

Environmental Impact Statement

Twelve (12) lot residential subdivision, civil and creek line works and construction of integrated residential development including two (2) residential flat buildings containing thirty-four (34) apartments.



43 Warriewood Road Warriewood – Lot 2, DP 972209
45 Warriewood Road Warriewood – Lot 2, DP 349085
49 Warriewood Road Warriewood – Lot 1, DP 349085

Prepared for: Warriewood Developers Pty Ltd Project No: D221 Date: November 2020

© Creative Planning Solutions Pty Ltd ABN 70 135 093 926 All Rights Reserved. No material may be reproduced without prior permission. You must read the important disclaimer appearing within the body of this report. cpsplanning.com.au

Disclaimer:

In preparing this document, Creative Planning Solutions has relied upon information and documents provided by the Client or prepared by other Consultants within their various areas of expertise.

Creative Planning Solutions is unable and does not accept responsibility for any errors or omissions in any of the material provided by other parties

Signed Declaration

This Environmental Impact Statement (EIS) has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.*

Applicant Details			
Applicant:	Creative Planning Solutions Pty Ltd		
Address:	Level 3, 397 Riley Street, Surry Hills NSW 2010		
Land to be developed:	43 Warriewood Road Warriewood – Lot 2, DP 972209 45 Warriewood Road Warriewood – Lot 2, DP 349085 49 Warriewood Road Warriewood – Lot 1, DP 349085		
Proposed development:	Development of the land, including a twelve (12) lot residential subdivision, civil, landscaping and creek line works and construction of integrated residential development including two (2) residential flat buildings containing thirty-four (34) apartments and basement parking		

We, the undersigned, certify that the contents of the Environmental Impact Statement to the best of our knowledge, has been prepared as follows:

- In accordance with the requirements of the *Environmental Planning and Assessment Regulations 2000;*
- The statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- To the best of our knowledge the information contained in this report is neither false nor misleading.

Prepared By		
Name: Qualifications:	Sonya Constantinou B Planning	Damatinay
Reviewed & Approved by		
Name: Qualifications:	Ben Tesoriero B Planning (Hons)	12



Contents

1.0	Executive Summary
2.0	Introduction
2.1	Objectives and Overview of Proposed Development10
2.2	Analysis of Alternatives11
2.3	Secretary's Requirements13
3.0	Site Analysis16
3.1	Site Location and Description16
3.2	Land Ownership and Current Use21
3.3	Surrounding Development21
3.4	Warriewood Valley locality24
3.5	Site history
4.0	Description of Development
4.1	Demolition and Tree Removal
4.2	Subdivision27
4.3	Residential development28
4.4	Vehicular access and car parking30
4.5	Civil works
4.6	Waste management
4.7	Landscaping works
4.8	Utilities
5.0	Consultation
5.1	General
5.2	Northern Beaches Council
5.3	Transport for NSW
5.4	Utility Providers
5.5	Community Consultation
5.6	Aboriginal Consultation42
5.7	NSW Rural Fire Service42
5.8	Fire & Rescue NSW43
5.9	Department of Primary Industries Fisheries Management43
5.10	9 Sydney Water
5.11	Department of Primary Industries – Water43

