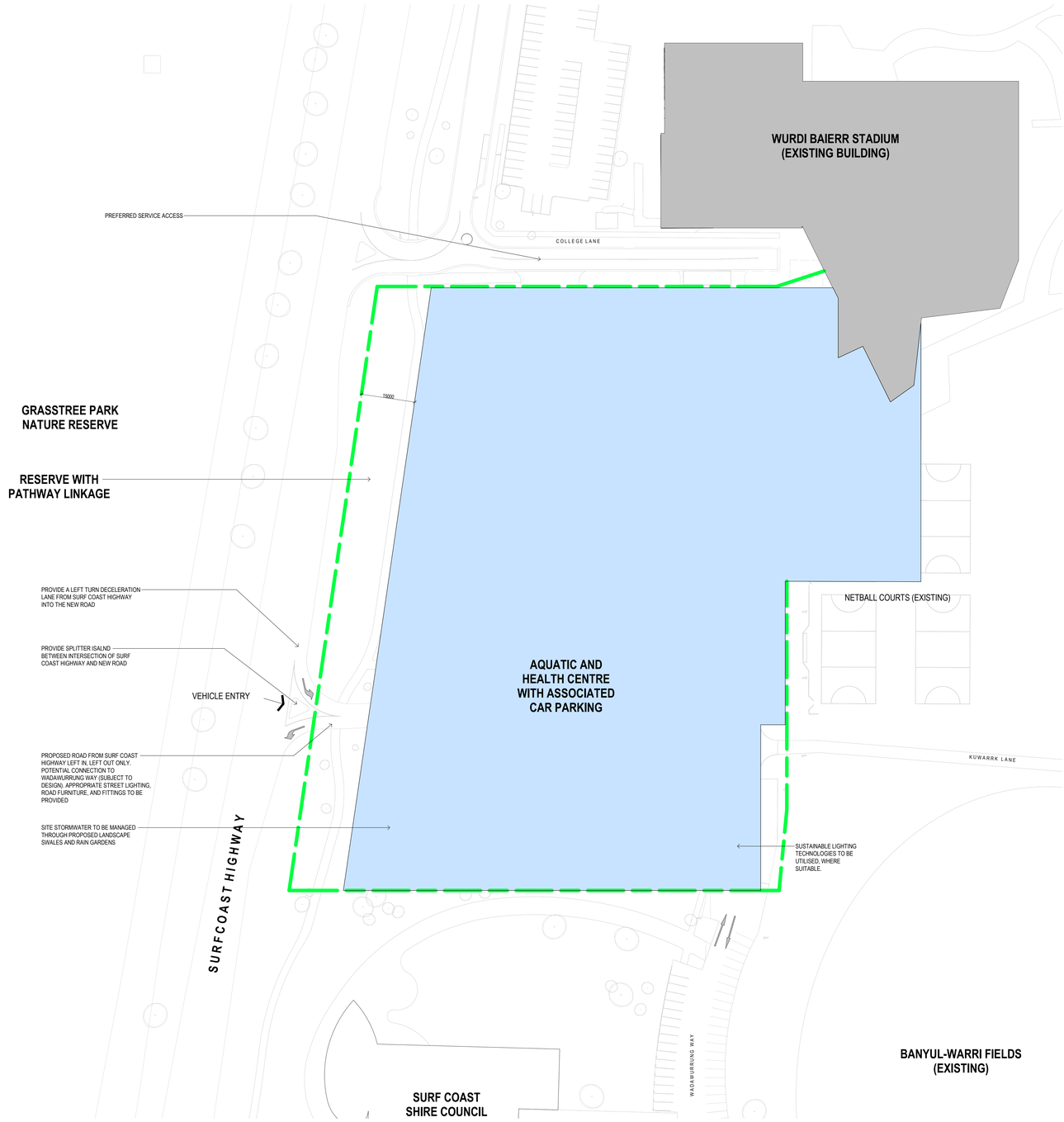


PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 1 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department
6/4/2023
22/0546 / D23/64947

PEDDLE THORP

Northbank Place East
Level 1, 525 Flinders Street
Melbourne Victoria
Australia 3000

T + 61 03 9923 2222
F + 61 03 9923 2223
E info@pta.com.au
W www.pta.com.au

ACN. 006 975 668

SURF COAST AQUATIC & HEALTH CENTRE
1 MERRIJIG DRIVE, TORQUAY

PROJECT NO: 3-21-0108

REASON FOR ISSUE: SCHEMATIC DESIGN

SITE PLAN
-

REVISION: B

SCALE: 1 : 500 @ A0

DRAWING NO: -

NORTH

6/04/2023 2:21:40 PM

URBIS

SURF COAST AQUATIC AND HEALTH CENTRE

DEVELOPMENT PLAN

PREPARED FOR

SURF COAST SHIRE

APRIL 2023

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 2 of 135

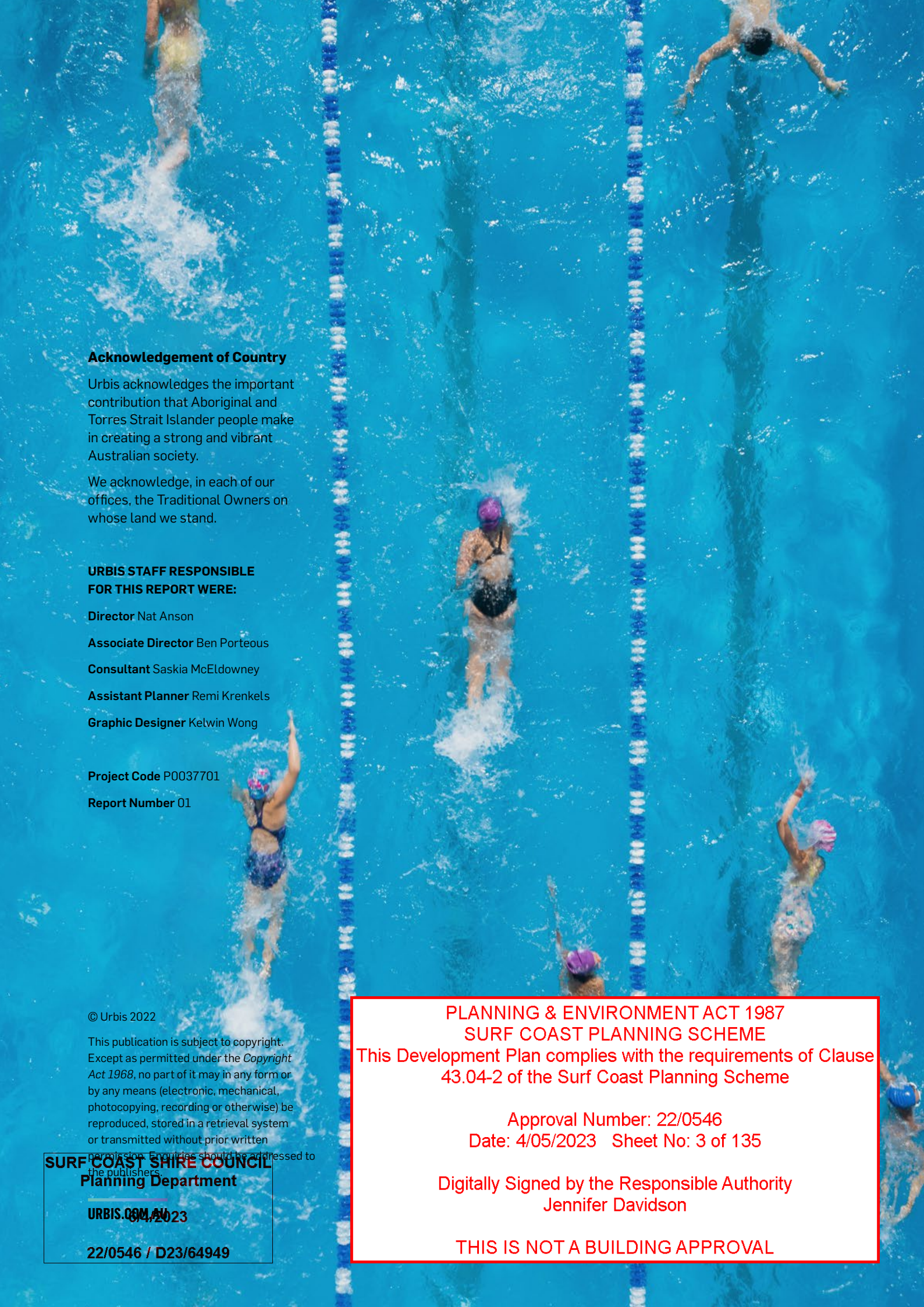
Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

6/4/2023

22/0546 / D23/64949



Acknowledgement of Country

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director Nat Anson

Associate Director Ben Porteous

Consultant Saskia McEldowney

Assistant Planner Remi Krenkels

Graphic Designer Kelwin Wong

Project Code P0037701

Report Number 01

CONTENTS

1.0 INTRODUCTION 4

1.1 PURPOSE OF THE DEVELOPMENT PLAN 5
1.2 COMPONENTS OF THE DEVELOPMENT PLAN 5

2.0 SITE ANALYSIS 6

2.1 THE SITE 6
2.2 STRATEGIC CONTEXT 7
2.3 INTERFACES 8
2.4 TRANSPORT AND ACCESS 10

3.0 PLANNING CONTEXT 11

3.1 PLANNING CONTROLS 11

4.0 DEVELOPMENT PLAN 14

5.0 REQUIREMENTS OF THE DEVELOPMENT PLAN 15

5.1 LIVEABLE AND SUSTAINABLE COMMUNITIES 15
5.2 LOT DESIGN 16
5.3 URBAN LANDSCAPE 16
5.4 ACCESS AND MOBILITY MANAGEMENT 17
5.5 UTILITIES 17
5.6 SITE MANAGEMENT 18

6.0 DOCUMENTS, PLANS AND REPORTS 19

6.1 SITE CONTEXT ANALYSIS AND DESIGN RESPONSE 19
6.2 MASTERPLAN 19
6.3 ARCHAEOLOGICAL FIELD SURVEY 19
6.4 CONSTRUCTION MANAGEMENT PLAN 20
6.5 FLORA AND FAUNA ASSESSMENT 20
6.6 TRANSPORT ADVICE 20

7.0 APPENDICES 22

1.0 INTRODUCTION

The Surf Coast Aquatic and Health Centre Development Plan has been prepared by Urbis on behalf of the Surf Coast Shire, to enable the development of 1 Merrijig Drive, Torquay (site) for a multi-purpose aquatic and health facility.

The development of the site will provide a significant community facilitate to Torquay and the broader area and link with the surrounding sports and recreation facility in the area.

1.1 PURPOSE OF THE DEVELOPMENT PLAN

The Development Plan Overlay (Schedule 8) was applied to the Torquay North Residential Precinct as part of Planning Scheme Amendment C131 to the Surf Coast Planning Scheme in June 2019. The Development Plan Overlay requires a development plan be prepared prior to the issue of a permit for use or development.

The purpose of this Development Plan is to establish an overarching masterplan for the Surf Coast Aquatic and Health Centre to be located at 1 Merrijig Drive, Torquay, under which the more detailed site planning and potential subdivision of the land can take place.

1.2 COMPONENTS OF THE DEVELOPMENT PLAN

DPO8 stipulates that the Development Plan must provide for and describe:

- **Liveable and Sustainable Communities**
- **Lot Design**
- **Urban Landscape**
- **Access and Mobility Management**
- **Utilities**
- **Site Management**

DPO8 stipulates that the Development Plan is to give effect to the Torquay-Jan Juc Structure Plan 2007, but modified to incorporate the Torquay Community and Civic Master Plan.

The Development Plan's response to these matters is set out in Sections 4 and 5 of this document.

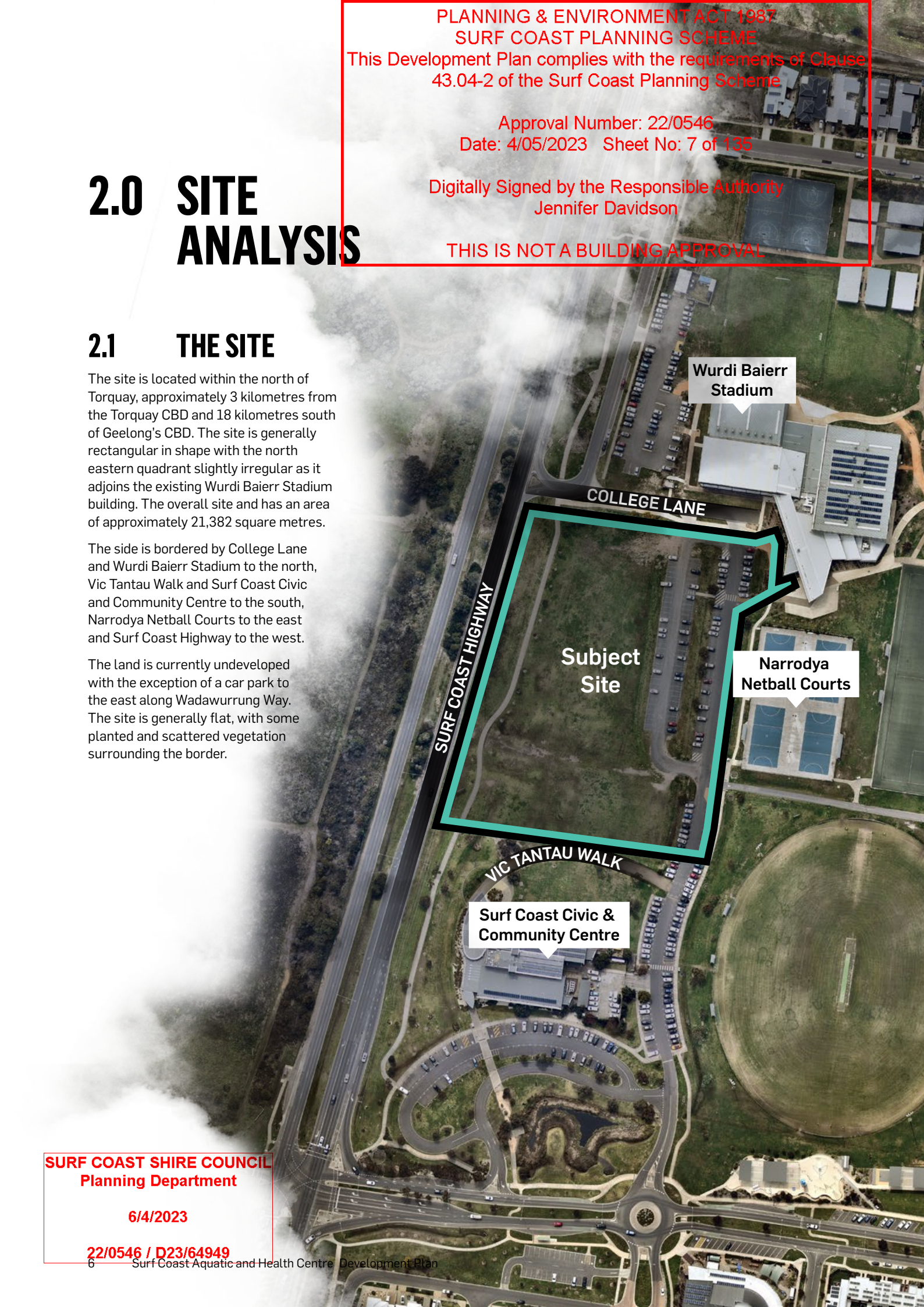
2.0 SITE ANALYSIS

2.1 THE SITE

The site is located within the north of Torquay, approximately 3 kilometres from the Torquay CBD and 18 kilometres south of Geelong's CBD. The site is generally rectangular in shape with the north eastern quadrant slightly irregular as it adjoins the existing Wurdi Baierr Stadium building. The overall site and has an area of approximately 21,382 square metres.

The side is bordered by College Lane and Wurdi Baierr Stadium to the north, Vic Tantau Walk and Surf Coast Civic and Community Centre to the south, Narrodya Netball Courts to the east and Surf Coast Highway to the west.

The land is currently undeveloped with the exception of a car park to the east along Wadawurrung Way. The site is generally flat, with some planted and scattered vegetation surrounding the border.



2.2 STRATEGIC CONTEXT

Torquay is included in the G21 Regional Growth Plan, which aims to support the growth of the area as a district town by building on existing and planned infrastructure and focussing growth along key road networks. The Surf Coast Aquatic and Health Centre site, adjacent to the Surf Coast Highway, will support the G21 Regional Growth Plan through a substantial increase in access to a high-quality aquatic and health facility.

2.3 INTERFACES

2.3.1 NORTH

The direct northern interface is College Lane, which provides vehicle and pedestrian access from Surf Coast Highway to a range of recreational facilities located in the precinct. The Wurdi Baierr Stadium is located to the northeast of the subject site on Wadawurrung Way, along with associated car parking located directly north of the site along Hillside Parade. The Stadium is utilised as a recreation facility for sports including basketball, badminton, netball and volleyball.

2.3.2 SOUTH

The immediate southern interface is the Vic Tantau Walk, providing pedestrian access to the Surf Coast Civic and Community Centre further south at 1 Merrijig Drive. The site is zoned as Public Use – Schedule 6 'Local Government' and facilitates council operations for the Surf Coast Shire. The complex includes a two-storey civic office building and a two storey sports and community pavilion. Further south is Merrijig Drive, which provides access from the Surf Coast Highway to Torquay North.

Figure 1 Location Plan

2.3.3 EAST

The Narrodya Netball Courts are directly east of the subject site along Wadawurrung Way, and further east is the existing Parwan Soccer Pitch. Southeast of the site are the Banul-Warri Fields, which include Polwarth Oval and Grenville Oval. These facilities are utilised for sporting and recreational purposes.

2.3.4 WEST

The direct western interface is Surf Coast Highway, which provides two lanes of traffic in each direction. The Highway facilitates vehicle movement north towards Geelong and south towards Torquay. Further south is the Grasstree Park Nature Reserve, which facilitates grasstree and wildflower species and includes walking tracks up to 2 kilometres. North of the reserve, vegetation has been cleared to provide area for public recreation. Car parking and access is also provided for vehicles along Messmate Road.

2.4 TRANSPORT AND ACCESS

The Surf Coast Highway serves as a principal road network which provides connection between wider Geelong and Torquay. Proximate to the site, the road comprises of a divided dual carriage-way catering two lanes of traffic in each direction. No on-street parking is available on the Surf Coast Highway.

Merrijig Drive serves a local road function and is located south of the site. The road consists of one lane of traffic in each direction and provides access to The Dunes Village Shopping Mall, as well as access to the Surf Coast Civic and Community Centre. Further east, the road provides connection to Quay Reserve and Playground. Angle and parallel on-street parking is provided at intervals throughout the route on both sides of the road.

College Lane serves as a local road which provides vehicle access from the Surf Coast Highway to Wurdi Baierr Stadium and pedestrian access to Surf Coast Secondary College further east. Wadawurrung Way is also a local road providing access to the Surf Coast Civic Community Centre, with unrestricted car parking available on both sides of the road.

The site is well serviced by public transport with bus stops located on:

- Surf Coast Secondary College/Surf Coast Highway approximately 150 metres north of subject site
- Surf Coast Shire Offices/Merrijig Drive approximately 200 metres south of the subject site
- Merrijig Drive/Surf Coast Highway approximately 250 metres southwest of the subject site
- Coombes Road/Surf Coast Highway approximately 950 metres south of the subject site

Bus routes 50, 51 and 101 service the immediate area, providing connections to Geelong Station and CBD, Jan Juc, Apollo Bay and Warrnambool.

Pedestrian paths are located along the west of the site with connections into Torquay and surrounding the sporting and recreation areas.

3.0 PLANNING CONTEXT

The site is affected by the provisions of the Surf Coast Planning Scheme. The Planning Policy Framework provides guidance which supports the redevelopment of the site, including but not limited to the following infrastructure strategy contained within Clause 02.03-9 'Community Infrastructure':

> *Facilitate the timely provision of a range of community and recreation facilities including public open space.*

3.1 PLANNING CONTROLS

The site is located within the General Residential Zone – Schedule 1 which encourages recreational and community facilities to serve local community needs.

Figure 2 Planning Zones

The site is affected by the following overlays:

Development Plan Overlay Schedule 8 (DPO8), which identifies areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land – to be satisfied by this document.

Design and Development Schedule 1 (DDO1), seeks to protect and enhance the Torquay and Jan Juc Coastal Townscape Character.

Design and Development Schedule 16 (DDO16), encourages development that is complementary and compatible with the low rise character of Torquay and to promote excellence in design.

Development Contributions Plan Overlay Schedule 2 (DCPO2), which requires contributions via levies for the provision of works, services and facilitate before development can commence.

Figure 3 Development Plan Overlay Schedule 8 (DPO8)

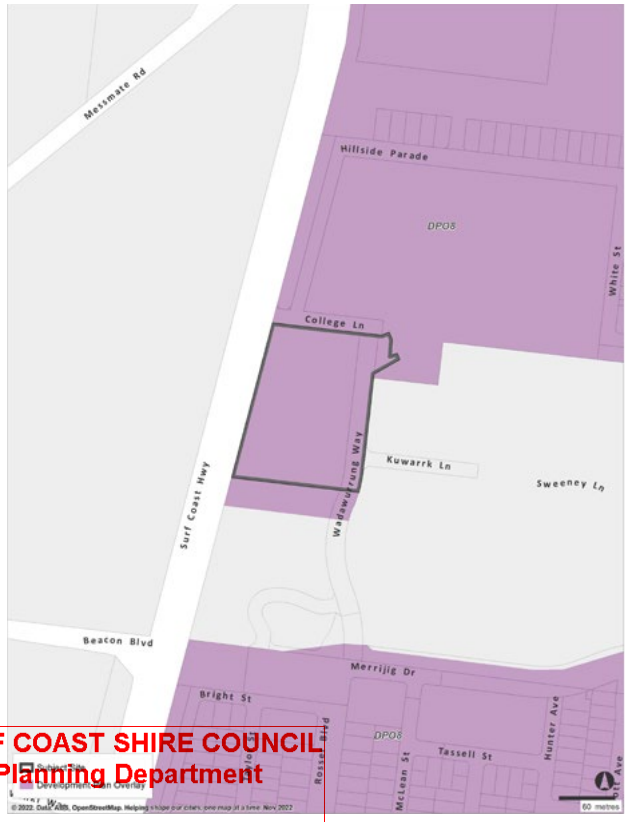


Figure 4 Design and Development Schedule 1 (DDO1)

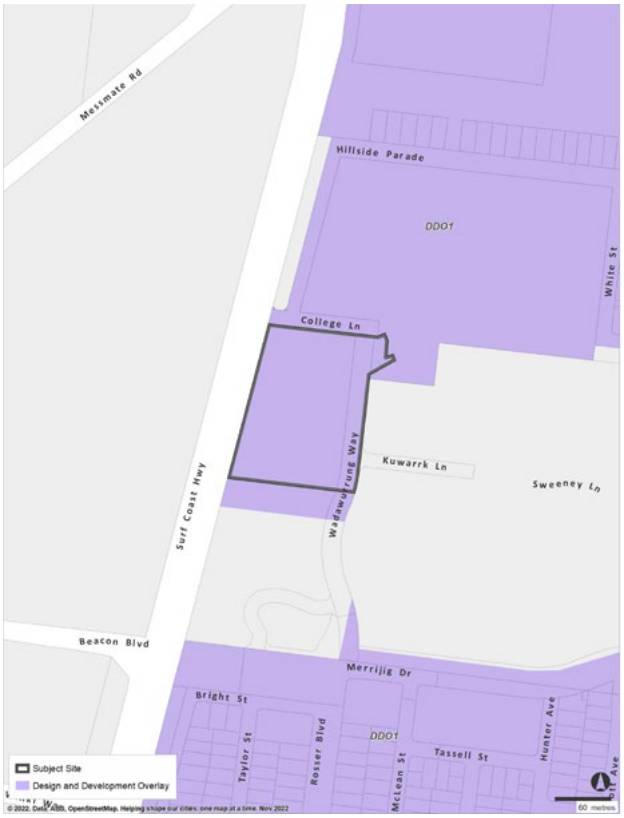


Figure 5 Development Contributions Plan Overlay Schedule 2 (DCPO2)

4.0 DEVELOPMENT PLAN

This Development Plan includes the use and development of the site for the purpose of the Surf Coast Aquatic and Health Centre (leisure and recreation).

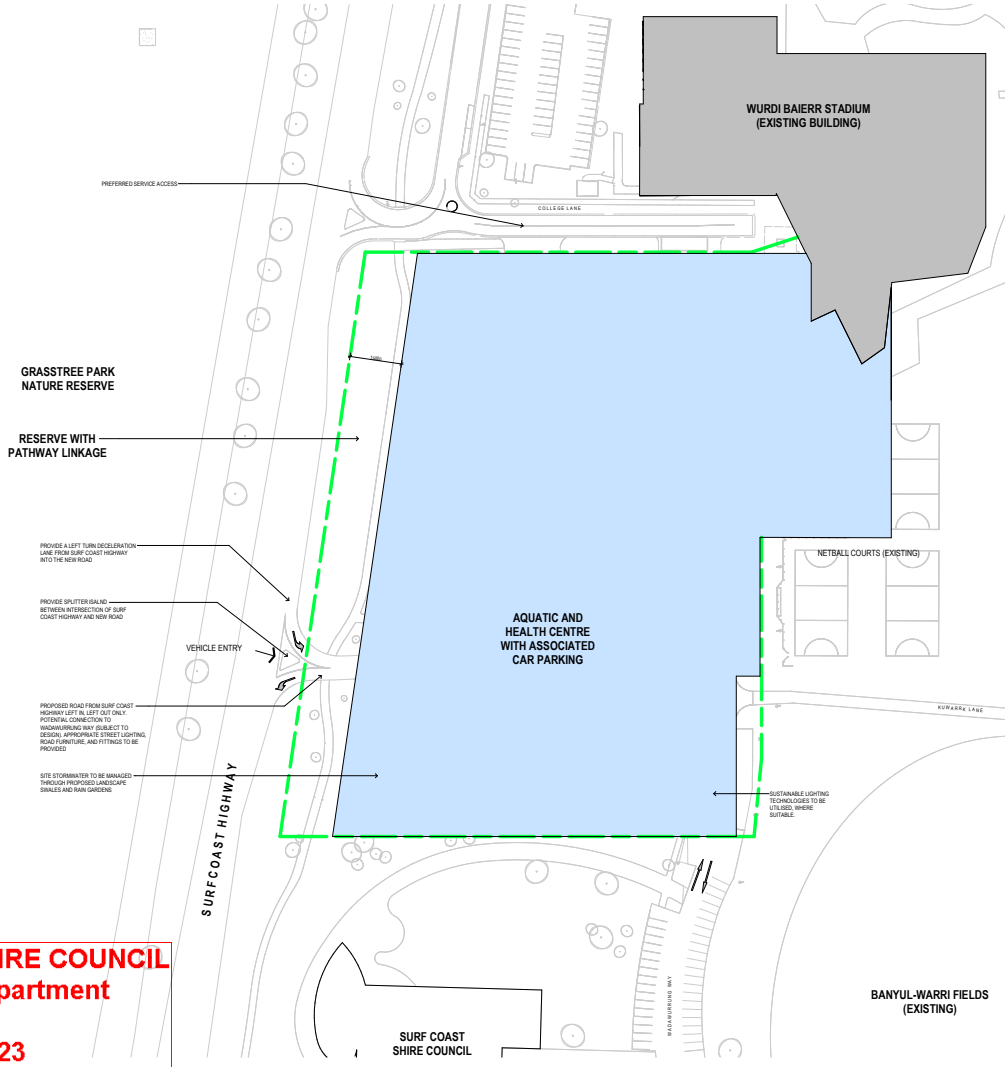
The Surf Coast Aquatic Centre will include numerous fitness, leisure and health facilities. This may include, but is not limited to:

- Swimming pools and aquatic facilities
- The sale of food and drinks
- Reception and offices spaces
- Allied health
- Exercise and strength facilities

The Development Plan includes allowance for a future connection between the Surf Coast Aquatic and Health Centre and the existing Wurdi Baierr Stadium to the north east.

Vehicle access will be provided by a new road from the Surf Coast Highway. The new road has the potential to connect to Wadawurrung Way.

The Surf Coast Aquatic and Health Centre will include on-site car parking.



5.0 REQUIREMENTS OF THE DEVELOPMENT PLAN

5.1 LIVEABLE AND SUSTAINABLE COMMUNITIES

Item	Objective 1	Objective 2	Objective 3	Objective 4
DPO8	A comprehensively planned residential subdivision generally in accordance with the Torquay-Jan Juc Structure Plan 2007, but modified to incorporate the Torquay Community and Civic Master Plan and consequential design impacts.	Housing that will achieve a density in the order of 15 dwellings per hectare (exclusive of open space, schools, community facilities, roads, public utilities, drainage reserves and the like) to the satisfaction of the responsible authority. Medium density nodes should be located adjacent to community activity areas, open space areas, and/or within close proximity to community facilities and potential future bus routes.	The location for a neighbourhood shopping centre to accommodate up to 5,000 square metres of retail floor area.	The location for a primary school and a secondary school.
Development Plan	The site is located within the Torquay Community and Civic Master Plan precinct and will provide a leisure and recreational facility for the community in the area nominated 'Aquatic and Health Centre (including car parking)' in the Community and Civic Precinct – Future Land Use Plan 2022 which was adopted by Council on 26 July 2022.	Housing has already been provided for in previously approved Development Plans. The proposed Development Plan provides a community facility proximate the previously approved housing precincts.	A neighbourhood shopping centre has already been provided for in the approved 'The Dunes' Development Plan.	A primary school and secondary school have already been provided for in the approved 'Stretton Park' Development Plan.

5.2 LOT DESIGN

The Development Plan responds to the Lot Design requirements of DPO8, as follows:

Item	Objective 1
DPO8	A lot design that ensures no direct access to lots fronting the Surf Coast Highway.
Development Plan	The proposed masterplan does not include direct access from the Surf Coast Highway. A future road is proposed from the Surf Coast Highway. This new road will provide access to the site and may connect to Wadawurrung Way. .

