proposed development is appropriate in this location. It is requested that the proposal be supported for the following reasons:

- The proposal is consistent with the objectives and strategies outlined in the Municipal Planning Strategy and the Planning Policy Framework.
- The proposal is consistent with the objectives of the Public Conservation and Resource Zone.
- The proposed all-ability walking track provides for a positive outcome for the overall community.
- The proposal will result in a positive environmental outcome.

It is requested that a planning permit be granted for this development.

Development Solutions Victoria



AMENDMENTS:

REV	DATE	REVISION DETAILS	APPROVED
A	17.09.24	PRELIMINARY - NOT FOR CONSTRUCTION	JM

QR Code area
DO NOT place items here

ACKNOWLEGEMENT:
Elevate Consulting Engineers acknowledges Traditional Owners on Country throughout Australia. We pay respect to Culture and to Indigenous and Non Indigenous Elders past and present.

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NOTE:
THESE DRAWINGS PRESENT THE DESIGN INTENT. THE CONTRACTOR IS RESPONSIBLE FOR DETAILED SITE COORDINATION, SUBMISSION OF TECHNICAL DATA AND PRODUCING FABRICATION/INSTALLATION SHOP DRAWINGS FOR SUBMISSION TO THE CONTRACTOR FOR REVIEW.

EAST GIPPSLAND SHIRE COUNCIL

ELEVATE CONSULTING ENGINEERS

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ALL SCALES ARE SET TO A1 SIZED PLANS
DO NOT SCALE DRAWINGS. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE

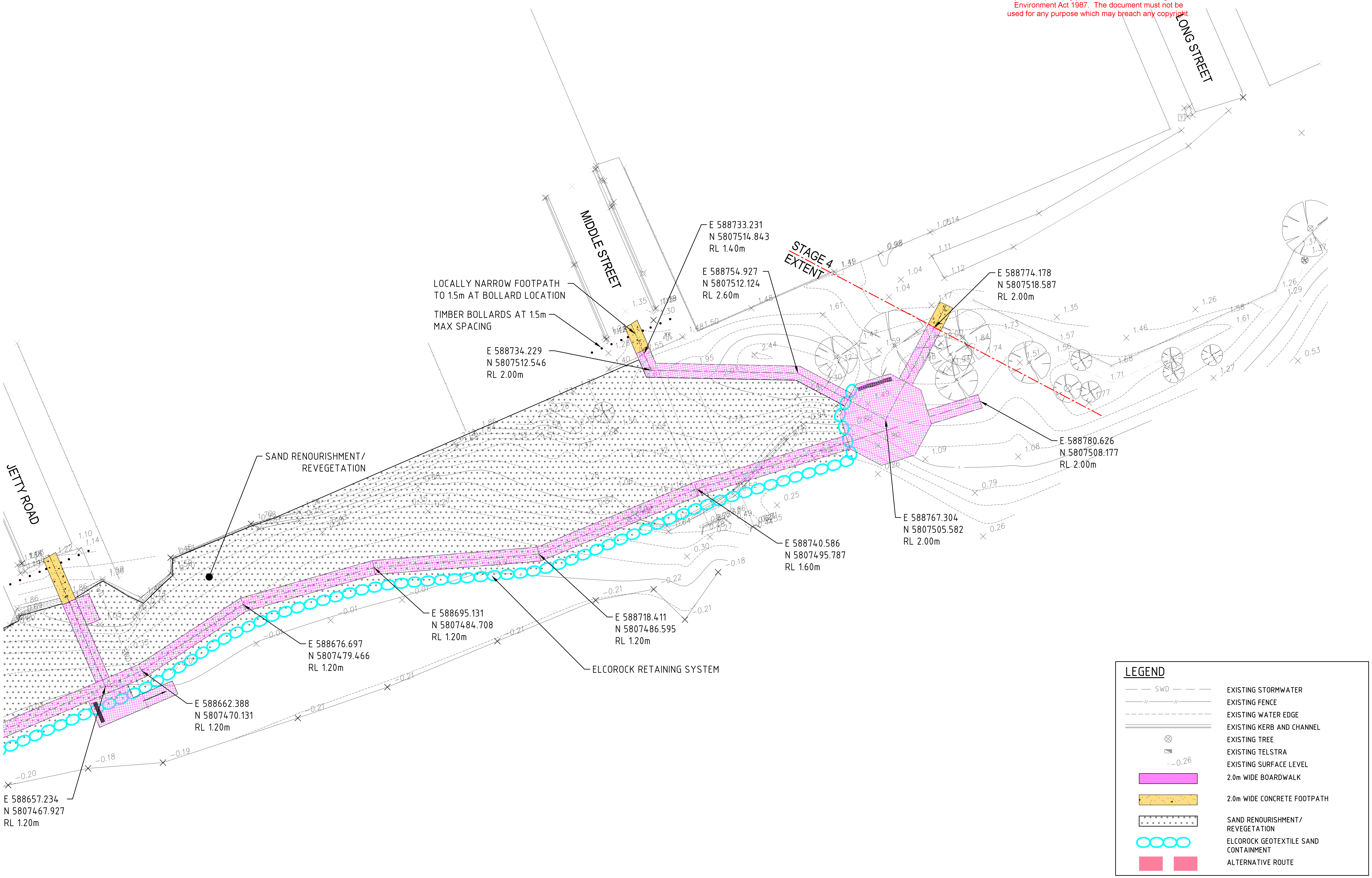
PROJECT: KRAUATUNGALUNG WALK STAGE 4
LOCATION: LAKES ENTRANCE, VICTORIA

DRAWN:	DESIGNED:	CHECKED:	APPROVED:
CD	TG	JM	JM

ELEVATE CONSULTING ENGINEERS
Brisbane 0418 873 271 Melbourne 0492 960 595
www.elevateengineers.com.au

DRAWING TITLE AND SHEET NO.:
SITE LAYOUT PLAN
SHEET 1 OF 2

DRAWING NUMBER: 22036-4-C100
REVISION: A



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PROJECT: KRAUATUNGALUNG WALK STAGE 4
LOCATION: LAKES ENTRANCE, VICTORIA

DRAWN:	DESIGNED:	CHECKED:	APPROVED:
CD	TG	JM	JM

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DRAWING TITLE AND SHEET NO.:
SITE LAYOUT PLAN
SHEET 2 OF 2

DRAWING NUMBER: 2022016 - 4 - C101
REVISION: A