

# **Environmental Impact Statement**

## **Designated Development Application**

Shared Cyclist and Pedestrian Path  
East of Georges River, Milperra



Prepared for Mirvac Homes (NSW) Pty Ltd  
Submitted to Canterbury Bankstown Council

**November 2023**

## Declaration

Project details	
Project Name	Shared cyclist and pedestrian access path
Address	86 Gibson Avenue, 40 and 56 Prescott Parade and 67, 67A, 90 and 100 Auld Avenue, Milperra
Applicant details	
Applicant name	Mirvac Homes (NSW) Pty Ltd
Applicant address	Level 28, 200 George Street, Sydney NSW 2000 =
Details of person by whom this EIS was prepared	
Name	Dan Keary
Professional qualifications	BSc MURP RPIA
Name	Danielle Wigg
Professional qualifications	BP
Address	43A The Corso Manly, NSW 2095

The undersigned declares that this Environmental Impact Statement:

- has been prepared in accordance with Part 8, Division 5 of the *Environmental Planning and Assessment Regulation 2021*
- contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates
- does not contain information that is false or misleading
- addresses the Planning Secretary's Environmental Assessment Requirements (SEARs) for the development
- identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments
- contains a simple and easy to understand summary of the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development

Date	Comment
Name	Dan Keary
Professional qualifications	BSc MURP RPIA
Signature	
Date	8 November 2023



## Contact



Dan Keary  
Director  
E: [dan@keylan.com.au](mailto:dan@keylan.com.au)

Cover image: The Site (Source: Keylan)

All Rights Reserved. No material may be reproduced without prior permission of KEYLAN Consulting Pty Ltd. While KEYLAN Consulting Pty Ltd working on this project has tried to ensure the accuracy of the information in this publication, it accepts no responsibility or liability for any errors, omissions or resultant consequences including any loss or damage arising from reliance in the information in this report. This report has relied on information provided by Mirvac Homes (NSW) Pty Ltd in good faith and accepts no responsibility or liability for any errors, omissions or resultant consequences including any loss or damage arising from reliance in the information in this report.

Revision	Prepared by	Reviewed by	Date	Revision Type
1	DW	DK	18/10/23	Draft
2	DW	DK	7/11/23	Draft
3	DW	DK	15/11/23	Final

## Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>8</b>
1.1	Purpose of this Environmental Impact Statement.....	8
1.2	Structure of this Environmental Impact Statement .....	8
1.3	Secretary's Environmental Assessment Requirements .....	9
1.4	Project Team.....	9
<b>2</b>	<b>Site analysis .....</b>	<b>10</b>
2.1	Site location.....	10
2.2	Site description.....	10
2.3	Surrounding locality.....	12
2.4	Land ownership.....	13
<b>3</b>	<b>Background .....</b>	<b>15</b>
3.1	Planning Proposal .....	15
3.2	Voluntary Planning Agreement .....	15
3.3	Related Development Applications .....	16
3.4	Vegetation Management Plan.....	18
3.5	Staging .....	18
<b>4</b>	<b>Development description .....</b>	<b>20</b>
4.1	Development overview.....	20
4.1.1	Shared pedestrian and cycleway path.....	20
4.1.2	Bridge.....	25
4.2	Construction Methodology .....	27
4.2.1	Construction activity and duration.....	27
4.2.2	Construction hours and duration.....	28
4.3	Seating and rest areas.....	28
4.4	Landscaping.....	29
<b>5</b>	<b>Project Justification.....</b>	<b>30</b>
5.1	Need for the proposal.....	30
5.2	Proposal alternatives.....	30
5.2.1	Options considered.....	30
5.2.2	Selection of preferred option.....	31
<b>6</b>	<b>Consultation .....</b>	<b>32</b>
<b>7</b>	<b>Strategic Planning Context .....</b>	<b>35</b>
7.1	Greater Sydney Region Plan .....	35
7.2	South District Plan.....	35
7.3	Draft Greener Places (NSW Government Architect Green Infrastructure Policy) .....	36
7.4	Local Strategic Planning Statement – Connective City 2036 .....	37
7.5	Community Strategic Plan 'CBCity 2036'.....	38
7.6	Active Transport Action Plan 2021-2031 .....	38
<b>8</b>	<b>Statutory Planning Context.....</b>	<b>39</b>
8.1	Environmental Planning and Assessment Act 1979 .....	39
8.1.1	Objects of the EP&A Act.....	39
8.1.2	Section 4.15 Matters for Consideration .....	41
8.2	Environment Protection and Biodiversity Conservation Act 1999 .....	42
8.3	Biodiversity Conservation Act 2016 .....	43
8.4	Rural Fires Act 1997 .....	43
8.5	Water Management Act 2000 .....	44
8.6	National Parks and Wildlife Act 1974.....	44
8.7	Fisheries Management Act 1994 .....	45
8.8	Coastal Management Act 2016.....	45
8.9	Environmental Planning and Assessment Regulation 2021 .....	46
8.10	State Environmental Planning Policy (Biodiversity and Conservation) 2021.....	47
8.11	State Environmental Planning Policy (Resilience and Hazards) 2021 .....	49
8.11.1	Chapter 2 – Coastal management.....	49



8.11.2 Chapter 4 – Remediation of land .....	53
8.12 State Environmental Planning Policy (Planning Systems) 2021 .....	54
8.13 State Environmental Planning Policy (Transport and Infrastructure) 2021 .....	54
8.14 Canterbury Bankstown Local Environmental Plan 2023 .....	55
8.14.1 Zoning .....	55
8.14.2 Permissibility .....	56
8.14.3 Land Reservation .....	56
8.14.4 Heritage Conservation .....	57
8.14.5 Flood Planning .....	58
8.14.6 Public bushland .....	59
8.14.7 Acid Sulfate Soils .....	60
8.14.8 Stormwater management and water sensitive urban design .....	61
8.14.9 Biodiversity .....	62
8.14.10 Riparian land and watercourses .....	63
8.14.11 Development on Riverlands Golf Course site .....	63
8.15 Canterbury-Bankstown Development Control Plan 2023 .....	64
8.16 Contributions .....	64
<b>9 Environmental assessment .....</b>	<b>65</b>
9.1 Hazards and risk .....	65
9.1.1 Flooding .....	65
9.1.2 Bushfire .....	68
9.2 Soil 71 .....	
9.3 Biodiversity .....	72
9.4 Contamination .....	75
9.5 Geotechnical .....	75
9.5.1 Pavement material thickness .....	76
9.5.2 Elevated sections / bridge footings .....	76
9.5.3 Earthworks .....	77
9.5.4 Batter slopes .....	77
9.5.5 Shared pathway load capacity .....	77
9.6 Visual impact .....	78
9.7 Aboriginal Cultural Heritage Assessment Report .....	83
9.8 Arboricultural Impact .....	84
9.9 Traffic and transport .....	85
9.9.1 Construction traffic generation .....	85
9.9.2 Worker parking .....	86
9.9.3 Construction vehicle routes .....	86
9.10 Waste 87 .....	
9.11 Public Interest .....	87
<b>10 Conclusion .....</b>	<b>88</b>

## Figures

Figure 1: Southern elevation of the Site (Source: Keylan, November 2022) .....	11
Figure 2: Southern mangroves within the Site footprint (Source: Keylan, November 2022) .....	11
Figure 3: Northern Creek within the northern portion of the Site (Source: Keylan November 2022) .....	12
Figure 4: Site location (Source: Nearmap) .....	12
Figure 5: Site context (Source: Nearmap) .....	13
Figure 6: Subdivision Plan - DA1107/2019 (Source: Egis) .....	14
Figure 7: PP-2021-10420 Site (Source: Bankstown Council 2010) .....	15
Figure 8: Riverlands DAs Aerial Image (Source: Sullivan ES) .....	18
Figure 9: Indicative outline of shared path (Fleetwood) .....	20
Figure 10: Path render (Source: Fleetwood) .....	21
Figure 11: Elevated path render (Source: Fleetwood) .....	21

Figure 12: Bridge render (Source: Fleetwood)	22
Figure 13: Elevated shared path over southern mangroves (Source: Egis)	23
Figure 14: Elevated shared path over southern mangroves (Source: Egis)	23
Figure 15: Elevated shared path over northern mangroves (Source: Egis)	24
Figure 16: Elevated shared path over northern mangroves (Source: Egis)	24
Figure 17: Shared path elevation (Source: Fleetwood)	25
Figure 18: Shared path elevation (Source: Fleetwood)	25
Figure 19: Bridge plan view (Source: Fleetwood)	26
Figure 20: Bridge elevation view (Source: Fleetwood)	26
Figure 21: Bridge section view (Source: Fleetwood)	26
Figure 22: Bridge typical balustrade panel (Source: Fleetwood)	27
Figure 23: Proposed seating locations (Source: Planning Design Studio)	28
Figure 24: Seating sections (Source: Planning Design Studio)	29
Figure 25: Letter box drop area (Source: Keylan)	34
Figure 26: Coastal Wetlands and Littoral Rainforest Area Map	50
Figure 27: Coastal Environmental Area Map (Source: Spatial Viewer)	52
Figure 28: Coastal Use Area Map (Source: Spatial Viewer)	53
Figure 29: Zoning Map Extract (Source: Bankstown LEP 2015)	55
Figure 30: Acid Sulfate Soils Map (Source: CBLEP 2023)	61
Figure 31: Biodiversity Map (Source: CBLEP 2023)	62
Figure 32: Riparian Lands and Watercourses Map (Source: CBLEP 2023)	63
Figure 33: Georges River 10% AEP (one-in-10) and 5% AEP (one-in-20)	65
Figure 34: Milperra catchment 5% AEP and 2% AEP flood levels	66
Figure 35: Kelso stormwater catchment	66
Figure 36: Minimum and maximum design surface levels (Base source: Water Technology)	67
Figure 37: Council Bushfire Prone Land Map	69
Figure 38: Assessment against Chapter 8 of the PBP	70
Figure 39: Excavated Soil Treatment Map (Source: SESL Australia)	72
Figure 40: Plant community types within the subject site (Source: BDAR)	73
Figure 41: Native vegetation extent within the subject land (Source: BDAR)	74
Figure 42: Summary of geotechnical investigation works (Source: Construction Sciences)	76
Figure 43: Recommended pavement material thickness design for rigid pavement	76
Figure 44: Foundation options (Source: Construction Services)	77
Figure 45: Viewpoints for VIA (Base Source: Google Maps)	79
Figure 46: View 1 (Source: Keylan)	80
Figure 47: View 2 (Source: Keylan)	80
Figure 48: View 3 (Source: Keylan)	81
Figure 49: View 4 (Source: Keylan)	81
Figure 50: View 5 (Source: Google Maps)	82
Figure 51: Proposed site entry location (Source: TTPP)	85
Figure 52: Construction truck routes (Source: TTPP)	86

## Tables

Table 1: Structure of the EIS	9
Table 2: Project team	9
Table 3: Site location	10
Table 4: Land ownership	14
Table 5: VPA Part 2 - Staged Infrastructure Works (Source: Mardens Law Group)	16
Table 6: Riverlands DAs	17
Table 7: Shared path components and materials (Source: Fleetwood)	22
Table 8: Components and materials (Source: Fleetwood)	25
Table 9: Stakeholder consultation	34
Table 10: Objects of the EP&A Act	41
Table 11: Section 4.15 Assessment	42

Table 12: Requirements of the EP&A Regulation .....	46
Table 13: Assessment against Chapter 6 of the Biodiversity and Conservation SEPP 2021 ....	49
Table 14: Assessment against Clause 2.7 of the Resilience and Hazards SEPP 2021 .....	51
Table 15: Assessment against Clause 2.10 of the Resilience and Hazards SEPP 2021 .....	52
Table 16: Zone objective (Source: CBLEP 2023) .....	56
Table 17: Assessment against clause 5.32 of the CBLEP 2023 (Source: CBLEP 2023) .....	59
Table 18: Clause 5.23 Assessment (Source: CBLEP 2023) .....	60
Table 20: Clause 6.1 requirements .....	60
Table 21: Assessment against Clause 6.3 (Source: CBLEP 2023) .....	62
Table 22: Viewpoints for VIA .....	79

## Appendices

Appendix 1	Cost Estimate Summary
Appendix 2	Secretary's Environmental Assessment Requirements
Appendix 3	Engineering Plans
Appendix 4	Architectural Plans
Appendix 5	Consultation Outcomes Report
Appendix 6	Landscape Plan
Appendix 7	Biodiversity Development Assessment Report
Appendix 8	Aboriginal Cultural Heritage Assessment Report
Appendix 9	Canterbury-Bankstown Development Control Plan Compliance Table
Appendix 10	Bushfire Threat Assessment
Appendix 11	Flood Risk Assessment
Appendix 12	Geotechnical Investigation
Appendix 13	Construction Traffic and Parking Assessment
Appendix 14	Acid Sulfate Soils Management Plan
Appendix 15	Arborist Report
Appendix 16	Waste Management Plan
Appendix 17	Contamination Report
Appendix 18	Survey Plan

## List of Abbreviations

CIV	Capital Investment Value
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESD	Ecologically Sustainable Development
LGA	Local Government Area
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State significant development
BDAR	Biodiversity Assessment Report
ACHAR	Aboriginal Cultural Heritage Assessment Report



# 1 Introduction

## 1.1 Purpose of this Environmental Impact Statement

This Environmental Impact Statement (EIS) supports a development application (DA) for the construction of a shared pedestrian and cyclist path along the Georges River foreshore at Milperra, in the Canterbury Bankstown local government area (LGA).

The DA is lodged under Part 4, Division 4.3 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed development involves the construction of a 2.5 kilometre (km) long and 3.5 metre (m) wide shared cycleway and pedestrian path between Vale of Ah Reserve and the former Riverlands Golf Course, including elevated sections over tidal areas, mangroves and northern creek, and ancillary works.

Pursuant to section 2.7(2) of *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP), the development is categorised as designated development as it involves development on land identified as “coastal wetlands” on the *Coastal Wetlands and Littoral Rainforests Area Map*.

The proposal is also Integrated Development as defined in section 4.46 of the EP&A Act, because an approval is required under the *Water Management Act 2000* and *Fisheries Management Act 1994*.

The Capital Investment Value (CIV) for the project is estimated at \$3,362,052.71. A quantity surveyors report is included in Appendix 1.

The proposal is classified as local development, and Council will be the consent authority.

## 1.2 Structure of this Environmental Impact Statement

This EIS should be read in conjunction with the supporting information and plans appended to this report. The structure of this EIS is summarised below:

Section Number	Section Heading	Description
N/A	Executive Summary	A summary of this report and its key findings.
1	Introduction	Overview of the EIS, the proposed development and project objectives.
2	Site Analysis	Description of the site and surrounding development.
3	Background	A overview of the Site’s history
4	Development Description	Description of the project and consultation undertaken with key stakeholders.
5	Project Justification	Need for the proposal.

Section Number	Section Heading	Description
6	Consultation	Identifies consultation activities that has been carried out during preparation of the EIS with the community and government agencies.
7	Strategic Planning Context	Identifies the key strategic plans that relate to the site and the development.
8	Statutory Planning Context	Identifies the key legislation that relate to the site and the development.
9	Environmental Assessment	Identifies key activities, provides an assessment of potential impacts on the environment and includes recommended mitigation measures.
10	Conclusion	A summary of the key findings.

Table 1: Structure of the EIS

### 1.3 Secretary's Environmental Assessment Requirements

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning and Environment (DPE) on 3 November 2022 (SEAR 1440).

The SEARs and where they are addressed in this EIS are set out in Appendix 2.

### 1.4 Project Team

The project team is outlined in Table 2:

Expertise	Consultant
Urban planning	Keylan Consulting
Community and Stakeholder Engagement	Keylan Consulting
Landscape Architect	Paterson Design Studio
Civil Engineering	Egis
Flooding	Water Technology
Bushfire	Bushfire Code & Hazard Solutions
Traffic and transport	The Traffic Planning Partnership
Biodiversity	Cumberland Ecology
Waste	Mirvac Homes
Aboriginal Heritage	Artefact Heritage
Contamination	Sullivan
Quantity Surveyor	Mirvac Homes
Acid Sulfate Soils	SESL Australia
Geotechnical	Construction Services
Arborist	Temporal

Table 2: Project team

## 2 Site analysis

### 2.1 Site location

The Site is predominantly located within the suburb of Milperra within the Canterbury Bankstown LGA. Reference to ‘the Site’ throughout this report should be taken to be the addresses listed below:

Address	Legal Description
86 Gibson Avenue, Padstow	Lot 30 DP827142
40 Prescott Parade, Milperra	Lot 5 DP731859
56 Prescott Parade, Milperra	Lot 10 DP731859
67, 67A, 90 and 100 Auld Avenue, Milperra	Lot 21 DP749985
	Lot 1 DP813007
	Lot 27 DP7304
	Lot 26 DP7304
	Lot 25 DP7304
	Lot 24 DP7304
	Lot 23 DP7304

Table 3: Site location

A Survey Plan has been provided at Appendix 18.

### 2.2 Site description

The Site is largely an unutilised public recreation area zoned RE1 Public Recreation, R2 Low Density Residential and RE2 Private Recreation under the *Canterbury-Bankstown Local Environmental 2023* (CBLEP 2023). The public recreation area is approximately 2.5 km in length, 20 m wide with an approximate footprint of 17,500 square metres (m<sup>2</sup>).

As shown in the figures below, the Site and nearby areas have a relatively flat topography with a combination of cleared vegetation areas and heavily vegetated areas.

The Site is partially mapped as containing NSW Estuarine Macrophytes including mangroves and saltmarsh. The northern section of the Site contains a cluster of mangroves and an unidentified creek, hereafter referred to as ‘northern mangroves’ and ‘northern creek’. The southern section of the Site contains a larger area of mangroves and small unidentified creek, hereafter referred to as ‘southern mangroves’ and ‘southern creek’.





Figure 1: Southern elevation of the Site (Source: Keylan, November 2022)



Figure 2: Southern mangroves within the Site footprint (Source: Keylan, November 2022)





Figure 3: Northern Creek within the northern portion of the Site (Source: Keylan November 2022)

## 2.3 Surrounding locality

As shown on the figure below, the Site is approximately 23 km southwest of the Sydney Central Business District, 4 km southeast of Liverpool and 6 km southwest of Bankstown.



Figure 4: Site location (Source: Nearmap)



The immediate surrounding locality is described and shown on the figure below.

- **North:** Vale of Ah Reserve
- **South:** M5 South Western Motorway and Deepwater Park Reserve
- **East:** Riverlands Golf Course and residential approximately 200m from the site. The residential area is characterised by a combination of single/two-storey detached dwelling houses and dual occupancies
- **Southwest:** Voyager Point Wetland (Nationally Important Wetland)
- **West:** Georges River, Brighton Lakes Recreation and Golf Club, Wurrungwuri Reserve and the Georges Cove residential subdivision currently under construction

In relation to Georges River (immediately west of the Site), it is noted:

- all surface water from the Site drains into this river
- the river is mapped as a Key Fish Habitat by the NSW Department of Primary Industries

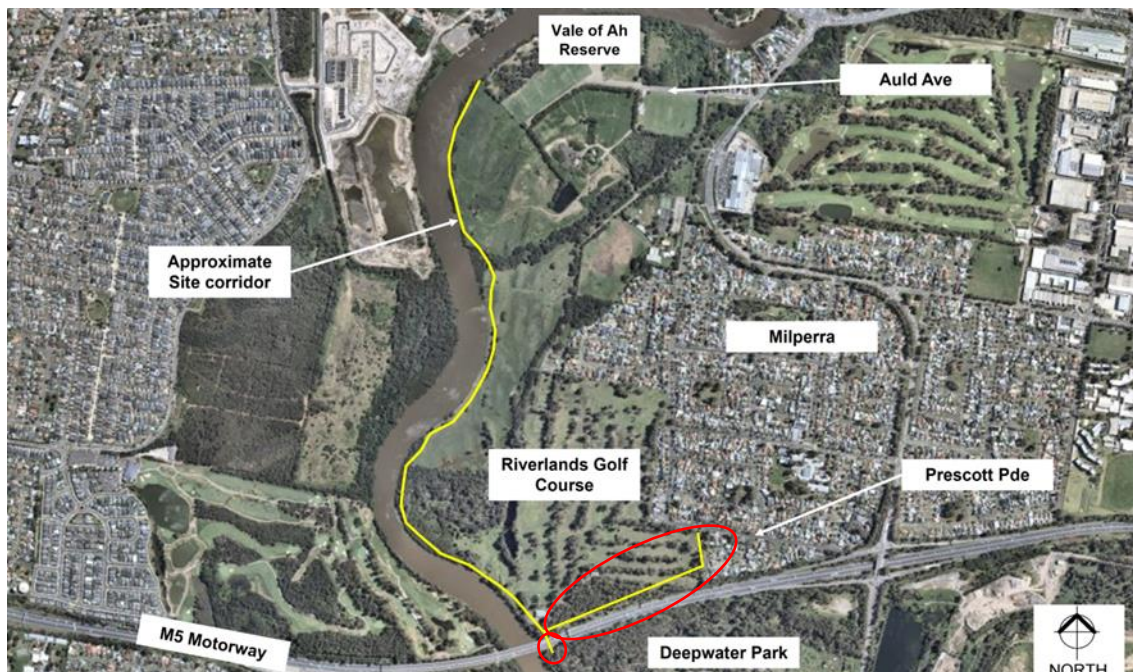


Figure 5: Site context (Source: Nearmap)

## 2.4 Land ownership

The table below describes the land ownership within the Site.

Ownership	Address	Legal Description
South Western Motorway	86 Gibson Avenue, Padstow	Lot 30 DP827142
The Council of the City of Bankstown	40 Prescott Parade, Milperra	Lot 5 DP731859
Applicant (Mirvac)	56 Prescott Parade, Milperra	Lot 10 DP731859



Ownership	Address	Legal Description
<b>Abacus</b>	67, 67A, 90 and 100 Auld Avenue, Milperra	Lot 21 DP749985
		Lot 1 DP813007
		Lot 27 DP7304
		Lot 26 DP7304
		Lot 25 DP7304
		Lot 24 DP7304
		Lot 23 DP7304

Table 4: Land ownership

It is noted that under clause 8.2 of the executed Voluntary Planning Agreement (VPA) applying to the land (described in detail in Section 3.2), Council permits the developer to enter, use and occupy any Council-owned or controlled land in order to carry out any works to fulfil any obligations under the Agreement.