5.3 URBAN LANDSCAPE

The Development Plan responds to the Urban Landscape requirements of DPO8, as follows:

Item	Objective 1	Objective 2	Objective 3
DPO8	An archaeological field survey and report and how it informs the layout and land use recommended in the Development Plan.	A flora and fauna assessment carried out by a suitably qualified and experienced person/s. The assessment must have regard to the Torquay Jan Juc Structure Plan (2007) and must: • Identify the vegetation communities, the quality of habitat, the actual indigenous flora and fauna species that inhabit the site, threats to the indigenous flora and fauna species including pest plant and animal species; and the conservation status of any threatened flora and fauna species and communities under local, regional, state and national legislation or policies; • Recommend enhancement and protection of remnant vegetation located on the site and takes account of vegetation adjacent the site; and inclusion of these areas, as appropriate, as biolinks traversing through and connecting outside of the development area including **a.** along the Deep Creek tributary drainage line, and **b.** the provision of a minimum 15m wide vegetation/ plantation reserve along the length of the Surf Coast Highway, incorporating a pathway linkage.	Public open space areas that include opportunities for the provision of community gardens which include edible landscaping.
Development Plan	The archaeological field survey, prepared by Terra Culture, has determined the activity area was not sensitive for Aboriginal cultural heritage. Therefore the use and layout have not required any adaption.	A Flora and Fauna assessment has been prepared by Practical Ecology. The Development Plan masterplan includes a 15 metre width vegetation along the Surf Coast Highway. The reserve incorporates a future pedestrian pathway linkage.	Public open space areas have been provided for in previously approved Development Plan. The proposed Development Plan does not incorporate any dedicated public open space, noting the proposed land use is for a community facility.

5.4 ACCESS AND MOBILITY MANAGEMENT

The Development Plan responds to the Access and Mobility Management requirements of DPO8, as follows:

Item	Objective 1	Objective 2
DPO8	A road network that is designed to reduce traffic speeds and promote community interaction and use of the road reserve. In particular it shall comprise a predominantly grid based layout modified for topographical and other conditions. (Court bowls should not be provided except where they create a pedestrian linkage to adjoining streets.)	Any provision to be made for a public transit route from Geelong on or adjacent to the site following consultation with the Department of Transport.
Development Plan	The proposal incorporates a road from the Surf Coast Highway, with a potential connection to Wadawurrung Way. This connection will contribute to the existing grid based road network in the area.	The site is proximate bus stops on both the Surf Coast Highway and Merrijig Drive. The bus stops provide public transport to and from Geelong.

5.5 UTILITIES

The Development Plan responds to the Utilities requirements of DPO8, as follows:

Item	Objective 1	Objective 2
DPO8	Stormwater systems that provide opportunities for re-use for immediate or future implementation.	Use of sustainable lighting technologies as appropriate.
Development Plan	The masterplan details that stormwater will be managed through landscape swales and raingardens. This will ensure stormwater is reused as part of the overall landscaping strategy.	The proposal will incorporate sustainable lighting technologies as part of the proposed facility and/or car parking illumination.

5.6 SITE MANAGEMENT

The Development Plan includes a Construction Management Plan that responds to the Site Management requirements of DPO8, as follows:

Item	Objective 1	Objective 2	Objective 3
DPO8	an implementation strategy for removing and disposing of soil, including measures to ensure the retention and management of topsoil.	measures to minimise the impact of construction on neighbouring properties and uses including schools.	measures to protect council assets, including access roads.
Development Plan	Section 1 of the Preliminary Construction Management Plan details how soil will be managed. This is includes the identification, isolation and treatment of any potentially contaminated material. The plan also details reuse of suitable top soil and management of dust and stormwater to prevent offsite runoff.	Section 2 of the Preliminary Construction Management Plan identifies nearby properties that may be impacted by the construction of the facility. The Plan further identifies the potential impacts and suitable mitigation methods.	Section 3 of the Preliminary Construction Management Plan details measures to protect Council assets. This includes the requirement for a dilapidation report of the surrounding assets that do not form part of contracted scope. This will ensure that any damage caused by the construction activities will be rectified. Further to the dilapidation report, where required, Council's assets including roads, cross overs, grassed/landscaped areas, and other facilities where directly impacted by the construction activity associated with the Project will be protected by various means

6.0 DOCUMENTS, PLANS AND REPORTS

6.1 SITE CONTEXT ANALYSIS AND DESIGN RESPONSE

Peddle Thorp has prepared the site context analysis and design response in support of the Development Plan.

.

6.2 MASTERPLAN

Peddle Thorp have prepared a master plan in accordance with DPO8 and in support of the Development Plan.

6.3 ARCHAEOLOGICAL FIELD SURVEY

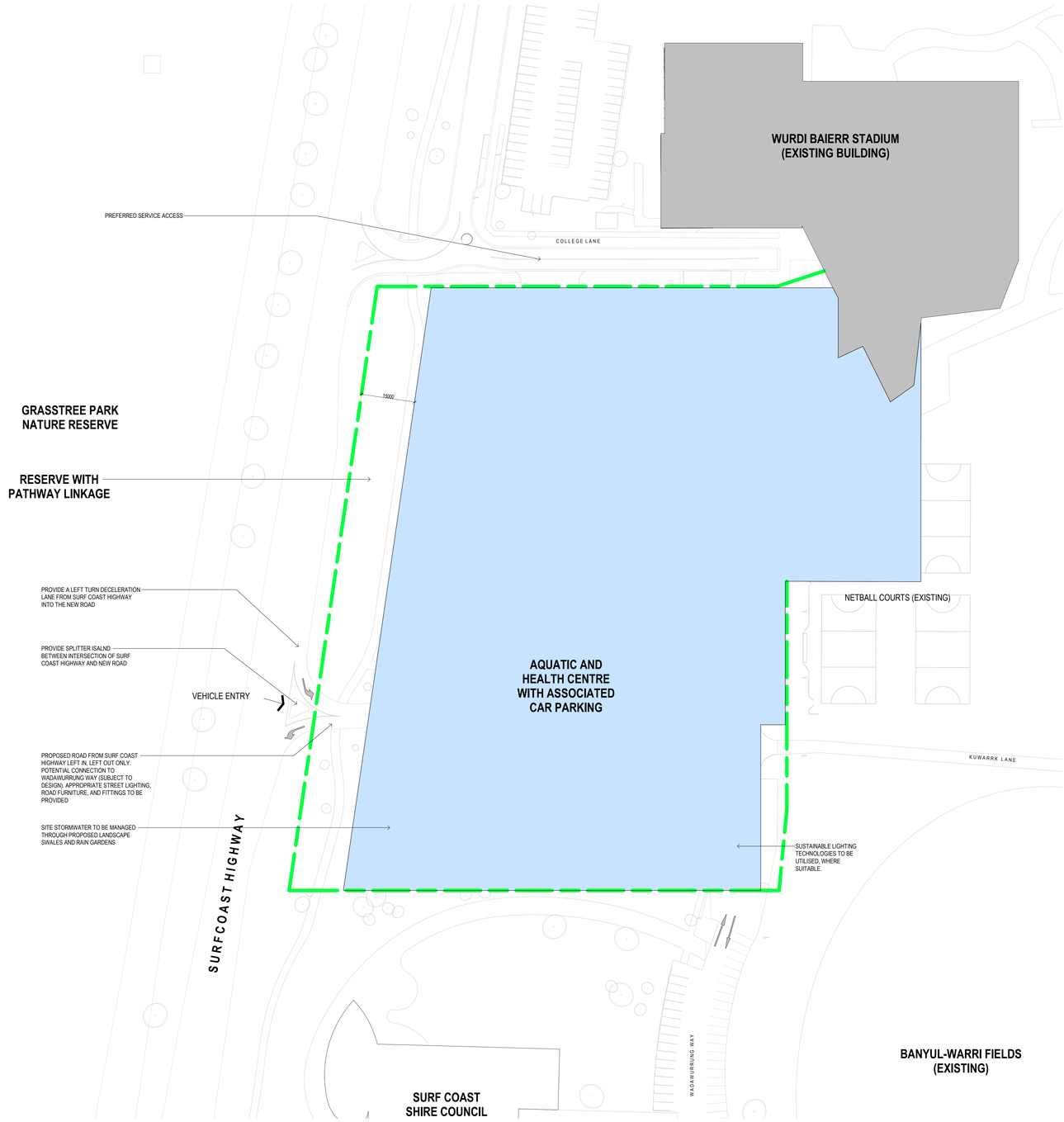
Terra Culture have prepared an Archaeological Field Survey in support of the Development Plan. The Archaeological Field Survey concluded that:

Aboriginal Heritage

- There are no registered Aboriginal places listed for the Activity Area.
- The proposed activity is a high impact activity according to the Aboriginal Heritage Regulations.
- According to the AV sensitivity mapping, the activity area is not an area of Aboriginal cultural heritage sensitivity (CHS).
- The inspection of the area did not indicate that the activity area was particularly sensitive for Aboriginal cultural heritage.

Historical Heritage

- There are no registered historical sites within the activity area and little potential for any such sites to exist.



PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 21 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department
6/4/2023
22/0546 / D23/64947

PEDDLE THORP

Northbank Place East
Level 1, 525 Flinders Street
Melbourne Victoria
Australia 3000

T + 61 03 9923 2222
F + 61 03 9923 2223
E info@pta.com.au
W www.pta.com.au

ACN. 006 975 668

SURF COAST AQUATIC & HEALTH CENTRE
1 MERRIJIG DRIVE, TORQUAY

PROJECT NO:
3-21-0108

REASON FOR ISSUE:
SCHEMATIC DESIGN

SITE PLAN
-

REVISION:
B

SCALE:
1 : 500 @ A0

DRAWING NO:
-

NORTH

6/04/2023 2:21:40 PM

6.4 CONSTRUCTION MANAGEMENT PLAN

Turner & Townsend have prepared a preliminary Construction Management Plan in support of the Development Plan. The preliminary Construction Management Plan has detailed how a future full Construction Development Plan will:

- Implement a strategy for removing and disposing of soil, including measures to ensure the retention and management of topsoil;
- Minimise the impact of construction on neighbouring properties and uses including schools; and
- Implement measures to protect council assets, including access roads.

The full Construction Management Plan is to be provided as a condition of a planning permit for the development of the site.

6.5 FLORA AND FAUNA ASSESSMENT

Practical Ecology have prepared a Flora and Fauna Assessment in support of the Development Plan. The Flora and Fauna Assessment found that:

- The Study Site is largely dominated by a suite of grassy and herbaceous weeds, with planted trees, shrubs and grasses largely around the outskirts of the site.
- There is a some native vegetation that will need to be removed to facilitate the Surf Coast Aquatic and Health Centre, however the removal does not trigger the need for an offset.
- No threaten ecological communities occur with the site.

6.6 TRANSPORT ADVICE

MGA Traffic have prepared a Transport Advice in support of the Development Plan. The Transport Advice included:

- Vehicle access is proposed via two connections, including a proposed road from the Surf Coast Highway and the existing Wadawurrung Way.
- The proposed road from the Surf Coast Highway will be left-in, left-out only
- Car parking and bicycle facilities will be provided on site, we details to be provided in a future planning permit application.

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 23 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

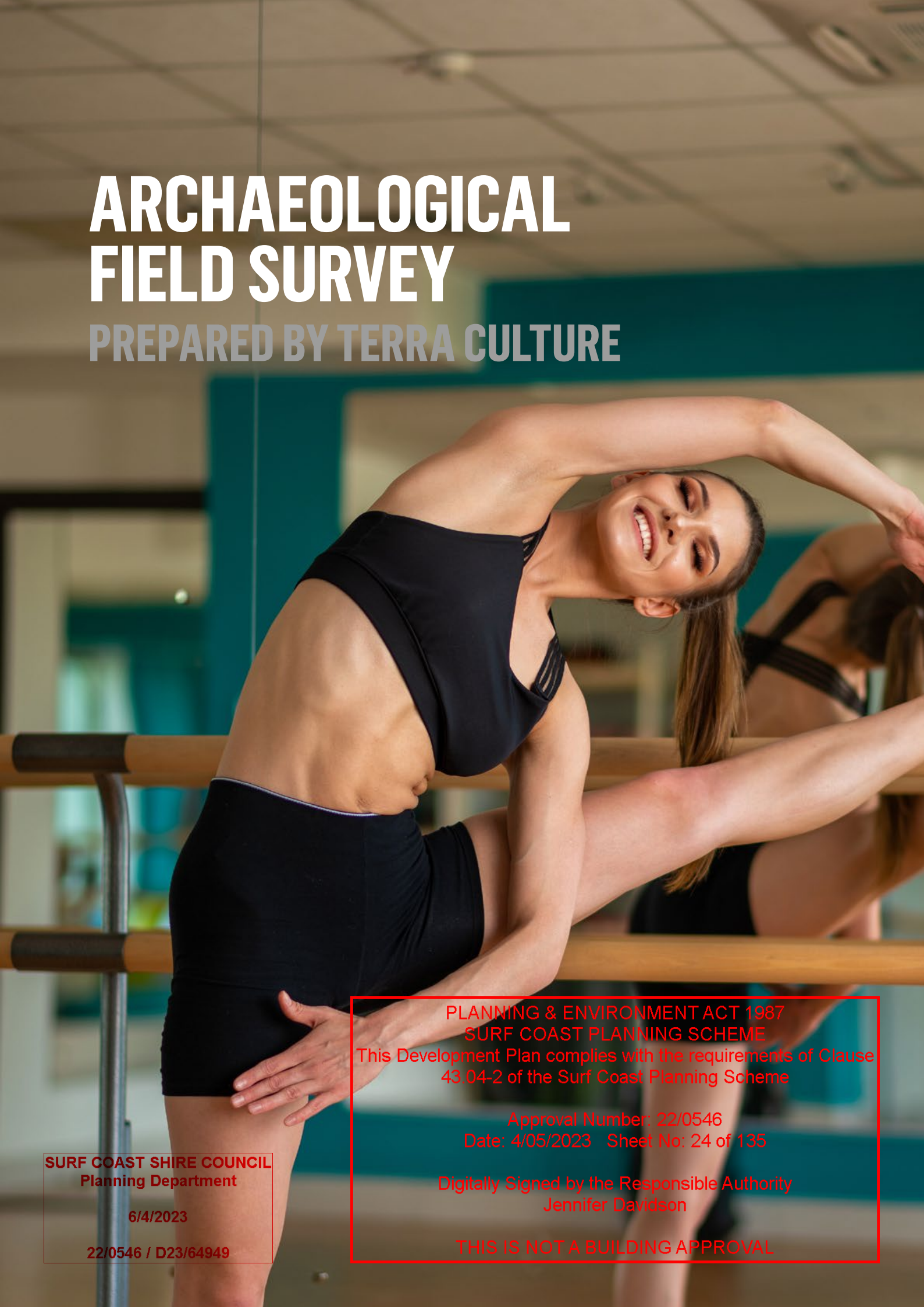
SURF COAST SHIRE COUNCIL
Planning Department

6/4/2023

22/0546 / D23/64949

ARCHAEOLOGICAL FIELD SURVEY

PREPARED BY TERRA CULTURE



Surf Coast Aquatic & Health Centre, 1 Merrijig Drive, Torquay: Archaeological Field Survey

Prepared for: **Surf Coast Shire Council and Turner & Townsend**
Heritage Advisor: Catherine Webb
Author: Catherine Webb
Date: 10 November 2022

TerraCulture
HERITAGE CONSULTANTS
113 Victoria Road
Northcote, VIC, 3070
Ph: (03) 9489 9583
admin@terraculture.com.au

1.0 Introduction

Turner & Townsend on behalf of the Surf Coast Shire Council engaged TerraCulture to undertake an archaeological field survey in response to the requirements of Schedule 8 to the Development Plan Overlay of the Surf Coast Planning Scheme. The report assesses the cultural heritage requirements, particularly the need to undertake a Cultural Heritage Management Plan (CHMP), for a proposed development at 1 Merrijig Drive in Torquay (the activity area). A CHMP may be a requirement of the *Aboriginal Heritage Act 2006* or may otherwise be recommended.

1.1 Heritage Advisor

This report is prepared by Dr Catherine Webb.

Catherine holds a PhD from the School of Archaeology at La Trobe University (1996) and a Bachelor of Arts (Honours) (La Trobe University, 1987) majoring in archaeology. Catherine has 20 years' experience as an archaeologist, working both as a private consultant and as a state archaeologist with AV.

1.2 Activity Location

The activity area is located at the northern end of Torquay, within a local government precinct that includes the Surf Coast Shire Council administration centre and various sporting fields and facilities. The location is currently unutilised and lies to the north of Vic Tantou Walk and the council offices, and directly west of the Narrodya netball courts. To the west is the Surf Coast Highway and to the north, College Lane and the grounds of the Surf Coast Secondary College. Further west of the Surf Coast Highway is a nature reserve. The location is shown in Figure 1.

Figure 1 Location of activity area (from Google Maps)

1.3 Proposed Works

The proposed activity is the construction of an aquatic and health centre, which will include outdoor and indoor swimming pools, allied health consulting suites, community spaces, gymnasium, café, and associated ancillary and support spaces. The centre will be serviced by a carparking area. A site plan is shown in Figure 2.

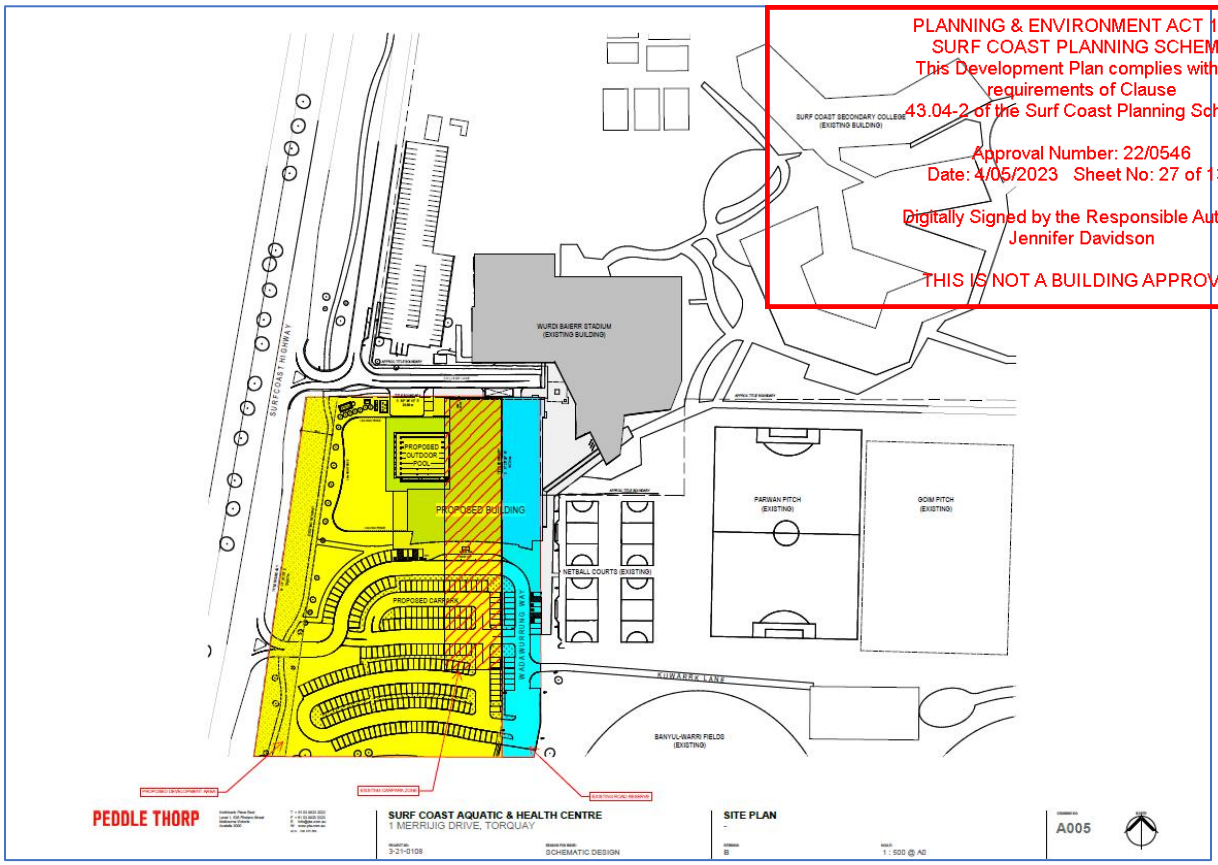


Figure 2 Plan of proposed development

The proposal will result in significant ground disturbance to the activity area, therefore the potential to damage any cultural heritage that may be located on the surface or in near-surface deposits.

1.4 Legislative Requirements

Division 2 of the *Aboriginal Heritage Act 2006* (the Act) requires a Cultural Heritage Management Plan to be prepared for a proposed activity if the regulations require the preparation of the plan for the activity. Part 2 Division 1 Regulation 7 of the *Aboriginal Heritage Regulations 2018* (the Regulations) states that 'A cultural heritage management plan is required for an activity if– (a) all or part of the activity area for the activity is an area of cultural heritage sensitivity; and (b) all or part of the activity is a high impact activity.'

Division 3 of the Regulations specifies areas of cultural heritage sensitivity. According to these regulations, the activity area is not identified as an area of cultural heritage sensitivity.

Division 5 of the Regulations specifies High Impact Activities, which includes amongst other things: r46 Buildings and works for specified uses that would result in significant ground disturbance, including (1) (b) (iii) a car park, and (xv) a minor sports and recreation facility.

From the above, it is apparent that under the Act, the activity is a high impact activity but it will not be conducted on an area of cultural heritage sensitivity, therefore a CHMP is not mandatory.

While a CHMP does not appear to be required by the Regulations, the presence of a registered Aboriginal place (r44) would require the need for a CHMP or a Permit to disturb any such site. To determine this, the online register of the Victorian Aboriginal Heritage Register (VAHR) ACHRIS was searched (7/10/2022) and it was determined that there are no known Aboriginal cultural heritage places within the vicinity of the property.

Further, circumstances may indicate that a CHMP, while not required, could be prepared voluntarily in order to avoid damage to potential Aboriginal archaeological remains. For this reason, further investigations were undertaken.

1.5 Investigation Methodology

The investigation was undertaken by the following procedure:

- Aboriginal Cultural Heritage Background
  - A search of ACHRIS (the online register of the VAHR)
- Local Geology and Geomorphology
  - A search of the GeoVic online mapping database
- Existing Conditions
  - A search of the DELWP NatureKit online mapping database, to gauge the initial and existing environmental conditions
  - A site inspection to assess existing conditions and the potential of the activity area to contain Aboriginal cultural heritage
- Legislative requirements
  - The legislative requirements (see above) were reviewed in light of the information obtained.

***NOTE**: Data derived from the VAHR are restricted and only to be used for the immediate purposes of this current proposal.*

2.0 Cultural Background Information

2.1 Aboriginal Cultural Heritage

Aboriginal Victoria (AV) maintains the Victorian Aboriginal Heritage Register (VAHR), a register of all known Aboriginal heritage places, and a library of published and unpublished reports describing investigations of Aboriginal heritage in Victoria.

A search of ACHRIS (the online register of the VAHR) was undertaken by Catherine Webb on the 7th October 2022.

The subject land is not an area of cultural heritage sensitivity according to the ACHRIS mapping

The ACHRIS search did not identify any Aboriginal cultural heritage Places within the activity area (Figure 3). While there are many registered Places along the coastline and the creeks, including Deep Creek and Spring Creek, there are only 3 Places within 1km of the activity area, all of these being isolated artefact occurrences. The nearest registered place is approximately 900m away.

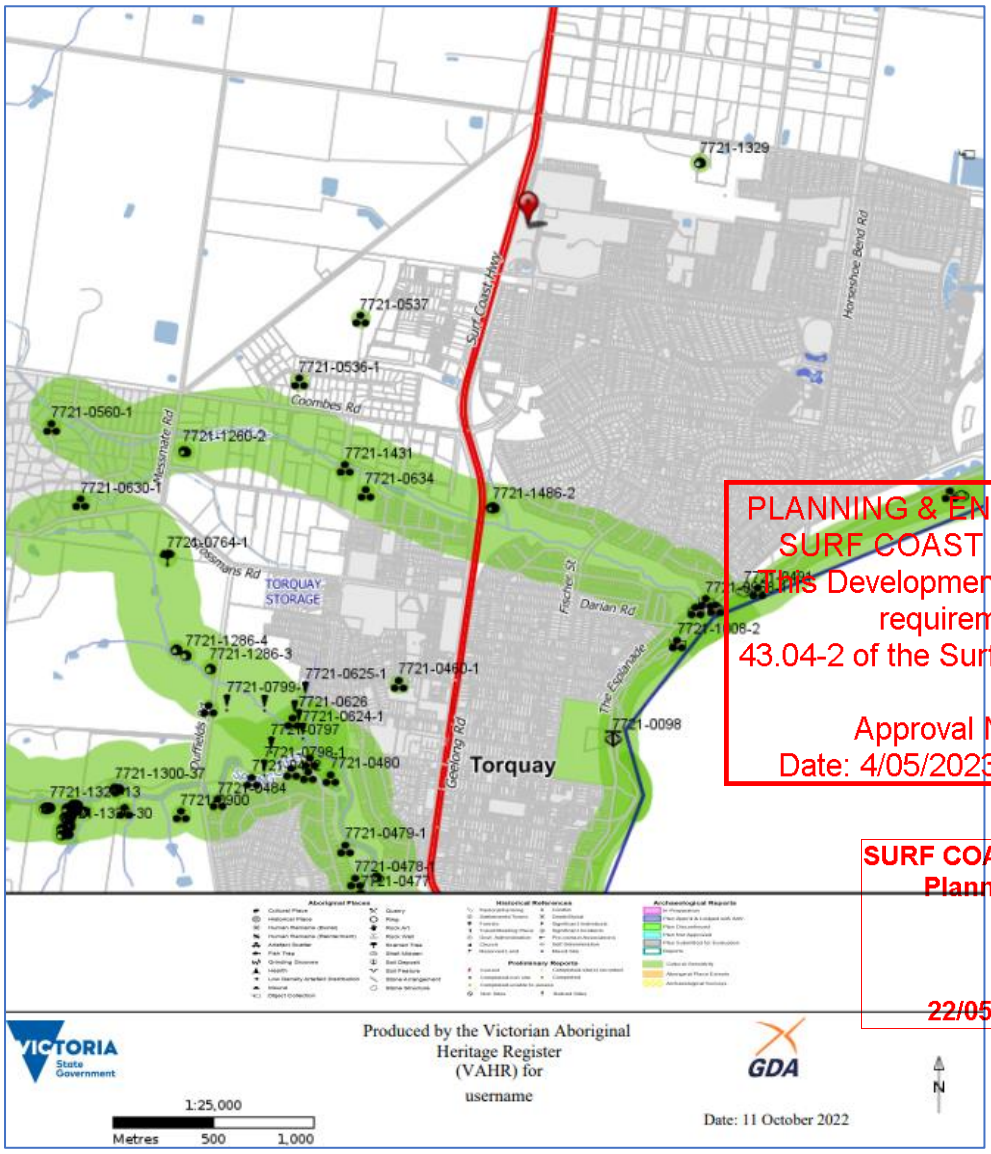


Figure 3 Areas of Cultural Heritage Sensitivity and registered Places in relation to activity area

2.2 Historical Cultural Heritage

In order to ensure that no items of cultural heritage significance would be inadvertently damaged during the proposed development works, the following heritage registers were reviewed for sites of historical significance: Heritage Victoria site Inventory and Victorian Heritage Register, the Surf Coast planning scheme, the register of the National Trust, and the Australian Heritage Database. There are no places listed on any of these registers within or near the activity area.

3.0 Geological and Environmental Background

3.1 Setting

The activity area is at the northern end of Torquay, a town on the south western end of the Bellarine Peninsula on the Bass Strait coastline. It is approximately 22km south of Geelong.

This area is at the edge of Torquay's development area and comprises vacant land within a sporting precinct with Council offices to the south and the Surf Coast Secondary College to the Northeast.

3.2 Geology

The hinterland of Torquay, beyond the coastal dunes, comprises low-lying ground over Newer Volcanics formations, marked by extensive salt marshes in some areas and extending to rolling sand hills further inland. Topographically, the area lies on level ground.

3.3 Waterways

There are several creeks in and around Torquay, as well as the adjacent coastline. The closest waterway in Deep Creek, which runs in a southeasterly direction some 1.5km to the south and west. The local waterways will have provided sources of fresh water and abundant resources.

3.4 Climate and Rainfall

Torquay is characterised by warm summers and cool winters. Rainfall is determined by the Otway Ranges, which cause moisture in the prevailing south westerly winds to fall as rain.

Torquay's climate did not cause any constraints to the Aboriginal settlement of the area in terms of seasonal movement of people, or the location of habitation sites. Nor did the climate provide any constraints to the European settlement of the area.

3.5 Vegetation

The pre-1750s Ecological Vegetation Class identified for the area (NatureKit) is Heathy Woodlands (EVC 892), occurring on dry or better-drained areas of the Otway Plain bioregion. These were extensive across the lower land between adjacent slopes or hills. These have largely been removed from the activity area however, with only small remnants identified to the northern edge and adjacent to the Surf Coast Highway to the west. The 2005 EVCs indicate that aside from these small patches, significant remnants occur to the west of the highway, in the Grasstree Park Nature Reserve.

Current vegetation is largely introduced grasses, with some planted trees and shrubs.

3.6 Land Use

The activity area is currently vacant. Previous use is likely to have been farmland.

4.0 Site Inspection

4.1 Timing and Personnel

The activity area was inspected on the 6th of November 2022 by Catherine Webb (TerraCulture senior archaeologists). This was not a formal survey in the sense of a deliberate search for Aboriginal heritage rather an assessment of landform sensitivity, previous ground disturbance and the likelihood that the area retains archaeological evidence for precolonial Aboriginal occupation of the area. This assessment was based on the existing conditions and only considered the likely impact of land use history on the sensitivity of the activity area for Aboriginal Heritage.

4.2 Location and Setting

The activity area is vacant land at the northern end of Torquay. It is bound by the Surf Coast Highway and reserve to the west, College Lane to the north and Wada Wurrung Way to the east. The southern boundary is a disused road, separating the activity area form open land between it and the Surf Coast Shire Council offices. North of College Lane is the Wurdi Bauer Stadium and the Surf Coast Secondary College. To the east are various sporting fields and carparks. The Surf Coast Highway is a dual carriageway with the Grasstree Park Nature Reserve on the western side. The general area is open, dominated by civil infrastructure, reserves, open farmland and commercial developments. There is little residential development in the vicinity.

Topographically the activity area is flat with uneven ground probably reflecting previous disturbance rather than a natural surface.

The activity area is essentially a grassed paddock with planted eucalypts along the western side and a row of banksia on the northwestern corner. A concrete footpath runs along the western edge. At the southern edge of the proposed carpark, and where the access road is proposed, there is evidence of prior disturbance with gravel inclusions (Plate 1), giving the appearance of a former roadway in this location leading to what is currently Kuwarrk Lane (Plate 2). Otherwise, exposed sediments reveal a dark and soft clay which at the time of the inspection was damp (Plate 3).

Plate 1

Plate 2

Plate 3

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233642

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 32 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

4.3 Heritage (archaeology) Implications

Aboriginal Heritage

The general impression is of an area that has been disturbed to an unknown extent. It is not within close proximity to a waterway or other area that may be of particular sensitivity for Aboriginal cultural heritage, and the sediments are not considered to be sensitive.

5.0 Summary of Results and Recommendations

5.1 Summary

The following summarises the findings:

Aboriginal Heritage

- There are no registered Aboriginal places listed for the Activity Area.
- The proposed activity is a high impact activity according to the Aboriginal Heritage Regulations.
- According to the AV sensitivity mapping, the activity area is not an area of Aboriginal cultural heritage sensitivity (CHS).
- The inspection of the area did not indicate that the activity area was particularly sensitive for Aboriginal cultural heritage.

Historical Heritage

- There are no registered historical sites within the activity area and little potential for any such sites to exist.

5.2 Recommendations

Note that it is an offence under the Aboriginal Heritage Act 2006 and the Heritage Act 2017 to disturb or destroy cultural heritage places, whether or not they are registered.

Aboriginal Archaeology

Is the activity area an area of cultural heritage sensitivity?

NO

Is the activity a high impact activity?

YES

Is a cultural heritage management plan required?

NO however a voluntary CHMP can be prepared at Council's discretion.

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 34 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

5.3 Limitations

This assessment was based on surface indications alone and no historical research was undertaken. The absence of Aboriginal or historical cultural heritage cannot be guaranteed.

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233642

REFERENCES

Web Sites

Aboriginal Victoria, https://applications.vic.gov.au/apps/weave/server/request/execute.do?

Australian Heritage Database, http://www.environment.gov.au/cgi-bin/ahdb/search.pl

Geoscience Australia, https://asud.ga.gov.au/search-stratigraphic-units/results/76739

GeoVic, http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=geovic

Heritage Victoria, vhd.heritage.vic.gov.au/search/nt_search

National Trust, https://www.nationaltrust.org.au/services/heritage-register-vic/

NatureKit, http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit

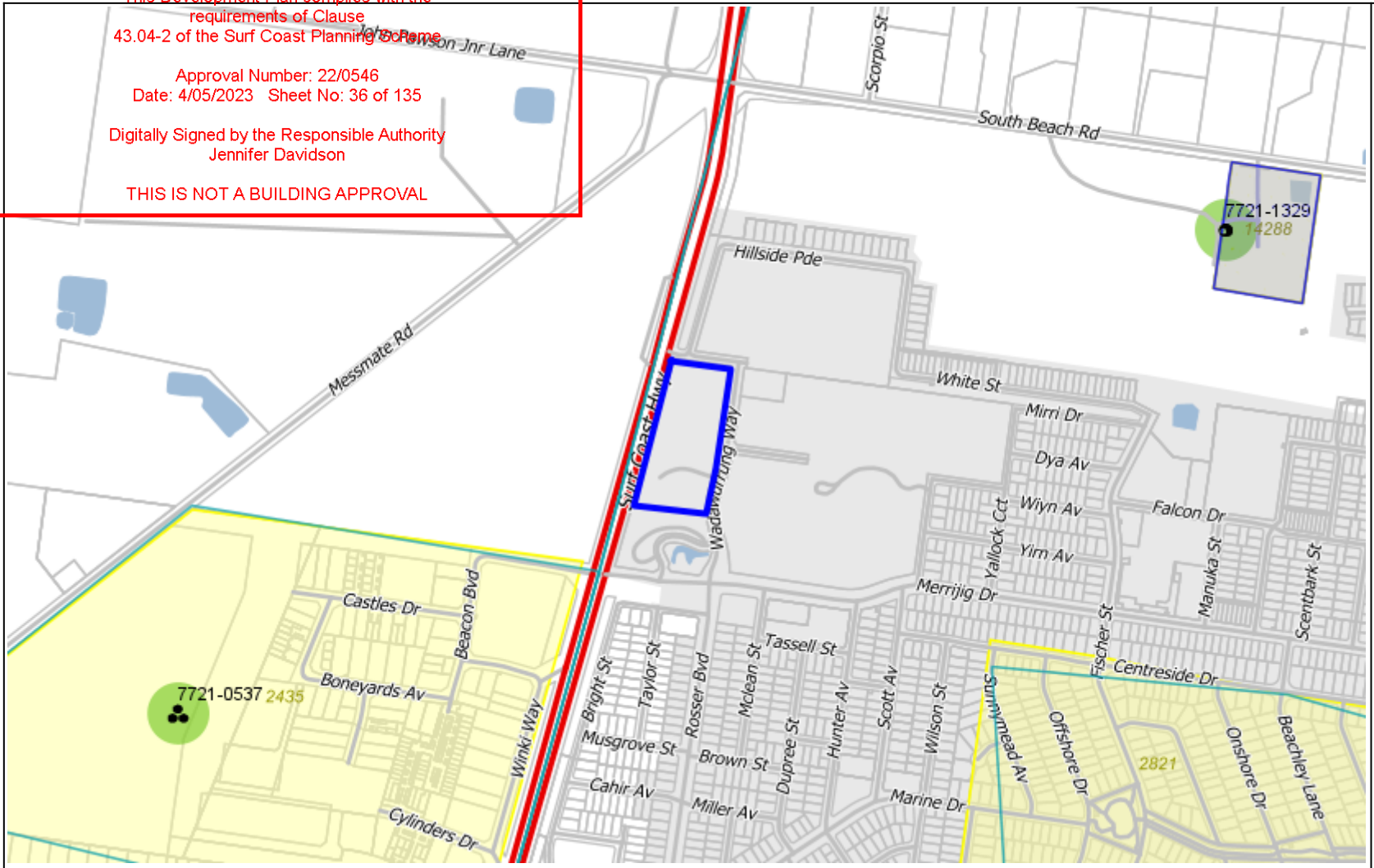
Planning Schemes online, http://planning-schemes.delwp.vic.gov.au/

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 36 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL



Aboriginal Victoria

1 Merrijig Drive, Torquay

Aboriginal Places

- Cultural Place
- Historical Place
- Human Remains (Burial)
- Human Remains (Reinterment)
- Artefact Scatter
- Fish Trap
- Grinding Grooves
- Hearth
- Low Density Artefact Distribution
- Mound
- Object Collection
- Quarry
- Ring
- Rock Art
- Rock Well
- Scarred Tree
- Shell Midden
- Soil Deposit
- Soil Feature
- Stone Arrangement
- Stone Structure
- Aboriginal Place Extents
- Non Sites
- Retired Sites
- Areas of Cultural Heritage Sensitivity
- Archaeological Surveys

Historical References

- Pastoral/Farming
- Settlements/Towns
- Forests
- Travel/Meeting Place
- Govt. Administration
- Church
- Reserved Land
- Conflict
- Death/Burial
- Significant Individuals
- Significant Incidents
- Pre-contact Associations
- Self Determination
- Mixed Site

Preliminary Reports

- Current
- Completed-non site
- Completed-unable to assess
- Completed-site(s) recorded
- Completed

Archaeological Reports

- In Preparation
- Plan Appr'd & Lodged with AAV
- Plan Discontinued
- Plan Not Approved
- Plan Submitted for Evaluation
- Reports

VICTORIA State Government

Produced by the Victorian Aboriginal Heritage Register (VAHR)
for
Catherine Webb

1:10,000
Metres 200 400

N

GDA

Date: 5 April 2023

SURF COAST SHIRE COUNCIL
Planning Department
5/4/2023
22/0546 / D23/63504

PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

PREPARED BY TURNER AND TOWNSEND

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 37 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

6/4/2023

22/0546 / D23/64949

Turner & Townsend

Preliminary Construction Management Plan for Development Plan Application – Surf Coast Aquatic and Health Centre

11 November 2022

This Preliminary Construction Management Plan (CMP) has been prepared on behalf of the Surf Coast Shire in relation to the Surf Coast Aquatic and Health Centre (SCAHC) project, located at 1 Merrijig Drive, adjacent to the existing Wurdi Baierr Stadium. Specifically, this CMP has been prepared in response to the requirements of Schedule 8 to the Development Plan Overlay, as follows:

1. an implementation strategy for removing and disposing of soil, including measures to ensure the retention and management of topsoil;
2. measures to minimise the impact of construction on neighbouring properties and uses including schools; and
3. measures to protect council assets, including access roads.

Subject to the appointment of a suitably qualified head contractor (Contractor) to manage the construction of the Centre and develop a full Construction Management Plan (CMP), we advise that in general, the below measures will be adopted.

1 Management of Soil

An environmental management plan will be prepared by the successful Contractor to address specific concerns regarding soil management on the subject site. This will include measures such as:

- Identification and isolation of any contaminated material (if present);
- Treatment and/or disposal of any contaminated material in accordance with the local Council and Environmental Protection Agency (EPA) requirements;
- Reuse of suitable topsoil on the site where appropriate, including onsite storage if required;
- Dust management of any stored material, through seeding of plant matter or the use of geofabrics or rain covers, as deemed appropriate by the Contractor
- Stormwater management including the use of drain socks or other similar devices to minimise topsoil running off site during rain events and entering the stormwater drainage system

2 Impact of Construction on Neighbouring Properties

All construction projects impact the locality to some extent. The project is expected to be built independently of the existing Wurdi Baierr Stadium but connect to it and is in close proximity of the Surf Coast Secondary College and Council operated sports facilities including Narrodya Courts, Parwan Pitch and Banyul-Warri Fields. The SCAHC is located in proximity to the Surf Coast Highway and Wadawurrung Way in Torquay.

- In accordance with all required legislation not limited to the Building Act (1993), the Contractor will provide a site that is safe for workers and secure from entry by the general public. The fencing and/or hoarding that is erected will minimise the extent of disruption to neighbouring businesses as much as possible. Public access to Wurdi Baierr will be maintained for the duration of construction activities, with alternate access provided if required.
- It is not anticipated that the construction activities will impact Surf Coast Secondary College other than construction noise during normal construction hours. The Council Offices, located to the south of the 1 Merrijig Drive title, will similarly not be impacted by the construction activity, other than construction noise and perhaps additional traffic on Wadawurrung Way. Parking for construction vehicles may need to be managed by the successful Contractor so as to not adversely impact Council staff.
- College Lane may be occupied or partly occupied at times to complete construction work. Consultation with the operators at Wurdi Baierr will be required to ensure the contracted works do not unduly impact the operations of the facility.
- As part of the project, it is expected that there will be alterations to the Wadawurrung Way alignment as it approaches Wurdi Baierr Stadium to improve access, traffic management and car parking. Road closure will only occur when required in accordance with the Contractor's construction programme to keep access available as much as practical.

- A new connection to the Surf Coast Highway is proposed as part of the development. Traffic management will be in place to protect the workers completing the work and to assist the public in navigating the changed traffic conditions. This will be provided in further detail in the Contractor's Traffic Management Plan (TMP) to be developed following appointment.
- The Contractor's TMP will also identify temporary signage and changed traffic conditions applicable to the Project, updated as required, to the satisfaction of the officers of the Relevant Authority.
- As the project is located close to the Surf Coast Highway, it is expected that minimal impact on the local road network will be experienced.

3 Measures to Protect Council Assets

The Contractor will be required to undertake a dilapidation report of the surrounding assets that do not form part of contracted scope. This will ensure that any damage caused by the construction activities will be rectified as part of the Contractor's obligations.

Further to the dilapidation report, where required, Council's assets including roads, cross overs, grassed/landscaped areas, and other facilities where directly impacted by the construction activity associated with the Project will be protected by various means including:

- Appropriate fencing to separate construction site from the surrounding areas;
- Vegetation Projection Zones or similar;
- Temporary crossings including pipes for water management, geofabrics, and coarse gravels;
- No-Go-Zones;
- Use of temporary construction roads on site, to minimise mud being trafficked off site
- Use of rumble grids at vehicle site access points to dislodge organic material from construction vehicles prior to leaving site
- In the event of extreme build up (ie, during prolonged wet weather and mud is prevalent) other mechanical means of clearing organic material from vehicle wheels and bodies may be required, in accordance with the Contract's CMP and EMP.
- Some damage to Council assets may be required to complete the contracted works. In which case, the damage will be made good by the Contractor.

Should you require further information, please contact the undersigned.

Yours faithfully,

David Keele

Senior Project Manager

Turner & Townsend Pty Ltd

e: david.keele@turntown.com

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause
43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 39 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

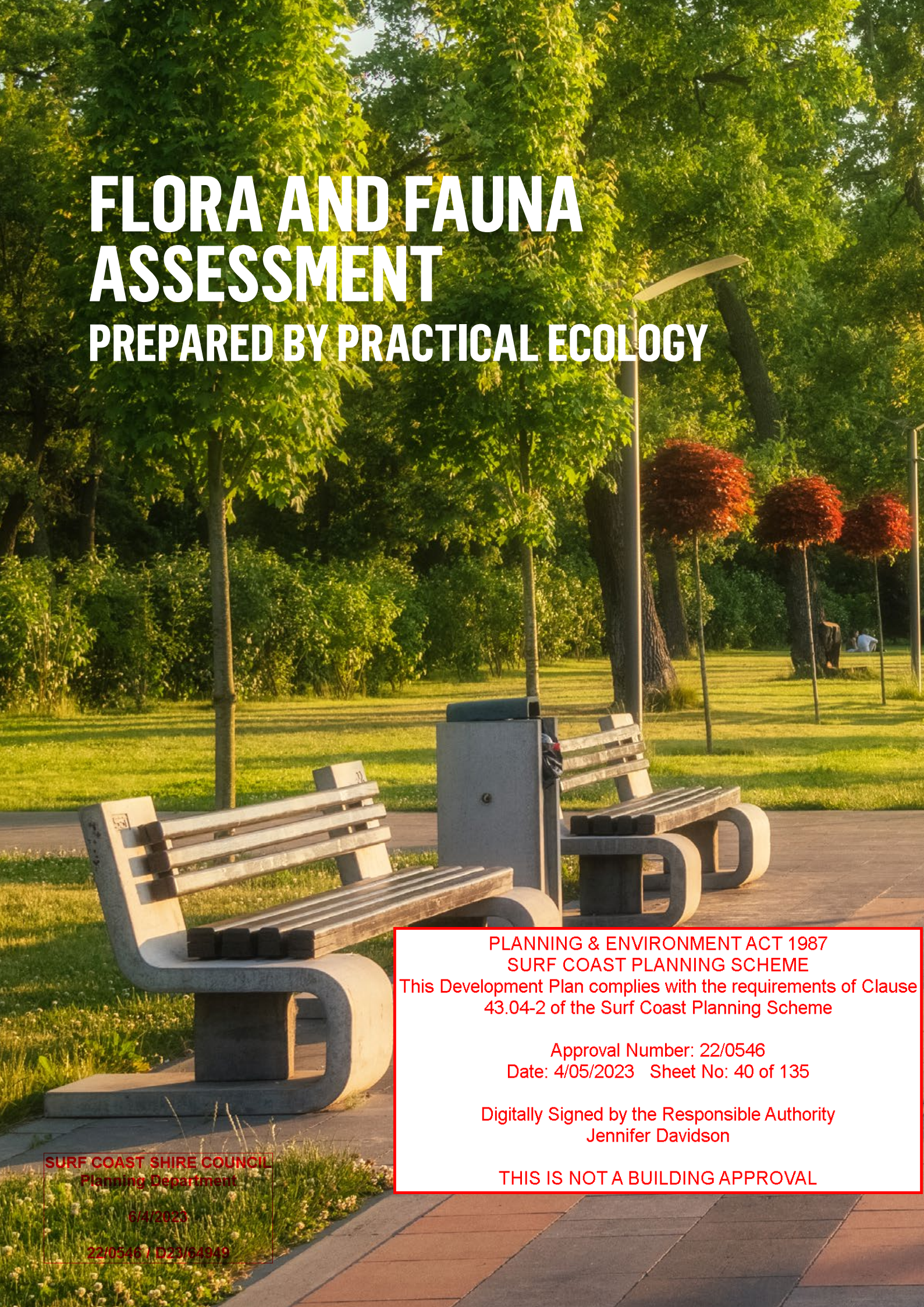
SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233632

FLORA AND FAUNA ASSESSMENT

PREPARED BY PRACTICAL ECOLOGY



PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 40 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

6/4/2023

22/0546 / D23/64949

Flora and Fauna Assessment and Impact Analysis: Proposed Surf Coast Aquatic and Health Centre 1 Merrijig Drive, Torquay

Version 2.0 – Final for Client
15 December 2022

Michelle Savona (Senior Ecological Consultant)

1. Introduction

Practical Ecology Pty Ltd was commissioned by the Surf Coast Shire Council to undertake a Flora and Fauna Assessment and Impact Analysis associated with the preparation of a Development Plan for the Surf Coast Aquatic and Health Centre (SCAHC) to be located at 1 Merrijig Drive in Torquay.

The proposed SCAHC will include numerous fitness and leisure facilities, such as (but not limited to) swimming pools, café, reception, offices, allied health and exercise and strength facilities. The SCAHC will be provided with on-site car parking.

Scope

This Flora and Fauna Assessment and Impact Analysis has been prepared to provide information on current site conditions within the Study Site, and aims to ensure that the design and delivery of proposed infrastructure consider the flora and fauna values present as appropriate.

The information presented in this report is based on the following scope of works:

- a desktop review of relevant information including relevant flora and fauna databases, relevant literature, including legislation and planning permit requirements
- a site assessment aimed at documenting the flora and fauna values that are present, or are likely to be present within the Study Site including:
    - categorisation of vegetation according to *Guidelines for the removal, destruction and lopping of native vegetation* (Department of Environment, Land, Water and Planning (DELWP) 2017a) as either native vegetation patches, scattered trees or non-native vegetation
    - assessment of native vegetation based on the methodology outlined in the *Vegetation Quality Assessment Manual-Guidelines for Applying the Habitat Hectares Scoring Method* (DSE 2004)
    - a description of the existing and/or original Ecological Vegetation Classes (EVCs)
    - the compilation of a list of vascular plants and vertebrate fauna (incidentally) observed across the Study Site
    - consideration of the potential of the site to support significant flora and fauna species or threatened ecological communities or habitat for such matters.
- reporting and mapping on existing conditions and potential impacts, inclusive of:
    - discussion of relevant ecological policy and legislation in relation to the proposed development
    - design and management recommendations, including if any targeted surveys are required, and
    - recommendations for the enhancement and protection of remnant vegetation located within the Study Site.

Study Site Description

The Study Site that is the focus of this Flora and Fauna Assessment and Impact Analysis is presented on Map 1 in Appendix 1.

The Study Site is approximately 2.3 hectares in size and largely consists of grassed open space that is subject to periodic slashing. Trees, shrubs and ornamental grasses are present on the outskirts of the Study Site and appear planted for aesthetic and amenity purposes as opposed to biodiversity enhancement.

The Study Site is generally bound by Grass Tree Lane to the north, the eastern carpark off Wadawarrung Way to the east, Vic Tantau Walk to the south and the Surf Coast Highway to the west. The Surf Coast Shire Council Torquay offices occur to the immediate south of the Study Site, with the Wurdi Baierr Stadium and associated open space, along with various open-air sports fields, to the north and east. The Grasstree Park Nature Reserve, managed by the Surf Coast Shire Council, occurs to the west of the Study Site beyond the Surf Coast Highway.

The Study Site is located within the Otway Plain Bioregion that extends across the Torquay area and surrounds towards the south-west of Victoria. This Bioregion is characterised by coastal plains and dunes, foothills with river valleys and swamps in the lowlands.

The site is zoned General Residential Zone- Schedule 1 (GRZ1) and is covered by the following overlays:

- Development Contributions Plan Overlay – Schedule 2 (DCPO2)
- Design and Development Overlay – Schedule 1 (DD01), and
- Development Plan Overlay – Schedule 8 (DPO8)

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 43 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

2. Methods

Desktop Review

In addition to a site assessment, as detailed below, a desktop review of relevant information was undertaken as part of this Flora and Fauna Assessment. This desktop review covered:

- relevant legislation and planning permit requirements or associated exemptions
- relevant correspondence pertaining to the application such as correspondence with Council, DELWP and other relevant stakeholders
- any previous flora and fauna assessments or management plans for the site, including the Torquay Jan Juc Structure Plan (2007)
- information from ecological databases, including that from 5 km buffer searches of the Victorian Biodiversity Atlas (VBA; accessed via NatureKit) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Search Tool (PMST), as required
- information from DELWP's NatureKit to determine likely Ecological Vegetation Classes (EVCs), the site's location category; modelled strategic biodiversity value and whether the site is associated with a wetland of importance, and
- the Bioregional Conservation Status (BCS) for EVCs mapped for the local area on DELWP's NatureKit.

Site Assessment

A site assessment was undertaken by Michelle Savona on Friday 18th November 2022. This assessment focussed on the areas to be impacted by developed and was based on:

- compiling a list of all vascular plants observed across the Study Site, including an assessment of their biological status in a local context
- classifying and mapping of native vegetation according to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017) based on the presence of native vegetation patches and/or scattered trees (where present)
- determination of EVCs for native vegetation as defined by DELWP (2017)
- undertaking a Habitat Hectare assessment as outlined in the *Vegetation Quality Assessment Manual–Guidelines for Applying the Habitat Hectares Scoring Method* (DSE 2004) for vegetation meeting the definition of a native vegetation patch
- consideration of the presence, or potential presence of threatened flora, fauna and communities
- compiling photographic evidence of current site conditions.

Note that as the extent of native vegetation to be removed across the Study Site to accommodate the proposed development is less than 0.5 hectares, no large trees are proposed for removal and the entire site is within Location 1 with regard to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017), the Clause 52.17 Native Vegetation assessment pathway is "Basic". While a "Basic" assessment pathway application under Clause 52.17 does not technically require a Habitat Hectare assessment of any native vegetation patches, a review of DELWP modelled information embedded within the Native Vegetation Information Management system indicated quality of native vegetation mapped within the Study Site was higher than that present on site.

The patches of native vegetation present on site were therefore assessed using the *Vegetation Quality Assessment Manual–Guidelines for Applying the Habitat Hectares Scoring Method* (DSE 2004). The results of this assessment are reflected within this Report and the accompanying "Native Vegetation Removal Report" that is provided in Appendix 7.

Vegetation Categorisation and Classification

Categorisation and classification of the vegetation observed within the Study Site was undertaken according to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017). The following definitions formed the basis of the categorisation process followed during the site assessment and associated information presented in this report:

- Native Vegetation
    - Native Vegetation as per the Victorian Planning Provisions (Clause 73.01): plants that are indigenous to Victoria, including trees shrubs, herbs and grasses.
- Native Vegetation Patch
    - A patch of native vegetation is either:
        - an area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native

  - any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or
  - any mapped wetland included in the current wetlands layer available in the Department of Environment, Land, Water and Planning's (DELWP) Native Vegetation Information Management tool and other DELWP systems.

- Native canopy tree
  - A native canopy tree is a mature tree (i.e. that is able to flower) that is greater than 3m in height and is normally found in the upper layer of the relevant vegetation type.
  - Trees are measured by diameter at breast height (DBH) at 1.3 metres above ground level.
- Large Tree
  - A Large Tree is either: a live tree that is equal to or greater than the large tree benchmark for the species in the relevant EVC; or a standing dead tree has a DBH measurement of 40 centimetres or greater
- Scattered Tree
  - A Scattered Tree is a native canopy tree that does not form part of a patch.
  - Scattered Trees have 2 size classes, Large Trees and Small Trees, i.e. those that have a DBH that is less than the large tree benchmark for the species in the relevant EVC.

Ecological Vegetation Classes

Ecological Vegetation Classes (EVCs) are a method of systematic organisation of plant communities into common types that occur in similar environmental conditions throughout Victoria. Each vegetation type is identified on the basis of its floristic composition (the plant species present), vegetation structure (woodland, grassland, saltmarsh), landform (gully, foothill, plain) and environmental characteristics (soil type, climate).

Modelled EVC distribution was accessed via DELWP's NatureKit to assess the EVCs likely to occur on the Study Site. EVCs were then identified in the field according to observable attributes including dominant and characteristic species consistent with the benchmark descriptions (DELWP 2019).

Commonwealth and State listed ecological communities

As there was potential for EPBC Act and/or *Flora and Fauna Guarantee Act 1988* (FFG Act) listed communities to be present within the Study Site, the vegetation and habitat within the Study Site were considered against published criteria and/or characteristics that define these threatened communities.

The EPBC Act listed communities deemed likely to occur within the Subject Area or surrounds was based on the list of Matters of National Environmental Significance (MNES) indicated as potentially occurring within a 5km radius in the report produced using the PMST. Under the EPBC Act, there are key diagnostic criteria and conditions thresholds as defined by Commonwealth Threatened Species Scientific Committee (TSSC) that assist in identifying EPBC listed communities. The Habitat Zones of a particular EVC identified on site were therefore assessed against these key diagnostic criteria, and where required, the relevant condition thresholds of the threatened communities identified by the PMST.

While there are no specific criteria which determine the presence of FFG Act communities, an informal method of comparing site characteristics and floristics with community descriptions in the document: *Characteristics of Threatened Communities – Flora and Fauna Guarantee Act 1988* (DELWP 2019d) was undertaken. This document summarises the characteristics of FFG Act threatened communities, to assist with field recognition. An evaluation of the Habitat Zones identified as part of this ecological assessment was made against the information in DELWP (2019d).

Commonwealth and State listed flora and fauna species

All Commonwealth and State listed flora and fauna species identified on databases as previously recorded, or potentially occurring, within the vicinity of the Study Site were subject to a 'likelihood of occurrence' assessment. The species assessed were those identified within a five-kilometre buffer search from the boundaries of the Study Site through searches of the VBA (accessed via NatureKit) and the EPBC Act PMST.

In determining likelihood of occurrence and potential use of the Study Site by these national or state significant flora and fauna species, the following factors were considered:

- previous recordings of species in the local area
- date of last record
- the habitat requirements of individual species
- the physical attributes of the site, such as topography, geology, soils, aspect and other habitat features such as trees with hollows, the presence of rocks or boulders, logs on the ground
- the history of land use at the Study Site
- the ecological landscape context; i.e. the degree of connectivity, modification and fragmentation across the landscape.

The 'likelihood of occurrence' for each species was assessed as being Nil, Low, Moderate, High or Recorded, based on the criteria listed in Table 1.

Table 1. Criteria for potential occurrence of significant species

Likelihood	Criteria
Nil	Species known to be extinct in local area and/or expected to be absent from the site.
Low	Unsuitable habitat in Study Site; or habitat conditions intermediate and records very limited and dated; or if it were present, it is highly likely to have been observed on site.
Moderate	Habitat conditions are intermediate, and/or optimal habitat conditions for species but local records limited or dated and/or if it were present, it is not likely to have been observed.
High	Optimal habitat conditions for species or species recorded at site, or intermediate habitat conditions but extensive local records and/or if it were present, it is not likely to have been observed on site.
Recorded	The species was recorded in the Study Site during the current survey.

Limitations

This Flora and Fauna Assessment is based on the conditions observed within the Study Site during the site assessment undertaken on 18th November 2022. The following considerations should be made regarding the limitations of the site assessment:

- it is expected that some other species, particularly orchid, lily and other herbaceous species that can only be observed for a limited period of time may not have been recorded during the present assessment
- flora surveys were undertaken over a short period of time over one short day.

The field survey was however considered an adequate representation of site condition and sufficient to determine potential impacts associated with the development of the SCAHC and associated infrastructure within the Study Site.

In regard to fauna, note that the likely presence of significant fauna species was determined primarily through habitat assessments. This is a more conservative approach likely to include species that are difficult to detect even if suitable habitat was observed in the Study Site, and if that species was known to occur regionally.

Determination of vegetation boundaries was undertaken using ground-truthing with aerial photography. Mapping should be considered approximate only (e.g. +/- 1-5m).

3. Results and Discussion

The site assessment undertaken in November 2022 determined that the Study Site is largely dominated by a suite of grassy and herbaceous weeds, with planted trees, shrubs and grasses largely around the outskirts of the site. Some native vegetation is also present however, including one small area that meets the definition of a native vegetation patch according to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017). This small habitat zone is located at the south-eastern corner of the site, as shown on Map 1 in Appendix 1.