As shown on the draft Subdivision Plan below, the 20 m wide strip along the Georges River foreshore (RE1 zoned land) will be dedicated to Council post construction. Council will retain ownership and management of the dedicated land.

The Applicant is continuing consultation with South Western Motorway (land owner of Lot 30 DP827142) regarding land ownership/maintenance details.

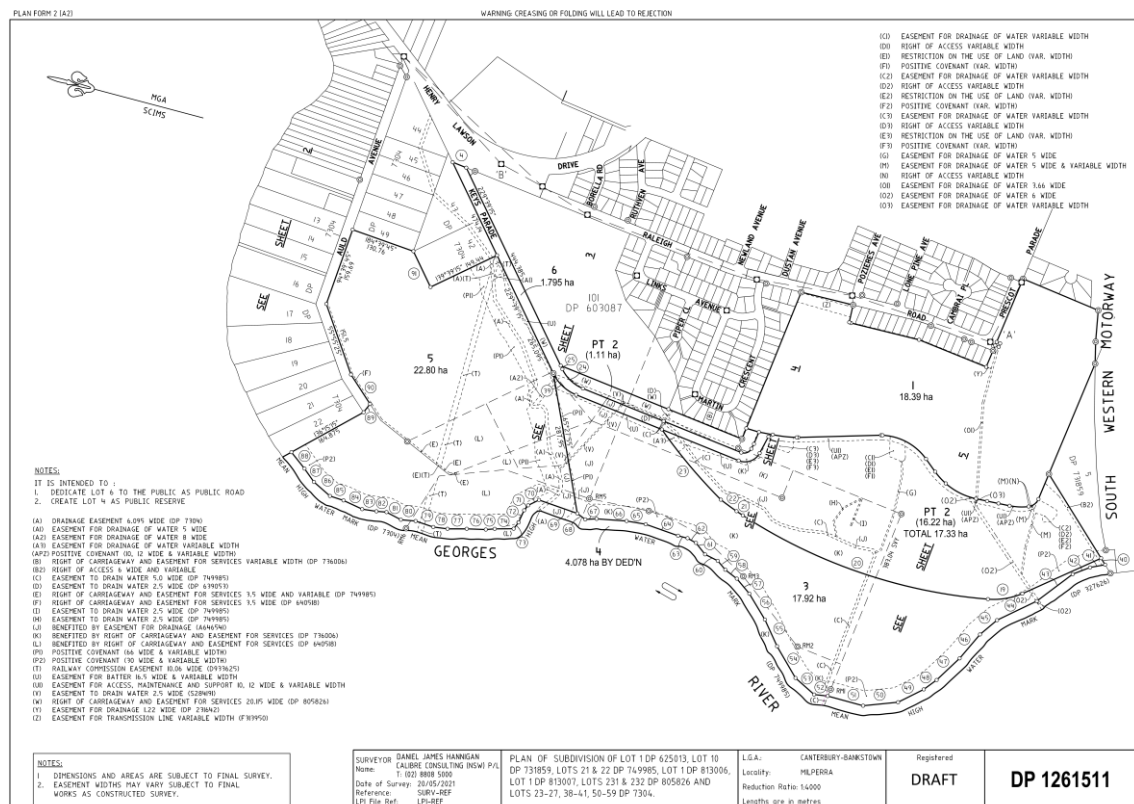


Figure 6: Subdivision Plan - DA1107/2019 (Source: Egis)

## 3 Background

### 3.1 Planning Proposal

In October 2016, DPE finalised a planning proposal to rezone the Riverlands Golf Course site and adjacent lands at Auld Avenue, Raleigh Road, Martin Crescent and Prescott Parade Milperra 2214 (PP-2021-10420). PP-2021-10420 allows for the future redevelopment of low-density housing and the continuation of part of the site for open space. PP-2021-10420 also includes provisions to provide greater protection of the ecologically sensitive areas along the Georges River foreshore. The figure below shows the PP-2021-10420 site area.



Figure 7: PP-2021-10420 Site (Source: Bankstown Council 2010)

The Riverlands site is subject to Clause 6.17 of the CBLEP 2023, which includes provisions to enable the redevelopment of the Riverlands site, in particular residential development in the south to south-eastern parts of the site. The PP-2021-10420 site is also subject to the executed VPA, which is discussed below.

### 3.2 Voluntary Planning Agreement

In relation to PP-2021-10420, a VPA between Demian Holdings Pty Ltd/Riverland Estate Pty Ltd and Bankstown City Council was executed in September 2015. An amended VPA was executed on 21 October 2020 between the Applicant and Council. The VPA, as amended, includes a number of commitments for the delivery of road infrastructure, environmental management works, site remediation and dedication of land.

The VPA contains several works that are to be implemented within the Riverlands site, including (but not limited to):

- bank stabilisation works on the Georges River and northern creek
- construction of connecting road network – Keys Parade, Raleigh Road and Pozieres Avenue
- road infrastructure upgrades - Pozieres Parade improvements, raised junctions, school zone, roundabout, public shared access to public foreshore walkway
- riparian corridor along the foreshore walkway and Zone RE2 land
- riparian corridor along the northern creek

It also includes the construction of a foreshore shared path and river crossings on the RE1 zoned land, which comprise the works that are the subject of this DA. Specifically, in relation to the proposed development, the VPA lists the following requirements:

<i>Item of Work</i>	<i>Scope of Works</i>
<i>Foreshore walkway embellishment – Pedestrian/cycleway</i>	<p><i>A pedestrian/cycleway which connects to Vale of Ah Reserve (North) and Deepwater Reserve (South, under the M5 bridge).</i></p> <p><i>The width of the shared walkway should be a minimum 3.5 metres, in accordance with Australian Standards</i></p>
<i>Build a pedestrian/cyclist crossing over the northern creek on the Zone RE1 land.</i>	<p><i>Crossing to be designed in accordance with relevant State government agencies/bodies guidelines and specifications and Council's engineering standards.</i></p> <p><i>Structural Plans required to be approved by Council prior to construction.</i></p> <p><i>Works as executed plan required following construction and approved by Council.</i></p> <p><i>The crossing should be compatible with the shared path along Zone RE1 land.</i></p>
<i>Build a pedestrian/cyclist crossing over the southern mangroves on the Zone RE1 land.</i>	<p><i>Crossing to be designed in accordance with relevant State government agencies/bodies guidelines and specifications and Council's engineering standards.</i></p> <p><i>Structural Plans required to be approved by Council prior to construction.</i></p> <p><i>Works as executed plan required following construction and approved by Council.</i></p> <p><i>The crossing should be compatible with the shared path along Zone RE1 land.</i></p>

Table 5: VPA Part 2 - Staged Infrastructure Works (Source: Mardens Law Group)

### 3.3 Related Development Applications

The Site and the surrounding area are subject to four DAs concerning the redevelopment of the former Riverlands Golf Course site (Riverlands DAs). These DAs were approved



by Council on 16 June 2022 following a conciliation conference by the Land and Environment Court (LEC) and are listed in the table below and shown in Figure 8.

Development Application	Description
<b>DA-1107/2019</b>	Subdivision of existing 27 lots into 6 lots under Torrens title
<b>DA-108/2020</b>	Construction and extension of Keys Parade and associated works connecting to an upgraded signalised intersection of Keys Parade at Henry Lawson Drive
<b>DA-4/2020</b>	Subdivision of proposed Lot 1 (proposed to be created under DA-1107/2019) into 180 residential allotments and five (5) residue lots, with bulk earthworks, construction of internal roads, drainage and associated services over three (3) construction stages, including the construction of a temporary sales office on the site fronting Prescott Pde
<b>DA-370/2020</b>	Bank stabilisation works along the Georges River foreshore (being Proposed Lot 4 under DA-1107/2019 and under the M5 Motorway bridge over the Georges River), and remediation and environmental rehabilitation works on the Riverlands Golf Course Site. Banks stabilisation works include mangrove restoration and planting of Juncus.

Table 6: Riverlands DAs

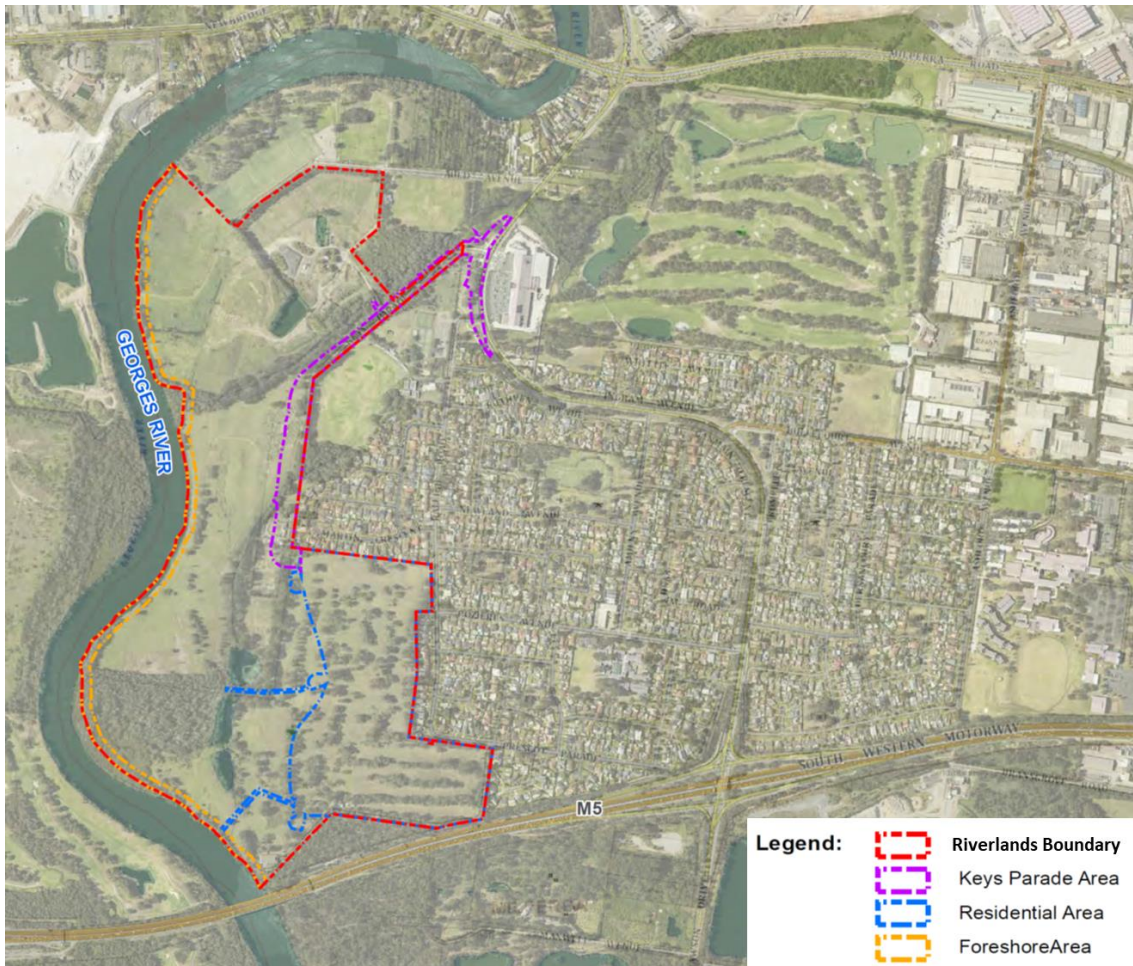


Figure 8: Riverlands DAs Aerial Image (Source: Sullivan ES)

### 3.4 Vegetation Management Plan

Under the VPA, in addition to bank stabilisation works, a 50m riparian corridor is to be revegetated along the Georges River frontage of the Riverlands site. While the riparian corridor revegetation does not form part of the Bank Stabilisation DA (DA-370/2020), the environmental protection works under the Bank Stabilisation DA are the precursor to the provision of the shared pathway. The works involve regrading of banks areas, installation of coir rolls, and vegetation planting to stabilise soils at the bank, limit erosion and restore environmental conditions favourable to the environment.

A Vegetation Management Plan (VMP) was prepared as part of the documentation package for the Bank Stabilisation DA (DA-370/2020). The VMP comprises an overarching guideline for all revegetation works required under the VPA, including revegetation works associated with the Riverlands DAs and the proposed shared path.

### 3.5 Staging

The overall development of the Riverlands site is proposed to be conducted in stages and will ultimately involve the subdivision of land into a Community Title residential subdivision including a 1,935m<sup>2</sup> Southern Reserve (to integrate with the Council owned Cumberland Plain Woodland Reserve on Lot 5 DP 731859 south of the Site), residential

lots and 'pocket' park areas with associated infrastructure (roads, drainage basins) within the development footprint.

The road infrastructure will comprise a road network within the residential subdivision as well as a primary 'connector' road, known as Keys Parade, that will link the proposed residential area with a main road, Henry Lawson Drive. Other staged works include bank stabilisation works, construction of a shared cycleway/pathway along the Georges River and rehabilitation of riparian corridors in accordance with the executed VPA.

The delivery of the VPA is aligned to the delivery of lots. Given the approved staging of the construction, certain works, including that of the proposed shared path, will need to be undertaken prior to the release of those stages.

## 4 Development description

### 4.1 Development overview

The proposed works include the construction of a 24/7, publicly accessible shared cycleway and pedestrian access path along Georges River, including elevated sections, and a bridge over mangroves and the northern creek, and ancillary works.

Key components of the development include:

- construction of a 3.5 m wide, 2.5 km long shared pedestrian and bicycle path along the foreshore, connecting Vale of Ah Reserve in the north to the existing private (which connects to Prescott Parade), with potential future connection to Deepwater Reserve in the south
- construction of one bridge and elevated paths
- installation of two temporary shaker grid and washdown facilities for the construction phase
- tree removal including mangroves in the southern mangrove area and northern creek area
- minor earthworks
- seating
- site rehabilitation

#### 4.1.1 Shared pedestrian and cycleway path

As shown on the figure below, the 2.5 km shared pathway is irregularly shaped and largely follows the contours of the Georges River.

The proposed alignment has been designed to minimise overall impacts on native vegetation while meeting the location requirements specified within the VPA.

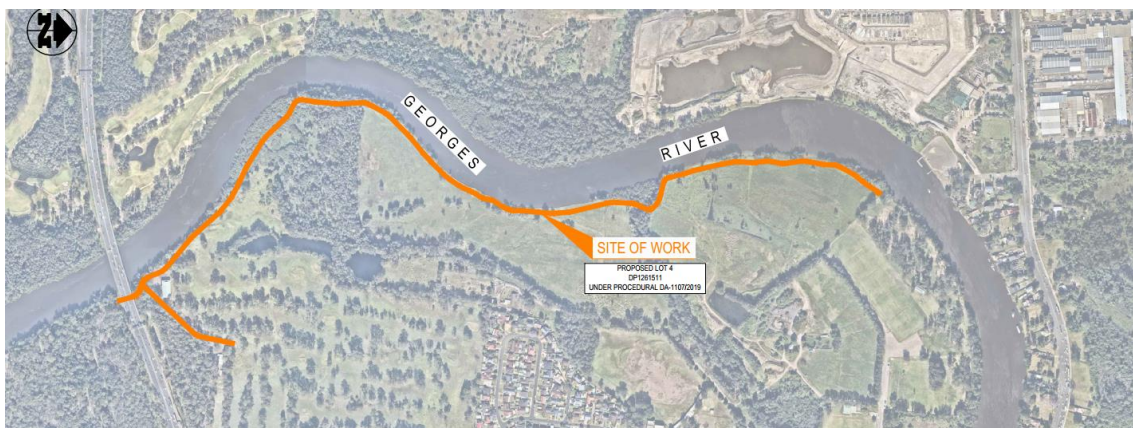


Figure 9: Indicative outline of shared path (Fleetwood)

As shown on the below renders, the pathway will provide significant access to the Georges River foreshore with raised boardwalks and bridges over mangroves and creeklines.





Figure 10: Path render (Source: Fleetwood)



Figure 11: Elevated path render (Source: Fleetwood)





Figure 12: Bridge render (Source: Fleetwood)

The material of the shared path will be reinforced concrete (or oyster shell base, refer to 9.5.1) unless it is an elevated section of the path (described below) or a bridge described in Section 4.1.2.

The Engineering Plans (Appendix 3) and Architectural Plans (Appendix 4) should be read in conjunction for details on the elevated components of the shared path. As shown on the figures below, the shared path will be elevated in three sections:

- southern mangrove area approximately 199.72 m long (Figure 13 and Figure 14)
- northern mangrove area approximately 32 m long (Figure 15)
- northern mangrove area approximately 50 m long (Figure 16)

As described within the Architectural Plans (Appendix 4), the shared path will use the following components and materials:

Component	Material specification
Columns	Galvanised screw pile
Deck	FRP minimesh decking
Headstock	FRP
Joists	FRP
Kick rail	Timber

Table 7: Shared path components and materials (Source: Fleetwood)



Figure 13: Elevated shared path over southern mangroves (Source: Egis)



Figure 14: Elevated shared path over southern mangroves (Source: Egis)



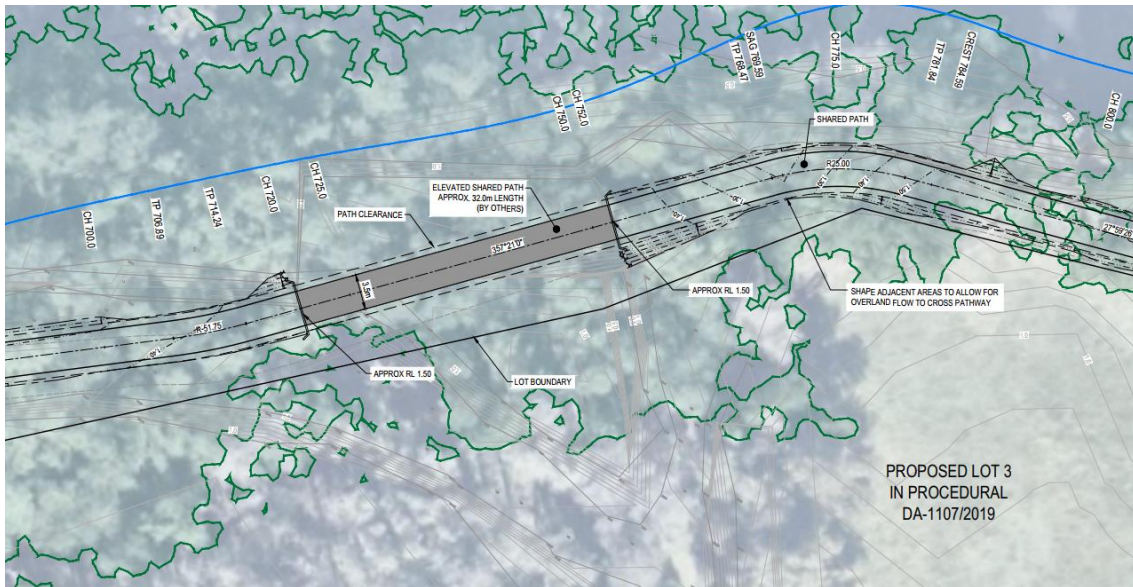
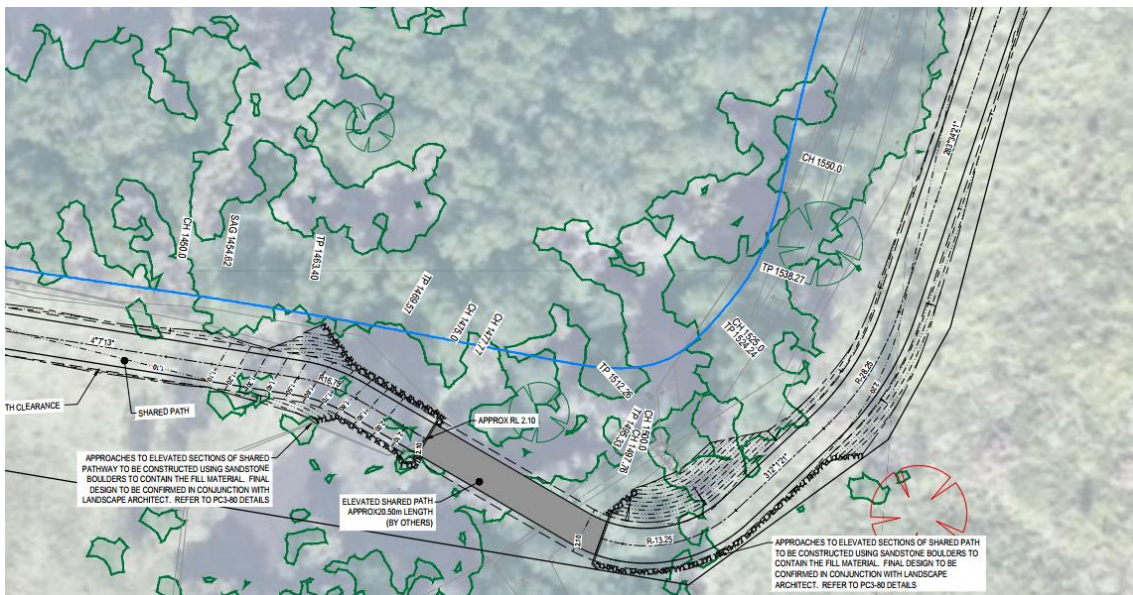


Figure 15: Elevated shared path over northern mangroves (Source: Egis)



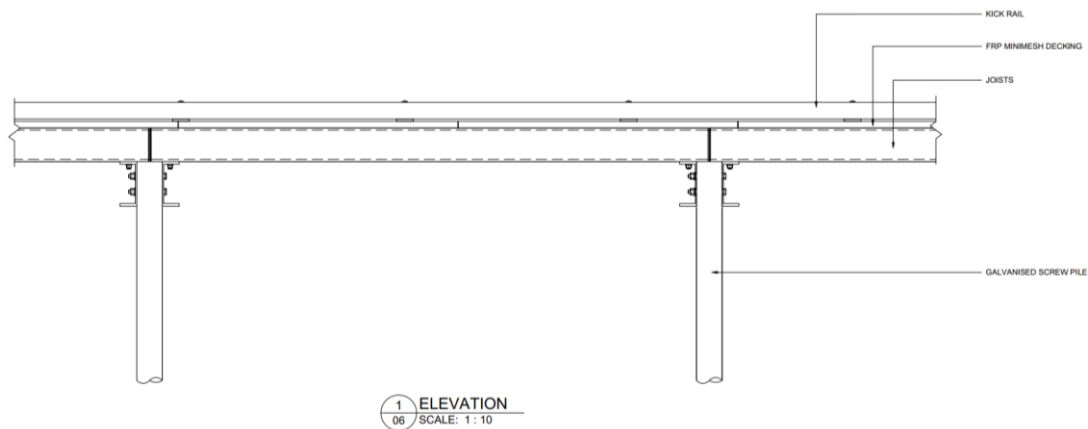


Figure 17: Shared path elevation (Source: Fleetwood)