The weed species observed across the majority of the open areas, along with the swale drains to the east of the study Site included but were not limited to: American Cudweed **Gamochaeta spp.,* , Buck's-horn Plantain **Plantago coronopus subsp. coronopus,* Flatweed **Hypochaeris radicata,* Couch **Cynodon dactylon var. dactylon,* Annual Meadow-grass **Poa annua s.l.,* Rat-tail Grass **Sporobolus africanus,* Perennial Rye-grass **Lolium perenne,* Prairie Grass **Bromus catharticus,* Yorkshire Fog **Holcus lanatus,* Sheep Sorrel **Acetosella vulgaris,* Soft Brome **Bromus hordeaceus,* Chickweed **Stellaria media,* Ribwort **Plantago lanceolata,* Drain Flat-sedge **Cyperus eragrostis,* Cape Weed **Arctotheca calendula,* White Clover **Trifolium repens var. repens,* Kikuyu **Cenchrus clandestinus,* Soursob **Oxalis pes-caprae,* Galenia **Aizoon pubescens,* Prairie Grass **Bromus catharticus,* Common Mouse-ear Chickweed **Cerastium glomeratum s.l.,* Fescue **Vulpia spp.,* Sweet Vernal-grass **Anthoxanthum odoratum,* Brown-top Bent **Agrostis capillaris*, Kikuyu **Cenchrus clandestinus* and Onion Grass **Romulea rosea.* Figure 1 and Figure 2 present images of these weed-dominated areas of the Study Site.

Figure 1. Weed-dominated open area

Figure 2. Weed-dominated swale drain

Trees, shrubs, ornamental grasses and other planted natives that are present on the outskirts of the site appear planted for aesthetic and amenity purposes, rather than for biodiversity. Figure 3 through Figure 6 present images of this vegetation. This includes:

- Sheaok *Allocasuarina* spp. trees planted between the existing car park areas to the east of the Study Site
- four Golden Wreath Wattle *#Acacia saligna* (each approximately 20cm in diameter) located along Grass Tree Lane
- seven Coast Banksia *Banksia integrifolia* subsp. *integrifolia* (each approximately 20cm in diameter)
- a row of relatively young Eucalypts *Euclayptus* spp. planted immediately to the east of the pedestrian path along the Surf Coast Highway
- a number of planted Spotted Gum *#Corymbia maculata* trees along Vic Tantu Way (noting that this species is listed under the FFG Act, but does not naturally occur at this location and is a widely planted tree)
- a planted Blackwood *Acacia melanoxylon* and planted Large-fruit Yellow-gum *#Eucalyptus leucoxylon* subsp. *megalocarpa* (again this species is listed under the FFG Act, but does not naturally occur at this location and is a widely planted tree) to the south-east of the Study Site
- planted specimens near the art installation to the south-west of the Study Site, including Eucalypts and small garden beds dominated by Knobby Club-sedge *Ficinia nodosa*.

While native vegetation does occur across the site through the open areas, as discussed below, the majority of this vegetation is comprised of annual native species that do not constitute a patch of native vegetation. Only one small patch of native vegetation – Habitat Zone 1 on Map 1 – is present within the Study Site.

All flora species recorded across the Study Site are presented in Appendix 1. This included a total of 50 species, of which 15 (30%) are indigenous species and 35 (70%) were exotic/weed species.

Figure 3. Planted Sheoaks

Figure 4. Planted vegetation near art installation

Figure 5. Planted Acacias near Grass Tree Lane

Figure 6. Planted Banksia near Grass Tree Lane

Native Vegetation

While the Study Site is largely dominated by weeds and also includes planted vegetation as described above, one small area meeting the definition of a Native Vegetation Patch was also identified during the site assessment.

Habitat Zone 1 (mapped in green on Map 1 in Appendix 1), is a relatively small patch located in the swale drain to the south-east of the Study Site and has a cover of perennial native vegetation that is at least 25%. Species present include Common Spike-sedge *Eleocharis acuta*, and Small Loosestrife *#Lythrum hyssopifolia* and Toad Rush *#Juncus bufonius*. Weed species present through this area include Couch, Kikuyu and Buck's-horn Plantain. Figure 7 and Figure 8 below provide images of this Habitat Zone.

Figure 7. Habitat Zone 1 within swale drain

Figure 8. Common Spike-sedge in HZ1

The results of the Habitat Hectare Assessment undertaken for Habitat Zone 1 is presented in Table 2 below. Note that while the site is mapped by DELWP as historically being dominated by EVC 892: Heathy Woodland/Sand Heathland Mosaic, the vegetation represented by Habitat Zone 1 is considered better defined as EVC 647: Plains Sedgy Wetland. The description for this EVC within the Otway Plain Bioregion is as follows:

> *"Occurs in seasonally wet depressions on volcanic and sedimentary plains, typically associated with fertile, silty, peaty or heavy clay paludal soils. Primarily sedgy-herbaceous vegetation, sometimes with scattered or fringing eucalypts or tea-tree/paperbark shrubs in higher rainfall areas. A range of aquatic herbs can be present, and species-richness is mostly relatively low to moderate, but higher towards drier margins."*

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of
Clause
43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 50 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

Table 2. Habitat Hectare Scores for Habitat Zones identified within the Study Site

Habitat Zone			1
Bioregion			OP
EVC Name (initials)			PSW
EVC Number			647
EVC Conservation Status			E
Size of Habitat Zone (ha)			0.001
		Max Score	Score
Site Condition	Large Old Trees	10	N/A
	Canopy Cover	5	N/A
	Understorey	25	5
	Lack of Weeds	15	0
	Recruitment	10	3
	Organic Litter	5	3
	Logs	5	N/A
	EVC Standardiser	n/a	1.36
	Standardised Score	75	15
Landscape value	Patch Size	10	1
	Neighbourhood	10	0
	Distance to Core	5	1
Habitat points		100	17
Habitat Score (habitat points/100)		**0.##**	**0.17**

Note that in addition to the above there is also scattered native vegetation across the site. This includes scattered Blown Grass *Lachnagrostis* spp. and Nodding Club-sedge *Isolepis cernua* s.l. Of particular note are small areas across the Study Site that have a cover of Toad Rush that is close to or exceeds 25% cover, with low cover of Nodding Club-sedge also present in some areas. The Toad Rush that dominates these areas is however an annual specie, rather than a perennial species, therefore these areas do not meet the definition of a Native Vegetation Patch as per the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017).

Fauna Habitat

The site was not subject to fauna survey however it is expected that a range of fauna would utilise the habitat within the Study Site. It is expected to act least act as a flyover for bird species, some of which may forage on site particularly during wet periods. Welcome Swallow *Hirundo neoxena* was observed on site during the site assessment and it is expected that other common bird species would also utilise the habitat present at least occasionally.

The main focus with regards to fauna during the assessment was the consideration of the site's potential to provide fauna habitat. The habitat observed within the site included:

- open groundcover vegetation, and
- some planted trees and shrubs that could be at least used for foraging and roosting

Commonwealth and State listed flora and fauna values

Threatened Ecological Communities

Table 3 lists the Nationally threatened communities identified by the EPBC Act's PMST as potentially occurring within five kilometres of the Study Site. The results from the EPBC Act PMST search undertaken are provided in Appendix 3.

A review of information associated with each of these communities, inclusive of key diagnostic criteria and conditions thresholds where relevant, revealed that none of the six communities predicted to occur within or surrounding the Study Site are present on site. Further detail is provided in Table 3.

Table 3. Details of Commonwealth threatened communities identified by the PMST

Community	Status	Type of presence listed in PMST	Status within Study Site
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within 5km buffer area only	Occur within the temperate climate, microtidal regime (< 2 m), high wave energy coastlines of western and central Victoria. Not applicable to Study Site.
Giant Kelp Marine Forests of South East In buffer area only Australia	Endangered	Community may occur within 5km buffer area only	Occur off-shore. Not applicable to Study Site
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within Study Site	Key diagnostic criteria and condition thresholds not met. Community does not therefore occur within Study Site.
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within Study Site	Key diagnostic criteria and condition thresholds not met. Community does not therefore occur within Study Site.
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within Study Site	Key diagnostic criteria and condition thresholds not met. Community does not therefore occur within Study Site.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within Study Site	Key diagnostic criteria and condition thresholds not met. Community does not therefore occur.

One state listed, FFG Act threatened community is modelled by DELWP as being present to the north-west of the Study Site. This is the FFG Act listed *Coastal Moonah (Melaleuca lanceolata subsp. lanceolata) Woodland Community.* A review of the description of this community in the document titled *Characteristics of Threatened Communities – Flora and Fauna Guarantee Act 1988* (FFG SAC 2019) indicates that the vegetation on site is not representative of this FFG Act listed community. A review of other communities listed in this same document indicates that other FFG Act listed communities are also not present within the Study Site.

Listed Flora and Fauna Species

A copy of the PMST report for the site which includes lists of Commonwealth listed species predicted to occur within 5km of the Study Site is presented in Appendix 3.

The listed flora and fauna species previously recorded within a 5 km radius of the Study Site on the VBA and accessed via Nature Kit, are listed in Appendix 4 and Appendix 5 respectively.

Species predicted to occur within and surrounding the Study Site according to the PMST have also been incorporated in the information presented in these Appendices, exclusive of marine species such as Seals and Whales.

Of the Commonwealth and State listed flora species identified as predicted to occur (in the PMST) or previously recorded (in the VBA) in the area surrounding the Study Site, one species is present on site – Spotted Gum – which is listed under the FFG Act but is a widely planted tree across Victoria, as it is within the Study Site. For other listed flora species, there is low likelihood that listed flora species would occur on site given historical clearing, the general scarcity of native species, the dominance of exotic species and ongoing slashing regime.

For Commonwealth and State listed fauna species identified through database searches there is a low-moderate or moderate likelihood that seven such species would make at least some use of the Study Site. This includes the listed fauna species shown in Table 4. An indication of likely impacts on these listed fauna species from proposed development at the site is also provided in Table 4.

Grey Goshawk *Accipiter novaehollandiae* and White-throated Needletail *Hirundapus caudacutus* are listed as Endangered and Vulnerable under the FFG Act respectively. All other listed fauna species presented in Table 4 are listed as migratory under the EPBC Act, noting that White-throated Needletail is also listed as both migratory and threatened under the EBPC Act in addition to being Vulnerable under the FFG Act. All species could make at least some use of the site on occasion at least for foraging or as a fly-over to more suitable habitat given the number of local records for some of these. Nevertheless, as noted in Table 4, this risk of an impact to these species from proposed development within the Study Site is deemed to be low. This is also discussed further as part of Section 4 below.

Table 4. Listed fauna species with low-moderate or moderate likelihood of occurrence

Status^			Scientific name	Common name	Likelihood of Occurrence	Risk of impact from development
Treaty	EPBC	FFG				
		En	*Accipiter novaehollandiae*	Grey Goshawk	**Low-Moderate.** Several records surrounding Study Site including two within the Grasstree Park Nature Reserve to the immediate west of the Study Site. Species could utilise the Study Site for hunting, although the maintained low grass across the Study Site does reduce potential for prey items to occur.	**Low.** This is a highly mobile species that is not likely to be impacted by the development proposal. The potential for the species to utilise the site for hunting is generally marginal given site management and its persistence in the local area is also unlikely to be impacted by the proposal.
C,R,J			*Apus pacificus*	Fork-tailed Swift	**Low-Moderate.** Species could occasionally fly over site, however it is unlikely to make any significant use of the site.	**Low.** Species rarely lands; development of the site is not likely to impact this highly mobile species.
C,J			*Ardea alba*	Great Egret	**Moderate.** Numerous local records; species could occasionally forage on site.	**Low for all species.** These are highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.
C,J			*Bubulcus coromandus*	Eastern Cattle Egret	**Moderate.** Numerous local records; species could occasionally forage on site.	
B,R,J,C			*Calidris ruficollis*	Red-necked Stint	**Low-Moderate.** As the site contains damp open grassed areas, there is some potential that the species could occasionally utilise the Study Site. While this is the case the habitat in the surrounding landscape provides much more suitable habitat for the species, with most local records on the Atlas of Living Australia closer to the coastline between Breamlea and Barwon Heads.	
C,R,J	VU	Vu	*Hirundapus caudacutus*	White-throated Needletail	**Moderate.** Given the number of records and range of habitats this species has been documented flying above, including farmland, there is some potential that could occur aerially over the site at least occasionally.	
B			*Rhipidura rufifrons*	Rufous Fantail	**Low-Moderate.** Some potential that this species could utilise the planted trees / shrubs present on site given that it can be observed in parks/gardens and in a range of habitat on migration.	

^ Status:
International Treaty: B: Bonn Convention; C: CAMBA; J: JAMBA; R: ROKAMBA.
Conservation status under EPBC Act 1999: EX: Extinct, CR: Critically endangered, EN: Endangered, VU: Vulnerable and CD: Conservation dependant
FFG Act 1998 (2020 status): Cd: Conservation dependant, Cr: Critically endangered, En: Endangered, Ex: Extinct, Th: Threatened, Vu: Vulnerable, En(ExV): Endangered (extinct in Vic)

4. Applicable Policy and Legislation

The section outlines any permits or approvals required under Commonwealth, State and local government environmental legislation and policy in relation to the proposed development at the Study Site.

As noted in Section 1, the proposed SCAHC will include numerous fitness and leisure facilities, such as (but not limited to) swimming pools, café, reception, offices, allied health and exercise and strength facilities. The SCAHC will be provided with on-site car parking. Development plans for the Study Site are presented in Appendix 6.

Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act provides a legislative framework to protect Matters of National Environmental Significance (MNES), which include world heritage properties, national heritage properties, wetlands of international importance (i.e. Ramsar wetlands), Commonwealth marine areas, the Great Barrier Reef Marine Park, listed threatened flora and fauna species and ecological communities, and listed migratory fauna species. It applies to public and private land, whereby a referral to the Commonwealth Department of Agriculture, Water and the Environment (DAWE) is necessary for proposed actions that are likely to significantly impact a MNES.

Of the nine matters of national environmental significance to which the EPBC Act applies, those deemed relevant to the Study Site and the development proposal include nationally threatened species and ecological communities, and migratory species. The following provides more information as it relates to the EPBC Act in the context of the current proposal to develop within the Study Site.

Threatened Ecological Communities

As no EPBC Act listed communities were found within the Study Site, there will be no significant impact to any threatened communities listed under the EPBC Act from the development proposal. No referral is therefore recommended under the EPBC Act in relation to threatened communities.

Nationally Threatened Species: Flora

No EPBC Act listed flora species were recorded during the Site Assessment. Given the low likelihood of occurrence across the Study Site of EPBC Act flora species identified through database searches, direct losses are unlikely. The risk of a significant impacts as defined by the EPBC Act on these listed flora species is therefore also deemed to be low. No referral is recommended under the EPBC Act in relation to significant flora species.

Nationally Threatened Species: Fauna

No EPBC Act listed fauna species were recorded during field surveys.

Six EPBC Act listed fauna species predicted to occur within a 5km radius through EPBC Act PMST, and/or that have records within this search area on the VBA, are considered to have a low-moderate or moderate likelihood of occurrence within the Study Site.

This includes species listed only as migratory under the EPBC Act (Fork-tailed Swift, Great Egret, Eastern Cattle Egret, Red-necked Stint and Rufous Fantail) or as both migratory and threatened (White-throated Needletail).

Based on a review of the *Matters of National Environmental Significance – Significant Impact Guidelines* (DoE 2013) and consideration of construction and operational impacts of the proposed SCAHC, it is unlikely that it will have a significant impact on these species as defined by the EPBC Act.

No referral is recommended under the EPBC Act in relation to significant fauna species.

Victorian Flora and Fauna Guarantee Act 1988

The *Flora and Fauna Guarantee Act 1988* was legislated to ensure the continued survival of all Victorian species of flora and fauna and all Victorian communities of plants and animals. The FFG Act provides a number of ways to help achieve its objectives including:

- listing of threatened taxa, communities of flora or fauna and potentially threatening processes, and creation of Action Statements and Management Plans for all listed taxa communities of flora or fauna and processes
- declaration of a Critical Habitat if the habitat is critical for the survival of a species or a community of flora or fauna, if listed as Critical Habitat, the Minister for Environment may then make an Interim Conservation Order (ICO) to conserve the Critical Habitat (NB: no Critical Habitat has been declared in the State)
- protection of flora and fauna through listing offences such as penalties relating to not following an ICO and taking, trading in, keeping, moving or processing protected flora without a licence. (NB: this does not apply to taking protected flora from private land (other than land which is part of the critical habitat for the flora) except for taking tree-ferns, grasstrees or sphagnum moss for the purpose of sale.

The Department of Environment, Land, Water and Planning (DELWP) is the referral authority for matters under the FFG Act noting that this Act only applies to public land. The following provides more information as it relates to the EPBC Act in the context of the current proposal to develop within the Study Site.

Threatened Communities

A review of the document titled Charact*eristics of Threatened Communities – Flora and Fauna Guarantee Act 1988* (DELWP 2019d) indicates that the vegetation on site is not representative of an FFG Act listed community. A permit to remove protected flora that may be part of such a community is therefore not applicable.

Threatened Species

Spotted Gum and Large-fruit Yellow-gum are present within the Study Site and are listed as vulnerable and critically endangered under the FFG Act respectively. While there is the potential that specimens of these species may need to be removed, the provisions of the FFG Act do not apply to planted individuals outside of areas where the species naturally occurs. Therefore a "Permit to take protected flora" to remove the species is not required from DELWP. This is further outlined below.

There is a low likelihood that other FFG Act listed flora species or predicted to occur, or previously recorded, within 5km of the Study Site would occur on site.

As outlined in Table 4 above, Grey Goshawk and White-throated Needletail are listed under the FFG Act respectively. These species are considered to have a Low-Moderate and Moderate likelihood of utilising the habitat available within the Study Site. For the Grey Goshawk, there are several records surrounding Study Site including two within the Grasstree Park Nature Reserve to the immediate west of the Study Site over the Surf Coast Highway. This species could occasionally utilise the Study Site for hunting, although the maintained low grass across the Study Site does reduce potential for prey items to occur.

For the White-throated Needle-Tail, there is some potential that could occur aerially over the site at least occasionally. While construction and operational use of the SCAHC will mean that the potential for these species to utilise the habitat on site will be reduced, this is not expected to have any substantial impact on the overall persistence of these species across the local area.

Protected Flora Species

The protected flora controls are set out in Division 2 of Part 5 of the FFG Act. It is an offence to take, trade in, keep, move or process protected flora without a permit, or unless authorised by Order of the Governor in Council published in the *Government Gazette* (GIC Order). The FFG Act defines "take" to mean to kill, injure, disturb or collect.

For all protected flora, the controls apply to flora "…in any form including the whole organism or any part or product, whether alive or dead or however processed" (Section 45 of the FFG Act). This does not apply to private land where permission is given by the owner and the flora is not taken for the purposes of selling.

The Protected Flora List includes plants from three sources:

- plant taxa which are not threatened but are declared to be protected under section 46 of the *Flora and Fauna Guarantee Act 1988*
- plant taxa which are listed as threatened under section 10 the *Flora and Fauna Guarantee Act 1988*
- plant taxa belonging to communities which are listed as threatened under section 10 of the *Flora and Fauna Guarantee Act 1988.*

As well as protecting threatened species, protected flora are listed as protected to regulate exploitation including removal from the wild for cultivation and the cut-flower industry. Among others the list includes all clubmosses, ferns and fern allies (excluding *Pteridium esculentum*), all members of the Asteraceae (daisies) family, all members of Epacridaceae (heaths), all members of Orchidaceae (orchids) and all Acacias (excluding Silver, Early Black, Lightwood, Blackwood and Hedge Wattles).

In relation to the Study Site and the proposed development a Protected Flora Permit is not considered required as:

- a review of species declared to be protected under section 46 of the FFG Act indicates that none of the flora species identified on site are such species
- the provisions of the FFG Act do not apply to planted individuals outside of areas where the species naturally occurs, therefore a "Permit to take protected flora" to remove the species is not required from DELWP should Spotted Gum or Large-fruit Yellow-gum need to be removed
- it is not expected that any species listed as threated under the FFG Act, aside from Spotted Gum or Large-fruit Yellow-gum, would occur within the Study Site, and
- vegetation deemed representative of a community listed under the FFG Act is not present within the Study Site.

Flora and Fauna Guarantee Amendment Act 2019

The FFG Act has been amended to provide a modern and strengthened framework for the protection of Victoria's biodiversity. The Flora and Fauna Guarantee Amendment Act 2019 (the Amendment Act) came into effect on June 1, 2020.

The Amendment Act:

- introduces principles to guide the implementation of the FFG Act, including consideration of the rights and interests of Traditional Owners and the impacts of climate change
- requires consideration of biodiversity across government to ensure decisions and policies are made with proper consideration of the potential impacts on biodiversity
- clarifies existing powers to determine critical habitat and improves their protection by encouraging cooperative management
- gives effect to a consistent national approach to assessing and listing threatened species using the Common Assessment Method (CAM), which will reduce duplication of effort between jurisdictions and facilitate the monitoring and reporting of species' conservation status
- modernises the FFG Act's enforcement framework including stronger penalties.

The Amended Act requires ministers and public authorities to consider the FFG Act when performing functions that might impact biodiversity when exercising their functions (set out in new section 4B).

The Act requires that in performing any of their functions that may reasonably be expected to impact on biodiversity, including a function under any Act, ministers and public authorities must consider the Act's objectives, so far as is consistent with the proper exercising of their functions.

Additional matters are also specified to be considered to clarify the objectives, including the Biodiversity Strategy, relevant action statements, management plans or critical habitat determinations. The types of potential impacts on biodiversity that should be considered are also specified, these include:

- long- and short-term impacts
- detrimental and beneficial impacts
- direct and indirect impacts
- cumulative impacts
- potentially threatening processes.

The act establishes tools to provide guidance to public authorities in considering biodiversity, these include:

- Ministerial guidelines to clarify the duty and support public authorities with further information
- Public authority management agreements made with the Secretary to DELWP, which can provide certainty that biodiversity impacts are being sufficiently considered and being managed and can streamline approval requirements.

Relevance to proposal

The proposed SCAHC is being built and administered by the Surf Coast Shire Council. As a public authority, the FFG Act must be considered when performing functions that might impact biodiversity. This Report and in the information contained within it has sought to consider and discuss potential impacts to FFG Act listed ecological (biodiversity) values, inclusive of long- and short-term impacts, direct and indirect impacts, and potentially threatening processes.

Wildlife Act 1975 and Wildlife Regulations 2013

The *Wildlife Act 1975* provides for the protection and conservation of native wildlife (fauna) within Victoria. It also provides the basis for the majority of wildlife permit/licensing requirements within the state. Under the Act a person must not hunt, take or destroy endangered, notable or protected wildlife; this includes all native vertebrate animals, all kinds of deer, non-indigenous quail, pheasants, and partridges, and all terrestrial invertebrate animals listed under the *Flora and Fauna Guarantee Act 1988*. The Wildlife Regulations 2013 provide further detail relating to the act, including that a person not to damage, disturb or destroy any wildlife habitat (s42), although this does not apply if the person is authorised to do so under any other Act such as the Planning and Environment Act 1987.

Relevance to proposal

It is unlikely a separate permit is required under this Act as damage should only be to wildlife habitat and not wildlife. However, if any wildlife is located within the habitat proposed for clearing, salvage and translocation of such wildlife may be required as part of a future Planning Permit. This should also ensure wildlife is not damaged during construction works.

Catchment and Land Protection Act 1994

The *Catchment and Land Protection Act 1994* (CaLP Act) intends to manage land degradation including detrimental environmental or economic impacts of declared noxious weeds and pest animals. Under section 20 of the (Catchment and Land Protection Act 1994) CaLP Act, all land owners, including the Crown, public authorities and licensees of Crown lands, must, in relation to their land, take all reasonable steps to:

- avoid causing or contributing to land degradation which causes or may cause damage to land of another land owner;
- eradicate regionally prohibited weeds;
- prevent the growth and spread of regionally controlled weeds on their land;
- prevent the spread of, and as far as possible, eradicate established pest animals.

These are also provisions within the Act to prevent the spread of declared noxious weeds, through regulating the purchase, sale, possession for the purposes of sale, display, propagation or transport of these species into or within Victoria. Furthermore, under the Act it is prohibited to bring into Victoria, keep, sell or release declared pest animals without an authority (permit).

Relevance to proposal

At least one weed declared noxious under the CaLP Act is present within the Study Site – Soursob. This species is a deemed a "Restricted Weed" across the whole of Victoria. Established pest animals potentially occurring within or passing through the Study Site include European Rabbit **Oryctolagus cuniculus* and Red Fox **Vulpes vulpes*. Such declared noxious weeds and pest animals must be managed by the landowner.

Planning and Environment Act 1987

Zoning

The Study Site is zoned General Residential Zone– Schedule 1 (GRZ1) under the Surf Coast Planning Scheme. The purpose of this zone is to:

- implement the Municipal Planning Strategy and the Planning Policy Framework
- encourage development that respects the neighbourhood character of the area
- encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport
- allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

A permit is required to construct a building or carry out works for any use not listed in Section 1 or Section 3 of Clause 32.08-2 of this Zone. As the intended use is not listed under Section 1 for which a permit is not required, or under Section 3 for which the use is prohibited, a permit is required under the provisions of this Zone for the intended use of the site to establish the SCAHC.

Information requirements and decision guidelines where a permit is required under the provisions of GRZ1 are listed in Clause 59.04 of the Surf Coast Planning Scheme. While there are no specific requirements within Clause 59.04 as they relate to ecology, this report does contribute to the description of the current use of the land.

Overlays

The site is covered by the following overlays:

- Development Contributions Plan Overlay – Schedule 2 (DCPO2)
- Design and Development Overlay – Schedule 1 (DD01), and
- Development Plan Overlay – Schedule 8 (DPO8)

The purpose and relevance of these overlays to the Study Site and the proposed development are outlined in Table 5 below.

Table 5. Relevance of applicable Surf Coast Shire Council overlays

Overlay	Relevance to Study Site
DCPO2	DCPO2 specifically refers to the Torquay-Jan Juc Development Contributions Plan. There are levies payable under this Overlay for the development of infrastructure within the Study Site. As the development is not residential, these levies apply to the floor area of the proposed development.
DDO1	The design objectives of DDO1 are to: • protect and enhance the low-rise coastal township character of Torquay Jan Juc. • minimise the visual prominence of development when viewed from the streetscape and adjoining properties, having regard to building height. • ensure the height of buildings is compatible with the existing scale and character of dwellings within the streetscape and neighbourhood. Where it is the case that the proposed SCAHC is more than 7.5 metres above natural ground level, a permit will be required to construct the building and carry out works under this overlay. In addition to details of the type and colour of all external building materials, a landscape plan must accompany the application for such a permit that shows: • The location, species and height of existing vegetation that is to be retained and/or removed. • The planting of at least two canopy trees within the front setback area. • A detailed planting schedule using species predominantly selected from the Indigenous Planting Guide (2003), with emphasis on the use of Bellarine Yellow Gum, Messmate Stringybark, Ironbark, Manna Gum, Drooping Sheoak and Moonah Woodland community species, as appropriate to the locality. The plans included in Appendix 6 show landscaping to be established as part of the proposed SCAHC.

Overlay	Relevance to Study Site
DPO8	DPO8 specifically refers to the Torquay North Residential Precinct and includes the requirements associated with preparation of a Development Plan for this area. Reference is made within DPO8 to the Torquay-Jan Juc Structure Plan 2007, which recognises the natural environment including the flora and fauna values within the Torquay to Jan Juc area, and also proposes that the Study Site is use for Standard Density Residential Development. While this is the case, the 2007 Structure Plan does recognise the three-step approach to native vegetation management that is centred around the principles of avoid, minimise, and offset. These principles are still relevant under the current provisions of Clause 52.17 as described below. It is noted that while there is native vegetation present within the Study Site, it is not in a site of State or High Regional Environmental Significance identified in the 2007 Strategy. The Torquay North Outline Development Plan was prepared in 2012. This Plan includes key community facilities and basic infrastructure for the precinct, including a Community and Civic Precinct which is based on the current location of the Council offices immediately south of the Study Site along with other infrastructure through this general area. While this 2012 Outline Development Plan considered native vegetation, it is noted that such vegetation was not documented within the current Study Site as part of this previous Plan. This current report provides updated information on the flora and fauna present within the Study site in line with the requirements of a Development Plan as outlined under DPO8. This includes, as required under DPO8 "*identification of the vegetation communities, the quality of habitat, the actual indigenous flora and fauna species that inhabit the site, threats to the indigenous flora and fauna species including pest plant and animal species; and the conservation status of any threatened flora and fauna species and communities under local, regional, state and national legislation or policies*" as has been described above in Section 3 and here in Section 4. In addition to these matters, the Development Plan as per DPO8 is to "*recommend enhancement and protection of remnant vegetation located on the site and takes account of vegetation adjacent the site; and inclusion of these areas, as appropriate, as biolinks traversing through and connecting outside of the development area including . . . the provision of a minimum 15m wide vegetation/plantation reserve along the length of the Surf Coast Highway, incorporating a pathway linkage.*" The future SCAHC is expected to include landscaping around proposed infrastructure. A reserve area along the Surf Coast Highway and pathway linkage through this area is also incorporated into current plans. There is little by way of remnant vegetation located in the Study Site aside from Habitat Zone 1, which will be removed to accommodate the proposed development. While this is the case, there is scope to enhance habitat within the local landscape through appropriate revegetation on site and in the reserve along the Surf Coast Highway. Plants to be installed should be indigenous and those naturally expected to occur within the local area to enhance local biodiversity and also provide habitat for local wildlife.

Clause 52.17 of Surf Coast Shire Planning Scheme

Under Clause 52.17, a permit is required to remove, destroy or lop native vegetation on sites greater than 0.4 hectares. Clause 52.17 requires a planning permit for the removal of native vegetation, unless exemptions apply. The purpose of the clause (amongst others) is to minimise impacts on Victoria's biodiversity from the removal of native vegetation and to manage native vegetation to minimise land and water degradation.

The purpose of clause 52.17 and *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017), is to ensure a no net loss to biodiversity as a result of removal or loss of native vegetation. This is achieved in three steps:

1. Avoid the removal, destruction or lopping of native vegetation
2. Minimise impacts from the removal where native vegetation cannot be avoided and,
3. Provide an offset to compensate for the biodiversity impact if a permit is granted

Application requirements and decision guidelines are listed within the Clause 52.17. Applications may fall into a Basic, Intermediate or Detailed risk pathway depending on the location and extent of vegetation removed with application requirements and decisions dependant on the relevant risk pathway. Referral to DELWP under Clause 66.02 may be required for an application to remove native vegetation, e.g. if clearing is greater than 0.5 ha or the application follows the detailed pathway.

Relevance to proposal

There is native vegetation as described by Clause 73.01 of the Surf Coast Planning Scheme– being plants that are indigenous to Victoria – that are present within the Study Site, as described in Section 3 above. This includes planted specimens of species native to Victoria, a small patch of native vegetation (Habitat Zone 1) as well as scattered indigenous species.

Given the presence of native vegetation, a Planning Permit under Clause 52.17 may be required as part of future planning processes for the SCAHC beyond the current application for a Development Plan. This is discussed further below.

Exemptions under Clause 52.17

As outlined in Section 3, various trees, shrubs, ornamental grasses and other planted natives are present on the outskirts of the Study Site. While at least some of these would be indigenous to Victoria and therefore meet the definition of native vegetation, such planted specimens are considered exempt from requiring a planning permit under the provisions of Clause 52.17 based on the following exemption:

> *Native vegetation that is to be removed, destroyed or lopped that was either planted, or grown as a result of direct seeding.*
>
> *This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding.*

The document titled *Exemptions from requiring a planning permit to remove, destroy or lop native vegetation Guidance* (DELWP 2017) provides further guidance regarding the above exemption. Excepts relevant to the planted vegetation present within the Study Site are provided below:

This exemption does not apply to native vegetation planted or grown with public funding for the primary purposes of enhancing biodiversity or protection of land, unless the funding agency (or its successor) provides written agreement to the landholder to remove the native vegetation.

Biodiversity purposes include improving rare and threatened species habitat, improving the condition or extent of native vegetation or improving the functioning of an ecosystem and its delivery of ecosystem services. It does not include planting that may have biodiversity benefits, but that the main purpose of the planting was amenity, such as along a road.

Public funding includes money provided by any level of government or public authority. It may then be passed on to another organisation or authority to administer, or to provide in grants to third parties.

Based on the above, should the development proposal require removal of the trees, shrubs, ornamental grasses and other planted natives from the Study Site, it is noted that such vegetation would be exempt from the requirement to obtain a Planning Permit under Clause 52.17 based on its "Planted Vegetation" status. While this vegetation is likely to have been planted with funding provided by the Surf Coast Shire Council, such this vegetation appears planted for aesthetic and amenity however, rather than for the range of biodiversity purposes noted above. While this planted vegetation many have biodiversity benefits, as above this exemption applies where the main purpose was amenity rather than biodiversity.

It is also noted that there is an exemption from requiring a planning permit under Clause 52.17 may also apply with regard to regrowth. Wording from Clause 52.17 and DELWP (2017) as it relates to the regrowth exemption, and in the context of the Study Site and existing conditions present, is as follows:

Native vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established native vegetation, and is . . . less than 10 years old.

Land lawfully cleared includes:

- *land cleared with a planning permit*
- *land cleared relying on exemptions from requiring a planning permit*
- *clearing that was legal at the time it originally occurred, and the area has been periodically maintained as cleared land since then, including within the last 10 years.*

It may be the case that Habitat Zone 1 and other native (indigenous) vegetation such as scattered Toad Rush patches are less than 10 years old and could therefore be exempt from a Planning Permit under Clause 52.17. This is based on the proviso that the area where this vegetation currently occurs may have been cleared with a Planning Permit, or a previous exemption from requiring one.

While the regrowth exemption may be applicable to the native vegetation that is present, where this is not the case, the information required in terms of obtaining a Planning Permit under Clause 52.17 has already been covered by this current report as detailed below. The removal of this native vegetation– including that represented by Habitat Zone 1– even where a permit is technically required, does not require offsets under Clause 52.17.

Native vegetation removal where exemptions do not apply

Figure 9 below shows the Development Plan for the SCAHC which is also presented in Appendix 6. As shown the SCAHC and associated car parking will occur in the area where Habitat Zone 1 is located. Based on the below, the approved development of the SCAHC will result in the loss of the native vegetation patch identified as Habitat Zone 1. On the assumption that this native vegetation is not exempt from a Planning Permit under Clause 52.17, a Native Vegetation Removal Report has been prepared and is provided in Appendix 7.

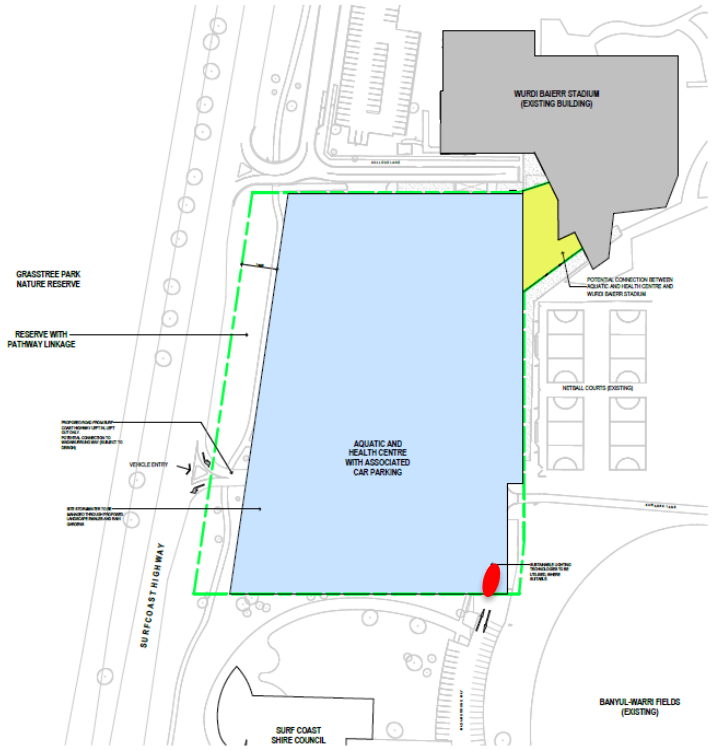


Figure 9. SCAHC Development Plan; indicative location of Habitat Zone 1 shown as red polygon.

As noted above, there are other indigenous groundstorey species located throughout the Study Site – such as Blown Grass, Nodding Club-sedge and Toad Rush. These are scattered in their extent or are annual species that do not meet the definition of a patch of native vegetation according to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017).

While this is the case, this vegetation will be removed by the proposed development and does still meet the definition of native vegetation in Victorian Planning Provisions (Clause 73.01). Unless an exemption applies to the removal of this revegetation based on its status as regrowth, a Planning Permit under Clause 52.17 is likely required. While an application for the removal of this native vegetation under Clause 52.17 must meet the relevant requirements of the Basic Assessment Pathway (DELWP 2018) from the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017), an offset for the removal of this vegetation is not required. A response to the 'Other Information' required as part of a Basic Assessment Pathway Application is provided by this report as per that presented below for the loss of Habitat Zone 1.

Habitat Zone 1 Removal Response

The following relates to the removal of Habitat Zone 1 from the Study Site, noting however that information presented in Table 6 with regard to a Basic Assessment application under Clause 52.17 also applies to the scattered indigenous vegetation located throughout the site that will also be removed by the development proposal.

Location categories as they relate to Clause 52.17 have been determined for all of Victoria, with native vegetation will be in either location 1, 2 or 3 as outlined below:

- Location 3 – includes locations where the removal of less than 0.5 hectares of native vegetation could have a significant impact on habitat for a rare or threatened species.
- Location 2 – includes locations that are mapped as endangered EVCs and/or sensitive wetlands and coastal areas are not included in Location 3
- Location 1 – includes all remaining locations in Victoria.

The vegetation to be removed within the Study Site is located within Location 1. The total extent of the native vegetation patch to be removed to accommodate the proposed development – this being Habitat Zone 1 – is 0.001 ha.

A *Native Vegetation Removal Report* has been generated for the removal of native vegetation from the Study Site to accommodate the proposed development. This *Native Vegetation Removal Report* is provided in Appendix 7. Note that as site assessed scores were used as part of this report, it was sent to DELWP for processing, rather than being processes using DELWPs online Native Vegetation Information Management system.

As the vegetation is within Location 1, there are no large trees impacted and clearing is less than 0.5 ha, the proposed clearing within the Study Site follows the "Basic" assessment pathway associated with Clause 52.17.

Table 6 presents the application requirements to remove native vegetation under Clause 52.17 as provided in *the Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017). While it is noted that a Planning Permit application is not proposed at this stage and that the focus of current planning processes is on a Development Plan application, information on how the requirements of a further application under Clause 52.17 have already largely been addressed by this current report.

Table 6. Application requirements for applications for a permit to remove native vegetation

No.	Application requirements	Basic Pathway	Provided/response
1	Information about the native vegetation to be removed, including: • the assessment pathway and reason for the assessment pathway. This includes the location category of the native vegetation to be removed • a description of the native vegetation to be removed • maps showing the native vegetation and property in context • the offset requirement, determined that will apply if the native vegetation is approved to be removed.	Native Vegetation Removal (NVR) Report and this report	Yes ☒ No ☐ N/a ☐
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 maps accompanying proposal.	Yes ☒ No ☐ N/a ☐
3	Recent photographs (dated) of the native vegetation to be removed.	Provided within this report	Yes ☒ No ☐ N/a ☐
4	Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged.	None	Yes ☒ No ☐ N/a ☐
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.	Provided below	Yes ☒ No ☐ N/a ☐
6	A copy of any property vegetation plan that applies to the site.	N/A	Yes ☐ No ☐ N/a ☒
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 is not required when the creation of defendable space is in conjunction with an application under the Bushfire Management Overlay.	N/A	Yes ☐ No ☐ N/a ☒
8	If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan	N/A	Yes ☐ No ☐ N/a ☒
9	An offset statement explaining that an offset that meets the offset requirements for the native vegetation to be removed has been identified and how it will be secured.	N/A – see below.	Yes ☐ No ☐ N/a ☒

Table 7 details the steps that have been applied to avoid and minimise biodiversity impacts of the proposed development.

Table 7. Steps taken to avoid and minimise biodiversity impacts

Steps taken to avoid and minimise biodiversity impacts
• There is little within the Study Site in terms of native vegetation patches. While the current proposal will include remove the small area that constitutes a native vegetation patch from the site, the vegetation that is present corresponds to vegetation which can often occur in areas subject to inundation despite historical disturbance. • The current proposal includes a Landscape Plan that will see native vegetation installed in the areas surrounding proposed infrastructure, therefore while some of the biodiversity values present and presented across the Study Site will be removed, biodiversity values in the form of trees, shrubs and groundstorey species will also be provided as part of proposed landscaping.

The offset requirements for the removal of native vegetation that are also summarised in Table 8 below.

As the area of Habitat Zone 1 is very small, it is noted that there is no offset applicable for its removal based on the *Native Vegetation Removal Report* that has been generated and is provided in Appendix 7. The provision of an Offset Statement – while required as part of a Basic application pathway – is therefore not deemed applicable

Table 8. Vegetation Clearance and Offset Requirements

Vegetation Clearance	
Assessment pathway	Basic Assessment Pathway
Extent of past plus proposed native vegetation removal	0.001 hectares
No large trees proposed to be removed	0
Location category	Location 1
Offset Requirements	
General offset amount	0.000 general habitat units
Vicinity	Corangamite Catchment Management Authority (CMA) or Surf Coast Shire Council
Minimum strategic biodiversity value score	0.312
Large trees	0 large tree(s)

5. Recommendations

Management of Existing Vegetation

As outlined above, native vegetation meeting the definition of a native patch (Habitat Zone 1) is present within the Study Site however the proposed SCAHC development will see this small patch containing opportunistic wetland species removed.

While this is the case, there remains an opportunity for other existing vegetation within the Study Site, such as the planted trees, shrubs, ornamental grasses and other planted natives to be retained. As some of these trees and shrubs are larger and already established, it is recommended that the proposal aims to avoid their removal as part of the design and incorporate these where practicable.

While the proposal will include new landscaping, retention of these trees will ensure that the habitat value they provide at least for local bird species at present, is not temporality lost from the Study Site in the interim period when other newer installed vegetation is growling and establishing across the site.

Weeds and pathogens

To minimise the risk of introducing weeds onto the site, machinery should be cleaned prior to use and all effort should be made to ensure any materials utilised on the site is clean and free of weed seeds and pathogens.

Management of construction site

The construction site should be clearly marked and managed so that only areas permitted to be disturbed are impacted. This will include keeping construction works to the areas identified as works zone, access, vehicle movement and storage of materials. To ensure the vegetation present on site, particularly the trees, shrubs, ornamental grasses and other planted natives to be retained, are managed appropriately:

- construction works will need to be confined to designated 'Go-Zones', where construction activities and access will take place;
- temporary fencing will need to be installed around the 'Go-Zones' to limit the movement of vehicles and machinery; where there is the potential for subsurface harm to root zones the use of above ground footings should be considered
- erosion and sediment control measures will need to be be implemented, including;
    - drainage management and soil stabilisation measures alongside construction zones near areas likely to exhibit erosion;
    - protocols around management and location of stockpiles, along with restrictions on vehicle movement through fencing;
    - sediment barriers to be erected where necessary to prevent sediment laden runoff
- waste management and chemical management will need to be undertaken to reduce risk of contamination of waterways;
- construction noise, dust and lighting should be minimised as much as possible to avoid any indirect impacts to fauna species, in particular those that may be utilising the Grasstree Park Nature Reserve west of the Study Site beyond the Surf Coast Highway.

6. Summary

The Study Site is largely dominated by a suite of grassy and herbaceous weeds, with planted trees, shrubs and grasses largely around the outskirts of the site. Some native vegetation is also present however, including one small area that meets the definition of a native vegetation patch according to the *Guidelines for the removal, destruction and lopping of native vegetation* (DELWP 2017).

The native vegetation patch identified on site – Habitat Zone 1 – will need to be removed to accommodate the development proposal. This removal is expected to trigger the need for a future Planning Permit under Clause 52.17 of the Surf Coast Planning Scheme, unless it is deemed exempt as regrowth. Note that where a future Planning Permit under Clause 52.17 is indeed required, the Native Vegetation Removal report completed to date indicates that the removal of this patch will not result in the requirement for an offset given its small size.

In addition to Habitat Zone 1, there is additional native vegetation naturally occurring on site, including scattered indigenous ground storey species such as Toad Rush. While the removal of such species may also technically require a Planning Permit under Clause 52.17 unless an exemption applies, again offsets for this removal are not required. It is noted that where it is the case that planted vegetation located on the outskirts of the site may be removed, there is an exemption from the need for a future Clause 52.17 Planning Permit for this vegetation, despite its native vegetation status as defined by the Victorian Planning Provisions. This is an exemption based on their establishment for aesthetic and amenity, as opposed to biodiversity purposes.

Consideration was also given to the potential of the Study Site to support threatened ecological communities listed at the Commonwealth or State level, such communities do not occur within the Study Site. While there is some potential that selected listed fauna species could occasionally make use of the habitat available within the Study Site, there is a low risk that the proposed development of the SCAHC would impact these species and their persistence in the local area in general is unlikely to be affected.

Recommendations have been made to ensure that the development of the SCAHC has regard for the ecological values within and surrounding the site, and the environment including waterways in general. It is essential that measures are put in place to ensure that any of the existing vegetation across the site – particularly the already established trees and shrubs – are retained and protected where possible through both the design process and subsequent construction of the site. These can be incorporated into the proposed landscaping for the site.

7. References

Belcher, C., et al. (2008). *Spotted-tailed Quoll Dasyurus maculatus*. The Mammals of Australia. S. Van Dyck and R. Strahan. Sydney, Reed New Holland.

DELWP (2017). *Exemptions from requiring a planning permit to remove, destory or lop native vegetation - Guidance*. Melbourne, Department of Environment, Land, Water and Planning, Government of Victoria.

DELWP (2017). *Guidelines for the removal, destruction and lopping of native vegetation*. Melbourne, Department of Environment, Land, Water and Planning, Government of Victoria.

DSE (2004). V*egetation Quality Assessment Manual - Guidelines for applying the habitat hectares scoring method, Version 1.3.* Native Vegetation: Sustaining a Living Landscape. D. o. S. a. Environment. East Melbourne, Victoria, Department of Sustainability and Environment.

FFG SAC (2019). *Characteristics of Threatened Communities.* Flora and Fauna Guarantee Act Scientific Advisory Committee. Government of Victoria.

Halse, S. A., et al. (2005). "*Mandora Marsh, north-western Australia, an arid-zone wetland maintaining continental populations of waterbirds*." Emu 105(105): 115-125.

Higgins, I. (2006). "*Vegetation condition mapping and catchment management: The North Central Victorian experience*." Ecological Management & Restoration 7: S68-S71.

Higgins, P. J., Ed. (1999). *Handbook of Australian, New Zealand and Antarctic Birds: Parrots to Dollarbird.* South Melbourne, Victoria, Oxford University Press.

Higgins, P. J. and S. J. J. F. Davies, Eds. (1996). H*andbook of Australian, New Zealand and Antarctic Birds: Snipe to Pigeons.* Melbourne, Oxford University Press.

Marchant, S. and P. J. Higgins (1990). *Handbook of Australian, New Zealand and Antarctic birds - Volume 1 Ratites to Ducks*. Melbourne, Oxford University Press.

Marchant, S. and P. J. Higgins (1993). Ha*ndbook of Australian, New Zealand and Antarctic Birds - Volume 2 Raptors to Lapwings*. Handbook of Australian, New Zealand and Antarctic Birds. Melbourne, Melbourne University Press: 123-551.

Pizzey, G. and F. Knight (2007). T*he Field Guide to the Birds of Australia*. Sydney, Harper Collins Publishers.

Rogers, D. I. (1990). *Hardhead Aythya australis. Handbook of Australian, New Zealand & Antarctic Birds: Ratites to Ducks*. S. Marchant and P. J. Higgins. Melbourne, Oxford University Press. 1.

Simpson, K. and N. Day (2000/2001). *Birds of Australia Version 5.0:* Version 5.0 Compact Disc.

SWIFFT (2017). "*Statewide Integrated Flora and Fauna Teams*." from http://www.swifft.net.au.

Version Control:

Version	Date	Author	Reviewer:	Version notes
0.1	12/12/2022	Michelle Savona	Noemie Seck (Practical Ecology)	Internal Practical Ecology Review
1.0	12/12/2022		David Keele (Turner & Townsend) and Urbis	Draft to Client
2.0	15/12/2022		TBD	Final for Council Approval

Appendix 1. Map

Map provided on following page.

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 74 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Disclaimer

Practical Ecology bears no responsibility for the accuracy and completeness of this information and any decisions or actions taken on the basis of the map. While information appears accurate at publication, nature and circumstances are constantly changing.

PRACTICAL ECOLOGY
ecological restoration & consulting
p: (03) 9484 1555 e: enquiries@practicalecology.com.au

Legend

- Subject Site
- Parcels

Habitat Zone

- EVC 647: Plains Sedgy Wetland

Other

- Planted vegetation
- Toad Rush (plus scattered Nodding Club-sedge)

Details

Mapping by: Ali Nia
Date: 12/13/2022
Version: 1
Aerial photography from Nearmap (Oct. 2022).
Data Source: Base layers courtesy of VicMap,

Map 1. Existing Conditions and Proposed Impacts

Wadawurrung Way, Torquay

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

N

0 5 10 15 m

Scale: 1:600 (Page size A3)

Appendix 2. Flora recorded within Study Site

Family	Origin	Scientific Name	Common Name	Status^		
				EPBC Act	FFG Act	Treaty
Mimosaceae		*Acacia melanoxylon*	Blackwood			
Mimosaceae	*	*Acacia saligna*	Golden Wreath Wattle			
Mimosaceae		*Acacia spp.*	Wattle			
Polygonaceae	*	*Acetosella vulgaris*	Sheep Sorrel			
Alliaceae	*	*Agapanthus praecox subsp. orientalis*	Agapanthus			
Poaceae	*	*Agrostis capillaris*	Brown-top Bent			
Poaceae	*	*Aira spp.*	Hair Grass			
Aizoaceae	*	*Aizoon pubescens*	Galenia			
Casuarinaceae		*Allocasuarina spp.*	Sheoak			
Poaceae	*	*Anthoxanthum odoratum*	Sweet Vernal-grass			
Asteraceae	*	*Arctotheca calendula*	Cape Weed			
Asteraceae		*Asteraceae spp.*	Composite			
Proteaceae		*Banksia integrifolia subsp. integrifolia*	Coast Banksia			
Poaceae	*	*Bromus catharticus*	Prairie Grass			
Poaceae	*	*Bromus catharticus*	Prairie Grass			
Poaceae	*	*Bromus hordeaceus*	Soft Brome			
Poaceae	*	*Cenchrus clandestinus*	Kikuyu			
Poaceae	*	*Cenchrus clandestinus*	Kikuyu			
Caryophyllaceae	*	*Cerastium glomeratum s.l.*	Common Mouse-ear Chickweed			
Myrtaceae	#	*Corymbia maculata*	Spotted Gum		Vu	
Poaceae	*	*Cynodon dactylon var. dactylon*	Couch			
Cyperaceae	*	*Cyperus eragrostis*	Drain Flat-sedge			
Cyperaceae		*Eleocharis acuta*	Common Spike-sedge			
Onagraceae		*Epilobium spp.*	Willow Herb			
Asteraceae	*	*Erigeron spp.*	Fleabane			
Myrtaceae	#	*Eucalyptus leucoxylon subsp. megalocarpa*	Large-fruit Yellow-gum		Cr	
Myrtaceae		*Eucalyptus spp.*	Eucalypt			
Cyperaceae		*Ficinia nodosa*	Knobby Club-sedge			
Asteraceae	*	*Gamochaeta spp.*	American Cudweed			
Hirundinidae		*Hirundo neoxena*	Welcome Swallow			
Poaceae	*	*Holcus lanatus*	Yorkshire Fog			
Asteraceae	*	*Hypochaeris radicata*	Flatweed			
Cyperaceae		*Isolepis cernua s.l.*	Nodding Club-sedge			
Juncaceae	#	*Juncus bufonius*	Toad Rush			

Family	Origin	Scientific Name	Common Name	Status^		
				EPBC Act	FFG Act	Treaty
Poaceae		*Lachnagrostis spp.*	Blown Grass			
Asteraceae		*Laphangium luteoalbum*	Jersey Cudweed			
Poaceae	*	*Lolium perenne*	Perennial Rye-grass			
Fabaceae		*Lotus spp.*	Trefoil			
Lythraceae		*Lythrum hyssopifolia*	Small Loosestrife			
Oxalidaceae	*	*Oxalis pes-caprae*	Soursob			
Plantaginaceae	*	*Plantago coronopus subsp. coronopus*	Buck's-horn Plantain			
Plantaginaceae	*	*Plantago lanceolata*	Ribwort			
Poaceae	*	*Poa annua s.l.*	Annual Meadow-grass			
Iridaceae	*	*Romulea rosea*	Onion Grass			
Polygonaceae		*Rumex spp.*	Dock			
Asteraceae	*	*Sonchus asper s.l.*	Rough Sow-thistle			
Poaceae	*	*Sporobolus africanus*	Rat-tail Grass			
Caryophyllaceae	*	*Stellaria media*	Chickweed			
Fabaceae	*	*Trifolium repens var. repens*	White Clover			
Fabaceae	*	*Trifolium spp.*	Clover			
Poaceae	*	*Vulpia bromoides*	Squirrel-tail Fescue			
Poaceae	*	*Vulpia spp.*	Fescue			

^ Status:
International Treaty: B: Bonn Convention; C: CAMBA; J: JAMBA; R: ROKAMBA.
Conservation status under EPBC Act 1999: EX: Extinct, CR: Critically endangered, EN: Endangered, VU: Vulnerable and CD: Conservation dependant
FFG Act 1998 (2020 status): Cd: Conservation dependant, Cr: Critically endangered, En: Endangered, Ex: Extinct, Th: Threatened, Vu: Vulnerable, En(ExV): Endangered (extinct in Vic)

Appendix 3. EPBC Act PMST Report

Report commences on next page.

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 77 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Nov-2022

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	77
Listed Migratory Species:	57

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	94
Whales and Other Cetaceans:	11
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 79 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	3
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	8
Key Ecological Features (Marine):	None
Biologically Important Areas:	11
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Historic			
Great Ocean Road and Scenic Environs	VIC	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Port phillip bay (western shoreline) and bellarine peninsula	Within 10km of Ramsar site	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area	In buffer area only
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area	In buffer area only
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area	In feature area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 82 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche chrysostoma			
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche salvini			
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Thinornis cucullatus cucullatus			
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
FISH			
Galaxiella pusilla			
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area	In feature area
Nannoperca obscura			
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
FROG			
[Litoria raniformis](#) Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In feature area
INSECT			
[Synemon plana](#) Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			
[Antechinus minimus maritimus](#) Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Isoodon obesulus obesulus](#) Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat likely to occur within area	In feature area
[Petaurus australis australis](#) Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In feature area
[Potorous tridactylus trisulcatus](#) Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Pseudomys novaehollandiae](#) New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
PLANT			
[Amphibromus fluitans](#) River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dodonaea procumbens](#) Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area	In feature area
[Glycine latrobeana](#) Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Lachnagrostis adamsonii](#) Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area	In feature area
[Lepidium aschersonii](#) Spiny Pepper-cress [10976]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Leucochrysum albicans subsp. tricolor](#) Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area	In buffer area only
[Pimelea spinescens subsp. spinescens](#) Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Prasophyllum spicatum](#) Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterostylis chlorogramma](#) Green-striped Greenhood [56510]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterostylis cucullata](#) Leafy Greenhood [15459]	Vulnerable	Species or species habitat likely to occur within area	In feature area

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 86 of 135
Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area	In buffer area only
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat may occur within area	In buffer area only
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Tympanocryptis pinguicolla Victorian Grassland Earless Dragon [66727]	Endangered	Species or species habitat may occur within area	In buffer area only
SHARK			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus			
Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Sternula albifrons](#) Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In buffer area only
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Migratory Marine Species			
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In buffer area only
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In buffer area only
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In buffer area only
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]		Foraging, feeding or related behaviour known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Foraging, feeding or related behaviour known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
[Calidris ruficollis](#) Red-necked Stint [860]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Charadrius bicinctus](#) Double-banded Plover [895]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago megala Swinhoe's Snipe [864]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Foraging, feeding or related behaviour known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In buffer area only
Arenaria interpres Ruddy Turnstone [872]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Foraging, feeding or related behaviour known to occur within area	In feature area
Calidris alba Sanderling [875]		Foraging, feeding or related behaviour known to occur within area	In buffer area only

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 94 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Calidris ruficollis](#) Red-necked Stint [860]		Foraging, feeding or related behaviour known to occur within area overfly marine area	In buffer area only
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
[Charadrius bicinctus](#) Double-banded Plover [895]		Foraging, feeding or related behaviour known to occur within area overfly marine area	In buffer area only
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Charadrius ruficapillus](#) Red-capped Plover [881]		Foraging, feeding or related behaviour known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In feature area
Gallinago megala Swinhoe's Snipe [864]		Foraging, feeding or related behaviour likely to occur within area overfly marine area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Foraging, feeding or related behaviour likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 96 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Himantopus himantopus](#) Pied Stilt, Black-winged Stilt [870]		Foraging, feeding or related behaviour known to occur within area overfly marine area	In buffer area only
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
[Lathamus discolor](#) Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat known to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Foraging, feeding or related behaviour likely to occur within area overfly marine area	In buffer area only
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause
43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 98 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Stercorarius skua as Catharacta skua Great Skua [823]		Species or species habitat may occur within area	In buffer area only
Sternula albifrons as Sterna albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In feature area
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Foraging, feeding or related behaviour known to occur within area overfly marine area	In buffer area only
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In buffer area only
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In buffer area only
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In buffer area only
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In buffer area only
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In buffer area only
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In buffer area only
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In buffer area only
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In buffer area only
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In buffer area only
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Vanacampus margaritifer			
Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Vanacampus phillipi			
Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
Mammal			
Arctocephalus forsteri			
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
Arctocephalus pusillus			
Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In buffer area only
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata			
Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus			
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Caperea marginata			
Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Breamlea F.F.R.	Nature Conservation Reserve	VIC	In buffer area only
Conewarre K47 SS.R.	Natural Features Reserve	VIC	In buffer area only
Point Danger	Marine Sanctuary	VIC	In buffer area only

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included.