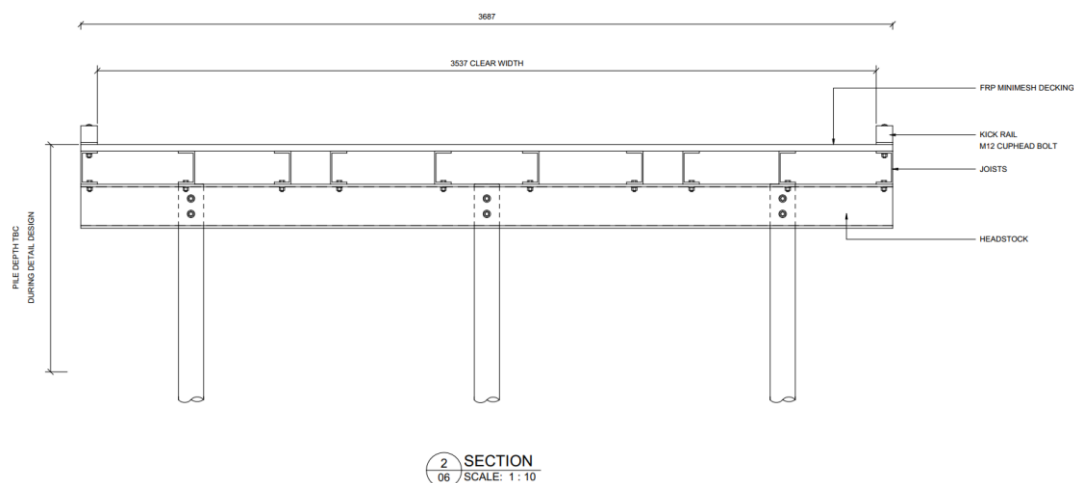


Figure 18: Shared path elevation (Source: Fleetwood)

#### 4.1.2 Bridge

As shown on the figures below sourced from the Architectural Plans (Appendix 4), the proposed bridge will use the following components and materials: Placeholder

Component	Material specification
Bridge superstructure	Galvanised
Bridge balustrade	Galvanised

Table 8: Components and materials (Source: Fleetwood)



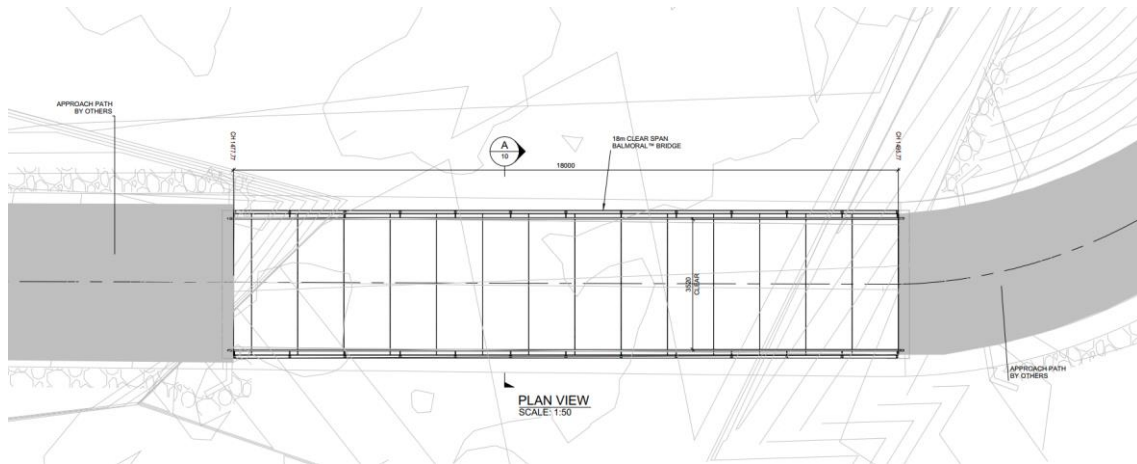


Figure 19: Bridge plan view (Source: Fleetwood)

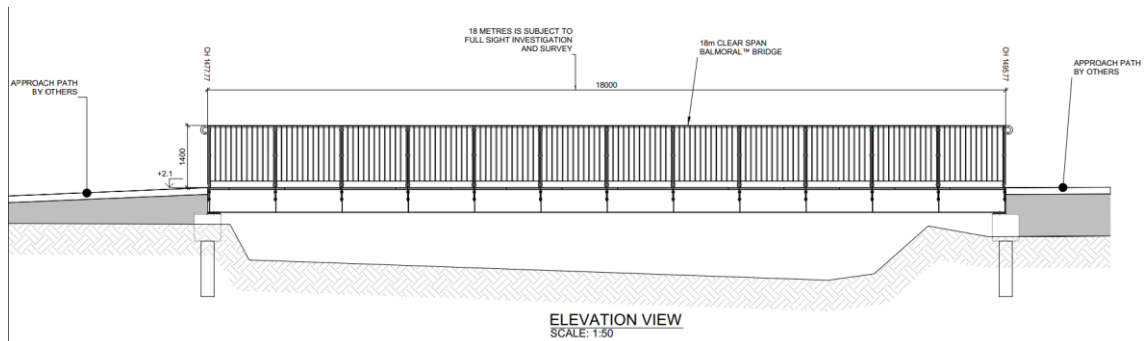


Figure 20: Bridge elevation view (Source: Fleetwood)

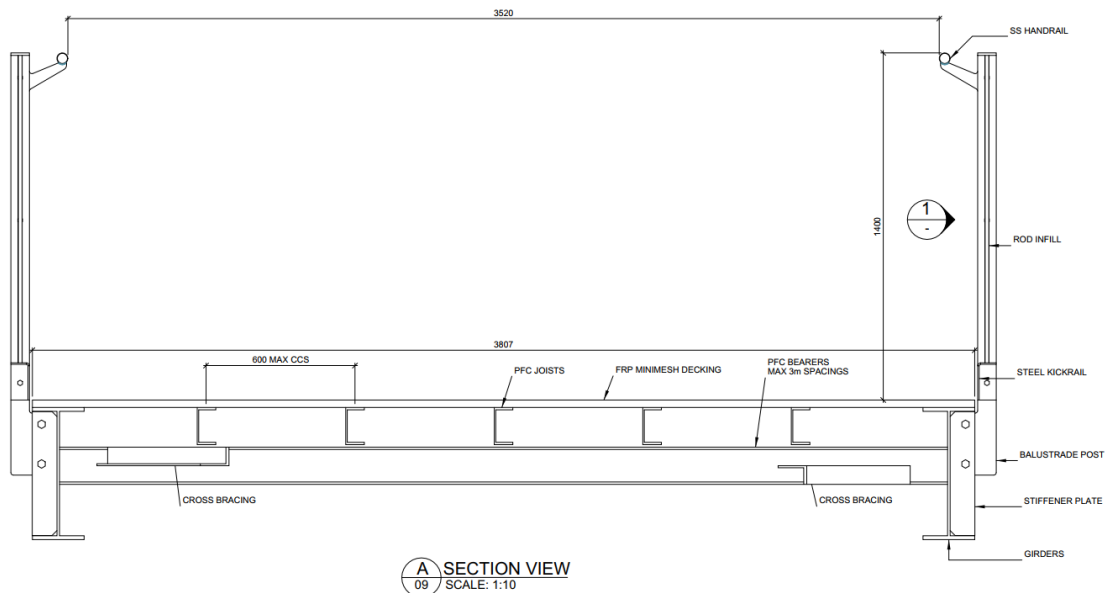
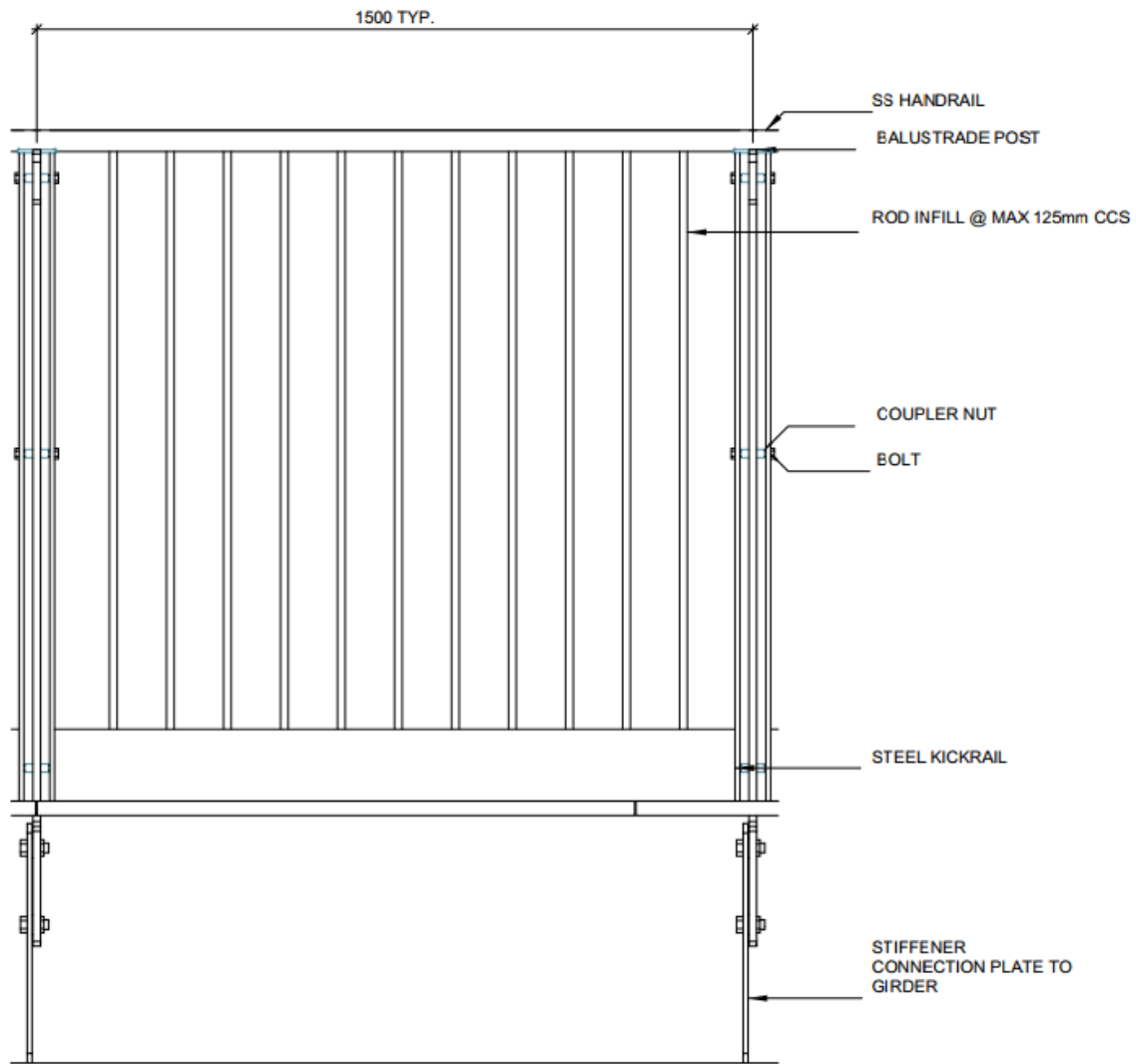


Figure 21: Bridge section view (Source: Fleetwood)



**1 TYPICAL BALUSTRADE PANEL**  
SCALE: 1:10

Figure 22: Bridge typical balustrade panel (Source: Fleetwood)

## 4.2 Construction Methodology

### 4.2.1 Construction activity and duration

Construction of the proposed cycleway comprises the following activities:

- stripping of topsoil
- construction of the footpath and bridges/elevated paths

These activities will occur concurrently and are anticipated to take approximately 10 weeks to complete, weather permitting.

#### 4.2.2 Construction hours and duration

Construction works shall be carried out during the following standard work hours:

- Monday to Friday 7:00am-6:00pm
- Saturday 8:00am-1:00pm
- no work to be undertaken on Sundays or public holidays.

Any works outside the above work hours (as amended by the relevant consent conditions) will be subject to a separate application to the Council.

#### 4.3 Seating and rest areas

The seating and rest areas are shown within the Landscape Plan (Appendix 6).

As shown on the figures below, a variety of seating and rest areas are proposed along the shared path which include:

- timber billet single seating in seven locations
- timber billet multiple seating in one location
- picnic area with seating in one location
- viewing node in one location



Figure 23: Proposed seating locations (Source: Planning Design Studio)

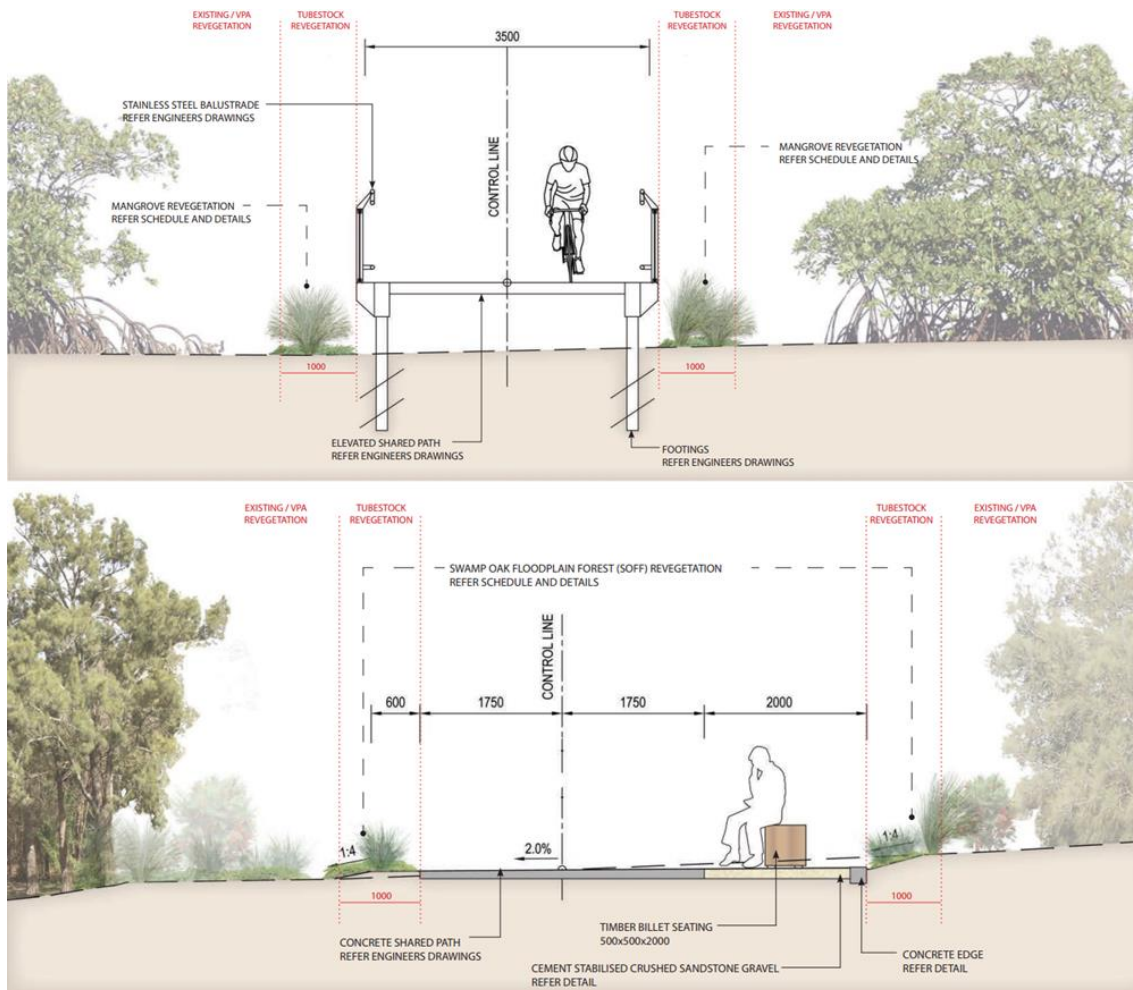


Figure 24: Seating sections (Source: Paterson Design Studio)

## 4.4 Landscaping

As described with the Arborist report (Appendix 16), the proposal will only remove 12 very low retention value trees. All other trees are being retained.

Therefore, the proposed plantings within the Landscape plan (Appendix 6) will contribute to the greening of the site. The proposed planting is described below:

- 642 trees comprising:
  - 26 trees which are 2.5m tall at planting
  - 616 of various heights which require hiko's or tubes at planting
- 1040 shrubs (seven different types of shrubs)
- 10 types of grasses
- 9 types of ground covers



## **5 Project Justification**

### **5.1 Need for the proposal**

The proposed cycleway is a VPA obligation carried out by the Applicant. The proposal will facilitate improved and more sustainable recreational facilities, better access and connectivity to the surrounding pedestrian and bicycle networks and passive recreation opportunities.

The proposal would improve the amenity and convenience of pedestrians and cyclists who currently cannot connect their journey between Vale of Ah Reserve and Deepwater Park. The proposal also provides opportunities for healthier lifestyles for both residents and tourists and would allow users to better experience certain aspects of the cultural and natural environment of the region.

The Site currently is underutilised and has been associated with private ownership, land banking and minor agricultural use. The proposal will provide residents of Milperra and greater Canterbury Bankstown a scenic shared path that traverses mangroves, various native plant communities and provides views and access to the Georges River. The proposal will provide numerous community benefits, including the dedication of 20 m strip of waterfront land to Council ownership and management.

### **5.2 Proposal alternatives**

Division 5 of Part 8, section 192 of the *Environmental Planning & Assessment Regulation 2021* (EP&A Regulation) requires an analysis of any feasible alternatives to the carrying out of the development, including any feasible alternatives.

The alignment for the proposal is generally fixed by the existing VPA and the requirement to construct the shared path within the RE1 zone that is 20 m in width and runs along the Georges River. However, the preferred treatment option was chosen based on consideration of safety, environmental, cost and design issues. A summary of the treatment options considered during the review and evaluation process is provided in the following section.

#### **5.2.1 Options considered**

##### ***Do nothing option***

The 'do nothing' option would result in the shared path not being constructed. This would mean that the aim of improving cycling and walking facilities and resultant economic opportunities within the Canterbury Bankstown LGA would not be achieved. Furthermore, the safety of pedestrians and cyclists who currently use busy roads to continue their journey from one pathway to the next would not be improved.

The 'do nothing' option would also be a lost opportunity to repurpose an unused existing waterfront area to provide a range of community benefits.

It would also mean that the Applicant is unable fulfil its obligations under the VPA. Accordingly, the 'do nothing' option was not pursued.

### ***Design Options***

For the reasons listed above, alternative alignment options were not pursued. However, a number of options were considered for the bridge crossings and elevated boardwalks at the northern and southern mangroves sections of the proposal. The elevated sections of path is proposed because:

- the Georges River is tidal and the mangroves sections can become inundated with water
- the boardwalk will improve safety and attractiveness for a range of other users, such as families, walkers, mobility impaired users

The design of the elevated sections of path and bridge is described in Section 4.1 above.

Paving of the unelevated shared path using concrete (or oyster shell base, refer to 9.5.1) is proposed because:

- the shared path would be more attractive to recreational cyclists and walkers
- sealing would improve safety and attractiveness for a range of other users, such as families, walkers, mobility impaired users
- use of paving reduces the ongoing maintenance required, which would save costs, improve durability and reduce environmental impacts

The choice of pavement type is based on cost, constructability, ride quality, and the site conditions including moisture in subgrade and management of surface water ingress.

#### **5.2.2 Selection of preferred option**

The preferred option for the proposal was chosen based on cost, ride quality and user experience, reduced environmental, social and economic impacts, and constructability. The preferred option is based on extensive consultation with relevant stakeholders and the community.

## 6 Consultation

The Applicant has undertaken consultation with Council and relevant authorities as part of the preparation of the EIS and in accordance with the requirements of the SEARs.

The consultation process has been employed to inform and seek feedback from key stakeholders. All feedback received during the consultation process has been carefully considered and integrated into the proposal where appropriate.

A summary of the consultation that has been carried out during preparation of the EIS is summarised in the table below.