RFA Name	State	Buffer Status
West Victoria RFA	Victoria	In feature area

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request	In buffer area only
Mosquito Control	2005/2132	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed	In buffer area only
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica			
Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In buffer area only
Ardenna tenuirostris			
Short-tailed Shearwater [82652]	Foraging	Known to occur	In buffer area only
Morus serrator			
Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 105 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Scientific Name	Behaviour	Presence	Buffer Status
[Pelagodroma marina](#) White-faced Storm-petrel [1016]	Foraging	Known to occur	In buffer area only
[Pelecanoides urinatrix](#) Common Diving-petrel [1018]	Foraging	Known to occur	In buffer area only
[Thalassarche cauta cauta](#) Shy Albatross [82345]	Foraging likely	Likely to occur	In buffer area only
Whales			
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Distribution	Known to occur	In buffer area only
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging	Likely to be present	In buffer area only
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Migration and resting on migration	Known to occur	In buffer area only

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 106 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

PRACTICAL ECOLOGY
ecological restoration & consulting

Appendix 4. 5km VBA records of listed flora species

Status:
Conservation status under EPBC Act 1999: EX: Extinct, CR: Critically endangered, EN: Endangered, VU: Vulnerable and CD: Conservation dependant
FFG Act 1998 (2020 status): Cd: Conservation dependant, Cr: Critically endangered, En: Endangered, Ex: Extinct, Th: Threatened, Vu: Vulnerable, En(ExV): Endangered (extinct in Vic)

Source	EPBC	FFG	Origin	Scientific name	Common name	Habitat/species notes	# recorded	Last record	Likelihood	Likelihood Reasoning	Risk of Impact	Impact Reasoning
VBA		Cr	#	*Acacia cupularis*	Cup Wattle	Although mostly coastal or near-coastal throughout its range, it is known in Victoria from only Wyperfeld and Little Desert National Parks and near Dimboola. Grows in sand, sometimes on dunes, or in loam or sandy clay in mallee communities. Flowers mostly Sep.-Oct.	3	2004	Low	The site is highly degraded with the Acacias present planted rather that being site remnant.	Low	Species not expected to occur.
VBA		En		*Acacia uncifolia*	Coast Wirilda	Occurs from near Geelong to Wilsons Promontory, mainly on coastal dunes or near saltmarsh, chiefly on calcareous sand and sandy loam soils. Flowers year-round, mostly Oct.-Nov.	13	2017	Low	Records for this species are clustered in coastal vegetation to the west of the Study Area. The site is highly degraded with the Acacias present planted rather that being site remnant.	Low	Species not expected to occur.
PMST	VU			*Amphibromus fluitans*	River Swamp Wallaby-grass	Largely confined to permanent swamps, principally along the Murray River between Wodonga and Echuca, uncommon to rare in the south (e.g. Casterton, Moe, Yarram), probably due to historic drainage of wetlands. Sometimes forming loose turf-like colonies at the edge of receding waters and then spikelets tend to be smaller than typical (represented by the bracketed values in the above description). Flowers Nov.-Mar.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA		En		*Cladium procerum*	Leafy Twig-sedge	Occasional in swampy areas and margins of streams and lakes near the coast, tolerating low to moderate levels of salinity. Flowers spring-summer.	3	2007	Low	Habitat preferences for this species not met; site is highly degraded and not likely to support this species.	Low	Species not expected to occur.
VBA		Vu	#	*Corymbia maculata*	Spotted Gum	Only known in Victoria from the Mottle Range, south of Buchan. Flowers Jul.-Sep.	2	2019	**Present**	Spotted Gum is present on site as planted individuals; the species does not however naturally occur at this location.	**Possible**	Planted individuals of this species are to be removed to accommodate the proposed development, however as these individuals are planted and not naturally occurring a Protected Flora Permit under the FFG Act is not likely to be required.
PMST	VU		#	*Dodonaea procumbens*	Trailing Hop-bush	Largely confined in Victoria to the south-west (Penola-Dergholm area, Grampians, Lake Fyans) with outlying occurrences near Castlemaine, Avoca, Skipton, Camperdown and extraordinary disjunctions near Sale where very rare and in perhaps also in the upper Murray River area (represented by a single, 1883 specimen of uncertain provenance). Grows in low-lying, often winter-wet areas in woodland, low open-forest and grasslands on sands and clays. Flowers summer.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA	EN	En	#	*Eucalyptus crenulata*	Buxton Gum	Confined to swampy sites in foothills just north and south of the Great Dividing Range, near Buxton, Narbethong and Yarra Glen where it forms hybrids at points of contact with the far more widespread Swamp Gum, E. ovata. Also sparingly stablished at Traralgon in Victoria. Flowers Sep.-Feb.	1	1998	Low	The site is highly degraded and the Eucalypts present on site have been planted and were not Buxton Gum.	Low	Species not expected to occur.
VBA		Cr		*Eucalyptus leucoxylon subsp. bellarinensis*	Bellarine Yellow-gum	Apparently restricted to the Bellarine Peninsula near Ocean Grove and Torquay and inland to near Wallington and Connewarre, mostly on clay and clay-loam soils.	173	2021	Low	The site is highly degraded and the Eucalypts present on site have been planted and were not Bellarine Yellow-gums.	Low	Species not expected to occur.
PMST	VU	Vu		*Glycine latrobeana*	Clover Glycine	Widespread but of sporadic occurrence and rarely encountered. Grows mainly in grasslands and grassy woodlands. Flowers mostly Sep.-Dec.(-Feb. at higher altitudes).	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA		En		*Juncus revolutus*	Creeping Rush	Restricted to damp saline or subsaline communities near the coast, with a small number of outlying populations around saline lakes on the Volcanic Plain. Flowers Oct.-Jan., seeds shed mainly Dec.-Apr.	2	2000	Low	There are only two records for this species within a 5km radius of the Study Site. While the site was damp during the field survey undertaken, the saline communities and salt lakes this species is generally affiliated with are not present on site.	Low	Species not expected to occur.
PMST	EN	En		*Lachnagrostis adamsonii*	Adamson's Blown-grass	Occurs in and around saline depressions on the Volcanic Plain where recorded from Portalington west almost to the South Australian border. Flowers Nov.-Feb.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA and PMST	VU	En		*Lepidium aschersonii*	Spiny Peppercress	Mostly on heavy clay soil near salt lakes on volcanic plain, but with outlying records from near Lake Omeo (in 1940 &1981) and the Grampians (in 1893). Flowers spring-autumn.	1	2004	Low	While there is one record within 5km of the Study Area near Breamlea, there are additional records further east within the Breamlea Flora and Fauna Reserve and north towards Geelong. Given the levels of site disturbance and observations of species during the field surveys this species is not likely to occur.	Low	Species not expected to occur.
PMST	EN	En		*Leucochrysum albicans subsp. tricolor*	White Sunray	Very rare in Victoria, the only recent collections from volcanic grassland remnants in the Wickliffe, Willaura, Streatham, Inverleigh and Creswick districts. All other Victorian collections were made last century, from e.g. Mt Cole, the Grampians and the Port Fairy district. Flowers Nov.-Dec.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA		En	#	*Melaleuca armillaris subsp. armillaris*	Giant Honey-myrtle	Mainly confined to near-coastal sandy heaths, scrubs slightly raised above saltmarsh, riparian scrubs, rocky coastlines and foothill outcrops eastwards from about Marlo. Occurrences to the west are naturalized from cultivated stock. Flowers summer.	9	2022	Low	Local records of this species would be from planted specimens given location of natural occurrences of this species. The species was not observed on site during the field survey.	Low	Species not expected to occur.
PMST	CR	Cr		*Pimelea spinescens subsp. spinescens*	Spiny Rice-flower	Grows in grassland, open shrubland and occasionally woodland, often on basalt-derived soils. Mostly west of Melbourne (to near Horsham), but extending as far north as Echuca. Flowers Apr.-Aug.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.

Source	EPBC	FFG	Origin	Scientific name	Common name	Habitat/species notes	# recorded	Last record	Likelihood	Likelihood Reasoning	Risk of Impact	Impact Reasoning
VBA		En		*Poa billardierei*	Coast Fescue	Of scattered occurrence on coastal sand dunes from near Nelson in the far south-west to the NSW border, but infrequently collected in recent times and possibly being displaced by the superficially similar, introduced Marram-grass (Calamagrostis arenaria (L.) Roth). Flowers mainly Sep.-Oct.	1	2011	Low	Habitat that typically supports this species not present within the Study Area and there has been historical disturbance across the site. The one record for the species on the VBA is located close to the Torquay coastline further east of the Study Area and the Torquay township.	Low	Species not expected to occur.
VBA		En		*Pomaderris halmaturina subsp. continentis*	Glenelg Pomaderris	Occasional along the lower Glenelg river in the far south-west of Victoria where occurring on limestone-derived and alluvial soils, with a disjunct easterly occurrence near Torquay. Usually growing in shrubland or shrubby open-forest. Flowers Oct.-Nov.	1	1994	Low	Only one record within 5km of the site, with this being to the north of Breamlea. Other records also in this area along Thompson Creek. Species is highly degraded with no individuals of this genus observed on site during the field survey.	Low	Species not expected to occur.
PMST	VU	Cr		*Prasophyllum spicatum*	Dense Leek-orchid	Grows in coastal heath and sandhills. Flowers Aug.-Nov. Localised across southern Victoria in coastal heathland and near-coastal heathy forest on sandy soils. Flowers Oct.-Dec.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
PMST	VU	En		*Pterostylis chlorogramma*	Green-striped Greenhood	Apparently localized in Victoria, but exact range uncertain due to confusion with closely allied species. Grows in moist areas of heathy and shrubby forest, on well-drained soils. Flowers Jul.-Sep.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
PMST	VU			*Pterostylis cucullata*	Leafy Greenhood	Widely distributed but disjunct, mostly occurring in small groups in coastal areas, sometimes near inland watercourses. Flowers Aug.-Oct.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA		En		*Roepera billardierei*	Coast Twin-leaf	Found in coastal areas west from Wilsons Promontory where found on dunes and limestone cliffs in scrubby vegetation. Flowers mostly Jun.-Dec.	1	2006	Low	Habitat that typically supports this species not present within the Study Area and there has been historical disturbance across the site. The one record for the species on the VBA is located close to the Torquay to Breamlea coastline to the north east of the Study Area.	Low	Species not expected to occur.
PMST	EN	En		*Rutidosis leptorhynchoides*	Button Wrinklewort	In Victoria confined to basaltic grasslands between Rokewood and Melbourne where endangered due to loss of habitat (formerly occurring as far west as Casterton, and on the Gippsland Plain near Newry). Flowers mostly late spring and summer.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
PMST	VU	Cr		*Senecio macrocarpus*	Large-headed Fireweed	In Victoria largely confined to remnant Themeda grasslands on loamy clay soils derived from basalt from near Melbourne west to Skipton area. Also known from auriferous ground near Stawell. Formerly recorded from near Horsham and Casterton, but apparently long extinct from these areas. Flowers Aug.-Oct.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
PMST	VU			*Senecio psilocarpus*	Swamp Fireweed	Rare, restricted in Victoria to a few herb-rich winter-wet swamps throughout the south of the state, west from Sale, growing on volcanic clays or peaty soils. Flowers Nov.-Mar.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
PMST	EN	En		*Thelymitra epipactoides*	Metallic Sun-orchid	Grows mostly in coastal heathland, grassland and woodland, but extending further inland into similar habitats in the western part of its range. Substrates may be moist or dry sandy soils. Flowers Sep.-Nov.	N/A	N/A	Low	While the vegetation types that would have historically occurred within the Study Area and surrounding landscape may have once supported this species, there are no local records of its occurrence on the VBA. Based on site disturbance and lack of records the species is not expected to occur.	Low	Species not expected to occur.
PMST	VU	En		*Thelymitra matthewsii*	Spiral Sun-orchid	Widely distributed but rare, in coastal sandy flats or slightly elevated sites (to 400 m) in well-drained soils (sandy loams to gravelly limestone soils) in open forest. Plants colonise disturbed sites and slowly disappear as these sites stabilise. Flowers Aug.-Sep.(-Oct.).	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.
VBA		En		*Xanthosia leiophylla*	Parsley Xanthosia	Uncommon in Victoria, where known from sandy heathland and heathy woodland, mostly in the south-west, but also recorded from Wilsons Promontory. Flowers spring and summer.	1	2017	Low	The one record within 5km on the VBA is located within the Grasstree Park Nature Reserve immediately to the west of the Study Site over the Surf Coast Highway; records across Victoria are quite scattered. While the Study Area os mapped by DELWP as EVC 892: Heathy Woodland / Sand Heathland Mosaic and this record is very close to the site, the site itself is highly degraded and subject to ongoing slashing. It is therefore not expected to support this species.	Low	While there is one record for this species in close proximity to the site, it occurs in bushland to the west of the Surf Coast Highway. Species not expected to occur within the Study Area.
PMST	VU	Cr		*Xerochrysum palustre*	Swamp Everlasting	Occurs in lowland swamps, usually on black cracking clay soils, scattered from near the South Australian border north-west of Portland to Bairnsdale district, but rare due to habitat depletion. Flowers Nov.-Mar.	N/A	N/A	Low	There are no records for this species within 5km of the Study Area on the VBA. Habitat that typically supports this species not present within the Study Area and the site is quite disturbed.	Low	Species not expected to occur.

PRACTICAL ECOLOGY
ecological restoration & consulting

Appendix 5. 5km VBA records of listed fauna species

^ Status:
International Treaty: B: Bonn Convention; C: CAMBA; J: JAMBA; R: ROKAMBA.
Conservation status under EPBC Act 1999: EX: Extinct, CR: Critically endangered, EN: Endangered, VU: Vulnerable and CD: Conservation dependant
FFG Act 1998 (2020 status): Cd: Conservation dependant, Cr: Critically endangered, En: Endangered, Ex: Extinct, Th: Threatened, Vu: Vulnerable, En(ExV): Endangered (extinct in Vic)

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of impact	Impact Reasoning
VBA			En	*Accipiter novaehollandiae*	Grey Goshawk	The Grey Goshawk has a stronghold in Victoria; particularly the white form in the Otway Ranges, where wet forests and gullies containing Mountain Grey Gum adjoin partly cleared farmlands. They occur in lower densities in similar habitats in the Strzelecki Ranges, Gippsland Plains and Otway Plains. Elsewhere in the State they are occasionally seen in woodlands, dry forests, suburban parks and wooded farmlands (Marchant and Higgins 1993).	17	2018	Low–Moderate	There are a number of records within 5km of the Study Area including two within the Grasstree Park Nature Reserve to the immediate west of the Study Area over the Surf Coast Highway. The species could utilise the Study Area for hunting, although the maintained low grass across the Study Area does reduce the potential for prey items to occur within the Study Area.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. The potential for the species to utilise the site for hunting is generally marginal given site management and its persistence in the local area is also unlikely to be impacted by the proposal.
VBA	B			*Acrocephalus australis*	Australian Reed Warbler	Typically dense, low, aquatic or riparian vegetation. Vegetation with a vertical structure, in and around nearly any type of fresh, brackish or saline wetlands, reeds, cumbungi, pencil rush, over water, river red gum regrowth, weeping willows, bamboos, crops near irrigation channels and public gardens. Widespread in E Australia, mostly south of tropics; clings to stems, forages on floating vegetation. In Vic, occurs throughout lowlands and foothills and only rarely in highlands; most common in wetlands and irrigation areas of mid and upper Murray valley. Largely absent from mountainous areas of North-East and Gippsland districts (Pizzey and Knight 2007) (Higgins 2006)	101	2021	Low	While there are a number of records for this species within 5km of the Study Area, the habitat on site is not likely to support this species.	Low	Species not expected to utilise habitat on site.
VBA or PMST	B,R,J,C		Vu	*Actitis hypoleucos*	Common Sandpiper	Regular, widespread but mostly uncommon summer migrant to Australia (Aug–May) (Pizzey and Knight 2007). Wide range of coastal or inland wetlands, with varying levels of salinity. Mainly muddy margins of rocky shores of wetlands; often around estuaries and deltas of streams; also lakes, pools, billabongs, reservoirs, dams and claypans; associated with mangroves. Large coastal mudflats are not favoured (Higgins and Davies 1996).	10	2017	Low	Local records are located along coastal areas towards Breamlea; habitat for the species does not occur within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		VU	Vu	*Antechinus minimus maritimus*	Swamp Antechinus	Prefers damp habitats with a high percentage of cover of understorey vegetation and has been recorded in forest, woodland, heathland, tussock grassland and sedgeland. The species' preference for sites of low altitude, with a southerly aspect and gentle slope, is consistent with its occurrence close to drainage lines and swamps (Belcher, Burnett et al. 2008).	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area	Nil	Species not expected to utilise habitat on site.
PMST		CR	Cr	*Anthochaera phrygia*	Regent Honeyeater	Its range has contracted dramatically from its historical distribution as the species has suffered badly from broad-scale clearing and complete absence of old growth box-ironbark habitat so that now only around 100 individuals remain wild in Victoria. It is a rare vagrant to the country around Bendigo (where it was once common) and to Gippsland (where it was a regular visitor), and in most years only a handful of birds are seen in eastern Victoria — four-fifths of sightings are from just three locations: Chiltern, the Killawarra, and the Reef Hills. It is highly nomadic in its movements as determined by the need for a nectar rich diet from the flowering of eucalypts particularly Mugga Ironbark Eucalyptus sideroxylon, White Box Eucalyptus albens, Yellow Box Eucalyptus melliodora and Yellow Gum Eucalyptus leucoxylon (SWIFFT 2017).	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences and the habitat available on site, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
VBA			En	*Antigone rubicunda*	Brolga	The Brolga is a large light grey crane with males reaching over (..missing..) and females up to 1 meter tall. It is generally found in tropical, subtropical and temperate freshwater terrestrial wetlands. It is an omnivorous bird eating tubers, grains, insects and molluscs. Numbers in Victoria have reduced due to draining of freshwater wetlands for agriculture (Marchant and Higgins 1993). Occur in the Northern Plains and along adjacent parts of the Murray river as well as on the plains and adjacent foothills of W. Vic. Uses shallow wetlands, farm dams, flooded areas, margins of large lakes, pastures, grasslands, crops and stubbles. Obtains food from the surface of the ground or by digging in moist areas. Nests are usually made on the ground on islands or as isolated mounds within wetlands. Drainage and grazing of wetlands and other human activities have contributed to reductions in numbers.	5	2021	Low	While there are local records for this species, it is not expected to make use of the site given its location and high human activity around the site it is not expected to make use of it.	Low	Species not expected to utilise habitat on site.
VBA or PMST	C,R,J			*Apus pacificus*	Fork-tailed Swift	The Fork-tailed Swift is a migratory species occurring throughout Australia between October–April. This insectivorous species is almost entirely aerial. Occurs over inland plains, often over cliffs or beaches and also over settled areas. Feed aerially, and probably also roost aerially, although rarely seen to land (Higgins 1999, Pizzey and Knight 2007).	13	2020	Low–Moderate	Species could occasionally fly over site; however it is unlikely to make any significant use of the site.	Low	Species rarely lands; development of the site is not likely to impact this highly mobile species.
VBA	C,J			*Ardea alba*	Great Egret	Habitat includes terrestrial wetlands, estuarine, littoral and moist grass habitats. Forages in open, shallow water and generally avoids dry or deeply flooded areas. Breed in wetlands with fringing or flooded trees, or other tall vegetation in which nests are built. Are known to use mangroves along the coast. Roosts in trees or near wetlands (Marchant and Higgins 1990).	135	2021	Moderate	Species could occasionally fly over site; however it is unlikely to make any significant use of the site.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. TIts persistance in the local area is also unlikley to be impacted by the proposal.
PMST	JR			*Ardenna carneipes*	Flesh-footed Shearwater	Breeds on Norfolk and Lord Howe Island, in south WA in Recharche Arch. and islands west to Carnavran Ras (WA). In east Aust common in n NSW to SE Queensland in Summer. Rare in Vic, Bass Strait and Tas. Also breeds in NZ and Sth Atlantic. (Pizzey and Knight, 2012)	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of Impact	Impact Reasoning
VBA or PMST	C,J			*Ardenna grisea*	Sooty Shearwater	Nests on islands and headlands in large colonies. Burrows are dug for breeding under tussock grass, low scrub and on the Snares Islands under Olearia forest. Birds typically do not return to their natal colonies until the age of four. The species feeds on fish, crustacea and cephalopods, which are caught while diving. Short (1-3 days) and long (5-15 days) provisioning trips are made by parents; longer trips allow foraging along the Antarctic Polar Front, reducing competition close to breeding grounds and allowing vast colonies to persist (Weimerskirch 1998).	2	1987	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA	J,R			*Ardenna tenuirostris*	Short-Tailed Shearwater	Marine and pelagic species. Common to very abundant in summer off E.Australia. Migrates May - Aug to N.Pacific. Nests are sparse and made of grass and leaves. Burrow is 0.5-2m long, usually under tussocks. Typically found in island colony, breeding habitat consists of native and modified grasslands, herb fields, bracken, scrubland, open forest, occasionally on cliffs of consolidated sand and on bare ground (Pizzey and Knight 2007) (Marchant and Higgins 1990).	1909	2021	Nil	Pelagic species that is not expected to utilise habitat within Study Area	Nil	Species not expected to utilise habitat on site.
VBA or PMST	B,R,J,C		En	*Arenaria interpres*	Ruddy Turnstone	Breeds in high Arctic, migrates to all southern continents. Regular summer migrant (Aug-April) to coastal Australia and Tas; some travel inland in May over winter. Habitat consists of tidal reefs and pools, weed-covered rocks, pebbly, shelly and sandy shores with stranded seaweed, mudflats, occasionally shallow ilnand waters, sewage ponds, commercial saltfields and open or ploughed ground (Pizzey and Knight 2007, p. 184).	5	2017	Low	While open ground is present within the Study Site, the habitat that is generally utlised by this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA			Vu	*Aythya australis*	Hardhead	Hardheads inhabit deep to shallow wetlands with open water and fringing emergent vegetation (Pizzey and Knight 2007). The species feeds by diving in deep water and occasionally by dabbling just under the water surface (Rogers 1990). Nests are built in thick vegetation (e.g. reeds, lignum, cumbungi), usually over water (Rogers 1990, Halse, Pearson et al. 2005). These birds are most common in the wetland systems of inland Australia (Halse, Pearson et al. 2005). Birds do visit Victoria from these areas in spring and summer, returning as the northern wetlands are replenished by rain {Halse, 2005 #5978}. However, some birds are present in Victoria all year round depending on the suitability of the wetland {Pizzey, 2007 #4773}.	263	2020	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA			Vu	*Biziura lobata*	Musk Duck	Usually seen in small numbers on the deep waters of well-vegetated fresh to saline lakes, swamps and occasionally shallow inlets and bays. Nests are formed in low vegetation in areas sheltered by surrounding vegetation {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	5	2013	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		EN	Cr	*Botaurus poiciloptilus*	Australasian Bittern	This species is part nocturnal and forages over water in dense cover, sometimes from platforms in wetland vegetation. Habitat is usually tall reedbeds, sedges, rushes, cumbungi or lignum. Also occurs on rice fields, drains in tussocky paddocks and occasionally on saltmarshes and brackish wetlands. Nests are shallow saucers on trampled water plants {Pizzey, 2007 #4773}.	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
VBA	C,J			*Bubulcus coromandus*	Eastern Cattle Egret		26	2018	Moderate	Species could occasionally fly over site; however it is unlikely to make any significant use of the site.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.
VBA or PMST	B,R,J,C			*Calidris acuminata*	Sharp-tailed Sandpiper	Inhabits tidal mudflats, saltmarshes, mangroves, shallow fresh, brackish or saline inland wetlands, floodwaters, irrigated pastures and crops, sewage ponds and minefields. Breeds in Arctic Siberia, migrates to south and south east Asia. Widespread summer migrant to coastal and inland Aust and Tasmania (Aug - April), mostly SE. Aust, Murray Darling Basin and W. Vic {Pizzey, 2007 #4773}.	1205	2015	Low	While there are numerous records for this species, these generally occur closer to the coast and in and around Breamlea. The potential for this species to make use of the Study Area is generally low.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.
VBA or PMST	B,R,J,C			*Calidris alba*	Sanderling	Summer migrants to Vic from their tundra breeding grounds north of the Arctic Circle. Some non-breeding birds may remain in Vic over winter (e.g. over 100 have been reported during winter in the Corner Inlet-Wilsons Promontory area). Flocks occur on sandy ocean beaches (especially those protected by offshore reefs), with regular populations of a few hundred birds along the south-western coast and in the Corner Inlet-Wilsons Promontory area. Occasionally individuals and small flocks occur in similar habitat elsewhere along the coast as well as in Port Phillip Bay and Western Port. Sanderlings feed from the wave-washed zone of beaches and among piles of accumulated seaweed.	13	2020	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST	B,R,J,C	EN	En	*Calidris canutus*	Red Knot	Summer migrants to Vic from their Arctic breeding grounds in Siberia and Alaska. Young non-breeding birds may remain during winter, especially in Corner Inlet and hundreds in similar habitat in Port Phillip Bay (mainly Queenscliff and Mud Islands). Small flocks irregularly occur elsewhere along the coast and there are a few inland records (e.g. round saline lakes near Colac). Red Knots feed by probing in soft sand or mud at the edge of water or while wading. During high tides they may move to nearby lakes, sewage lagoons and floodwaters to continue feeding, although usually they roost with other waders on spits and islets.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA or PMST	B,R,J,C	CR	Cr	*Calidris ferruginea*	Curlew Sandpiper	Summer migrants to Victoria from Arctic breeding grounds (Aug-April). This species is found in a range of wetland habitats: tidal mudflats, saltmarsh, saltfields, fresh to saline wetlands, both coastal (most) and inland. Also visits sewage ponds {Pizzey, 2007 #4773}.	7	2018	Low	While there are seven records for this species within a 5km radius of the Study Area, most records are from undeveloped areas towards Breamlea and Barwon Heads. Furthermore, the habitat on site is unlikely to support this species.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of Impact	Impact Reasoning
VBA or PMST	B,R,J			*Calidris melanotos*	Pectoral Sandpiper	Summer migrant (Aug-April) {Pizzey, 2007 #4773}. Mainly shallow, fresh to saline wetlands; usually coastal but are occasionally found inland. Habitat includes coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands. Forage in shallow water or soft mud at the edges of wetlands and often close to low fringing or emergent vegetation {Higgins, 1996 #5972}.	1	2019	Low	Low number of records, habitat on site unlikely to support this species.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.
VBA or PMST	B,R,J,C			*Calidris ruficollis*	Red-necked Stint	In Australia, Red-necked Stints are found on the coast, in sheltered inlets, bays, lagoons, estuaries, intertidal mudflats and protected sandy or coralline shores. They may also be seen in saltworks, sewage farms, saltmarsh, shallow wetlands including lakes, swamps, riverbanks, waterholes, bore drains, dams, soaks and pools in saltflats, flooded paddocks or damp grasslands. They are often in dense flocks, feeding or roosting.	3683	2021	Low-Moderate	As the site contains damp open grassed areas, there is some potential that the species could occasionally utilise the Study Area. While this is the case the habitat in the surrounding landscape provides much more suitable habitat for the species, with most local records on the Atlas of Living Australia closer to the coastline between Breamlea and Barwon Heads.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal. Its persistence in the local area is also unlikely to be impacted by the proposal.
VBA or PMST		EN		*Callocephalon fimbriatum*	Gang-gang Cockatoo	During summer, the Gang-gang Cockatoo is found in tall mountain forests and woodlands, with dense shrubby understoreys. In winter, Gang-gangs will move to lower altitudes into drier, more open forests and woodlands. At this time, they may be seen by roadsides and in parks and gardens of urban areas. They require tall trees for nest hollows. They eat berries, fruits, nuts, and insects and their larvae. (Birdlife Australia webpage - https://birdlife.org.au/bird-profile/gang-gang-cockatoo)	132	2020	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA or PMST	B			*Charadrius bicinctus*	Double-banded Plover	Occurs in southe and east Australia from about mid-Feb to late August. Mainly coastal and near coastal in Australia, using firm tidal flats and nearby short open saltmarsh and freshwater wetalnds; It also ventures inland to open grasslands and short-cropped pasture, usually near water. (The Australian Bird Guide, Peter Menkhorst)	2995	2021	Low	Habitat for this species not present within the Study Area despite the high number of local records; more suitable habitat in local landscape and species not likely to make any significant use of the Study Area.	Low	Species not expected to utilise habitat on site.
PMST	B,R,J,C	VU	Vu	*Charadrius leschenaultii*	Greater Sand Plover	Also known as the Large Sand Plover. They are summer migrants to Vic from their central Asian breeding grounds. Non-breeding birds have been recorded here occasionally during winter. During summer, small numbers of birds (usually fewer than 10) regularly occur on intertidal mudflats at Queenscliff and Mud Islands in Port Phillip Bay, at Tortoise Head and Rama Island in Western Port, and in Corner Inlet. In these places they usually accompany flocks of Mongolian Plovers and can be difficult to identify. Individuals or groups of two or three Great Sand Plovers occasionally occur elsewhere along the coast (i.e. Bunyip River and Yallock Creek in Western Port). These plovers catch their food from the surface of mud or sand.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B,R,J,C	EN	En	*Charadrius mongolus*	Lesser Sand Plover	Also known as the Mongolian Plover. Summer migrants to Vic from their northern hemisphere breeding grounds. Usually coastal, in littoral and estuarine environments; rarely inland around terrestrial wetlands. Feed mostly on freshly exposed intertidal sandflats and mudflats of estuaries, beaches, banks, spits and bars of sand or shells. Roosts on beaches, banks, spits and bars of sand or shells on beaches, or in estuarine lagoons near feeding grounds {Marchant, 1993 #703}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			Vu	*Dasyornis broadbenti caryochrous*	Rufous Bristlebird (Otway's ssp.)	Prefers coastal scrubs and thickets, gullies with rank growth of sword-grass and in blackberries. Has also been identified in gullies in temperate rainforest {Pizzey, 2007 #4773}. According to Higgins and Peter {, 2002 #5584} the species inhabits dense undergrowth of forests and the suitability of a particular habitat is usually not determined by its floristic diversity, but rather by its structure, which must provide low, dense cover overhead and clear ground below for movement.	1	1998	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		EN	En	*Dasyurus maculatus maculatus*	Spot-tailed Quoll	The species is recorded in a range of treed habitats including tropical, subtropical and temperate rainforests, vine thickets, wet and dry sclerophyll forest, woodland and coastal scrub. In Tasmania it also occurs in heathland {Van Dyck, 2008 #5474}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU	En	*Delma impar*	Striped Legless Lizard	Found in native grasslands and open grassy woodlands; also known to occur in areas with cover of exotic species. Shelters beneath loose rocks and in grass tussocks {Wilson, 2008 #5486}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B	VU		*Diomedea antipodensis*	Antipodean Albatross	Also known as Gibson's Wandering Albatross, smaller than the nominate race of the Wandering Albatross, it breeds on the Antipodes and Campbell Islands. Outside breeding ranges extensively over Sth Pacific, including to Sth Australia waters, race gibsoni breeds on Auckland Island, forages in Tasman Sea and SW Pacific (Pizzey and Knight, 2012)	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU	Cr	*Diomedea epomophora*	Royal Albatross		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B,J	VU	Cr	*Diomedea exulans*	Wandering Albatross	The Wandering Albatross is a largely pelagic species, with a circumpolar distribution throughout subantarctic and subtropical waters, usually in offshore slope or pelagic waters. This species breeds on subantarctic and Antarctic islands, and is mainly seen off Australian coastlines during the non-breeding period. Sometimes feeding within continental shelf waters, in sheltered harbours or straits, and sometimes even gathering at outfalls of unmodified sewage {Pizzey, 2007 #4773;Marchant, 1990 #5613}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of Impact	Impact Reasoning
PMST	B	EN		*Diomedea sanfordi*	Northern Royal Albatross	The Northern Royal Albatross is largely pelagic with breeding grounds in NZ, and NZ subantarctic islands; during the non-breeding period it has a wide, circumpolar distribution in subantarctic and subtropical waters. It is regularly seen offshore during the non-breeding period, in south-eastern Australia near continental slopes {Pizzey, 2007 #4773;Marchant, 1990 #5613}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			En	*Egretta garzetta*	Little Egret	Inhabits terrestrial wetlands and shallow margins of tidal estuaries and inland lakes and rivers. Feed in shallow water and nest colonially, often with other waterbirds. Stick-nests are usually built in trees over water, although occasionally in reedbeds {Marchant, 1990 #5613}.	14	2018	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		VU	Vu	*Falco hypoleucos*	Grey Falcon	Inhabit grasslands, lightly wooded plains and scrublands of interior Australia. Birds occur sporadically on the periphery of their range, such as NW. Vic. More common in Vic during or after droughts. They surprise their prey on the ground while flying low and fast over open country and also catch prey in flight. They nest in trees, in the disused stick-nests of other birds.	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. While there is some potential that the site could be used for foraging, the reduced cover on site for prey items and lack of local records reduces the potential that this species would occur.	Low	Species not expected to utilise habitat on site.
VBA			Cr	*Falco subniger*	Black Falcon	The Black Falcon has a stronghold in inland Australia. Most Victorian records come from the lowlands and only occasionally from the foothills. It occurs mainly over croplands, grasslands and wooded farmlands. To catch flushed prey, they sweep low over croplands and grasslands and are often attracted by smoke from grassfires and late-summer burning off. This species nests in trees in old stick-nests of other birds {Pizzey, 2007 #4773;Marchant, 1993 #703}.	2	2013	Low	Local records for this species are located towards Breamlea in less built up areas. Site could be potentially utilised as fly-over by this species on route to more suitable habitat.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal even where it was to potentially occur.
PMST		VU	En	*Galaxiella pusilla*	Dwarf Galaxias	Typically occur in slow flowing and still, shallow, permanent and temporary freshwater waterways including swamps, the backwaters of streams and creeks, drains and ditches, usually with dense aquatic, emergent or flooded vegetation. Ephemeral sites require seasonal flooding and linkages to other more permanent populations for population replenishment, therefore wetland connectivity may be critical to survival. They occur across most of southern Victoria, however are sparse in the landscape and more abundant in the south-east of the state, most specifically in Mornington Peninsula & Western Port areas {Allen, 2002 #5968;Victoria, 2006 #5970}.	N/A	N/A	Nil	No waterbodies present on site that would support this species.	Nil	No waterbodies present on site that would support this species.
VBA or PMST	B,R,J,C			*Gallinago hardwickii*	Latham's Snipe	Latham's Snipe is a migratory species. The species migrates to Victoria from breeding grounds in Japan. In Victoria this species is widely distributed in a range of habits including heavily vegetated freshwater swamps, and pools or ditches in heaths or subalpine herblands. Also occurs in small ephemeral wetlands such as wet depressions after floods recede. Generally roosts in thick vegetation during the day, sometimes under shrubs away from wetlands, and will feed in swamps at night. They are occasionally seen feeding during the day. This species feeds by probing in soft mud and rarely moves far from concealing vegetation {Higgins, 1996 #5972}.	59	2020	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		VU	Vu	*Grantiella picta*	Painted Honeyeater	The Painted Honeyeater is a summer migrants to Victoria. They are generally found to inhabit box-ironbark, Broad-leaved Peppermint and Red Stringybark forests and box-buloke woodlands in the northern foothills of the great Divide. May also occur in Red Ironbark, Red Box forests in southern Victoria. They are occasionally found along Murray River valley to Hattah-Kulkyne NP where they inhabit Black Box woodlands. This species is usually found in open stands of old eucalypts that are infested with mistletoes {Higgins, 2001 #5966}.	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences and the habitat available on site, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
VBA	C		En	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	Occurs along the coast (especially the forested coasts of the East Gippsland Plains), on coastal islands, around coastal lakes and along some inland rivers and lakes. Catches prey on, or near the water's surface and also takes refuse from fishing boats. On land they feed from the ground on carrion or occasionally catch live prey. Builds stick-nests in tall eucalypts, particularly River Red Gum, Forest Red Gum and Southern Mahogany. Clearing of forests and woodlands along the coast, near coastal lakes, and along the Murray River, threatens this species. In the Gippsland Lakes region more than half of the known nest sites are on private lands {DSE, 2003 #4987}. Occurs across a range of forests and woodlands throughout Victoria {DSE, 2003 #4987}.	2	2014	Low	Site could be potentially utilised as fly-over by this species on route to more suitable habitat. Habitat on site unlikely to support this species.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal even where it was to potentially occur.
PMST		VU		*Halobaena caerulea*	Blue Petrel	Uncommon winter and spring visitor to Australia and New Zealand. Recorded from East Gippsland in Victoria to Perth in WA; birds recorded at sea {Marchant, 1990 #5613}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			Vu	*Hieraaetus morphnoides*	Little Eagle	Found across mainland Australia and Tasmania. Occurs in mountain forests to nearly treeless plains, occasionally over lakes, beaches and cities. "Rabbits form the main component of the Little Eagle's diet, but where there are no rabbits, they eat a range of small to medium-sized reptiles, birds and mammals, as well as insects. They sometimes also feed on carrion. Prey is captured by soaring or flying slowly overhead or watching from a perch before quickly diving or dropping onto prey on the ground or crashing into the foliage of a tree after arboreal prey. They have even been seen running after prey on the ground.The Little Eagle is seen over woodland and forested lands and open country, extending into the arid zone. It tends to avoid rainforest and heavy forest.Little Eagles nest in mature living trees in open woodland or tree-lined watercourses. They rarely nest in isolated trees. References: https://birdlife.org.au/bird-profile/little-eagle	26	2016	Low	Site could be potentially utilised as fly-over by this species on route to more suitable habitat. Habitat on site unlikely to support this species.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal even where it was to potentially occur.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of Impact	Impact Reasoning
VBA or PMST	C,R,J	VU	Vu	*Hirundapus caudacutus*	White-throated Needletail	In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. Because they are aerial, it has been stated that conventional habitat descriptions are inapplicable. In Australia, White-throated Needletails almost always forage aerially, at heights up to 'cloud level', above a wide variety of habitats ranging from heavily treed forests to open habitats, such as farmland, heathland or mudflats {Higgins, 1999 #5967}.	307	2019	Moderate	Given the number of records and range of habitats this species has been documented flying above, including farmland, there is some potential that is could occur arially over the site at least occasionally.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal.
VBA	C,J		Vu	*Hydroprogne caspia*	Caspian Tern	Mostly found in sheltered coastal embayment's, including harbours, lagoons, inlets, bays, estuaries and river deltas, usually with sandy or muddy margins. Will use artificial wetlands, including reservoirs, sewage ponds and saltworks {Higgins, 1996 #5972}.	57	2019	Low	Most local records for this species are from Breamlea area. Habitat for tis species is not generally present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST		EN	En	*Isoodon obesulus obesulus*	Southern Brown Bandicoot	The Southern Brown Bandicoot is active during both the day and night. It is found in forest, heath and shrub communities. It shelters in a nest of vegetation beneath dense cover; it eats fungi, tubers and arthropods {Menkhorst, 2001 #1259;Paull, 2008 #6009}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA or PMST		CR	Cr	*Lathamus discolor*	Swift Parrot	The Swift Parrot is a winter migrant to Victoria {Swift Parrot Recovery Team, 2001 #4502}. They arrive from their breeding areas in Tasmania, however small numbers of non-breeding birds may remain here during summer {Swift Parrot Recovery Team, 2001 #4502;Higgins, 1999 #5967}. They are nomadic, and follow the flowering of trees and psyllid infestations. In Victoria their distribution is centred on box-ironbark forests, but they are often seen in town parks and occur sporadically elsewhere in dry forests, dry woodlands and wooded farmlands. They are seldom seen in treeless areas, rainforests or wet forests {Higgins, 1999 #5967;Pizzey, 2007 #4773}. Feed mainly in winter-flowering plants, especially Red Ironbarks and ornamental trees and shrubs {Swift Parrot Recovery Team, 2001 #4502;Higgins, 1999 #5967}.	20	2019	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA			Vu	*Lewinia pectoralis*	Lewin's Rail	Inhabits densely vegetated, fresh, brackish or saline wetlands, usually with areas of standing water. Use long tussocky grass, reeds, rushes, sedges or bracken and are occasionally found amongst tangled clumps of weeds such as Blackberries and Lantana {Marchant, 1993 #703}.	2	2001	Low	Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA or PMST	B,R,J,C	VU	Vu	*Limosa lapponica*	Bar-tailed Godwit	Regular summer migrant to Australia (Sept- May); Widespread but scarce to southern Australia, Records indicate regular inland passage. Some overwinter. Found in tidal mudflats, estuaries, sandspits, shallow mission margins, sewage ponds, inland on large shallow, fresh or brackish waters (Pizzey and Knight, 2012)	1	2011	Low	Only one local record. Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA or PMST		VU	Vu	*Litoria raniformis*	Growling Grass Frog	The species often inhabits water bodies with a diverse assemblage of aquatic vegetation, including emergent species such as sedges (Gahnia spp.), submergent species such as curly pondweed (Potamogeton spp.), floating species such as water ribbon (Triglochin spp.) and filamentous algae {Hamer, 2006 #5576;Heard, 2004 #6073}. The aquatic vegetation provides sites for male frogs to call from, sites for eggs to be deposited and relatively safe development, and food and shelter for tadpoles. Dense submergent vegetation is especially important to protect eggs and tadpoles from predation {Heard, 2004 #6073}. However, it is also known to occur in ditches, dams and swamps or sheltering under discarded debris near those sites {Tyler, 2009 #4699`, pp. 38-39}.	1	1988	Low	There is one record for this species from 1988 in a now urbanised area of Torquay. Records further afield are from areas towards Jan Juc and for example Geelong. Habitat for this species is not present and given the few local records, the Study Area is not expected to be part of the areas that the species would disperse across.	Low	Species not expected to utilise habitat on site.
PMST	B	EN	En	*Macronectes giganteus*	Southern Giant-Petrel	The Southern Giant-Petrel is predominantly a pelagic species of marine Antarctic to subtropical waters. Adults are present at Antarctic breeding colonies all year while immature disperse into Subtropical Zones. In summer it is most abundant over Antarctic waters while in winter it can be commonly seen offshore over the continental shelf. Attracted to land at sewage outfalls and scavenge at colonies of penguins and seals {Marchant, 1990 #5613}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA or PMST	B	VU	En	*Macronectes halli*	Northern Giant-Petrel	This species is mostly pelagic with a circumpolar distribution, usually north of the Antarctic convergence. In Australia, the Northern Giant-Petrel is usually seen offshore, where they feed on the sea surface, sometimes shallow-diving, and occasionally scavenging onshore. Immature birds and some adults are common winter-spring migrants to Australian offshore and inshore waters, May-Oct. {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	1	2016	Low	Species is largely observed offshore and not likley to occur within the Study Area.	Low	Species not expected to utilise habitat on site.
VBA	J			*Merops ornatus*	Rainbow Bee-eater	The species occurs in many types of habitat including woodland, shrubland, semi-cleared land and farmland, however it mainly occurs where eucalyptus species are dominant. It is almost entirely insectivorous and mostly occurs near to permanent water {Higgins, 1999 #5967}.	1	2001	Low	Low number of records; habitat on site unlikley to support this species.	Low	Species not expected to utilise habitat on site.
PMST	B			*Monarcha melanopsis*	Black-faced Monarch	Inhabits rainforests, eucalypt woodlands, coastal scrubs, damp gullies in rainforest, eucalypt forest, when migrating more open woodland {Pizzey, 2007 #4773}. Occurs along the eastern-Australian coast (Simpson and Day 2000/2001).	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	##	##	##	*Motacilla flava*	Yellow Wagtail	Habitat requirements are highly variable, but typically include open grassy flats near water. Habitats include open areas with low vegetation such as grasslands, airstrips, pastures, sports fields; damp open areas such as muddy or grassy edges of wetlands, rivers, irrigated farmland, dams, waterholes; sewage farms, sometimes utilise tidal mudflats and edges of mangroves. Breeds from Siberia to west Alaska, migrating to Africa and to Sth and south-eastern Asia, Indonesia and New Guinea. Regular summer migrant to mostly coastal Australia (Pizzey and Knight, 2012) The species is considered a vagrant to Victoria, South Australia and southern Western Australia (SPRATT)	N/A	N/A	Nil	While the habitat available on site could be utilised by this species, there are no local records on the VBA of its occurrence within 5km of the Study Area. There are no records within Victoria on the Atlas of Living Australia for this species.	Nil	Species not expected to utilise habitat on site.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of impact	Impact Reasoning
VBA or PMST	B			*Myiagra cyanoleuca*	Satin Flycatcher	The Satin Flycatcher migrates to southern parts of Victoria during the spring/summer months. It is generally found in many habitat types including wet sclerophyll and woodland particularly along watercourses {Higgins, 2006 #5585}.	2	2014	Low	Low number of records; habitat on site unlikley to support this species.	Low	Species not expected to utilise habitat on site.
VBA or PMST		VU	Vu	*Nannoperca obscura*	Yarra Pigmy Perch	Inhabits small lakes and streams, preferring habitats with flowing water and abundant aquatic vegetation for shelter. It is found in coastal drainages from southern SA to Frankston, Victoria {Allen, 2002 #5968}.	220	2014	Nil	No permanent watercourses likely to support this species present within Study Area.	Nil	No permanent watercourses likely to support this species present within Study Area.
VBA or PMST		CR	Cr	*Neophema chrysogaster*	Orange-bellied Parrot	Breed in south west Tasmania and are winter migrants to Victoria where they are usually present from late March to early Nov, inhabiting coastal habitats such as bays and estuaries in saltmarshes, herbland or low shrublands {Higgins, 1999 #5967}. Much of their winter habitat have been altered and saltmarshes in low rainfall areas have been developed for uses such as salt extraction. Illegal trapping has also reduced numbers.	18	1991	Low	Local records for this species located east of the site at Breamlea and beyond. Habitat on site not likely to support this species	Low	Species not expected to utilise habitat on site.
VBA			Vu	*Ninox strenua*	Powerful Owl	Widespread in foothill and coastal forests where they especially favour gullies with Peppermint-Manna Gum forests. Occasionally seen in wetter mountain forests, drier box-ironbark forests and woodlands, and softwood plantations. Hunts at night by flying through the forest canopy catching prey from tree branches. They nest in large holes in trees {DSE, 2004 #4990}.	1	2007	Low	Only one local record. Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST	B,R,J,C	CR	Cr	*Numenius madagascariensis*	Eastern Curlew	Common summer migrant to Australia (Aug-May) {Pizzey, 2007 #4773}. Found in sheltered coasts, especially estuaries, embayments, harbours, inlets and coastal lagoons with large intertidal mudflats or sandflats. Mainly forages on soft sheltered intertidal sandflats or mudflats, open and without vegetation, also on saltflats and in saltmarsh {Higgins, 1996 #5972}.	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences and the habitat available on site, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
PMST	B,R,J,C			*Numenius minutus*	Little Curlew		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			Vu	*Oxyura australis*	Blue-billed Duck	This species inhabits deep, permanent, well-vegetated swamps, but at times (especially in winter) may occur in large numbers on large open wetlands. The Blue-billed Duck catches food while diving or occasionally by feeding from the water surface. Their nests are built on trampled swamp vegetation around the base of established stands of reeds/rushes, often over water or on small islands {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	6	2002	Low	No permanent watercourses likely to support this species present within Study Area;	Low	No permanent watercourses likely to support this species present within Study Area.
PMST				*Pachyptila turtur*	Fairy Prion	The Fairy Prion is a pelagic species of the subtropic and subantarctic seas. It is abundant in south-eastern Australian waters, and is commonly seen offshore over the continental shelf. This species has a few small breeding colonies on Australian shores, near Portland, Wilson's Promontory, and on some Bass Strait islands {Marchant, 1990 #5613}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA	B			*Pandion cristatus*	Eastern Osprey	Founds on coasts and islands of Australia, now rare or absent far S. NSW, Vic, Tas, Bass Strait and far SE. SA, though breeds on Yorke and Eyre Peninsula and Kangaroo Island (SA). Breeds N. from C. Newcastle to L. Macquarie (NSW), all coastal Queensland: Great Barrier Reef; N. Australia and WA, possibly except Eight Mile Beach, extends E. To Kangaroo Island (SA). Sedentary, dispersive and cosmopolitan. Habitat is coasts, estuaries, bays, inlets, islands and surrounding waters, coral atolls, reefs, lagoons, rock cliffs and stacks. Ascends larger rivers particularly in north, but also Murray River, SA; ventures far inland. {Pizzey, 2007 #4773}	2	2013	Low	Site could be potentially utilised as fly-over by this species on route to more suitable habitat. Habitat on site unlikely to support this species.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal even where it was to potentially occur.
PMST		CR	Cr	*Pedionomus torquatus*	Plains-wanderer	Main distribution is within the Riverina of NSW, patchy elsewhere, and only occurring in small numbers in northern Victoria. Inhabits open grasslands with preference towards Danthonia and Stipa species. However, vegetation structure is more important than floristic composition. Does not occur in dense grasslands and woodlands {Marchant, 1993 #703;Pizzey, 2007 #4773}.	N/A	N/A	Low	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences and the habitat available on site, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
VBA			En	*Pelagodroma marina*	White-faced Storm-Petrel	Temperate and subtropical regions of Atlantic, Indian and S. Pacific Oceans. Breeds on islands around New Zealand, southern Australia and in Atlantic ocean {Marchant, 1990 #5613}.	7	2019	Low	Strictly pelagic outside the breeding season, and this, together with its often-remote breeding sites, makes this petrel a difficult bird to see from land. Species is not likely to utilise habitat within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST				*Petaurus australis*	Yellow-bellied Glider		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B	VU	Cr	*Phoebetria fusca*	Sooty Albatross		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA	B,C			*Plegadis falcinellus*	Glossy Ibis	Found in terrestrial wetlands, occasionally wet grasslands and sheltered marine habitats. Forages in shallow water over soft substrate or on grassy or muddy verges of wetlands, preferring those that provide a variety of depths. Will use brackish and occasionally saline wetlands, mangroves and mudflats {Marchant, 1990 #5613; Pizzey, 2007 #4773}.	1	2017	Low	Only one local record. While the Study Area could be deemed a "wet grassland" to some degree at present, the species is not expected to make any significant use of the site given preferable habitat in local area and location of site between busy road and recreational areas and carpark.	Low	Mobile species not expected to be impacted by proposed development even if it was to occur within the Study Area, which is unlikely.
VBA or PMST	B,R,J,C		Vu	*Pluvialis fulva*	Pacific Golden Plover	Found around sandy, muddy or rocky shores, estuaries and lagoons, reefs, saltmarsh, and short grass in paddocks and crops. Usually coastal, including offshore islands and rarely found inland. Roosts near feeding areas on sandy beaches and spits, rocky points, islets and exposed reefs, sometimes under vegetation {Marchant, 1993 #703}.	3	2014	Low	Most local records for this species are from Breamlea area. Habitat for this species is not generally present within the Study Area.	Low	Species not expected to utilise habitat on site.

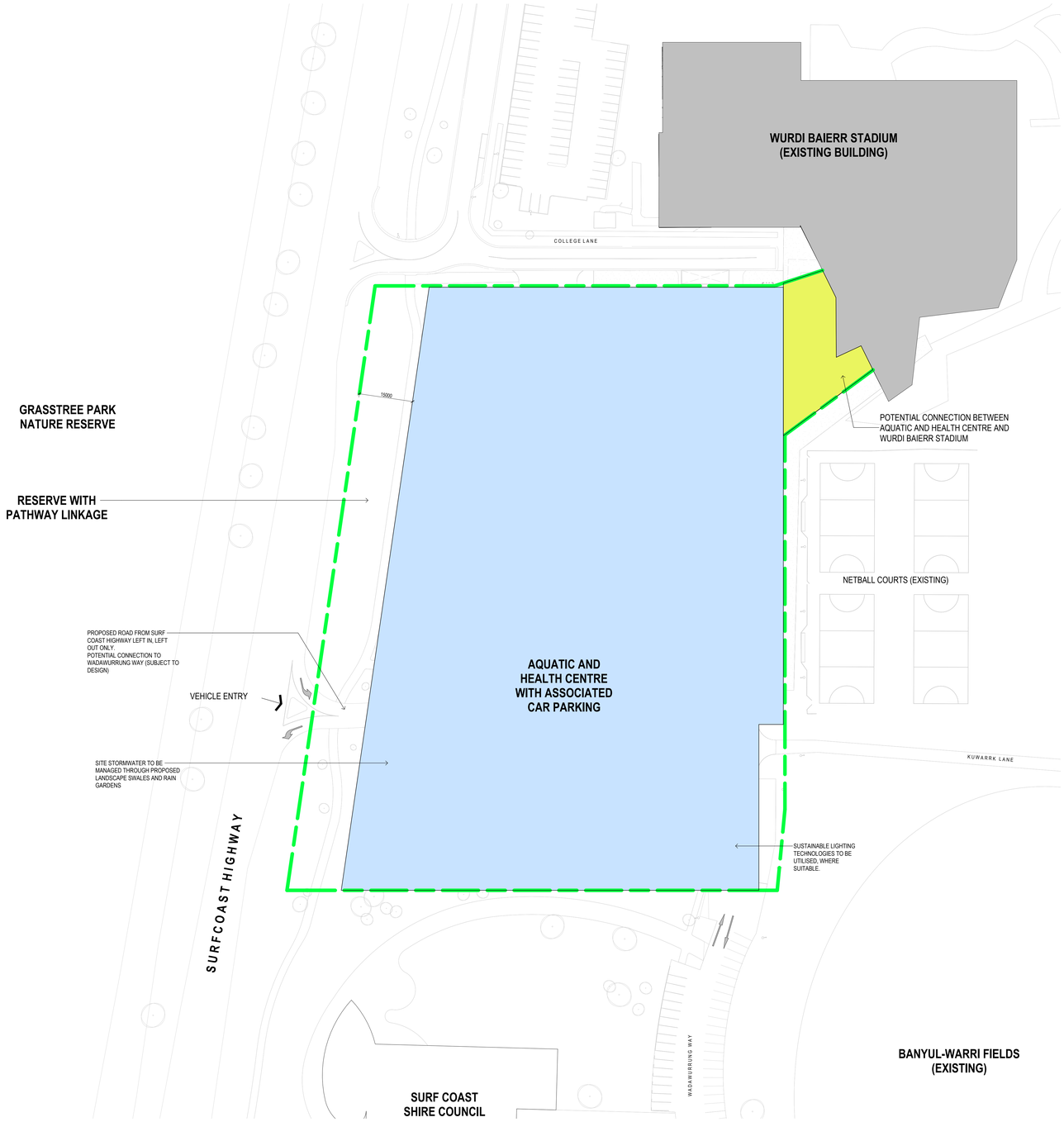
Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of impact	Impact Reasoning
PMST		VU	Vu	*Potorous tridactylus trisulcatus*	Long-nosed Potoroo	The Long-nosed Potoroo is most commonly found in heathy coastal vegetation, dry and wet sclerophyll forests with a dense understorey with a sandy loamy soil. Rarely ventures far from cover and preferred habitat has a relatively thick groundcover {Van Dyck, 2008 #5474}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU	En	*Prototroctes maraena*	Australian Grayling	This species only spends part of its life in freshwater streams, Australian Graylings migrate between freshwater streams and the ocean. Streams where this species occur tend to be clear with gravel bottoms and a variety of instream habitat such as pools and riffles. The upstream migration of this species has been effectively terminated in some rivers by dams {Allen, 2002 #5968}.	N/A	N/A	Nil	No waterbodies present on site that would support this species.	Nil	No waterbodies present on site that would support this species.
PMST		VU	En	*Pseudomys novaehollandiae*	New Holland Mouse	Occurs in heathlands, woodlands, open forest and paperbark swamps and on sandy, loamy or rocky soils. Coastal populations show a preference for sandy substrates with a heath understorey, leguminous shrubs less than 1m high and sparse ground litter. Habitat for burrowing is likely to be an important factor in species distribution {Van Dyck, 2008 #5474}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			En	*Pseudophryne semimarmorata*	Southern Toadlet	The Southern Toadlet can be found in dry forest, woodland, shrubland, grassland and heaths. It shelters under leaf litter and other debris in moist soaks and depressions. Their eggs are spawned in shallow burrows under organic litter in low areas close to water {Hero, 1991 #5583}.	100	2004	Low	There is a single site within 5km of the Study Site with records of this species. Based on site characteristics, historical disturbance and habitat availability, the potential for this species to use the habitat on site is considered low. The leaf ltter and debris required for sheltering by this species is not present.	Low	Species not expected to utilise habitat on site.
PMST		EN		*Pterodroma leucoptera*	Gould's Petrel	Gould's Petrel is a pelagic marine species, spending much of its time foraging at sea and coming ashore only to breed. The Australian subspecies breeds and roosts on two islands off NSW, Cabbage Tree and Boondelbah Islands, and the at-sea distribution is poorly known.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU		*Pterodroma mollis*	Soft-plumaged Petrel		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU	Vu	*Pteropus poliocephalus*	Grey-headed Flying-fox	Eastern coastal Australia from Gladstone in Qld to South Gippsland and Melbourne in Vic, with rare influxes further west and south. Rarely more than 200km inland. In warmer months gathers in very large camps, usually in dense forest in gullies. Population is more dispersed in winter. Size of camps fluctuate in response to local food supplies. In south numbers fluctuate in regular pattern, being highest in late summer-autumn and lowest in winter {Menkhorst, 2001 #1259}.	N/A	N/A	Low	There are no local records for this species within 5km of the Study Area on the VBA which reduces the potential it would occur within the site, although it is noted that there is one record on the Atlas of Living Australia. While the trees on site could provide some foraging habitat if it was to occur, these trees are planted and unikely to be a significant food source. The Study Area would only be used as an occasional foraging site should this species occur locally.	Low	This is a highly mobile species that would not be impacted to any significant degree by the proposed development.
VBA or PMST	B			*Rhipidura rufifrons*	Rufous Fantail	In Victoria, the Rufous Fantail mainly inhabits the undergrowth of temperate rainforests, and wetter eucalypt forests and gullies, but also occurs in paperbark thickets, sub-inland/coastal scrub, along watercourses and within parks/gardens. On migration it is seen at a wide range of locations from farmland to built up streets {Pizzey, 2007 #4773}.	2	2019	Low-Moderate	There is some potential that this species could utilise the planted trees / shrubs present on site given that it can be observed in parks/gardens and in a range of habitat on migration.	Low	This is a highly mobile species that is not likely to be impacted by the development proposal even where it was to potentially occur.
PMST	C	EN	Cr	*Rostratula australis*	Australian Painted Snipe	Generally uncommon in Australia and scattered records in Victoria. Uses terrestrial shallow freshwater (occasionally brackish) wetlands, ephemeral and permanent lakes, swamps, claypans, inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire, often with scattered clumps lignum, canegrass or tea-tree {Marchant, 1993 #703}.	N/A	N/A	Low	The species is known to use waterlogged grasslands however the Study Area is periodically mown and provides little cover for this species. There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Low	Species not expected to utilise habitat on site.
VBA			Vu	*Spatula rhynchotis*	Australasian Shoveler	The Australasian Shoveler occurs mainly on large, well-vegetated wetlands and lakes, occasionally including areas with saline waters. Populations are found in higher numbers on permanent, well-vegetated freshwater swamps with areas of open water. This species nests in grass nests on the ground, usually in dense cover and near water {Pizzey, 2007 #4773;Marchant, 1990 #5613}.	215	2020	Low	While there are a number of records for this species within 5km of the Study Area, the habitat on site is not likley to support this species.	Low	Species not expected to utilise habitat on site.
VBA	C,R,J			*Sterna hirundo*	Common Tern	The species is a non-breeding migrant to Australia, where it is widespread and common on the eastern coast south to eastern Victoria, and common on parts of the northern coast, mainly east of Darwin. Common Terns are marine, pelagic and coastal. In Australia, they are recorded in all marine zones, but are commonly observed in near-coastal waters, both on ocean beaches, platforms and headlands and in sheltered waters, such as bays, harbours and estuaries with muddy, sandy or rocky shores. Occasionally they are recorded in coastal and near-coastal wetlands, either saline or freshwater, including lagoons, rivers, lakes, swamps and saltworks. Sometimes they occur in mangroves or saltmarsh and, in bad weather, in coastal sand-dunes or coastal embayments (Brandis et al. 1992; Chatto 2006; Higgins & Davies 1996; Hitchcock 1965; Morris 1989; Morris et al. 1981, 1990; Wood 1991). Common Terns roost on unvegetated, intertidal sandy ocean beaches, sandy islands, shores of estuaries or lagoons, a	1	2015	Low	Only one local record. Habitat for this species not present within the Study Area.	Low	Species not expected to utilise habitat on site.
PMST	B,R,J,C		Cr	*Sternula albifrons*	Little Tern	The Little Tern is both a breeder and migrant visitor to Australia. It mainly inhabits sheltered coastal waters as it mostly forages in shallow waters in bays, inlets, estuaries, lakes, and lagoons. If out at sea, usually travels not further than 50m. This species particularly favours habitat with exposed sandpits, sandbanks, or ocean beaches nearby {Higgins, 1996 #5972;Pizzey, 2007 #4773}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of impact	Impact Reasoning
PMST		VU	Cr	*Sternula nereis*	Fairy Tern	Mostly sheltered coastal embayments, including harbours, lagoons, inlets, bays, estuaries and ocean beaches. Also fresh or saline near-coastal terrestrial wetlands, including lakes and salt-ponds. Nests above high-water mark on sheltered beaches, spits, bars, banks and ridges, usually of sand but also of shell-grit or coral, either on mainland or on inshore islands {Higgins, 1996 #5972}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA			En	*Stictonetta naevosa*	Freckled Duck	Found in terrestrial wetlands with shallow productive waters or soft mud at wetland edges. In breeding range (Lake Eyre and Murray-Darling Basin) found in densely vegetated waters, particularly flood water swamps and creeks vegetated with lignum. In coastal region , prefers swamps and lakes with dense thickets of Melaleuca, Casuarina or Leptospermum {Marchant, 1990 #5613}.	147	2019	Low	No permanent watercourses likely to support this species present within Study Area;	Low	No permanent watercourses likely to support this species present within Study Area.
PMST		VU	Vu	*Synemon plana*	Golden Sun Moth	It is generally found in temperate grasslands and open grassy woodlands where the ground layer is dominated by native Wallaby Grass. Optimal habitat is dominated by wallaby grasses Austrodanthonia spp with an open tussock structure. It has also been recorded in grasslands dominated by Kangaroo Grass Themeda triandra and exotic dominated grasslands (i.e. Chilean Needlegrass){O'Dwyer, 2000 #1989}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B	VU	En	*Thalassarche bulleri*	Buller's Albatross		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B	VU	En	*Thalassarche carteri*	Yellow-nosed Albatross		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA or PMST	B	EN	En	*Thalassarche cauta*	Shy Albatross	This species breeds on only 3 islands. Immature birds nearly always return to breeding colony within 3 years after fledging. Breeding nests are a mound of soil, grass and roots and located on rock islands. Diet consists of fish, cephalopods and crustaceans caught from the surface or from surface plunges or shallow dives.	53	2018	Nil	Pelagic species with most local records hugging coastline; breeds on three specific islands only.	Nil	Pelagic species with most local records hugging coastline; breeds on three specific islands only.
PMST	B	EN	En	*Thalassarche chrysostoma*	Grey-headed Albatross	The Grey-headed Albatross, has a circumpolar distribution, it has a more subantarctic to Antarctic range in summer, and migrates up to the subtropics in winter. It is strongly pelagic in habit, usually foraging far from continental shelf waters, but this species does occasionally visit inshore and offshore waters in southern Australia during winter and spring {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST		VU		*Thalassarche impavida*	Campbell Albatross	The Campbell Albatross, a subspecies of the Black-browed Albatross, breeds only on Campbell Island in subantarctic NZ. It has a limited range within the south-western Pacific Ocean, including southern Australian waters, and the Tasman Sea. It most commonly visits continental shelf waters of southern Australia during winter {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA or PMST	BR	VU		*Thalassarche melanophris*	Black-browed Albatross	Seen in southern Australian waters, south of the sub-tropics, most of the year. Readily viewed from land. Breeds on many sub-Antarctic islands with a strong connection to birth colony. Nest consists of a solid pile of mud and guano mixed with tussock grass and seaweed and nest is reused each year. Feeds on plankton, squid, cuttlefish, crustaceans and fish. https://birdlife.org.au/bird-profile/black-browed-albatross	12	2019	Nil	Pelagic species with most local records hugging coastline.	Nil	Pelagic species with most local records hugging coastline.
PMST	B	VU		*Thalassarche salvini*	Salvin's Albatross	The Salvin's Albatross has a distribution mostly in the southern Pacific and Indian Oceans, and rarely to the South Atlantic. It is a continental shelf specialist, preferring waters above submarine banks, continental shelfs, and is often seen offshore and inshore, including in harbours and bays {Marchant, 1990 #5613;Pizzey, 2007 #4773}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
PMST	B	VU		*Thalassarche steadi*	White-capped Albatross		N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.
VBA		VU	Vu	*Thinornis cucullatus*	Hooded Plover	The Hooded Plover is endemic to south-eastern and western Australia. This species is mainly a bird of open sandy ocean beaches, and is occasionally found on bay beaches and coastal/inland saltlakes. It prefers broad, flat beaches with wide wash zone, with seaweed wrack and jetsam, and backed by sparsely vegetated dunes. It sometimes uses tidal flats and estuaries, rocky or sand-covered platforms and reefs, generally those near sandy beaches. In Victoria, it is widespread through all coastal areas {Marchant, 1993 #703;Pizzey, 2007 #4773}.	257	2019	Nil	Associated with sandy ocean beaches	Nil	Associated with sandy ocean beaches
VBA or PMST	B,R,J,C		En	*Tringa nebularia*	Common Greenshank	Habitat consists of mudflats, estuaries, saltmarshes, margins of lakes, wetlands, fresh and saline claypans, commercial saltfields and sewage ponds. Regular, widespread summer migrant to Aust. and Tas. (Sept-April). Mostly coastal but can be found inland in suitable habitat. Some occur over winter. (Pizzey and Knight 2007, p.178)	74	2019	Low	Most records from around Breamlea. Habitat on site unlikely to support this species to any significant degree and it is not expected to occur.	Low	Species not expected to utilise habitat on site.
VBA or PMST	B,R,J,C		En	*Tringa stagnatilis*	Marsh Sandpiper	Salt, brackish, or freshwater wetlands, sewage ponds, commercial saltfields, bore drains, mangroves, tidal mudflats, estuaries, regular summer migrant (aug - may), mostly to coastal Aust, widespread but very scattered throughout inland (Pizzey & Knight 2007).	3	2016	Low	Low number of records; habitat on site unlikley to support this species.	Low	Species not expected to utilise habitat on site.
PMST		EN	Cr	*Tympanocryptis pinguicolla*	Grassland Earless Dragon	The Grassland Earless Dragon has not been seen in Victoria since the 1960's. This species is found in plains grassland where it shelters in invertebrate holes in the ground or soil cracks {Wilson, 2008 #5486}.	N/A	N/A	Nil	There are no records for this species on the VBA within 5km of the Study Area. The species has been modelled as having potential habitat through the PMST only. Based on habitat preferences, the species is not expected to make use of the Study Area .	Nil	Species not expected to utilise habitat on site.