Stakeholder	Key issues
<b>DPE Water Group</b>	<p>Council will refer this EIS to this stakeholder as part of the DA assessment.</p> <p>Any issues raised by this stakeholder will be addressed by responding to a Request For Information issued by Council.</p>
<b>DPE Crown Lands</b>	<p>The proposal is not located on any Crown Land.</p> <p>However, we understand Council may refer this EIS to this stakeholder as part of the DA assessment.</p> <p>Any issues raised by this stakeholder will be addressed by responding to a Request For Information issued by Council.</p>
<b>Heritage NSW</b>	<p>In preparing the SEARs, DPE consulted with Heritage NSW via email. Heritage NSW wrote to DPE on 20 October 2022 and recommended that an Aboriginal Cultural Heritage Assessment Report (ACHAR) be provided with the DA.</p> <p>Heritage NSW was consulted as part of the ACHAR (Appendix 8)..</p>
<b>Department of Regional NSW Department of Primary Industries – Fisheries</b>	<p>Council will refer this EIS to this stakeholder as part of the DA assessment.</p> <p>Any issues raised by this stakeholder will be addressed by responding to a Request For Information issued by Council.</p>
<b>NSW Rural Fire Service</b>	<p>In preparing the SEARs, DPE consulted with NSW Rural Fire Service (RFS) via email on 9 March 2020. RFS responded to DPE on 29 March 2020 and wrote:</p> <p><i>[RFS] has reviewed the information provided and advises that there are no specific concerns with the proposal relating to bush fire protection.</i></p> <p>The Bushfire Threat Assessment (Appendix 10) references the above correspondence with RFS and concludes a satisfactory level of bushfire protection is provided to the Site.</p>
<b>Gandangara Local Aboriginal Land Council</b>	<p>The Gandangara Local Aboriginal Land Council were consulted for the ACHAR (Appendix 8) in accordance with the <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i> to address the SEARs requirement for heritage.</p>



Stakeholder	Key issues
<b>City of Canterbury-Bankstown Council</b>	<p>On 31 January 2023, a pre-lodgement meeting was convened with Council to discuss key issues associated with the DA:</p> <p>A summary of key issues raised is provided below:</p> <ul style="list-style-type: none"> <li>• land ownership</li> <li>• consistency with VPA requirements</li> <li>• fencing</li> <li>• access for maintenance</li> <li>• flooding impacts</li> <li>• pavement design (thick profile preferred)</li> <li>• elevated walkways will be required</li> <li>• seating</li> <li>• integrated approvals</li> <li>• bushfire</li> </ul> <p>All issues are addressed in the relevant sections of this EIS.</p>
<b>Surrounding landowners and occupiers that are likely to be impacted by the proposal.</b>	<p>The Surrounding Landowners and Occupiers Consultation Report (Appendix 5) has been prepared by Keylan in accordance with the requirements of the SEARs.</p> <p>A summary of the report is provided below:</p> <ul style="list-style-type: none"> <li>• groups and organisations consulted: <ul style="list-style-type: none"> <li>• Residents and commercial premises located within the area and generally bound by Henry Lawson Drive to the east, the M5 to the south, Georges River to the west and Newbridge Road and Georges River to the north</li> </ul> </li> <li>• Georges Riverkeepers – a catchment management group working with local councils to protect natural resources and improve liveability along the Georges River</li> <li>• Milperra Public School</li> </ul> <p>The community was consulted via the distribution of an information sheet:</p> <ul style="list-style-type: none"> <li>• the areas included within the letter box drop are shown on the figure below</li> <li>• the information sheet was delivered to the identified premises between 26 and 28 September 2023.</li> </ul>

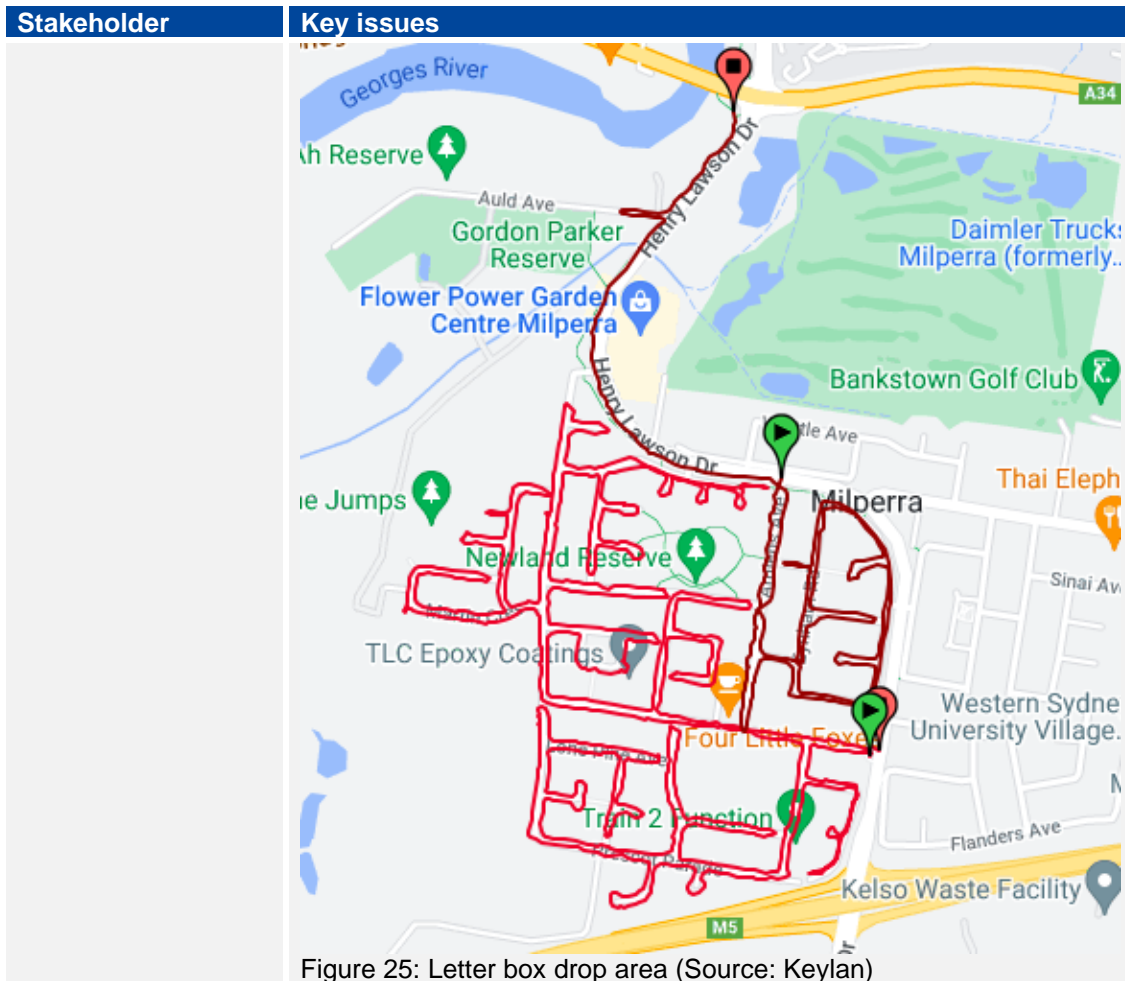


Table 9: Stakeholder consultation

Further consultation with the community will occur as part of the DA assessment.

## 7 Strategic Planning Context

### 7.1 Greater Sydney Region Plan

The *Greater Sydney Region Plan* (Region Plan) outlines how Greater Sydney will manage growth and change in the context of social, economic and environmental matters. It sets the vision and strategy for Greater Sydney, to be implemented at a local level through District Plans. The overriding vision for Greater Sydney in the Region Plan is to rebalance Sydney into a metropolis of 3 unique but connected cities:

- the established Eastern Harbour City
- the developing Central River City
- the emerging Western Parkland City

The Region Plan states that by integrating land use, transport links and infrastructure across the three cities, more people will have access within 30 minutes to jobs, schools, hospitals and services.

The Region Plan provides broad *Priorities and Actions* which focus on the following 4 key themes:

- *Infrastructure and collaboration*
- *Liveability*
- *Productivity*
- *Sustainability*

There are a number of Directions and Objectives that are of particular relevance to the Proposal, which are addressed below.

#### ***Direction 3: A City for people***

- *Objective 6. Services and infrastructure meet communities' changing needs*
- *Objective 7. Communities are healthy, resilient and socially connected*

#### ***Direction 8: A City in its landscape***

- *Objective 31. Public open space is accessible, protected and enhanced*
- *Objective 32. The Green Grid links parks, open spaces, bushland and walking and cycling paths*

The proposal is consistent with the Region Plan as it will provide a dedicated shared pathway which will encourage a healthy and more connected community. The proposal increases access to public open space and provides a shared path through bushland and waterfront areas. It is a proposal that puts people at the heart of planning and values green spaces and landscape.

### 7.2 South District Plan

The *South District Plan* (District Plan) was prepared by the Greater Sydney Commission (GSC) in March 2018. It seeks to manage growth in the context of economic, social and environmental matters in the Canterbury-Bankstown LGA. It provides the district level



framework to implement the goals and directions outlined in the Region Plan for the South District.

The Plan recognises that the district's natural waterways and bushland are great assets and attractors, sustaining and supporting a diverse and multicultural community and bringing visitors from Greater Sydney and beyond.

The following planning priorities within the District Plan are relevant to the proposal:

***Planning Priority S14***

*Protecting and enhancing bushland, biodiversity and scenic and cultural landscapes and better managing rural areas*

- Scenic and cultural landscapes can complement green infrastructure, particularly where scenic landscapes include waterways and urban bushland

***Planning Priority S15***

*Increasing urban tree canopy cover and delivering Green Grid connections*

- The Greater Sydney Green Grid is a long-term vision for a network of high-quality green spaces that connects communities to the natural landscape. It links tree-lined streets, waterways, bushland corridors, parks and open spaces with town centres, public transport and public places
- Enhancing the amenity and activity within, and accessibility to, the Greater Sydney Green Grid will promote a healthier urban environment, improve community access to places for recreation and exercise, encourage social interaction, support walking and cycling connections and improve resilience.

The proposed development is consistent with the District Plan as it optimises open space areas for recreation, sport and social activities, as well as establishes physical links that support social networks and create a sense of community.

**7.3 Draft Greener Places (NSW Government Architect Green Infrastructure Policy)**

Draft Greener Places has been prepared by the NSW Government Architect to deliver the strategic approach for the planning, design and management of green infrastructure and to aid in the delivery of connected urban ecosystems across NSW. Draft Greener Places includes four key principles that typify well-designed green infrastructure, which are:

1. Integration;
2. Connectivity;
3. Multifunctionality; and
4. Participation.

The proposed shared path is located on the Georges River foreshore, a key green infrastructure asset, situated within Milperra. The proposal enables the site to reach its

potential by providing a shared pathway and connections through the site, which are outlined in the Landscape Plan (Appendix 6).

The pathways will elicit better connectivity with surrounding recreational trails and physical connections and encourage the participation of community members in cycling, walking and general use of facilities, both of which are noted as key elements of well-designed green infrastructure.

The proposal involves improved connectivity and provides a facility that supports the walking, cycling and passive recreation, thus supporting community capacity and facilitating socio-cultural and economic benefits to the Canterbury Bankstown community. Therefore, this achieves the principle of multifunctionality.

As such, the proposed development is a key source of Green Infrastructure, that embodies the principles espoused by this policy.

#### **7.4 Local Strategic Planning Statement – Connective City 2036**

The *Canterbury Bankstown Local Strategic Planning Statement– Connective City 2036* (LSPS) was finalised and published on the NSW Planning Portal in March 2020. The LSPS is a 20-year plan which sets out Council’s land use vision and planning priorities for the LGA.

The proposal is consistent with the LSPS. Particularly with the priorities of Evolution 5 Green Web:

- investigate options and establish a plan for a continuous green corridor link along the Cooks, Georges and Duck rivers and their tributaries from the upper catchment areas to the main river channel (E5.3)
- develop an integrated City-wide network of parks and trails (E5.5)
- provide equitable access to open space (E5.6)
- use ecological areas and water ways as the foundation for all open spaces (E5.8)

## **7.5 Community Strategic Plan ‘CBCity 2036’**

CBCity 2036 is the Council’s vision and priorities for the LGA. CBCity 2036 has a broader focus than the LSPS as it addresses long term social, environmental and economic goals for the community.

CBCity 2036 notes that people today continue to want what everybody wants: to be happy, healthy and safe in a community that provides for their needs, values their culture, religion, heritage, respects the environment, considers the future, and respects the past.

The proposal is consistent with the seven key directions for CBCity 2036, in particular:

- 2. *Clean & Green* - A cool, clean and sustainable City with healthy waterways and natural areas
- 4. *Moving & Integrated* - An accessible City with great local destinations and many options to get there
- 5. *Healthy & Active* - A motivated City that nurtures healthy minds and bodies

## **7.6 Active Transport Action Plan 2021-2031**

Council’s *Active Transport Action Plan 2021 – 2031* (Action Plan) identifies the priority infrastructure projects that will have the greatest impact on improving the walkability and cyclability of Canterbury Bankstown LGA.

The Action Plan supports the aspirations of the Community Strategic Plan by seeking to provide an interconnected walking and cycling network for the people that live in, undertake activities within and pass through the entire Canterbury-Bankstown LGA, while integrating with the broader metropolitan strategies and bicycle network of neighbouring LGAs.

The vision of the Action Plan is:

*‘to provide a high quality, connected walking and cycling network that enables our residents to choose active transport to move about the City and beyond.’*

The three principles of the Action Plan are:

1. Connect People
2. Connect Transport
3. Connect Places

The proposed shared path aligns with the vision and principles of the Action Plan. In particular, the proposal is consistent with the principle to ‘Connect Places’ which emphasises the importance of providing walking and cycling links to facilitate access to public open space and the green grid.



## 8 Statutory Planning Context

As described below, the proposal is both designated and integrated development.

### 8.1 Environmental Planning and Assessment Act 1979

The EP&A Act aims to promote the orderly and economic use and development of land and to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.

Section 4.10 of the EP&A Act specifies designated development as development that is declared to be designated development by an EPI or the EP&A Regulation. Pursuant to Part 4 of the EP&A Act and section 2.7(2) of the Resilience and Hazards SEPP, the development is categorised as designated development as it involves development on land identified as “*coastal wetlands*” on the *Coastal Wetlands and Littoral Rainforests Area Map*.

Section 4.12(8) of the EP&A Act states that a DA (in respect of designated development) must be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by the EP&A Regulation. As such, an EIS is required to be submitted with the DA.

The proposal is also Integrated Development as defined in section 4.46(1) of the EP&A Act, because an approval is required under the *Water Management Act 2000* and *Fisheries Management Act 1994*. The proposed development requires development consent and the approvals/licences/permits listed in section 4.46(1) of the EP&A Act as described in the following sections.

Section 4.15 of the EP&A Act outlines the matters that a consent authority is to take into consideration in determining a development application. This report provides the planning assessment against the key statutory EPIs and Development Control Plans relevant to the development. The following assessment of the proposal is provided, based on the heads of consideration contained in Section 4.15 of the EP&A Act and addressed in Table 7 below.

#### 8.1.1 Objects of the EP&A Act

Development under the EP&A Act must have regard to the objects set out under Section 1.3 of the EP&A Act. The proposed development is considered consistent with the objects of the EP&A Act, as outlined in Table 10 below.

The Objects of the Act	Consideration
(a) <i>To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resources,</i>	The proposal development will provide a shared pathway for pedestrians and cyclists that will promote improved social and community outcomes. The proposed development is sympathetic to the ecological values of the Site area and will encourage interest and care for the bushland and surrounding waterways. As such, it promotes

The Objects of the Act	Consideration
	<p>the social and economic welfare of the community.</p> <p>The proposal appropriately manages the existing natural environment, thereby properly managing, developing and conserving the State's natural and other resources.</p>
(b) <i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i>	This EIS provides information on the relevant economic, environmental and social impacts of the proposed development to enable the consent authority to undertake a thorough environmental assessment and assist in its decision-making on the application.
(c) <i>to promote the orderly and economic use and development of land,</i>	The development promotes the orderly and economic use of the land by revitalising an underutilised site and providing a recreational area, that will encourage visitation. The proposal will provide jobs in the construction phase and ongoing employment in relation to maintenance and upkeep.
(d) <i>to promote the delivery and maintenance of affordable housing,</i>	Not applicable
(e) <i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i>	<p>Environmental considerations are discussed further in Section 9 and relevant technical reports.</p> <p>The Biodiversity Report (Appendix 7) outlines if the proposed mitigation measures are implemented, the proposal will have no net loss of biodiversity values.</p>
(f) <i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>	The proposed development will not impact on any elements of built and cultural heritage or indigenous heritage, as demonstrated in the ACHAR (Appendix 8).
(g) <i>to promote good design and amenity of the built environment,</i>	The proposal is of a high quality design that is compatible with the visual and other environmental characteristics of the Site and which will improve recreational amenity provided at the Site.
(h) <i>to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>	The development will be constructed in accordance with any conditions of consent issued by the consent authority and the relevant requirements that relate to health and safety, construction and maintenance.
(i) <i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i>	<p>This EIS is submitted to Council to enable an environmental assessment of the application. It is expected that the EIS will be referred by Council to the relevant integrated approval authorities which include:</p> <ul style="list-style-type: none"> <li>• Water NSW</li> </ul>

The Objects of the Act	Consideration
	<ul style="list-style-type: none"> <li>Department of Primary Industries – Fisheries</li> </ul>
(j) <i>to provide increased opportunity for community participation in environmental planning and assessment.</i>	As part of Council's assessment of the application, the EIS will made publicly available with the community and State agencies invited to provide a submission on the proposal. Any submissions received will be addressed by the Applicant as part of a Response to Submissions Report.

Table 10: Objects of the EP&A Act

### 8.1.2 Section 4.15 Matters for Consideration

The consent authority is required to take into consideration the matters listed under section 4.15 of the EP&A Act when determining a DA. An evaluation of the proposed development against the provisions of Section 4.15(1) of the EP&A Act is provided in Table 11 below.

Provision	Consideration
(a) <i>the provisions of:</i>	
(i) <i>any environmental planning instrument, and</i>	The environmental planning instruments relevant to the site are addressed at Section 9.
(ii) <i>any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and</i>	N/A.
(iii) <i>any development control plan, and</i>	The Canterbury Bankstown Development Control Plan 2023 is addressed in Section 8.15 and Appendix 9.
(iiia) <i>any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and</i>	The proposed development is a VPA obligation. The details of the VPA are discussed at Section 3.2 above.
(iv) <i>the regulations (to the extent that they prescribe matters for the purposes of this paragraph),</i>	The EP&A Regulation is addressed at Section 8.2.
(v) <i>(Repealed)</i>	N/A
(b) <i>the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts I the locality,</i>	The likely impacts of the development, including environmental impacts on the natural and built environments, social and economic impacts are addressed at Section 9.



Provision	Consideration
(c) <i>the suitability of the site for the development,</i>	Section 7 discusses the suitability of the Site against the strategic planning context.
(d) <i>any submissions made in accordance with this Act or the regulations,</i>	Any submissions received on the application will be considered and addressed by Council
(e) <i>the public interest.</i>	<p>The development is in the public interest as it will:</p> <ul style="list-style-type: none"> <li>• provide a useable area of public open space and new recreational asset – the Site's current state is inaccessible and unusable</li> <li>• substantially improve walking and cycling facilities within the LGA through the provision of a 24 km, 3.5m wide track</li> <li>• encourages community health and wellbeing through access to green areas and community interaction</li> <li>• engagement between the community and Georges River wildlife</li> <li>• significantly green the shared pathway corridor through the retention of trees and planning of a significant amount of tree, shrubs and groundcovers</li> </ul> <p>Public interest in addressed at Section 9.11.</p>

Table 11: Section 4.15 Assessment

## 8.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides the legal framework to protect and manage environmental values considered to be of national environmental significance including:

- listed species and communities (e.g. listed threatened species and ecological communities and migratory species)
- protected areas (e.g. World Heritage properties, Ramsar wetlands of international significance, conservation zones)
- national, commonwealth and indigenous heritage

Under the EPBC Act, any development, project or activity that is likely to have a significant impact on the matters listed above must be referred to the Commonwealth Minister for Department of Climate Change, Energy, the Environment and Water.

The BDAR (Appendix 7) confirms a referral to the Department of Climate Change, Energy, the Environment and Water is not required as the proposal will not have any significant impacts on the on EPBA listed entities.

### 8.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) aims to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations.

Under the BC Act if the proposed development is likely to significantly affect threatened species, the application for development consent is to be accompanied by a BDAR. A BDAR has therefore been prepared by Cumberland Ecology and is included at Appendix 7. The BDAR:

- assesses the biodiversity values of the land in accordance with the BAM
- assesses the impact of the proposed development on the biodiversity values of the land; and
- sets out the measures the proponent proposes to take to avoid or minimise biodiversity impacts.

The consent authority must consider if the proposed development is likely to have serious and irreversible biodiversity impact and determine any additional and appropriate measures that would minimise such impacts should approval be granted.

The BDAR concludes that:

- no flora species credits species are required to be offset as:
  - none are currently recorded on within the Site
  - none are likely to occur in the future
- one threatened fauna species (Southern Myotis (*Myotis macropus*)) was recorded within Site and requires an offset of six species credits
- one threatened fauna species (Green and Golden Bell Frog (GGBF)) was recorded as occurring in the wider river lands. Impacts to this species requires one species credit
- With the implementation of the proposed mitigation measures described within the BDAR and the offsetting of threatened fauna species, it's considered that the impacts of the proposed development on biodiversity will result in no net loss of biodiversity values.

Biodiversity is further discussed in Section 9 of this EIS.

### 8.4 Rural Fires Act 1997

The Site is identified as bushfire prone land under the CBLEP 2023. The *Rural Fires Act 1997* requires that consideration be made to the potential bushfire impacts on development at the planning assessment stage to ensure protection of people and property in the event of a bushfire.

Under Section 4.46 of the EP&A Act, the proposal is not required to be referred to NSW Rural Fire Service as it does not include subdivision for residential purposes or development of a special fire protection purpose.

Notably, DPE consulted with the Rural Fire Service which advised on 29 March 2020, that it had no specific concerns with the proposal relating to bushfire protection.

A Bushfire Threat Assessment has been prepared and accompanies this report demonstrating compliance with *Planning for Bushfire Protection 2019*. A copy of this report is provided at Appendix 10.

## **8.5 Water Management Act 2000**

The *Water Management Act 2000* (WM Act) aims to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations. In particular, the WM Act regulates the protection, enhancement and restoration of water sources and associated ecosystems, ecological processes, biological diversity and water quality.

In accordance with section 4.46(1) of the EP&A Act, the development is integrated development as a controlled activity approval is required under the WM Act. Under section 91(2) of the WM Act, the proposal requires a controlled activity approval as the development involves any works defined as a 'controlled activity' on 'waterfront land'.

Controlled activities include:

- the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, and/or
- the carrying out of any other activity that affects the quantity or flow of water in a water source.

Waterfront land includes the bed of any river, lake or estuary and all land within 40 m of the highest bank of the river, lake or estuary.

The proposal is a controlled activity as it involves carrying out work in an area defined as waterfront land. In accordance with the activity approvals requirements under the WM Act, it is therefore necessary to refer the application to DPE Water for approval.

## **8.6 National Parks and Wildlife Act 1974**

The *National Parks and Wildlife Act 1974* (NP&W Act) is the main piece of legislation for managing and protecting Aboriginal cultural heritage. The SEARs outlined that in accordance with section 4.46(1) of the EP&A Act, the development is integrated development.

An ACHAR has been undertaken to fully assess the potential impacts of the proposed shared path on Aboriginal heritage. This ACHAR is summarised in Section 9.7 and provided in full in Appendix 8. The ACHAR found no Aboriginal sites are recorded as occurring in the Site area and assessed the potential for subsurface Aboriginal sites as negligible.

Under section 90 of the NP&W Act an AHIP is required if an Aboriginal object is to be destroyed, damaged or defaced. The ACHAR confirms that the proposal does not require any Aboriginal objects to be destroyed, damaged or defaced. As such, an AHIP under the NP&W Act is not required. However, it is noted that an AHIP already applies to part of the Site and the requirements of this AHIP still apply to the applicable land.



## 8.7 Fisheries Management Act 1994

Clause 205 of the *Fisheries Management Act 1994* (FM Act) provide for the protection of marine vegetation including seagrass and mangroves. The FM Act outlines that a permit is required from the Minister for the cutting, damage, removal or destruction of marine vegetation.

The proposed development would result in the clearing of mangroves for the creation of the elevated boardwalk through the southern mangroves and the northern creek section of the shared path. A permit under section 205 of the FM Act will therefore be required for the proposed development.

## 8.8 Coastal Management Act 2016

The *Coastal Management Act 2016* (CM Act) establishes the framework and overarching objects for coastal management in New South Wales.

The purpose of the CM Act is to manage the use and development of the coastal environment in an ecologically sustainable way, for the social, cultural and economic well-being of the people of New South Wales.

The CM Act also supports the aims of the *Marine Estate Management Act 2014*, as the coastal zone forms part of the marine estate.

The CM Act defines the coastal zone, comprising 4 coastal management areas:

- coastal wetlands and littoral rainforests area
- coastal vulnerability area
- coastal environment area
- coastal use area.

The CM Act establishes management objectives specific to each of these management areas, reflecting their different values to coastal communities.

The subject site is not in close proximity to the coastline (therefore some considerations such as coastal hazards would not apply), nor does it include littoral rainforest; it does however indicate part of the Site including coastal wetlands and being in proximity to such areas. Pursuant to Section 6(1) of the *Coastal Management Act 2016* (CM Act), the provisions of this legislation would apply.

The management objectives for coastal wetlands and littoral rainforest areas are found within Section 6(2) of the CM Act, and for reference are as follows:

- (a) *to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity,*
- (b) *to promote the rehabilitation and restoration of degraded coastal wetlands and littoral rainforests,*
- (c) *to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration,*
- (d) *to support the social and cultural values of coastal wetlands and littoral rainforests,*
- (e) *to promote the objectives of State policies and programs for wetlands or littoral rainforest management.*

These matters are addressed in the BDAR, as discussed further in Section 9.

## 8.9 Environmental Planning and Assessment Regulation 2021

This EIS has been prepared in accordance with form and content requirements of Division 5, Section 192 of the EP&A Regulation. An overview of how the requirements of the EP&A Regulation have been satisfied is included in the table below.

A response table against the SEARs is provided at Appendix 2.

Environmental Planning and Assessment Regulations 2021	EIS Reference
(1) <i>An environmental impact statement must also include each of the following:</i>	
(a) <i>a summary of the environmental impact statement,</i>	Executive Summary
(b) <i>a statement of the objectives of the development, activity or infrastructure,</i>	Section 5
(c) <i>an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure,</i>	Section 5.2
(d) <i>an analysis of the development, activity or infrastructure, including:</i>	Section 4 and Section 9
(i) <i>a full description of the development, activity or infrastructure, and</i>	
(ii) <i>a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and</i>	
(iii) <i>the likely impact on the environment of the development, activity or infrastructure, and</i>	
(iv) <i>a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and</i>	
(v) <i>a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,</i>	
(e) <i>a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv),</i>	Section 10
(f) <i>the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4).</i>	Section 5 and Section 9

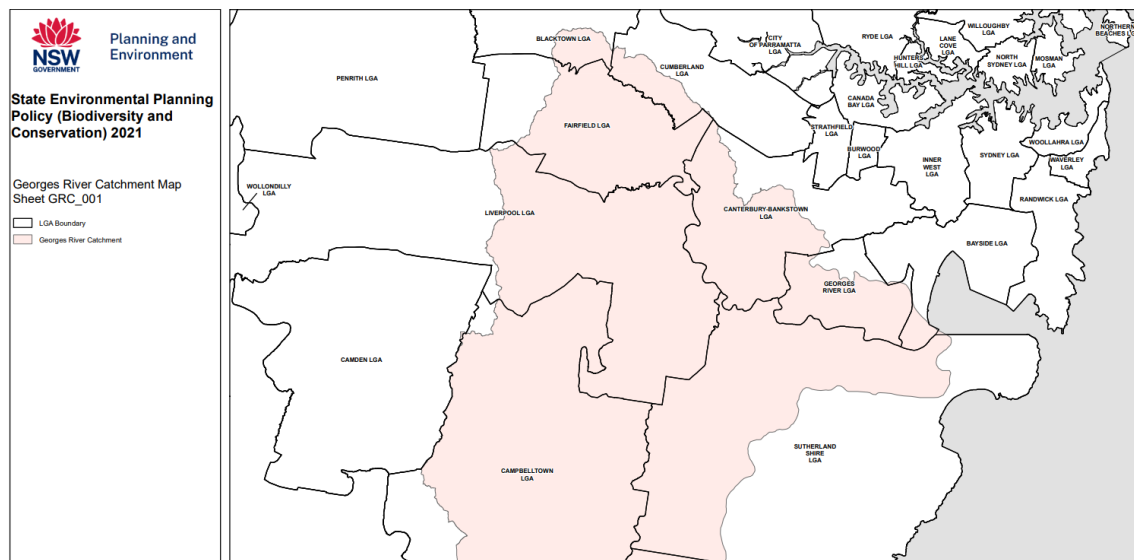
Table 12: Requirements of the EP&A Regulation

## 8.10 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The *State Environmental Planning Policy (Biodiversity and Conservation) 2021* seeks to value, protect, conserve and manage the innate value and external benefits of NSW's natural environment and heritage. The relevant chapters include:

### Chapter 6 – Water catchment

Chapter 6 applies as it is within the Georges River catchment, see figure below.



Clause	Comment
<b>Clause 6.7 (2) Aquatic ecology</b>	
<i>Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</i>	N/A
<i>(a) the direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation will be kept to the minimum necessary for the carrying out of the development,</i>	Impacts are minimal per conclusions within the BDAR (Appendix 7)
<i>(b) the development will not have a direct, indirect or cumulative adverse impact on aquatic reserves,</i>	Impacts are minimal per conclusions within the BDAR (Appendix 7)
<i>(c) if a controlled activity approval under the Water Management Act 2000 or a permit under the Fisheries Management Act 1994 is required in relation to the clearing of riparian vegetation—the approval or permit has been obtained,</i>	The DA is integrated development as it requires approvals under both these Acts.
<i>(d) the erosion of land abutting a natural waterbody or the sedimentation of a natural waterbody will be minimised,</i>	The Engineering Plans (Appendix 3) detail the erosion and sediment control plan which appropriately minimises the proposals impact.



Clause	Comment
<i>(e) the adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area will be minimised.</i>	Impacts are minimal per conclusions within the BDAR (Appendix 7)
<b>Clause 6.8 (2) Flooding</b>	
<i>(2) Development consent must not be granted to development on flood liable land in a regulated catchment unless the consent authority is satisfied the development will not—</i>	N/A
<i>(a) if there is a flood, result in a release of pollutants that may have an adverse impact on the water quality of a natural waterbody, or</i>	The proposal is not a polluting generating development and will not have an adverse impact on the water quality of Georges River.
<i>(b) have an adverse impact on the natural recession of floodwaters into wetlands and other riverine ecosystems.</i>	The proposal will not have an adverse impact.
<b>Clause 6.9 (2) recreation and public access</b>	
<i>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</i>	N/A
<i>(a) the development will maintain or improve public access to and from natural waterbodies for recreational purposes, including fishing, swimming and boating, without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation,</i>	The proposal improves public access by providing a publicly accessible shared path adjacent to Georges River.
<i>(b) new or existing points of public access between natural waterbodies and the site of the development will be stable and safe,</i>	The Engineering Plans (Appendix 3) and Architectural Plans (Appendix 4) demonstrate the shared path has been designed to be stable and safe.
<i>(c) if land forming part of the foreshore of a natural waterbody will be made available for public access as a result of the development but is not in public ownership—public access to and use of the land will be safeguarded.</i>	Public access to the Site will be safeguarded as the shared pathway on the Applicant's land will improve public access to and use of the Georges River foreshore.
<b>Clause 6.10 Total catchment area</b>	
<i>In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consult with the council of each adjacent or downstream local government area on which the development is likely to have an adverse environmental impact.</i>	Noted.
<b>6.11 Land within 100m of a natural waterbody</b>	
<i>In deciding whether to grant development consent to development on land within 100m of a natural waterbody in a regulated catchment, the consent authority must consider whether—</i>	N/A
<i>(a) the land uses proposed for land abutting the natural waterbody are water-dependent uses, and</i>	N/A. The proposed shared path is a land based use.

Clause	Comment
(b) <i>conflicts between land uses are minimised.</i>	The proposal is consistent with the zoning objectives of the RE1 Public Recreation and RE2 Private Recreation

Table 13: Assessment against Chapter 6 of the Biodiversity and Conservation SEPP 2021

## 8.11 State Environmental Planning Policy (Resilience and Hazards) 2021

The Resilience and Hazards SEPP seeks to reduce risk and build resilience in the face of natural hazards as well as development-related hazards.

### 8.11.1 Chapter 2 – Coastal management

Chapter 2 aims to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the *Coastal Management Act 2016*.

The Resilience and Hazards SEPP maps the four coastal management areas that make up the coastal zone, for the purposes of both the *Coastal Management Act 2016* and the EP&A Act.

Chapter 2 applies to land within the coastal zone which is comprised of the following areas:

- the coastal wetlands and littoral rainforests area
- the coastal vulnerability area
- the coastal environment area
- the coastal use area

Coastal wetlands and littoral rainforests area

As shown on the figure below, the Site traverses areas of land identified as coastal wetlands and Proximity Area for Coastal Wetlands on the Coastal Wetlands and Littoral Rainforests Area Map.

Clause 2.7 outlines any development listed below, carried out on land identified as 'coastal wetlands' or 'littoral rainforest' will be designated development for the purposes of the EP&A Act 1979.

- (a) the **clearing of native vegetation** within the meaning of Part 5A of the *Local Land Services Act 2013*
- (b) the **harm of marine vegetation** within the meaning of Division 4 of Part 7 of the *Fisheries Management Act 1994*
- (c) the carrying out of any of the following—
  - (i) **earthworks** (including the depositing of material on land),
  - (ii) constructing a levee,
  - (iii) draining the land,
  - (iv) environmental protection works,
- (d) **any other development.**

The bolded items are works proposed as part of this EIS and therefore the proposal is designated development.

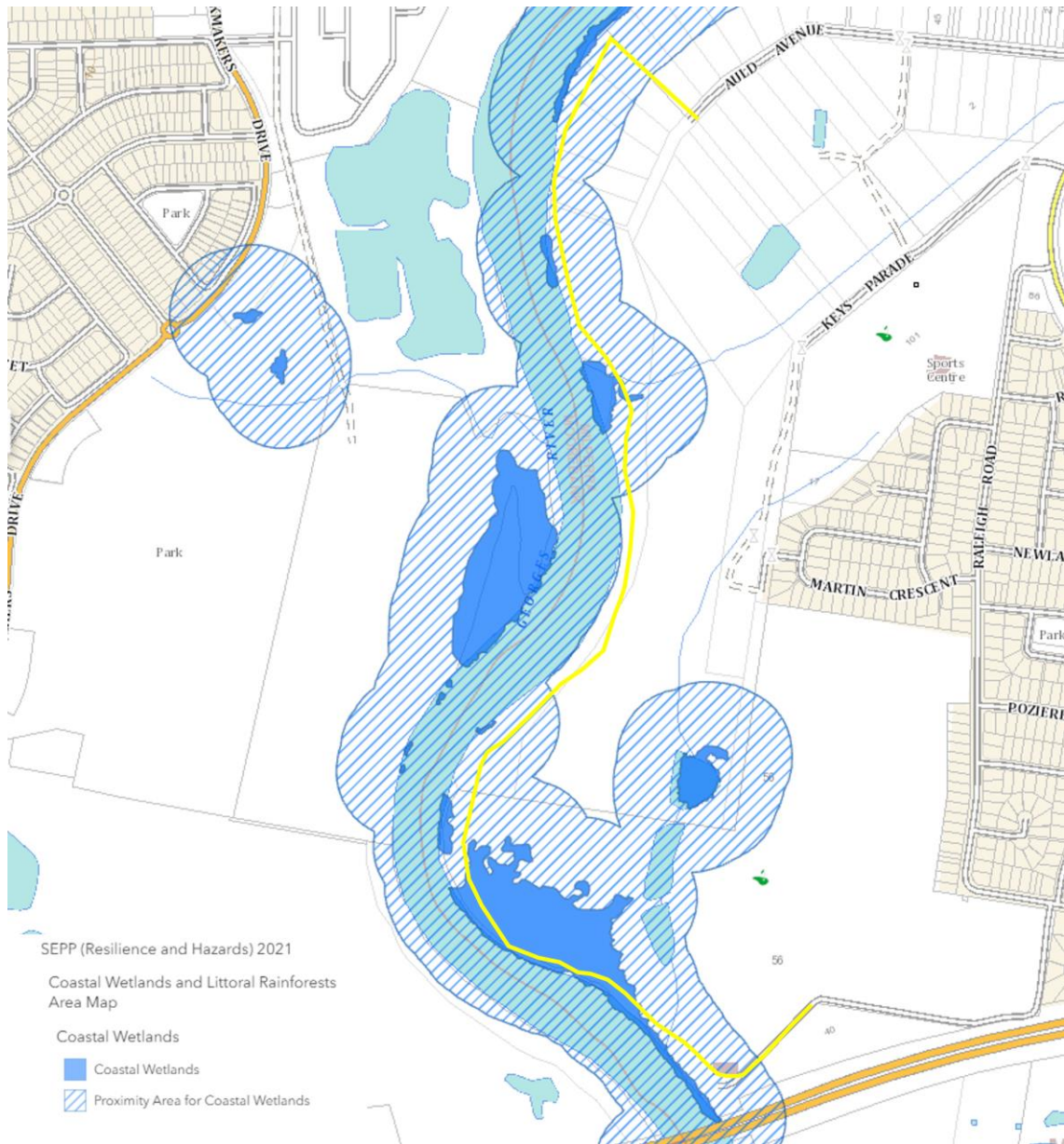


Figure 26: Coastal Wetlands and Littoral Rainforest Area Map (Source: ePlanning Spatial Viewer)

An assessment against the relevant matters within Clause 2.7 is provided within the table below.

Mapped area	Comment
<b>Coastal wetlands</b>	Under the Resilience and Hazards SEPP, development can be carried out in areas mapped as Coastal Wetlands if the consent authority is satisfied that sufficient measures have been, or will be, taken to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the coastal wetland. Proposed

Mapped area	Comment
	<p>works within the coastal wetland zones of the Site are for improved public access as required under the VPA.</p> <p>Although the proposal will result in some encroachment on coastal wetlands, the overall management and enhancement of the Georges River frontage will improve the biophysical, hydrological and ecological integrity of the coastal wetlands in the long term. The proposed works are therefore consistent with the objectives for areas mapped as Coastal Wetlands under the Resilience and Hazards SEPP as these areas will be protected and enhanced thus improving ecological integrity above existing conditions.</p>
<b>Littoral Rainforest</b>	<p>Under the Resilience and Hazards SEPP, development can be carried out in areas mapped as “proximity area for coastal wetlands” if the consent authority is satisfied that the proposed development will not significantly impact on the biophysical, hydrological and ecological integrity of the coastal wetland or the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland. The areas mapped as ‘Proximity to Coastal Wetland’ are within areas that are to be managed under the VMP.</p> <p>The areas mapped as ‘Proximity to Coastal Wetland’ comprise a mix of cleared/denuded areas and riparian vegetation. The ecological integrity of the Proximity zones will be enhanced through active management under a VMP. Therefore, the proposed development is consistent with the objectives for areas mapped as ‘Proximity to Coastal Wetland’ as there will be no significant impacts on the biophysical, hydrological and ecological integrity of the coastal wetland or the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland.</p>

Table 14: Assessment against Clause 2.7 of the Resilience and Hazards SEPP 2021

#### Coastal vulnerability area

This section does not apply as the Site is not identified on the Coastal Vulnerability Area Map.

#### Coastal environment area

As shown on the figure below, the Site is mapped on the Coastal Environmental Area Map. An assessment against the matters in Clause 2.10 is provided in the table below.

Relevant Clause	Comment
<i>(2) Development consent must not be granted to development on land to which this section applies unless the consent authority is satisfied that—</i>	N/A
<i>(a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subsection (1), or</i>	Proposal has considered the aboriginal heritage, biodiversity, flood, bushfire and contamination impacts and relevant consultant reports have been prepared. An



Relevant Clause	Comment
	assessment against the impacts is discussed further in Section 9 of this EIS.
<i>(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or</i>	Impacts have been managed and mitigation measures proposed within the relevant consultant reports. An assessment against the impacts is discussed further in Section 9 of this EIS.
<i>(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.</i>	Impacts have been managed and mitigation measures proposed within the relevant consultant reports. An assessment against the impacts is discussed further in Section 9 of this EIS.

Table 15: Assessment against Clause 2.10 of the Resilience and Hazards SEPP 2021

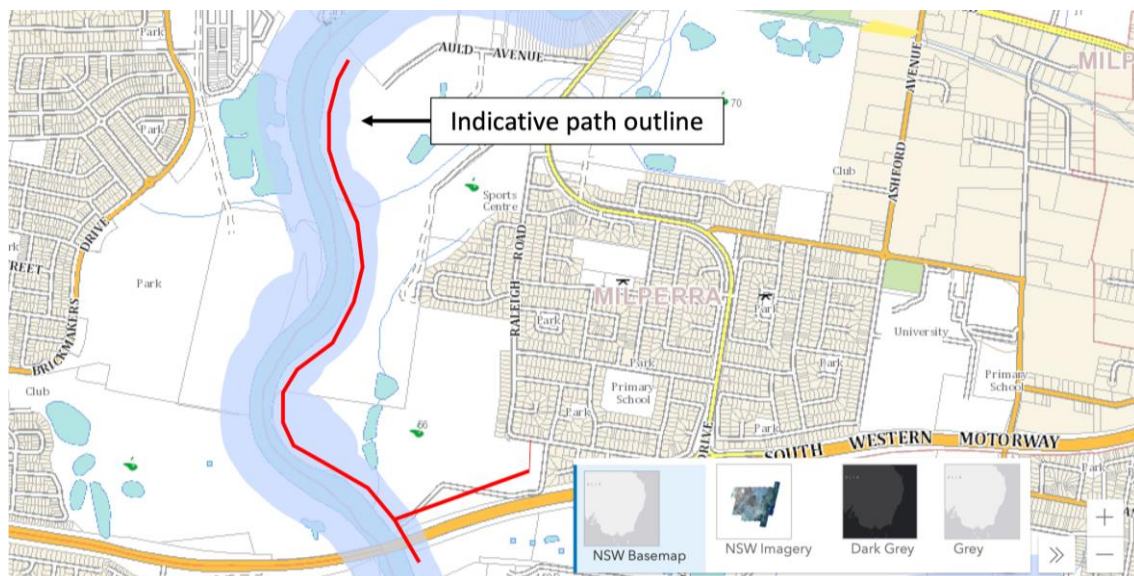


Figure 27: Coastal Environmental Area Map (Source: Spatial Viewer)

Furthermore, the proposed works will largely avoid impacts to ecological integrity, marine environments and cultural places as well as improve public access. Potential impacts to ecological integrity will be managed under the VMP. The proposed shared path is therefore consistent with the objectives of the Coastal Environment Area zone.

### Coastal use area

As shown on the figure below, the Site is located within the Coast Use Area Map.

The proposed shared path will avoid impacts to items listed in clause 2.11(1)(a) of the Resilience and Hazards SEPP and will provide positive benefits to the community in relation to safe access to and along the foreshore for members of the public, including persons with a disability.

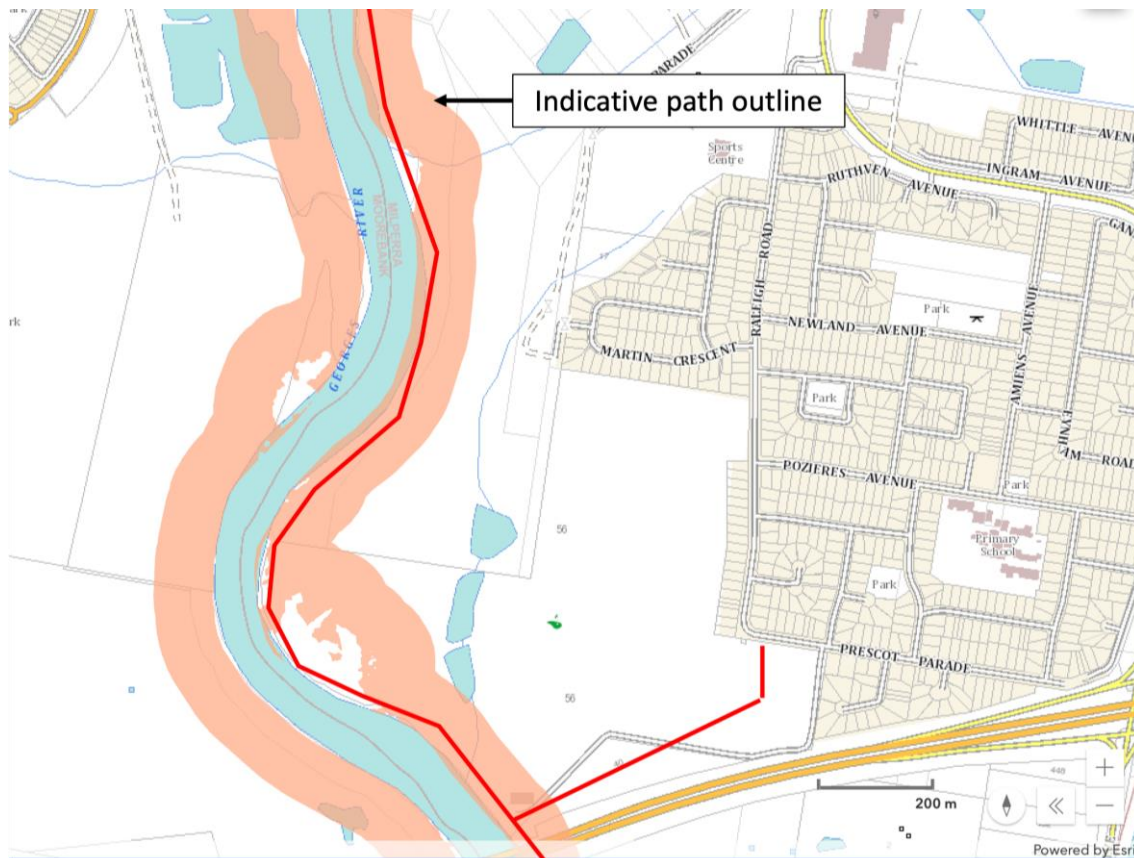


Figure 28: Coastal Use Area Map (Source: Spatial Viewer)

### 8.11.2 Chapter 4 – Remediation of land

Chapter 4 provides a state-wide approach to the remediation of contaminated land for the purpose of minimising the risk of harm to the health of humans and the environment.