Source	Treaty	EPBC	FFG	Scientific name	Common name	Habitat/species notes	No. Individuals	Last record	Likelihood of occurrence	Likelihood Reasoning	Risk of impact	Impact Reasoning
VBA			Cr	*Tyto novaehollandiae*	Masked Owl	Inhabits forests, woodlands and caves. Active in middle storey (Simpson and Day 2000/2001). Inhabits diverse range of wooded habitats that provide tall or dense mature trees with hollows suitable for nesting and roosting, and nearby open areas for foraging {Higgins, 1999 #5967}.	1	1983	Low	Only one dated record for this species. While the site could potentially forage within the site, its potential to persist within the local Torquay area is unlikley.	Low	Species not expected to utilise habitat on site.

Appendix 6. Development Plan

Plan commences on next page.



PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 122 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department
22/12/2022
22/0546 / D22/233629

PEDDLE THORP

Northbank Place East
Level 1, 525 Flinders Street
Melbourne Victoria
Australia 3000

T + 61 03 9923 2222
F + 61 03 9923 2223
E info@pta.com.au
W www.pta.com.au
ACN. 006 975 668

SURF COAST AQUATIC & HEALTH CENTRE
1 MERRIJIG DRIVE, TORQUAY

PROJECT NO: 3-21-0108

REASON FOR ISSUE: SCHEMATIC DESIGN

SITE PLAN
-

REVISION: A

SCALE: 1 : 500 @ A0

DRAWING NO: -

NORTH

8/12/2022 2:44:56 PM

Appendix 7. Native Vegetation Removal Report

Report commences on next page.

Native vegetation removal report

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

Date of issue: **09/12/2022**
Time of issue: **11:50 am**

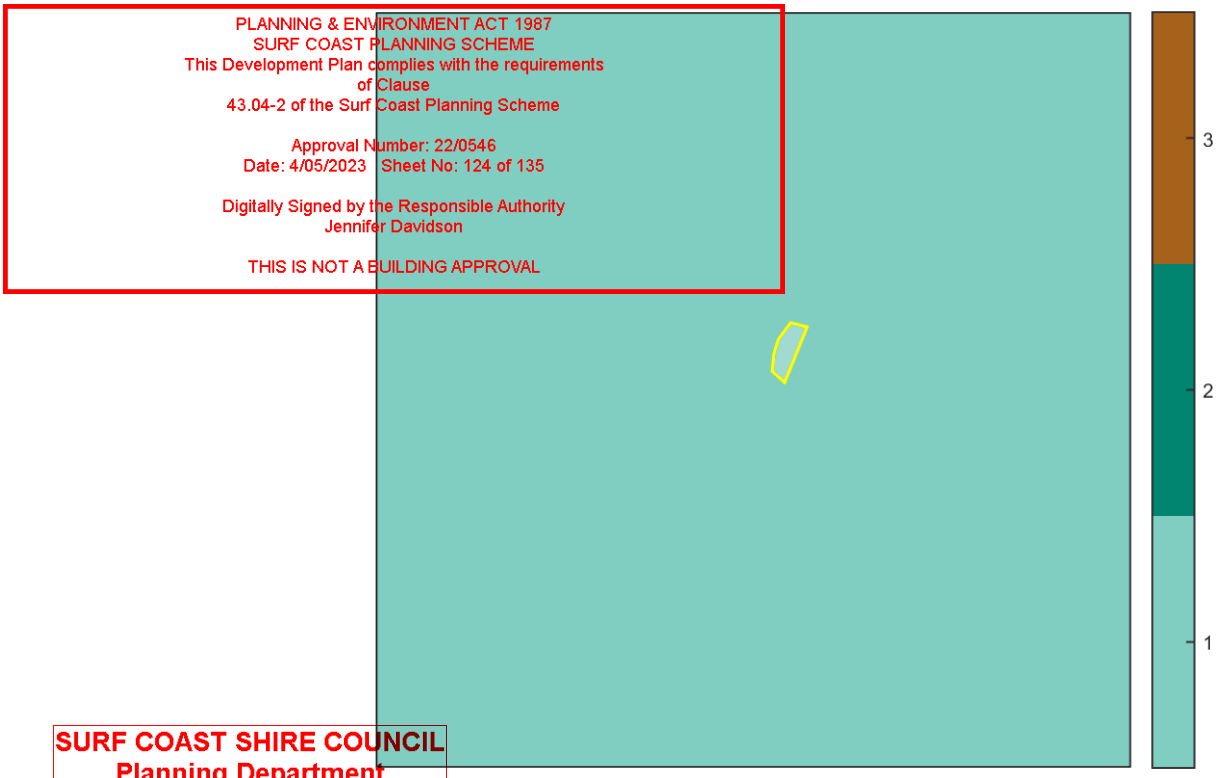
Report ID: PRE_2022_186

Project ID	Wadawurrung_Way_Torquay_Removal_v1

Assessment pathway

Assessment pathway	**Basic Assessment Pathway**
Extent including past and proposed	0.001 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.001 ha
No. Large trees proposed to be removed	0
Location category of proposed removal	Location 1 The native vegetation is not in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map), sensitive wetland or coastal area. Removal of less than 0.5 hectares in this location will not have a significant impact on any habitat for a rare or threatened species

1. Location map



SURF COAST SHIRE COUNCIL
Planning Department
22/12/2022
22/0546 / D22/233629

VICTORIA State Government | Environment, Land, Water and Planning

Offset requirements if a permit is granted

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

General offset amount[1]	0.000 general habitat units
Vicinity	Corangamite Catchment Management Authority (CMA) or Surf Coast Shire Council
Minimum strategic biodiversity value score[2]	0.312
Large trees	0 large trees

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

Appendix 1 includes information about the native vegetation to be removed

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

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

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 125 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/235628

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

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

Next steps

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

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

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

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

- The assessment pathway and reason for the assessment pathway
- A description of the native vegetation to be removed (met unless you wish to include a site assessment)
- Maps showing the native vegetation and property
- The offset requirements determined in accordance with section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

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

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

For more information contact the DELWP Customer Service Centre 136 186

www.delwp.vic.gov.au

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements
of Clause
43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 126 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

Appendix 1: Description of native vegetation to be removed

All zones require a general offset, the general habitat units each zone is calculated by the following equation in accordance with the Guidelines:

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

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

Native vegetation to be removed

Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
1-1	Patch	otp_0647	Endangered	0	no	0.200	0.001	0.001	0.390		0.000	General

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 127 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

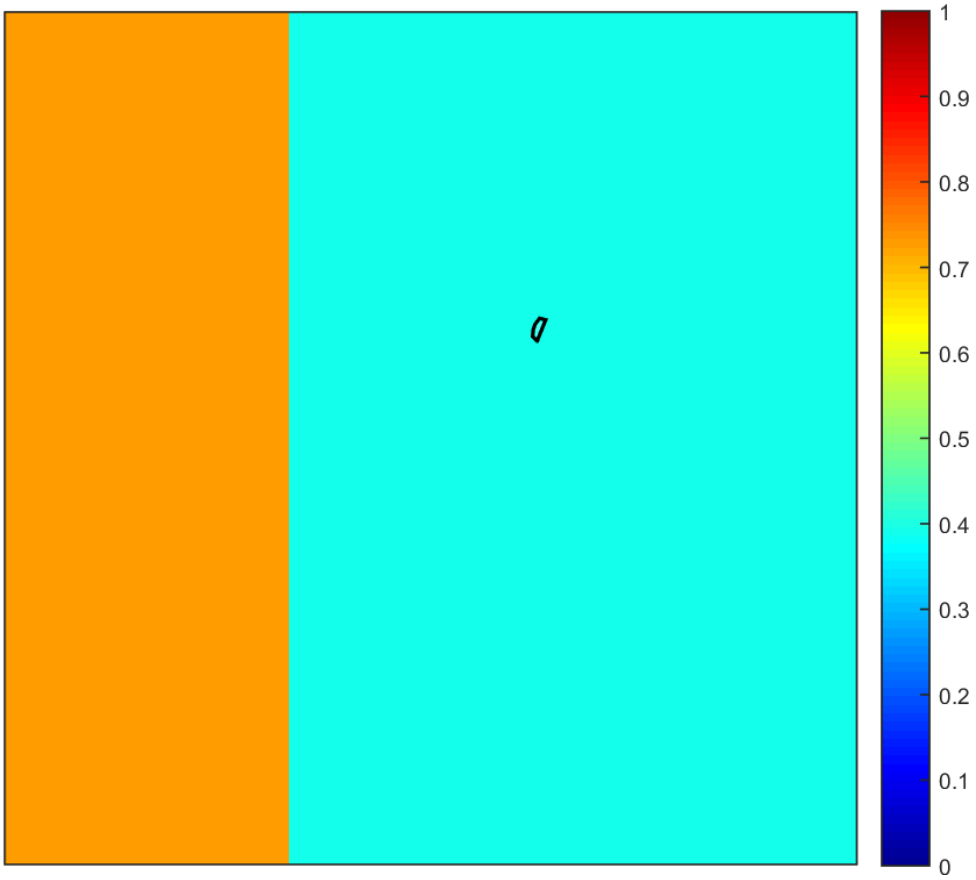
THIS IS NOT A BUILDING APPROVAL

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

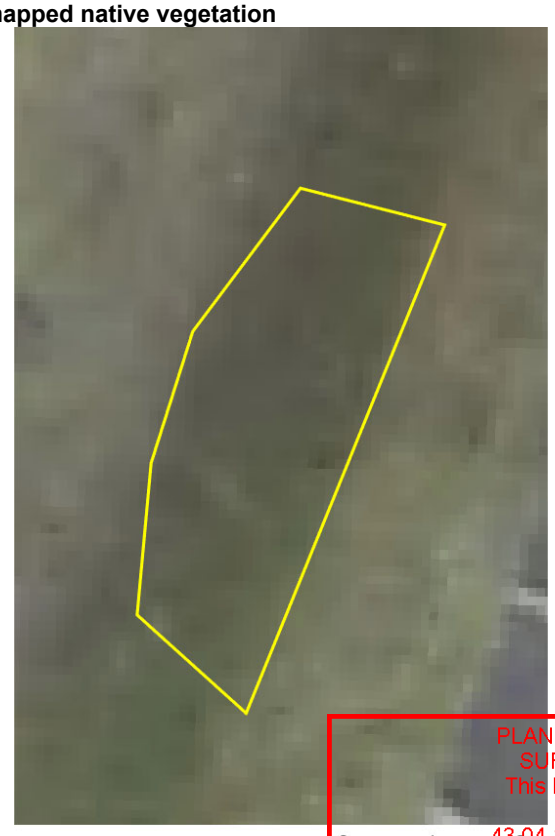
This is not applicable in the Basic Assessment Pathway.

Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



North

0 1 2

x1 metres

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

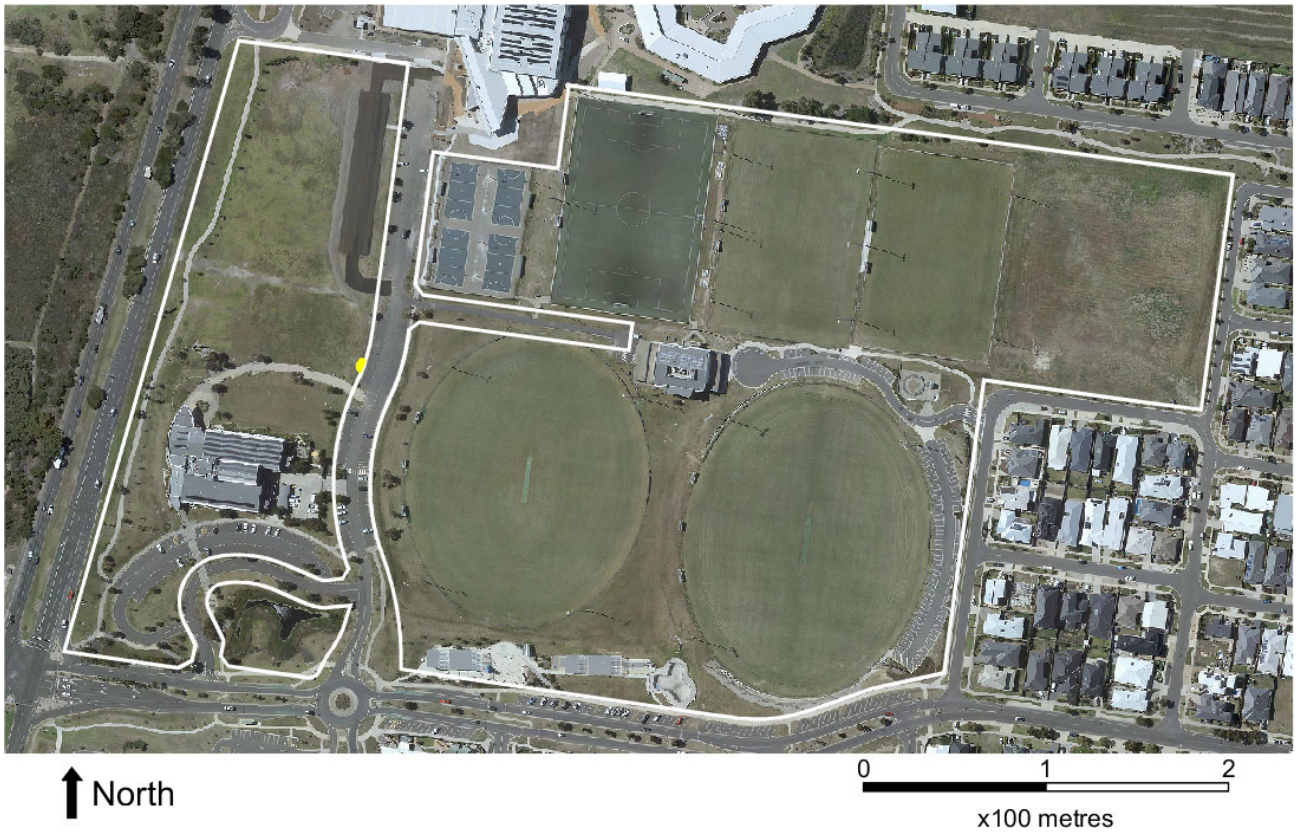
PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 129 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

4. Map of the property in context



Yellow boundaries denote areas of proposed native vegetation removal.

SURF COAST SHIRE COUNCIL
Planning Department

22/12/2022

22/0546 / D22/233629

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 130 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

TRANSPORT ADVICE

PREPARED BY MGA TRAFFIC

MGA TRAFFIC PTY LTD
CORPORATE ONE BUILDING
LEVEL 1/115 84 HOTHAM STREET
PRESTON VIC 3072
+61 3 9863 6480
MGATRAFFIC.COM.AU

MEMORANDUM

TO:	Ben Porteous	Urbis	
CC:	Socrati Seretis / Robert Alessi David Keele	Peddle Thorp Architects Turner & Townsend	
FROM:	Peter Malinas	MGA	
DATE:	21 March 2023	OUR REF:	MGA22036
TITLE:	SURF COAST AQUATIC AND HEALTH CENTRE (SCAHC) RESPONSE TO TRAFFIC AND TRANSPORT COMMENTS ON THE MASTERPLAN AND DEVELOPMENT PLAN		

The following table provides a response to the traffic and transport comments received on the Surf Coast Aquatic & Health Centre located at 1 Merrijig Drive, Torquay.

1.0	**A traffic impact assessment is required to understand the following:** **Movements in and out of the precinct at peak times. It is understood that it has been suggested that 200 movements are proposed at these times.** **A full understanding of traffic movements is required prior to any approval of entry/exits onto Wadawurrung Way, including details of the proposed split between the Surf Coast Highway and Wadawurrung Way. Alternatively, all traffic movements may need to be onto the Surf Coast Highway rather than along Wadawurrung Way.**	A Transport Impact Assessment will be prepared for the Planning Permit which will include discussion on traffic distributions. The site will have a primary access from a new road connected to the Surf Coast Highway. The new road will also connect to Wadawurrung Way, to provide secondary access. The Wadawurrung Way connection will assist with traffic distributions from the east and south. The signalised intersection provides for controlled right turn movements from the south rather than U-turn movements from an unsignalised intersection further north of the site. The Traffic Study for the Torquay Civic Precinct (prepared by Civil and Traffic Consulting P/L dated May 2017) recommends the extensions of Wadawurrung Way to College Lane. The Masterplan shows a connection from Wadawurrung Way to the Surf Coast Highway via a new road connection which meets the objection of the recommendation in the above study.
2.0	**There is some concern given suitability of Wadawurrung Way in its current layout and format to cater for high volumes of traffic plus additional attractor for school traffic?**	The function and operation of Wadawurrung Way will be further discussed in the Transport Impact Assessment. Wadawurrung Way is a two lane, two way road and is expected to continue to support access to the precinct.

3.0	Any localised works required/proposed to enable to access (two or single direction depending on the recommendations of the Traffic impact assessment) to Wadawurrung Way?	Works will be proposed to improve the site connection to Wadawurrung Way. In addition, the Transport Impact Assessment will further consider traffic calming measures along the new road connection to Wadawurrung Way. This could include raised crossing / speed humps, line marking, signage amongst other things.
4.0	Has an analysis been undertaken of the capacity and likely queueing at roundabout at Wadawurrung Way to cater for increased volumes of traffic? Queuing impact here should be considered and not just the signals.	Traffic analysis will be undertaken as part of the future Transport Impact Assessment of the roundabout for the post development scenario and review the impact of the queue on the northern approach.
5.0	Is there any consideration to traffic growth of precinct at full capacity? Council officers can share the Torquay North Traffic Study which provides traffic future generated traffic volumes of this area to help the consultant in assessing the area and need for any traffic improvements?	The roundabout is expected to satisfactorily manage traffic to/from Wadawurrung Way. A traffic model of the roundabout will be undertaken in the Transport Impact Assessment which will consider traffic growth in the area / sensitivity assessment. The Torquay North Traffic Study recommends centre line marking along Wadawurrung Way amongst other things for the precinct. We will further explore traffic management measures to maintain safety and traffic flow in the area. This may include removing some of the existing angle spaces where the new road connects to Wadawurrung Way, traffic calming and prioritising pedestrian movement.
6.0	Car parking Under Clause 52.06 (car parking) the car parking rate for a swimming pool is 5.6 space to each 100 square metres of leasable floor area. There are already parking problems within the precinct at peak times. As such car parking for the Aquatic and Health Centre should not reduce the standard car parking rate and should include consideration of the car parking rate generated for Wurdi Baierr as car parking for this stadium is currently an informal car park within the proposed Aquatic and Health Centre.	The proposed use is broadly defined as a 'leisure and recreation facility' and specifically as a 'restriction recreation facility', as such the application of the swimming pool car parking rate from Clause 52.06 is not appropriate. As a car parking rate is not specified for a leisure and recreation facility car parking must be provided to the satisfaction of the responsible authority. To inform the suitable car parking provision, of the future planning permit application, an empirical assessment of similar sites will be undertaken and summarised in the future Transport Impact Assessment. The existing car parking being removed from the site is to be re-provided to accommodate the existing demands generated by the precinct that utilise the site for parking.

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME
This Development Plan complies with the requirements of Clause 43.04-2 of the Surf Coast Planning Scheme

Approval Number: 22/0546
Date: 4/05/2023 Sheet No: 133 of 135

Digitally Signed by the Responsible Authority
Jennifer Davidson

THIS IS NOT A BUILDING APPROVAL

MGA TRAFFIC PTY LTD
CORPORATE ONE BUILDING
LEVEL 1/115 84 HOTHAM STREET
PRESTON VIC 3072
+61 3 9863 6480
MGATRAFFIC.COM.AU

MEMORANDUM

TO:	Socrati Seretis	Peddle Thorp Architects	
FROM:	Peter Malinas	MGA	
DATE:	15 December 2022	OUR REF:	MGA22036
TITLE:	SURF COAST AQUATIC AND HEALTH CENTRE (SCAHC) TRAFFIC ENGINEERING REVIEW OF MASTERPLAN AND DEVELOPMENT PLAN		

Reference is made to the proposed Surf Coast Aquatic & Health Centre located at 1 Merrijig Drive, Torquay.

The following provides a high-level review of the Masterplan prepared by Peddle Thorp Architects and Schedule 8 to Clause 43.04 of the Development Plan Overlay of Surf Coast Planning Scheme.

SITE LAYOUT DESIGN

The attached plan shows the preliminary design of the car park layout and site access, noting the following specifics:

- The Masterplan proposes to provide on-site car parking. The extent of car parking to be provided has not yet been determined and will be the subject to a future planning permit application.
- Vehicle access to the site is proposed via two connections, including:
  - A new road link connecting the Surf Coast Highway to Wadawurrung Way
  - Left in, left out access to Surf Coast Highway with deceleration lane and island
  - Multiple connections to Wadawurrung Way
- Wadawurrung Way is currently one-way (northbound) to the north of Kuwarrk Lane with localised works proposed on Wadawurrung Way to enable two-way access to/from the car parking areas.
- College Lane is currently line-marked as exit only however this is proposed to be changed to allow for two-way movements to Hillside Avenue. No Entry signs (permitted vehicle excepted) recommended at College Lane (western end) to restrict access from the public.
- College Lane will allow for additional access.
- The proposed new road connection to Surf Coast Hwy is to be designed for an 8.8m service vehicle and accommodates a left turn lane with 100m storage and taper with an island treatment to enforce the left in, left out. This will form access to a new road link to Wadawurrung Way.
- Pedestrian access can be provided within the on-site car parking and can be linked to the existing external paths located along the Surf Coast Highway (shared path) and Wadawurrung Way.

CAR PARKING

Car parking will need to be considered and is subject to a future planning permit application. As a guide only, the site should provide in the order of 2 spaces per 100sqm of building area and re-provide the car parking that is lost which is currently on the site.

BICYCLE PARKING

Bicycle parking should be provided at a rate of 1 space for every 4 staff and 1 space per 200sqm NFA for visitors. This will further be considered in a future planning permit application.

WASTE COLLECTION AND LOADING

Waste collection and loading requirements for the site will need to be further considered in the future planning permit application. The site will have access via the new road connection to the Surf Coast Highway, Wadawurrung Way and College Lane.

TRAFFIC ASSESSMENT

Traffic analysis has been undertaken with key findings summarised below:

- The site is expected to generate up to 200 movements in any peak hour for the aquatic centre component. The traffic associated with the existing on-site spaces is already absorbed into the road network, however additional vehicles are expected to utilise the proposed left in, left out access to Surf Coast Hwy as it will provide direct access to the future car park from the north.
- The site has good connections to the Surf Coast Hwy and Wadawurrung Way which can disperse traffic to the surrounding network via Merrijig Dr (east) and Surf Coast Hwy (north / south bound).
- The Department of Transport has provided in-principle support to the proposed left in, left out arrangements (with deceleration lane and island) subject to conditions.
- There is adequate capacity in the surrounding road network to cater for the traffic generated by the proposed development based on SIDRA analysis completed with the intersection of Surf Coast Hwy / Merrijig Dr / Beacon Blvd expected to continue to operate under satisfactory conditions.
- It is recommended that a U-turn must give way sign be installed on the north approach to assist in the management of the additional u-turn movements.

REVIEW OF SCHEULE 8 OF THE DEVELOPMENT PLAN OVERLAY

The following provides a review of the relevant matters in the Development Plan Overlay – Schedule 8 as it relates to the subject site.

- Lot design that ensures no direct access to lots fronting the Surf Coast Highway

The current layout shows a road connection to the Surf Coast Highway. No lots have direct access to the Highway. The Department of Transport has provided in-principle support to the proposed left in, left out arrangements (with deceleration lane and island) subject to conditions.

- Road network designed to reduce traffic speeds and promote community interaction and use of the road reserve.

The new road link is to connect Surf Coast Highway to Wadawurrung Way. Traffic management treatments are proposed along the new road connection including raised pedestrian crossings at the shared path crossing near Surf Coast Highway and mid-block near the parallel parking spaces. A pedestrian path will be provided within the 15m reserve and there is scope for the future facility to connect to this.

- Any provision to be made for a public transit route from Geelong on or adjacent to the site following consultation with the Department of Transport.

Not Applicable.