The consent authority must not grant consent unless:

- (a) *it has considered whether the land is contaminated, and*
- (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

The approved DA-370/2020 for Bank Stabilisation Works included a Contamination Report (21 March 2022) which largely assesses the same area of land as what the proposal will occur on. The report determined that:

*the proposed Foreshore development land is suitable for future open space public land use, subject to implementing the existing Foreshore RAP (24 March, 2022).*

The RAP prepared by Sullivan Environmental Sciences 24 March 2022 was appended to the approved DA-370/2020 for Bank Stabilisation Works. The RAP lists the

remediation requirements in order for make the Foreshore land suitable for hand back to Council for open space public recreational land use.

As discussed at Section 3.2, the Riverlands DAs are subject to the VPA requirements and involved a staged process. Considering the remedial works listed in the RAP need to occur prior to the construction of the proposed shared path and cycle way, it is assumed that the land will be rendered suitable for its intended future land use.

Subject to the implementation of the recommendations set out in the Contamination Report and RAP approved under DA-370/2020, the Site is considered suitable from a contamination perspective for its intended future use as a shared pathway. The proposed development is, therefore, consistent with the requirements of Resilience and Hazards SEPP.

## **8.12 State Environmental Planning Policy (Planning Systems) 2021**

The *State Environmental Planning Policy (Planning Systems) 2021* seeks to achieve an effective planning system that looks to the future, led by long term, evidence-based strategic planning that is inclusive, democratic, responsive to climate change and injects predictability into decision-making.

### ***Chapter 2 – State and regional development***

Chapter 2 aims to identify development that is State significant development, State significant infrastructure, critical State significant infrastructure and regionally significant development.

The proposed development does not meet the criteria of Regionally Significant Development under Schedule 6, section 3(b) of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP). The development involves council related development; however, it is noted that although the CIV is greater than \$5 million it relates to a VPA entered into under the EP&A Act.

Therefore, the proposed development is local development and Council will be the consent authority.

## **8.13 State Environmental Planning Policy (Transport and Infrastructure) 2021**

The *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport & Infrastructure SEPP) seeks to guide the provision of well-designed and located infrastructure including transport.

The Site is not located in close proximity to any part of the Classified Road network, therefore the provisions of Section 2.119 of the Transport & Infrastructure SEPP are not applicable. Further, the development is not of a size that is identified by Schedule 3 of the Transport & Infrastructure SEPP as ‘traffic generating development’. Council is therefore not required to make a referral to Transport for NSW (TfNSW).

## 8.14 Canterbury Bankstown Local Environmental Plan 2023

CBLEP 2023 aims to establish planning principles and development controls that will promote the orderly and economic use of land. Relevant controls applicable to the Site and proposed development are described below.

### 8.14.1 Zoning

As shown on the figure below, the shared path will predominantly be on RE1 Public Recreation zoned land, with portions of RE2 Private Recreation and R2 Low Density Residential to the east.

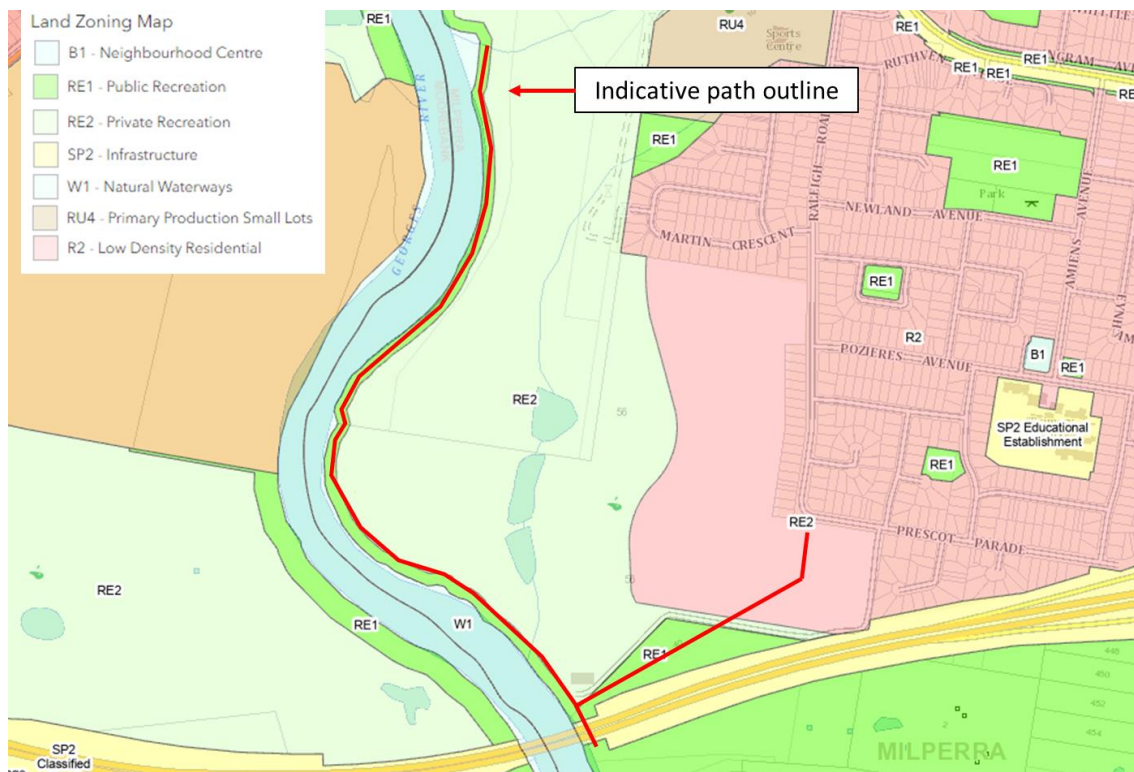


Figure 29: Zoning Map Extract (Source: Bankstown LEP 2015)

The objectives of the zones are described below:

Zoning	Objectives	Consistency with objectives
<b>RE1 Public Recreation</b>	<ul style="list-style-type: none"> <li>To enable land to be used for public open space or recreational purposes.</li> <li>To provide a range of recreational settings and activities and compatible land uses.</li> <li>To protect and enhance the natural environment for recreational purposes</li> <li>To promote a high standard of urban design and local amenity</li> </ul>	<ul style="list-style-type: none"> <li>Provides improved access to open space, recreation areas and waterways.</li> </ul>
<b>RE2 Private Recreation</b>	<ul style="list-style-type: none"> <li>To enable land to be used for private open space or recreational purposes.</li> </ul>	<ul style="list-style-type: none"> <li>Provides a recreational setting compatible with the land use.</li> </ul>



Zoning	Objectives	Consistency with objectives
	<ul style="list-style-type: none"> <li>To provide a range of recreational settings and activities and compatible land uses.</li> <li>To protect and enhance the natural environment for recreational purposes.</li> <li>To promote a high standard of urban design and local amenity.</li> </ul>	
<b>R2 Low Density Residential</b>	<ul style="list-style-type: none"> <li>To provide for the housing needs of the community within a low density residential environment</li> <li>To enable other land uses that provide facilities or services to meet the day to day needs of residents.</li> <li>To allow for certain non-residential uses that are compatible with residential uses and do not adversely affect the living environment or amenity of the area.</li> <li>To ensure suitable landscaping in the low density residential environment</li> <li>To minimise and manage traffic and parking impacts.</li> <li>To minimise conflict between land uses within this zone and land uses within adjoining zones.</li> <li>To promote a high standard of urban design and local amenity.</li> </ul>	<ul style="list-style-type: none"> <li>Provides a publicly accessible pathway which meets the daily needs of residents.</li> </ul>

Table 16: Zone objective (Source: CBLEP 2023)

### 8.14.2 Permissibility

The proposed development is an 'environmental facility', as per the definition in CBLEP 2023:

**environmental facility** means a building or place that provides for the recreational use or scientific study of natural systems, and includes walking tracks, seating, shelters, board walks, observation decks, bird hides or the like, and associated display structures.

The proposed development is permissible with consent in the RE1 Public Recreation, RE2 Private Recreation and R2 Low Density Residential under CBLEP 2023.

### 8.14.3 Land Reservation

As shown in the figure below, the RE1 zoned land along the Georges River foreshore is reserved under the CBLEP 2023 for Local Open Space.

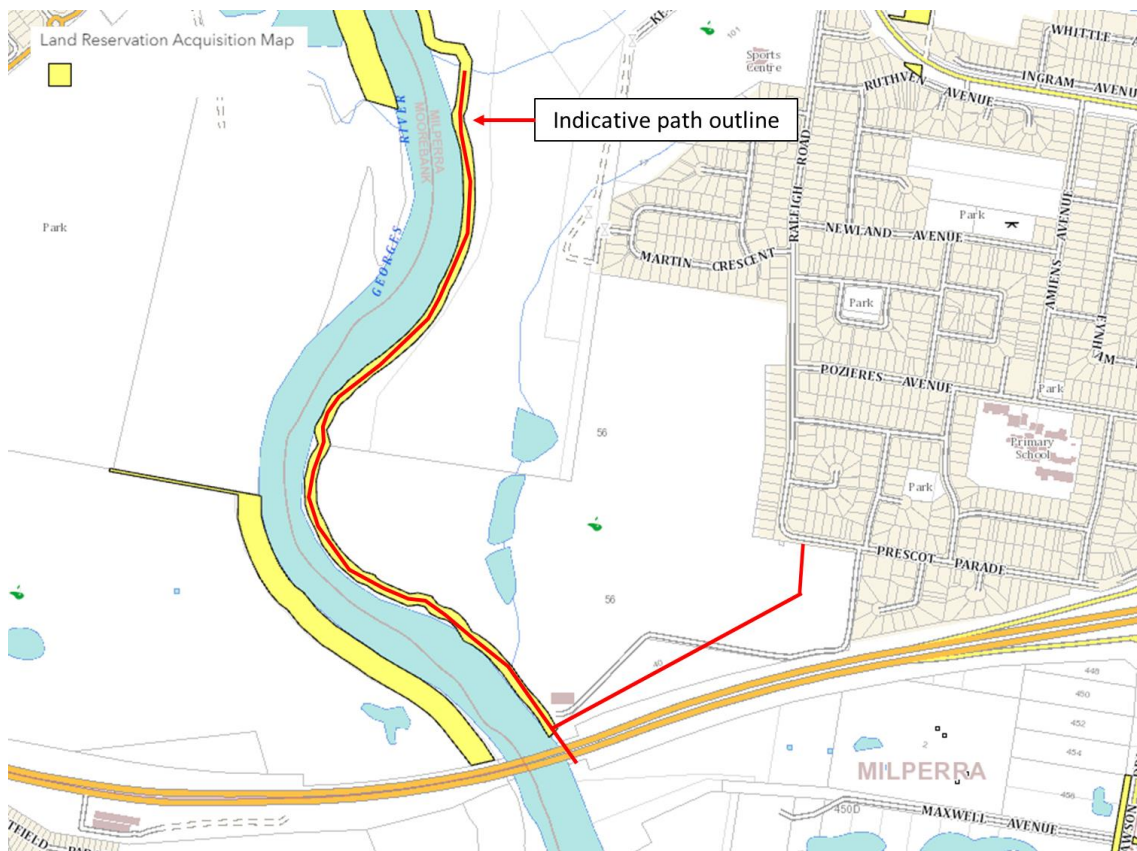
Clause 5.1 of the CBLEP 2023 outlines consent can only be granted for land reserved for Local Open Space if the development is for the purposes of a recreation area.

The CBLEP 2023 definition of recreation area is provided below (bold our emphasis):

*recreation area means a place used for outdoor recreation that is normally open to the public, and includes—*

- (a) a children's playground, or*
  - (b) an area used for community sporting activities, or*
  - (c) a public park, reserve or garden or the like,*
- and any ancillary buildings, but does not include a recreation facility (indoor), recreation facility (major) or recreation facility (outdoor).*

The proposed shared pathway is development for the purposes of a recreation area as it will be used for public recreation activities in accordance with the VPA.



#### 8.14.4 Heritage Conservation

The proposed shared path is not located near any heritage items listed under Schedule 5 of the CBLEP 2023.

However, Clause 5.10(2)(d) outlines development consent is required for disturbing or excavating an Aboriginal place of heritage significance. The ACHAR (Appendix 8) found that the Georges River (adjacent to the proposed shared path) is a significant area for Aboriginal People.

Therefore, in accordance with Clause 5.10 (8) the consent authority must do the following prior to granting consent:

- (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and*
- (b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.*

An ACHAR has been prepared and provided at Appendix 8. The findings of the ACHAR are summarised below and discussed further in Section 9 of this EIS.

- previous archaeological assessment of the study area found it to be not of archaeological potential due to its position on a flood prone plain. The ACHAR concurs with these findings and therefore the Site is not likely to be of archaeological potential
- there are no registered Aboriginal sites within the Site or within 400m of the Site. Therefore, there will be no impacts on Aboriginal material heritage
- no management or mitigation measures are proposed as no aboriginal sites are identified within the Site

#### 8.14.5 Flood Planning

The Site is mapped as being within the flood planning area under Clause 5.21 of the CBLEP 2023. An assessment against the matters which Council will use to determine if consent cannot be granted is provided in the table below.

Relevant Clause	Comment
<i>(2) Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development—</i>	N/A
<i>(a) is compatible with the flood function and behaviour on the land, and</i>	Proposal is compatible as per conclusions within the Flood Risk Assessment (Appendix 11).
<i>(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and</i>	Proposal will not adversely affect flood behaviour as per conclusions within the Flood Risk Assessment (Appendix 11).
<i>(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and</i>	A condition of consent will be accepted requiring signage at the pathway entrances to deter pathway usage during a flood event in accordance with the recommendations of the Flood Risk Assessment (Appendix 11).
<i>(d) incorporates appropriate measures to manage risk to life in the event of a flood, and</i>	A condition of consent will be accepted requiring signage at the pathway entrances to deter pathway usage during a flood event in accordance with the recommendations of the Flood Risk Assessment (Appendix 11).

Relevant Clause	Comment
<i>(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.</i>	The proposal will incorporate all proposed mitigation measures proposed within the BDAR (Appendix 7) and Arborist report (Appendix 16) to ensure impacts are minimal and appropriately managed.

Table 17: Assessment against clause 5.32 of the CBLEP 2023 (Source: CBLEP 2023)

It is also noted a Flood Risk Assessment has been prepared and is provided at Appendix 11. This is discussed in detail in Section 9.1.1 of this report.

#### 8.14.6 Public bushland

In accordance with the definition of public bushland below (**bold** our emphasis), Clause 5.23 applies to the land reserved for open space under the CBLEP 2023. Refer to Section 8.14.3 of this EIS.

*public bushland means land—*

*(a) on which there is vegetation that is—*

*(i) **a remainder of the natural vegetation of the land**, or*

*(ii) representative of the structure and floristics of the natural vegetation of the land, and*

*(b) that is owned, managed or **reserved for open space** or environmental conservation **by the Council** or a public authority.*

An assessment against the matters which Council will use to determine if consent cannot be granted is provided in the table below.

Relevant Clause	Comment
<i>(3) Development consent must not be granted to development that will disturb, or is reasonably likely to disturb, public bushland unless the consent authority is satisfied of the following—</i>	N/A
<i>(a) the disturbance of the bushland is essential for a purpose in the public interest,</i>	<p>The disturbance of bushland is in the public interest as:</p> <ul style="list-style-type: none"> <li>• a useable area of public open space – the Site's current state is inaccessible and unusable</li> <li>• substantially improve walking and cycling facilities within the LGA through the provision of a 2.5 km, 3.5m wide track</li> <li>• encourages community health and wellbeing through access to green areas and community interaction</li> <li>• engagement between the community and Georges River wildlife</li> <li>• significantly landscape the shared pathway corridor through the retention of trees and planning of a significant amount of tree, shrubs and groundcovers</li> </ul>



Relevant Clause	Comment
	<ul style="list-style-type: none"> <li>extent of disturbance is minimal as confirmed within the Arborists Report (Appendix 16), BDAR (Appendix 7) report findings</li> </ul>
<i>(b) there is no reasonable alternative to the disturbance,</i>	Disturbance to the bushland is unavoidable in order to provide the shared pathway in accordance with the VPA.
<i>(c) the development minimises the amount of bushland to be disturbed,</i>	Appropriate measures to avoid and minimise impacts to bushland is described within the BDAR (Appendix 7) and Section 9 of this EIS.
<i>(d) the development includes measures to remediate the disturbed bushland.</i>	The Site will be remediated by the significant landscaping proposed as described within Section 4.4.

Table 18: Clause 5.23 Assessment (Source: CBLEP 2023)

#### 8.14.7 Acid Sulfate Soils

As shown on the figure below, the proposal is mapped as containing Class 2 and Class 3 and Class 5.

Development consent is required under Clause 6.1 for development if the works meet the descriptions in the table below.

Class of land	Works
2	<ul style="list-style-type: none"> <li>Works below the natural ground surface.</li> <li>Works by which the watertable is likely to be lowered.</li> </ul>
3	<ul style="list-style-type: none"> <li>Works more than 1m below the natural ground surface.</li> <li>Works by which the watertable is likely to be lowered more than 1m below the natural ground surface.</li> </ul>
5	<ul style="list-style-type: none"> <li>Works within 500m of adjacent Class 1, 2, 3 or 4 land that is below 5m Australian Height Datum and by which the watertable is likely to be lowered below 1m Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.</li> </ul>

Table 19: Clause 6.1 requirements

An Acid Sulfate Soils Management Plan has been prepared by SESL Australia (Appendix 14). This is discussed further in Section 9.

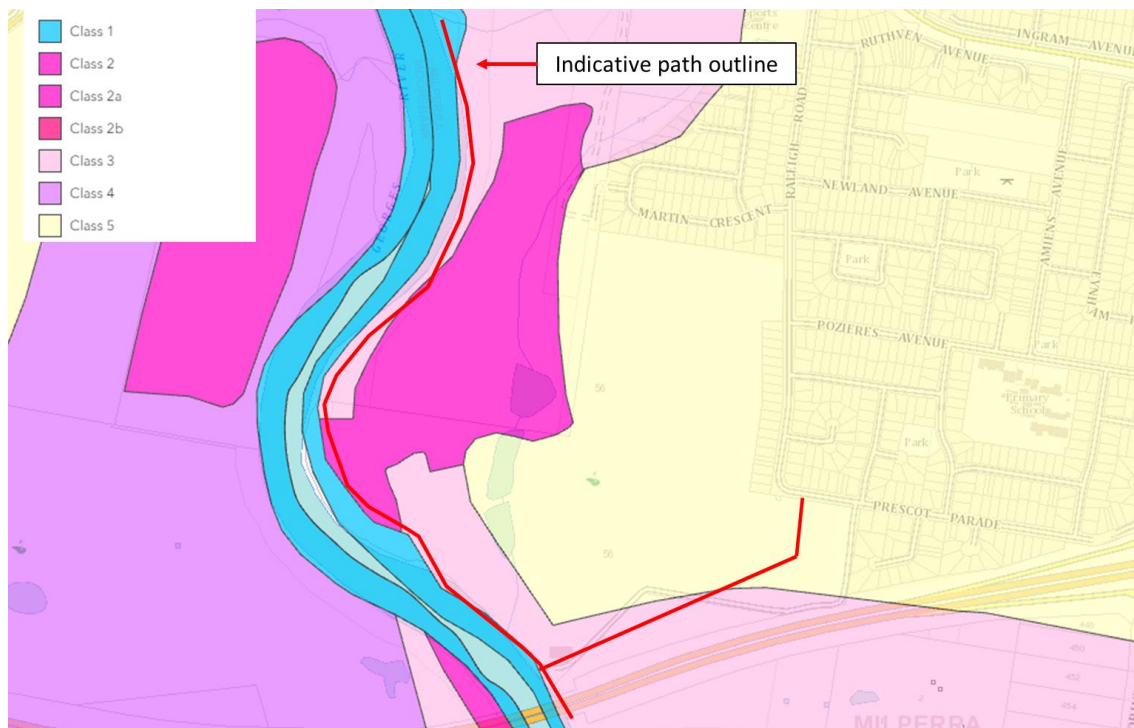


Figure 30: Acid Sulfate Soils Map (Source: CBLEP 2023)

#### 8.14.8 Stormwater management and water sensitive urban design

Clause 6.3 applies the shared pathway is proposed on RE1 Public Recreation, RE2 Private Recreation and R2 Low Density Residential zoned land.

An assessment against the matters under clause 6.3 is provided in the table below.

Relevant Clause	Comment
(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development—	N/A
(a) is designed to maximise the use of water permeable surfaces on the land having regard to the soil characteristics affecting on-site infiltration of water, and	Permeable surfaces are proposed on all elevation sections of paths and the bridge.
(b) includes, if practicable, on-site stormwater retention for use as an alternative supply to mains water, groundwater or river water, and	Not proposed.
(c) avoids significant adverse impacts of stormwater runoff on the land on which the development is carried out, adjoining properties and infrastructure, native bushland and receiving waters, or if the impact cannot be reasonably avoided, minimises and mitigates the impact, and	The proposal will not result in adverse stormwater impacts.
(d) includes riparian, stormwater and flooding measures, and	Flooding is discussed in Section 8.14.5.

Relevant Clause	Comment
(e) is designed to incorporate the following water sensitive urban design principles—	N/A
(i) protection and enhancement of water quality, by improving the quality of stormwater runoff from urban catchments,	The proposal will not increase stormwater flows from what is already existing at the Site.
(ii) minimisation of harmful impacts of urban development on water balance and on surface and groundwater flow regimes,	The proposal will not adversely impact water balance or surface/groundwater flow regimes.
(iii) integration of stormwater management systems into the landscape in a way that provides multiple benefits, including water quality protection, stormwater retention and detention, public open space and recreational and visual amenity.	The proposal will not increase stormwater flows from what is already existing at the Site.

Table 20: Assessment against Clause 6.3 (Source: CBLEP 2023)

### 8.14.9 Biodiversity

Clause 6.4 applies as the portions of the Site contain land identified as 'biodiversity' on the CBLEP 2023 Biodiversity Map below. The BDAR at Appendix 7 discusses the impacts of the proposal on the condition, ecological values and significance of the flora and fauna. It provides mitigation measures to minimise impacts. These impacts and management measures are discussed in detail at Section 9.



Figure 31: Biodiversity Map (Source: CBLEP 2023)

Clause 6.4 applies as parts of the Site contain land identified as 'Riparian Land' and 'Watercourse' on the CBLEP 2023 Riparian Lands and Watercourses map below.

- the condition, ecological value and significance of the fauna and flora on the land
- the importance of the vegetation on the land to the habitat and survival of native fauna
- any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land
- any adverse impact on the habitat elements providing connectivity on the land
- appropriate measures proposed to avoid, minimise or mitigate the impacts of the development

Riparian Lands and Watercourses Map

- Riparian Land
- Watercourse

Indicative path outline

#### 8.14.11 Development on Riverlands Golf Course site

22/046 | EIS | Milperra Shared Path | November 2023



In particular, clause 6.11(3)(c) states that Riverlands development integrates with the road, pedestrian and cycle networks of the surrounding established Milperra neighbourhood area.

The proposed development will ensure that this clause is realised, in connecting the approved works under the Riverlands DAs to the shared path and connecting cycle routes.

### **8.15 Canterbury-Bankstown Development Control Plan 2023**

A detailed assessment of the proposal against the relevant provisions of the *Canterbury-Bankstown Development Control Plan 2023* is provided at Appendix 9.

### **8.16 Contributions**

As described in Section 8.14.1, the proposed shared path work is defined as an 'environmental facility' under the CBLEP 2023.

Section 1.3 of the *Canterbury-Bankstown Local Infrastructure Contributions Plan 2022* outlines Council can exempt development for the purposes of environmental facilities from the payment of contributions.

As the proposal is the result of a VPA, the proposal should be exempt from the Contributions Plan.

## 9 Environmental assessment

### 9.1 Hazards and risk

#### 9.1.1 Flooding

A Flood Risk Assessment (FRA) was prepared by Water Technology Pty Ltd (Appendix 11). In accordance with the SEAR's, the FRA:

- determines the flood hazard in the area
- addresses the impact of flooding on the proposed development
- addresses the development's impact (including filling) on flood behaviour across the site and adjacent lands
- addresses adequate egress and safety in a flood event

The FRA was based on the following sources of information:

- The Georges River Flood Study Report & model (BMT, 2020)
- The Milperra Catchment Draft Flood Study Update (BMT, 2013)
- The Kelso Stormwater Catchment Flood Modelling report (BMT, 2009)
- The design details for the proposed development as per drawing PC2-00.dwg and drawing no. PC1-3 Amendments C-F Issued 13/03/23 (Calibre, 2023a)

#### Flood hazard in the area

As shown on the figures below, the site is affected by riverine flooding from the Georges River and by overland flooding from the Milperra catchment and Kelso stormwater catchment, all of which interact with the path.

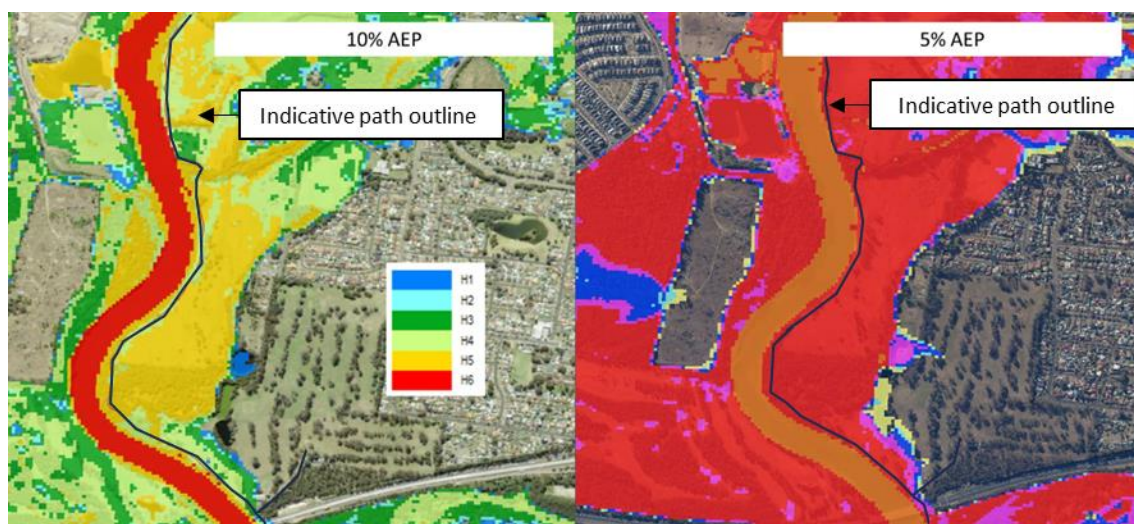


Figure 33: Georges River 10% AEP (one-in-10) and 5% AEP (one-in-20) events (Source: Water Technology)

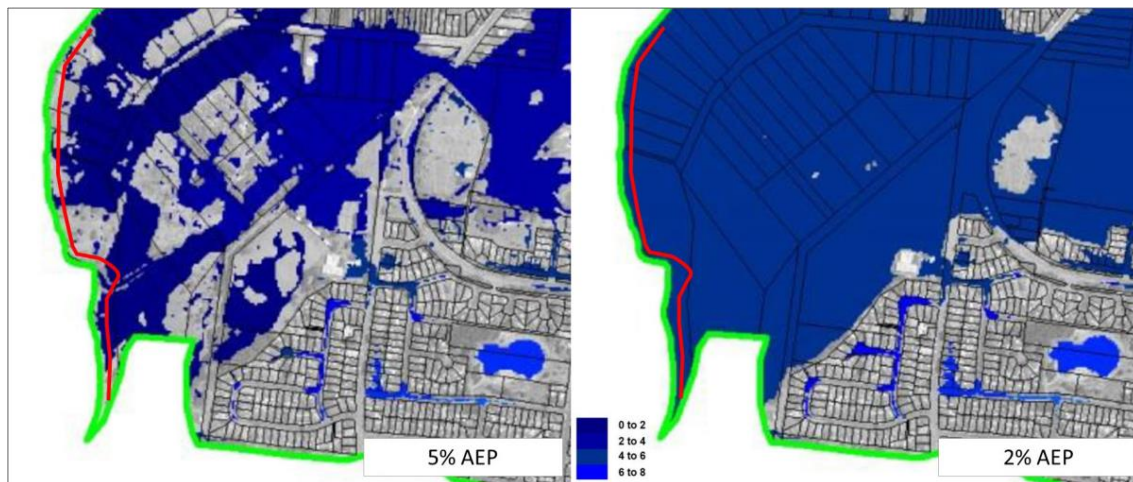


Figure 34: Milperra catchment 5% AEP and 2% AEP flood levels (Source: Water Technology)

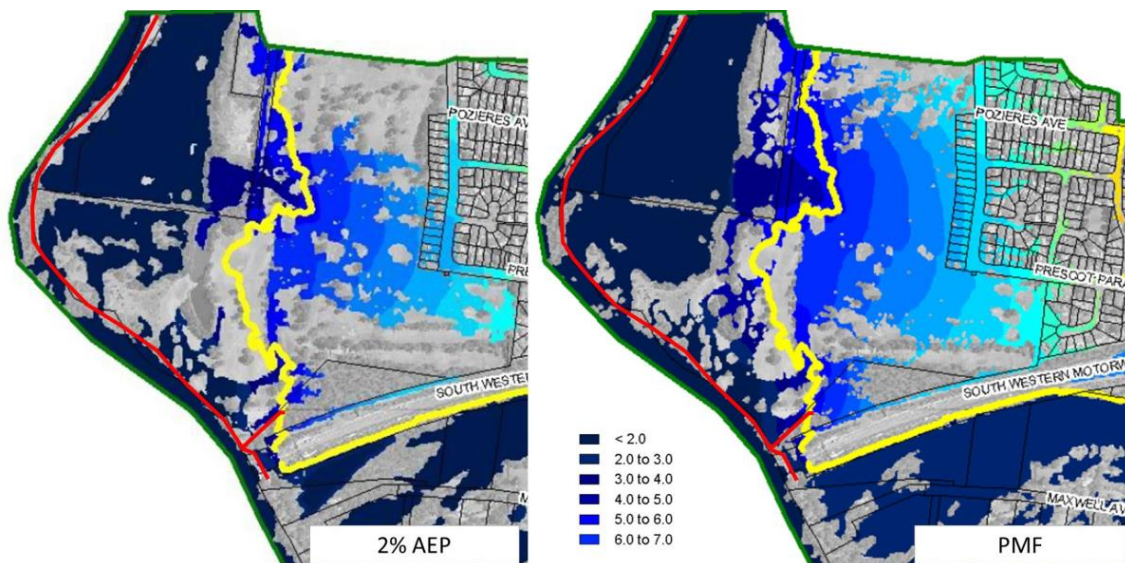


Figure 35: Kelso stormwater catchment 2% AEP and PMF flood levels (Source: Water Technology)

#### Impact of flooding on the proposed development

The most relevant impact is the potential scouring of the shared pathway by floodwaters (scouring is the result of erosive action of water, excavating and carrying away of material from the bed and banks of streams and from around the piers and abutments of bridges).

The erosion is anticipated to become problematic at flow rates exceeding about 0.5 m/s as the soil type in the area is described as being 'poorly structured orange to red clay loams, clays and sands' which is classified as having high erodibility.

#### Development's impact (including filling) on flood behaviour across the site and adjacent lands

The proposed design surface levels of the pathway follow the existing ground levels along most of the pathway's route (figure below) so in those locations it will have no impact on either riverine or tributary flood levels.

Substantial deviations to the existing surface levels occur in 6 discrete locations, consisting of three separate elevated pathway sections, one cut section and two filled sections, as set out in the figure below. Those locations are where there is potential for impacts.

Dwg_ID	Design Surface Levels (m AHD)		Figure 2 Location_ID
	Low	High	
PC2-01	1.252	3.644	Location 6
PC2-02	1.223	1.656	Location 5
PC2-03	0.760	1.250	Location 4
PC2-04	1.250	1.497	Location 4
PC2-05	1.187	1.505	Location 3
PC2-06	1.105	1.350	
PC2-07	0.887	1.501	
PC2-08	1.001	1.251	
PC2-09	1.067	2.259	Location 2
PC2-10	1.085	1.894	
PC2-11	0.960	1.519	
PC2-12	1.164	1.780	Location 1

Figure 36: Minimum and maximum design surface levels (Base source: Water Technology)

#### Egress and safety in a flood event

It is acknowledged there is a high risk of people finding themselves isolated on the pathway during developing floods.

In the event of Georges River flooding, virtually the entire length of the shared pathway is unsafe for people in all modelled floods and probably in events more frequent than the 20% AEP (one-in-5) event (Figure 6).

The only engineered solution to this would be to design the path so that it has a continuously rising gradient to the north and south of the lowest point on the path. This is likely to create design challenges and would greatly increase the cost of the path which is currently designed to follow the existing ground level.

The alternative is to use signage to alert users of the risks, warning them of the potential for rapidly rising floodwaters trapping them on the path. Closure of the path whenever the Bureau of Meteorology issues a Flood Watch would be another measure to reduce the probability of people being on the path in a rising flood.

#### Flooding summary

In summary the ARA concludes:



- the proposed pathway is unlikely to adversely impact on riverine or local creek flood levels
- the proposed pathway is likely to be susceptible to erosion damage in several locations from Georges River flooding in events somewhere between the 20% and 5% AEP flood unless protection works are included in its design
- the bridge and abutments at the Northern Channel will need to be designed to withstand the scour caused by high velocities in the channel in frequent overland flow events and the bridge will need to be designed to resist debris loads in such events
- the path will be inundated at several locations in floods more frequent than the 20% AEP Georges River flood for which there may be no flood warning. This would create numerous high points along the path on which people could be trapped on all sides by high hazard floodwaters before these high points themselves would become hazardous in slightly larger, but still quite frequent, events. Signage to discourage path usage during floods would be the only practical, affordable measure to manage this risk

In response to the conclusions:

- the pathway is elevated in sections of the pathway which allows debris to freely pass through
- the applicant will accept a condition of consent requiring signage at the northern and southern entrances of the pathway which discourage path usage during floods events

### **9.1.2 Bushfire**

As discussed in Section 6, DPE consulted NSW RFS during the preparation of the SEAR's. On 29th March 2020 NSW RFS stated:

*'The New South Wales Rural Fire Service (NSW RFS) has reviewed the information provided and advises that there are no specific concerns with the proposal relating to bush fire protection.'*

A Bushfire Threat Assessment has been prepared by Bushfire Code and Bushfire Hazard Solutions (Appendix 10) has been prepared in accordance with the SEAR's which addresses bushfire risk and the *Planning for Bush Fire Protection 2019* (PBP) requirements.

#### **Bushfire affected land**

As shown on the figure below, portions of land where the pathway is proposed is identified as being land within the 100 metre buffer zone from Category 1 Vegetation on Council's Bushfire Prone Land Map.



Figure 37: Council Bushfire Prone Land Map (Source: Bushfire Code and Bushfire Hazard Solutions)

Whilst it is acknowledged all development on bushfire prone land is subject to the application of the PBP, it is noted the PBP does not specifically address development relating to pedestrian and cyclist footpaths. Rather, it primarily focuses on residential developments and special fire protection purpose developments such as hospitals and schools.

#### Planning for Bush Fire Protection 2019 Assessment

Notwithstanding the above, the BTA considered the proposal against Chapter 8 and Chapter 1 of the PFP as shown in the table below.

Aim / Objective	Compliance comment
<p><i>The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment</i></p>	<p><i>The proposal does not include any residential or Special Fire Protection Purpose component.</i></p> <p><i>The proposed pedestrian and cyclist path will be located &gt;230 metres from any existing residential development and will be constructed from non-combustible and fire resistant materials.</i></p> <p><i>The proposed pedestrian and cyclist path will have no impact on neighbouring residential development and subsequently is considered to satisfy the aim of PBP.</i></p>

Aim / Objective	Compliance comment
<i>(i) afford occupants of any building adequate protection from exposure to a bush fire</i>	<i>Not applicable.</i>
<i>(ii) provide for a defensible space to be located around buildings;</i>	<i>Not applicable.</i>
<i>(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;</i>	<i>Not applicable.</i>
<i>(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;</i>	<i>The proposed pedestrian and cyclist path will not restrict attending fire service access to the locality or surrounding residential properties.</i>
<i>(v) provide for ongoing management and maintenance of bush fire protection measures; and</i>	<i>Not applicable.</i>
<i>(vi) ensure that utility services are adequate to meet the needs of firefighters.</i>	<i>Not applicable.</i>

Figure 38: Assessment against Chapter 8 of the PBP (Source: Bushfire Code and Bushfire Hazard Solutions)

### Bushfire history

On the subject site:

- there has been no record of any fire events (planned or unplanned) since 1902
- the closest recorded wildfire was in 1997, approximately 600m from the site, small and didn't warrant an evacuation of the area
- the largest recorded wildfires were during 2002-2003 and 2017-2018 and greater than 2km's from the site

### Summary

With consideration of the above, the BTA ultimately concludes the proposal is suitable for the site and achieves a satisfactory level of bushfire protection given the path:

- will be largely constructed through managed grasslands and saline wetlands (mangroves)
- does not include any residential or Special Fire Protection Purpose component.
- is located >230 metres from any existing residential development
- will be constructed from non-combustible and fire resistant material
- will not restrict attending fire service access to the locality or surrounding residential properties

## 9.2 Soil

As described in Section 8.14.7 of this EIS, the Site is affected by Class 2, Class 3 and Class 5 Acid Sulfate Soils.

An Acid Sulfate Soils Management Plan (Appendix 14) has been prepared by SESL Australia in accordance with the Acid Sulfate Soil Manual 1998. As shown on the figure below, the Site was assessed as part of the preparation of the Plan.

The intent of the Plan is to reduce potential onsite and offsite environmental impacts and potential infrastructure damage associated with the disturbance of actual and potential acid sulfate soils during the development works.

The majority of the proposed works have been strategically located to minimise the required disturbance of acid sulfate soils. However, the location of the proposed works within the areas of low-lying ground are unavoidable, and therefore the minimisation of disturbance, neutralisation or strategic placement of disturbed soil will be necessary to ensure that the soils are managed to adequately and effectively minimise risk.

The management of disturbed soils should be as described below:

- potential acid generation is typically managed by the addition of lime to neutralise acid that may be generated during and after the excavation works
- disturbed soils should be managed in accordance with the methodology as per the extensive detail in the Plan

SESL concludes this management plan is sufficient to manage the risks associated with actual and potential acid sulfate soils at the Site.



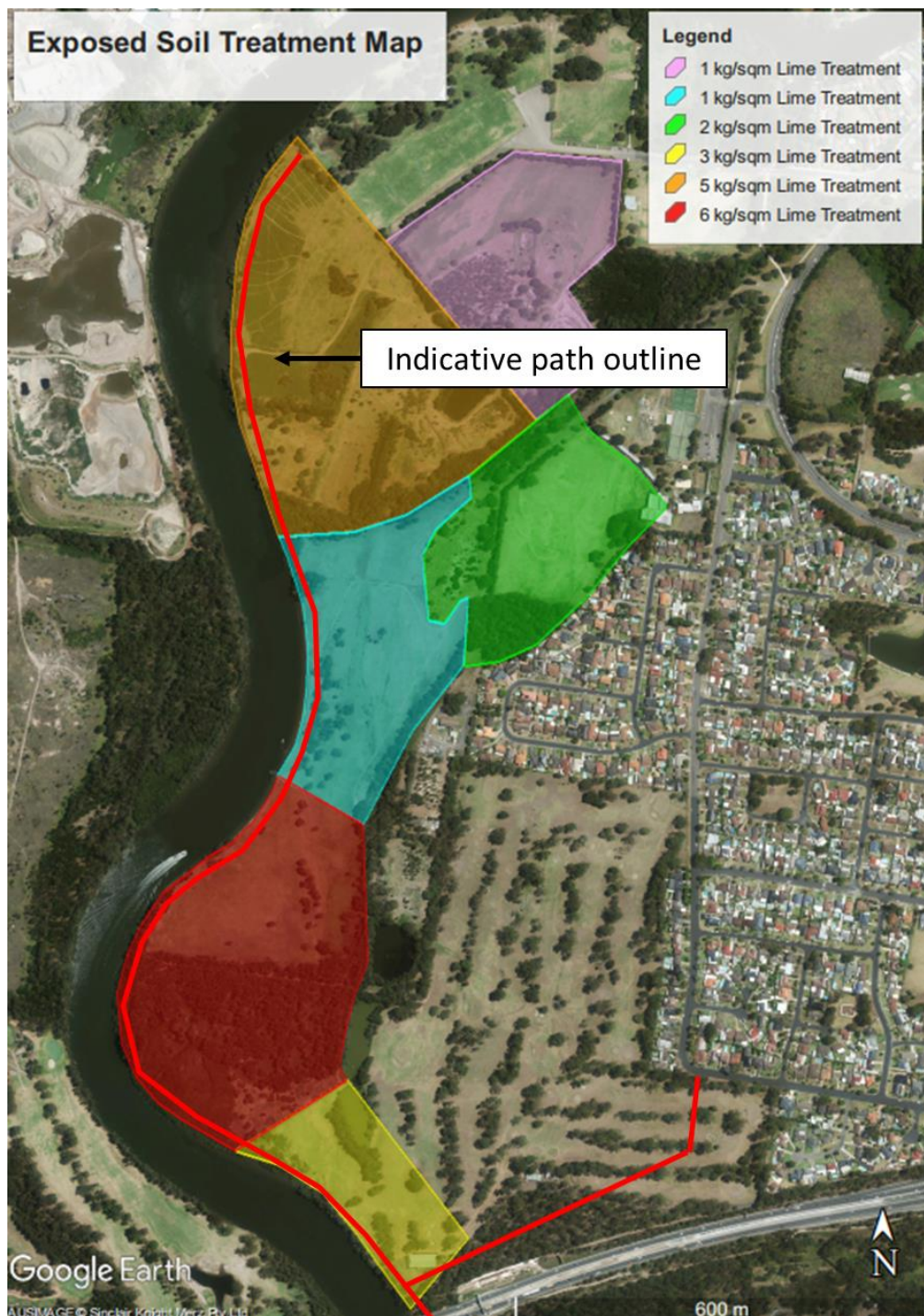


Figure 39: Excavated Soil Treatment Map (Source: SESL Australia)

### 9.3 Biodiversity

The BDAR (Appendix 7) has been prepared in accordance with the NSW Biodiversity Assessment Method (BAM) 2017 established under the BC Act and the SEAR's.

Several databases were used to prepare the BDAR which include:

- Environment and Heritage Group (EHG) BioNet Atlas (EHG, 2023a);
- EHG Threatened Biodiversity Data Collection (EHG, 2023c);
- EHG BioNet Vegetation Classification database (EHG, 2023b);
- Commonwealth Species Profile and Threat Database (DCCEEW, 2023b);
- DCCEEW Directory of Important Wetlands in Australia (DCCEEW, 2023a); and
- eSpade Soil Landscapes (DPE, 2023)

The BDAR assessed the proposal against the relevant statutory requirements within the following legislation:

- *Environment Protection and Biodiversity Conservation Act 1999*
- *Water Management Act 2000*
- *Fisheries Management Act 1994*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*

### Native vegetation extent

The subject land and wider Riverlands site have been subject to detailed surveys by Cumberland Ecology for the purpose of this BDAR. The native vegetation extent within the subject land was determined through aerial photograph interpretation and field surveys. The native vegetation extent within the subject land is shown in the figure below. It occupies approximately 1.01 ha, which represents approximately 41% of the subject land.

### Plant community types

The plant community types within the Site are shown within the below figure.

PCT #	PCT	Subject Land (ha)
835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion	0.07
1232	Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion	0.64
920	Mangrove Forests in estuaries of the Sydney Basin Bioregion and South East Corner Bioregion	0.14
849	Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion	0.16

Figure 40: Plant community types within the subject site (Source: BDAR)





Figure 41: Native vegetation extent within the subject land (Source: BDAR)

A summary of the main findings and conclusions is provided below:

- The site comprises scattered patches of native vegetation. The remainder of the Site is exotic vegetation of previously cleared land.
- The proposed removal/modification of native vegetation requires a total of 7 ecosystem credits
- No threatened flora species were recorded within the Site and none are considered likely to occur. Therefore, no flora species credits species are required to be offset.
- The following threatened fauna species were recorded within the Site:
  - Southern Myotis – requiring 6 species credits for this species

- Golden Bell Frog – requiring 1 species credits for this species
- Measures to avoid and minimise impacts to the biodiversity values are proposed within the report
- With the implementation of the proposed mitigation measures and the offsetting described, it is considered that the impacts of the proposed development on biodiversity, particularly on threatened ecological communities and threatened species will result in no net loss of biodiversity values.

#### **9.4 Contamination**

A Phase 2 contamination investigation was prepared by Sullivan Environmental Sciences (Appendix 17) concurrently with the Geotechnical Report (Appendix 12).

The objective of the Phase 2 investigation was to assess the soils and groundwater for contamination risks, such that maximum reuse potential of soils on the site could be realised in the Riverlands Stage 2 works.

Based on the findings of this Phase 2 contamination investigation and previous investigations described within Appendix 17, the site soils are of relatively good quality and generally meet the assessment land use criteria for a proposed a residential use and, accordingly, the proposed shared path.

#### **9.5 Geotechnical**

A Geotechnical Investigation was prepared by Construction Sciences (Appendix 12).

Geotechnical investigation comprised a combination of borehole drilling, cone penetration testing (CPT) and test pit excavation:

- drilling two vertical boreholes up to 10.0m below ground level (BGL) within the proposed elevated areas / bridge locations. Boreholes were drilled using a track mounted drill rig operated by Strata Core Drilling, fitted with a 200mm solid flight auger with tungsten Carbide “TC” – bit.
- Standard Penetration Tests at 1.5m intervals between 0.5m BGL and 9.0m BGL to characterise soil profile
- conducting three cone penetration tests up to 14.4m BGL using Strata Core cone penetration tests rig to obtain a continuous strength and interpreted depth profile of the subsurface materials
- excavation of ten test pits up to 2.5m BGL using a 5 tonne excavator.
- dynamic Cone Penetrometer testing at each test pit location to assist characterising subsurface profile
- collection of disturbed soil samples for future reference.

A summary of the above investigation works are shown in the figure below:



Investigation Type	Location ID	Chainage	Target Depth (m BGL)
Borehole	BHVR01	CH0450	10.0
	BHVR02	CH1475	10.0
CPT	CPT1	CH1525	14.4
	CPT2	CH0800	12.8
	CPT3	CH0400	10.6
Test Pit	TP01	CH0100	1.5
	TP02	CH0250	1.5
	TP03	CH0875	1.5
	TP04	CH1050	1.5
	TP05	CH1260	1.5
	TP06	CH1450	1.5
	TP07	CH1570	2.5
	TP08	CH1750	1.5
	TP09	CH1940	1.5
	TP10	CH2115	1.5

Figure 42: Summary of geotechnical investigation works (Source: Construction Sciences)

It is noted groundwater inflow (including minor seepages) was observed during the drilling / excavation works in majority of the test locations at depths ranging from 0.3m to 2.2m. Further testing (i.e. installation of groundwater monitoring wells) would be required to assess long-term groundwater conditions, if required.

### 9.5.1 Pavement material thickness

The pavement thickness design recommended by the Geotechnical Report is described in the table below.

Layer	Thickness (mm)	
	CH0000 – CH1520	CH1520 – CH2111
Concrete	150 <sup>1</sup>	150 <sup>1</sup>
Granular Base (graded to DGS20)	125	125
Select Fill <sup>3</sup>	Note 2	300
<b>Total Thickness</b>	<b>275</b>	<b>575</b>

**Note:**

1 Assumed access by light maintenance vehicles only. Increase concrete thickness to 200mm at vehicular crossing for heavy trucks, if required.

2 Select fill may locally be required to improve subgrade if any soft spots identified under proof roll test or by visual inspection.

3 Select fill to include imported granular fill of not less than CBR 15%. For Ch1520 -Ch2111 underlain by insitu CBR 2% material, an effective CBR value of 3% can then be used for design.

Figure 43: Recommended pavement material thickness design for rigid pavement (Source: Construction Services)

The Applicant may also seek to use oyster shell base for the pavement material.

### 9.5.2 Elevated sections / bridge footings

Due to the presence of soft / loose as well as medium dense and stiff to very soils within the depths investigated along the site, shallow footings are not recommended. Deep pile

footings are considered appropriate support for the proposed elevated sections and bridges.

Foundation Type	Advantages	Disadvantages	Additional Comments
Screw Piles	<ul style="list-style-type: none"> <li>▪ Quiet / No vibration</li> <li>▪ Can be loaded to full capacity after installation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not suitable for use in very hard or gravelly soils</li> <li>▪ Can sustain damage on granular strata if encountered</li> </ul>	Installation of screw piles is dependent on sizing and torque resistance being achieved at top of screw.
Continuous Flight Auger (CFA) Piles	<ul style="list-style-type: none"> <li>▪ Quiet / No vibration</li> <li>▪ Greater lengths can be installed</li> <li>▪ Suitable for where groundwater is expected</li> </ul>	<ul style="list-style-type: none"> <li>▪ Requires additional plant (cranes, etc.)</li> </ul>	It is possible that pile lengths will be greater with this option

Figure 44: Foundation options (Source: Construction Services)

### 9.5.3 Earthworks

All earthworks should be carried out following removal of unsuitable materials, including topsoil, uncontrolled fill and other deleterious materials in accordance with AS3798 (2007). A qualified geotechnical engineer should inspect the condition of the exposed material to assess suitability of the prepared surface as foundation for fill placement.

Prior to placement of any structural fill, the site should be proof rolled using a minimum mid weight (10-12 tonne) vibrating pad foot roller. Should isolated soft/loose areas be encountered during this process, this material should be removed and replaced with select fill.

### 9.5.4 Batter slopes

Where batters are required, (e.g. along the approaches to elevated sections) they should be at grades of no greater than 1 Vertical (V): 2 Horizontal (H) for temporary slopes (unsupported for less than 1 month) and 1 V : 3 H for longer term unsupported slopes. Long term and short term unsupported batters should be protected against erosion due to, for example, stormwater run-off.

Batter angles may need to be revised and are subject to on-site inspection and confirmation by a geotechnical engineer. Unsupported excavations deeper than 1.0m should be assessed by a geotechnical engineer for slope instability risk.

Use of heavy machinery should be avoided, where possible, within 2m of the crest of any open soil excavation to prevent excessive vibrations and undue settlement within exposed soils.

### 9.5.5 Shared pathway load capacity

Separate geotechnical advice was sent to the Applicant from Construction Sciences on 20 June 2023 confirming:

*'the shared pathway could be trafficked by infrequent light maintenance vehicles like ride on mowers and smaller, 2-3 tonne payload trucks and laden work utes delivering landscape*

*supplies etc. It is envisaged that grassed ground adjacent to the shared pathway could be trafficked by infrequent heavier vehicles like road legal dual wheel single rear axle tippers and say a backhoe mounted slasher as, for comparison purposes, happens on most golf courses when required.'*

## **9.6 Visual impact**

The proposed built form and design of the proposed shared path is discussed above at Section 4. The path will be predominately built with concrete (or oyster shell base, refer to 9.5.1) at ground level. In the areas that pass through the northern and southern mangroves section and require creek crossings and elevated walkway and a bridge.

Given the density of the mangroves in the areas where the elevated platforms and bridges are proposed, it is unlikely that the structures will be visible from any sensitive visual receivers.

The elevated deck and bridges will utilise materials with colours that blend into the surrounding environment.

The Engineering Plans at Appendix 3 and Landscaping Plans at Appendix 6 provide more details in relation to the built form and design of the shared path.

A visual analysis has been prepared by Keylan to address the visual impacts of the proposed shared path as compared to the existing situation. The analysis defines the visual catchment of the Site and assesses key vantage points within the public domain that are representative of the primary visual catchment.

### *Visual catchment*

Due to the size of the proposed shared path, the theoretical visual catchment of the proposal is large. Despite this, a Site inspection on 17 November 2022 has determined that the primary visual catchment for the Site is much smaller and is focussed around areas to north-east where the Site could be viewed from residential areas and the west where the Site could be viewed from users of the Georges River and its western bank.

The character of this visual catchment is generally in accordance with the description of place and character, noting the surrounding context of the Site with M5 motorway to the south, low density residential to the east and the Georges River to the west. The primary catchment presents visually as a large river foreshore area that has limited public access for several years.

### *Key Vantage Points*

A series of photographs were taken around the Site from key vantage points and viewed from the eye height of a pedestrian. It was not possible to review every view of the proposal due to the length of the shared path, inaccessible land and private property. However, assumptions and desktop assessment measures are proposed for the proposal within these areas. All views, except View 3 and View 5, are taken with a full frame camera (Nikon D750, 85mm lens).

These views are listed in the table and figures below. The views in the context of the Site are shown in the figures below.

Viewpoint	Location	Comment
View 1	Views from the rear of properties on Martin Crescent, Milperra	This view is to assess the impact of the proposed share path from the residential neighbourhood to the east of the Site.
View 2	Views from across the Georges River	This view is from the google images looking towards the Site to the east.
View 3	Views from the rear of properties on Prescott Parade, Milperra	This view is to assess the impact of the proposed share path from the residential neighbourhood to the southeast of the Site.
View 4	Views from the Auld Avenue Sporting Fields	This viewpoint is to assess the view of the Site from the recreational facilities at Auld Avenue
View 5	Views from the Davy Robinson Jetty look back towards the Site	This view is from the google images looking towards the Site to the south.

Table 21: Viewpoints for VIA



Figure 45: Viewpoints for VIA (Base Source: Google Maps)





Figure 46: View 1 (Source: Keylan)



Figure 47: View 2 (Source: Keylan)





Figure 48: View 3 (Source: Keylan)



Figure 49: View 4 (Source: Keylan)



Figure 50: View 5 (Source: Google Maps)

### Impacts

Viewpoint	Location	Impact
View 1	Views from the rear of properties on Martin Crescent, Milperra	<p>Minor.</p> <p>View 1 is located 200m east of the Site and is blocked by mature trees close to the rear of the residential area. Even if the views were not partially filtered by the presence of the trees, the shared path will be at ground level height in these locations and any views of the path will be imperceptible.</p>
View 2	Views from across the Georges River	<p>Minor.</p> <p>View 2 is substantially blocked by dense mangroves and mature trees. Some areas of the proposed path may be visible, however, given the distance from the golf course on the western side views of the ground level path will be hardly noticeable.</p>
View 3	Views from the rear of properties on Prescott Parade, Milperra	<p>Nil</p> <p>The properties at the rear of Prescott Parade are located over 400 m from the Site. There is dense bushland blocking any views. Whilst the Riverlands Golf course subdivision has been approved in this vicinity, it is noted that much of the remnant bushland is to be retained.</p>



Viewpoint	Location	Impact
View 4	Views from the Auld Avenue Sporting Fields	<p>Nil to minor.</p> <p>The sporting facilities at the end of Auld Avenue are located more than 100 m from the Site. Mature vegetation and mangroves will obscure most views of the proposed shared path.</p>
View 5	Views from the Davy Robinson Jetty look back towards the Site	<p>Minor.</p> <p>View 2 is substantially blocked by dense mangroves and mature trees. Some areas of the proposed path may be visible, however, given the distance from the jetty on the western side, views of the ground level path will be hardly noticeable.</p>

### Summary

The visual analysis confirms that from all viewpoints the visual impact of the proposal will be negligible to minor. Recreational boat users and users of the golf course on the western side of the Georges River may be able to view the shared path in the sections of the proposal where the path is elevated or bridges are proposed. However, as detailed above, the density of the mangroves will mean such views will be filtered by trees and potentially eliminated. Where the Site area has unobstructed views from the river and opposite side of the Georges River is where the built form of the proposed path will be limited to a cement path at ground level and as such any visual impacts will be virtually imperceptible.

The distance from any residential properties to the proposed shared path is more than 250 m at the closest point. Photographs from View 1 demonstrate that a number of mature trees will block almost all views of the shared path. Photographs from View 3 show that there will be no impact to the views from residential properties at the rear of Prescott Parade. Furthermore, the path at the locations that would be visible from these locations will be limited to the concrete (or oyster shell base, refer to 9.5.1) section at ground level. The tall trees, and distance will mean any impacts will be negligible.

The VIA confirms that nature of visual change is negligible to minor from all viewpoints. The impact of the change is considered to be appropriate having regard to the provisions of relevant parts of applicable planning instruments. In particular, it will not obstruct or fundamentally alter the nature of views obtained from key vantage points identified will not result in view loss from locations in the public or private domain. Accordingly, no further study or refinement is required, and no specific mitigation measure has been nominated. The residual impact of the proposal is considered to be the same.

## 9.7 Aboriginal Cultural Heritage Assessment Report

The Aboriginal Cultural Heritage Assessment Report is provided at Appendix 8.

The following stakeholders were consulted in preparation of the ACHAR:

- Heritage NSW



- National Native Title Tribunal
- NTS Corp
- Office of the Registrar Aboriginal Lands Rights Act NSW
- City of Canterbury Bankstown
- Greater Sydney Land Office
- Gandangara LALC

Key findings of the report are as follows:

- previous archaeological assessment of the study area found it to be not of archaeological potential due to its position on a flood prone plain. The ACHAR concurs with these findings and therefore the Site is not likely to be of archaeological potential
- there are no registered Aboriginal sites within the Site or within 400m of the Site. Therefore, there will be no impacts on Aboriginal material heritage
- no management or mitigation measures are proposed as no aboriginal sites are identified within the Site

Key ACHAR recommendations are outlined below:

- the portion of the study area which overlaps with the existing AHIP 5014 is subject to the condition of the permit
- ground disturbing works within the footprint of the proposed design may proceed without formal archaeological assessment (with consideration of the AHIP above)
- unexpected Aboriginal objects are protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered in the course of the activity, or work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess defined and heritage New South Wales and L a LC must be notified in accordance with the unexpected fines policy.

## 9.8 Arboricultural Impact

An Arboricultural Impact Assessment has been prepared by Temporal Tree Removal (Appendix 15).

The AIA assessed the impact of the proposal on trees located within 10 metres of the shared pathway along the eastern bank of the George River.

The AIA reviewed 141 trees as part of the assessment and recommends the following:

- retain 129 trees
  - 48 high retention value trees
  - 71 moderate retention value trees
  - 10 low priority trees
- remove 12 very low retention value trees

It is noted the proposal will impact tree protection zones however as described in the AIA, all encroachments are considered to be acceptable subject to the implementation of tree protection measures.

## 9.9 Traffic and transport

A Construction Traffic and Parking Assessment (CTPA) has been prepared by The Transport Planning Partnership and is included at Appendix 13. The Assessment assesses the traffic implications of the proposed construction activities on the local community, and outlines how vehicular, cyclists and pedestrian traffic will be managed during construction of the proposed cycleway.

### 9.9.1 Construction traffic generation

As described in Section 4.2, the construction activities are anticipated to take 10 weeks to complete.

It is anticipated that approximately 24 construction vehicles will be used per day to enter and exit the site throughout the working hours described in Section 4.2. This equates to the following peak hour generation:

- AM: four two way vehicle movements
- PM: eleven two way vehicle movements

This level of traffic is considered low and not expected to result in any noticeable traffic impacts on the surrounding road network.

Site access to the proposed construction site is located at the western end of Auld Avenue as shown in the figure below. The unsealed section of Auld Avenue along the southern side of Vale of Ah Reserve is approximately 6m to 8m wide and is sufficient to accommodate construction vehicles passing each other. Where necessary, construction vehicle exiting the site will give way to other vehicles accessing the site to ensure safety.



Figure 51: Proposed site entry location (Source: TTPP)

### 9.9.2 Worker parking

It is anticipated that there would be on average 5 to 7 workers on site on any given day. Worker parking would be provided in a dedicated area and would be contained wholly within the site.

### 9.9.3 Construction vehicle routes

To minimise the impact of construction traffic on local streets, dedicated construction routes have been developed to provide the shortest distances to/from the arterial road network which is shown in the figure below.

Truck drivers will be advised of the designated truck routes to/from the site.

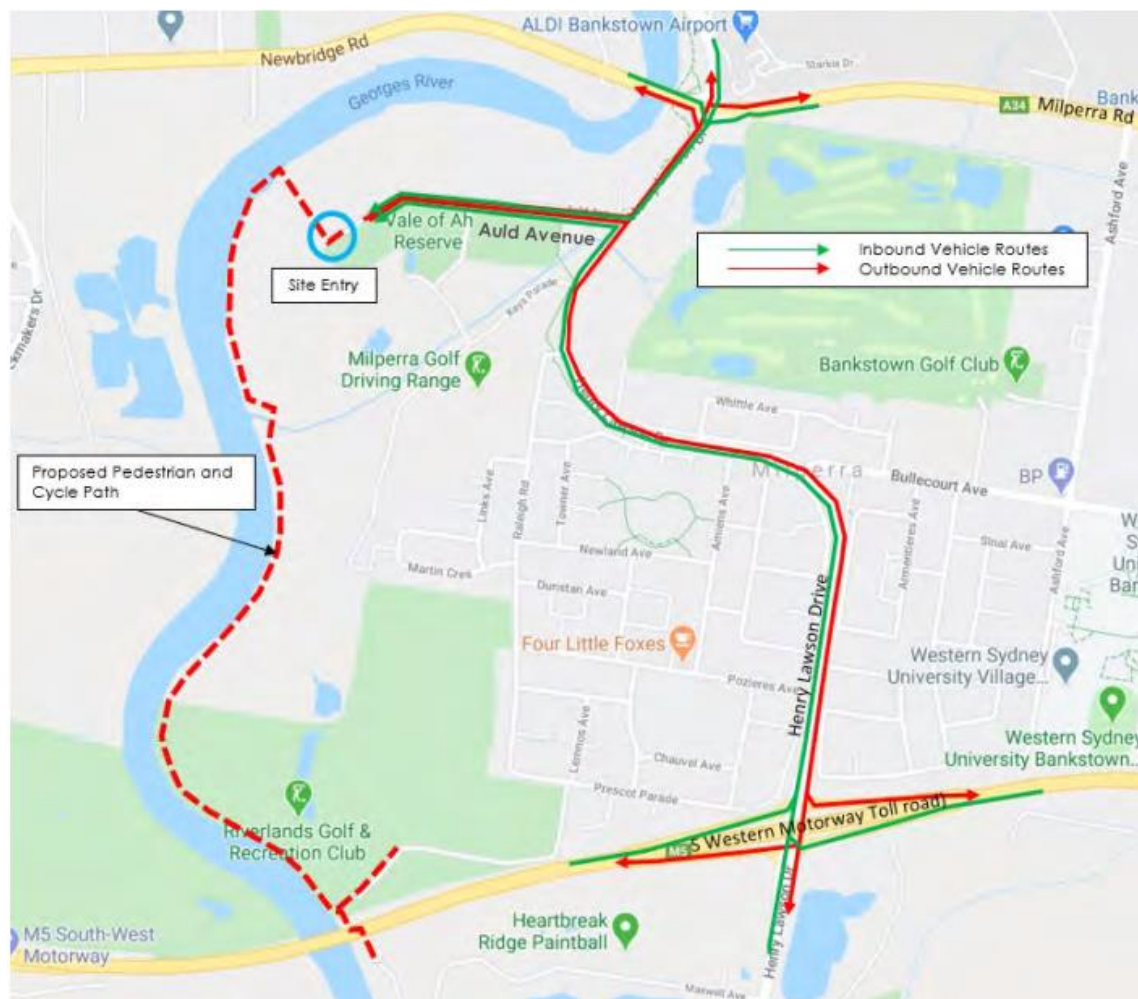


Figure 52: Construction truck routes (Source:TPPP)

Further, the Assessment anticipates construction activities will have:

- no impacts on existing public transport services
- no adverse impacts on parking around the site
- no impacts on pedestrian or cycle facilities (none are currently provided in the immediate vicinity of the proposal)

- no impacts to emergency vehicle access

The CTPA outlines several construction traffic management measures to mitigate the impacts of the construction phase, including:

- a traffic controller would be present to manage pedestrian and vehicle interactions at the car park access on Auld Avenue
- advisory road signs are to be installed along surrounding roads
- numerous driver protocols will be established as part of the site introduction for drivers, ensuring safety of motorists, pedestrians and cyclists
- truck drivers are to be instructed to use the designated truck routes to/from the site

### **9.10 Waste**

A Waste Management Plan has been prepared by Mirvac and are included at Appendix 16.

General development waste is limited to Green Waste during the demolition and construction phases.

The waste will be managed by recycling or reusing it on site within Stages 1-3 and Keys Parade adjacent to the site.

### **9.11 Public Interest**

The proposals in the public interest as it will achieve the following:

- a useable area of public open space and new recreational facility – the Site's current state is inaccessible and unusable
- substantially improve walking and cycling facilities within the LGA through the provision of a 24 km, 3.5m wide track
- encourages community health and wellbeing through access to green areas and community interaction
- engagement between the community and Georges River wildlife
- significantly green the shared pathway corridor through the retention of trees and planning of a significant amount of tree, shrubs and groundcovers

In addition, Council will consider any public submissions relating to the proposal during its assessment. Accordingly, it can be concluded that the proposed development is entirely in the public interest.



## 10 Conclusion

The EIS has been prepared in accordance with the SEARs issued by DP&E and provides a comprehensive assessment of the potential impacts associated with the development. It addresses all relevant strategic and statutory documents, policies and instruments.

The EIS concludes that the development is justified on the basis that the proposal is:

- consistent with the current legislative framework
- consistent with the relevant strategic documents
- consistent with the VPA requirements
- suitable for the site and the area
- meets the objectives of the RE1 Public Recreation and RE2 Private Recreation zones within the CBLEP 2023
- will not adversely impact any heritage items
- will not lead to any adverse traffic or pedestrian safety issues
- will not result in any environmental impacts or adverse impacts on the amenity of surrounding land
- is in the public interest

In light of the above, the approval of this DA is recommended.