43, 45 & 49 Warriewood Road, Warriewood

6.0	Er	nviro	nmental Assessment	45
6.2	1	General45		
6.2	2	Envi	ironmental Planning and Assessment Act, 1979	45
	6.2.1	L	Section 1.3 - Objects of the EP&A Act	45
	6.2.2	2	Section 4.12 – Development Requiring Consent	45
6.3	3	Envi	ironmental Planning and Assessment Regulation 2000	45
6.4	1	Rura	al Fires Act 1997	46
6.5	5	Coa	stal Management Act 2016	46
6.6	5	Bioc	liversity Conservation Act 2016	47
6.7	7	Fish	eries Management Act	47
6.8	3	Envi	ironmental Planning Instruments	47
	6.8.1	L	State Environmental Planning Policy (Infrastructure) 2007	47
	6.8.2	2	State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	48
	6.8.3	3	State Environmental Planning Policy (Coastal Management) 2018	48
	6.8.4	1	State Environmental Planning Policy No. 19 – Bushland in Urban Areas	49
	6.8.5	5	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development	nt 50
	6.8.6	5	State Environmental Planning Policy (Koala Habitat Protection) 2019	50
	6.8.7	7	State Environmental Planning Policy No 55 – Remediation of Land	51
	6.8.8		State Environmental Planning Policy No. 65 - Design Quality of Residential Flat	
		•	nent	
	6.8.9)	State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	
	6.8.1		Pittwater Local Environmental Plan 2014	
6.9	Э	Draf	ft Planning Instruments	63
6.2	10	Poli	cy Documents	63
	6.10		Greater Sydney Region Plan A Metropolis of Three Cities	
	6.10	.2	Our Greater Sydney 2056 North District Plan	64
	6.10	.3	Towards 2040 Local Strategic Planning Statement	65
	6.10	.4	State Infrastructure Strategy 2018 – 2038 Building the Momentum	65
	6.10	.5	Pittwater 21 Development Control Plan	66
7.0	Po	otent	ial Impacts Associated with the Development	67
7.2	1	Des	ign Quality of Residential Flat Development	67
7.2	2	Infra	astructure and Servicing	67
7.3	3	Traf	fic and Parking	68
7.4	1	Bioc	liversity	69

7.5	Bushfire Risk
7.6	Landscaping70
7.7	Flooding70
7.8	Contamination and Geotechnical71
7.9	Social and Economic Impacts72
7.10	Heritage73
7.11	Waste
7.12	Contributions73
7.13	Visual Impacts73
8.0	Other Statutory Approvals75
8.1	General75
8.2	Biodiversity Conservation Act 201675
8.3	Rural Fires Act 199776
9.0	Environmental Risk Assessment and Mitigation77
10.0	Conclusion
Appen	dix A – Clause 4.6 Exceptions to development standards written request – Height of Buildings 82
Appen	dix B – Assessment of the Apartment Design Guide (ADG)95
Appen	dix C – Assessment of Pittwater 21 Development Control Plan (P21 DCP) 104



Appendices

Appendix A	Clause 4.6
Appendix B	Assessment of the Apartment Design Guide (ADG)
Appendix C	Assessment of Pittwater 21 Development Control Plan (DCP)
Appendix D	Secretary's Environmental Assessment Requirements
Appendix E	Capital Investment Value and Cost Breakdown Summary
Appendix F	Architectural Drawing Package
Appendix G	Site Survey
Appendix H	Traffic and Parking Impact Report
Appendix I	Traffic and Parking Impact Report Addendum Letter
Appendix J	Bushfire Assessment Report
Appendix K	Preliminary Stage 1 Site Investigation
Appendix L	Geotechnical Investigation
Appendix M	Groundwater Study Progress Report No.1
Appendix N	Preliminary Groundwater Assessment & Monitoring Program
Appendix O	Biodiversity Development Assessment Report
Appendix P	Biodiversity Management Plan
Appendix Q	Stormwater and Civil Drawings
Appendix R	Sedimentation and Erosion Control Plan
Appendix S	Subdivision Plan
Appendix T	AHIMS Search
Appendix U	Biodiversity Offset Payment Calculator
Appendix V	Ausgrid Electrical Infrastructure Report
Appendix W	Engineering Report
Appendix X	Flood Management Report
Appendix Y	Arborist Report
Appendix Z	Preliminary Acid Sulfate Soils Assessment
Appendix AA	Waste Management Plan
Appendix BB	Landscape Strategy
Appendix CC	BASIX Report and Plans
Annondiv DD	CEDD CE Design Varification Statement

Appendix DD SEPP 65 Design Verification Statement



1.0 Executive Summary

This Environmental Impact Statement ('EIS') has been prepared by Creative Planning Solutions Pty Ltd ('CPS') on the behalf of Warriewood Developers Pty Ltd development of 43, 45 and 49 Warriewood Road, Warriewood NSW 2102. The EIS forms part of a Development Application ('DA') that is being lodged with Northern Beaches Council ('Council').

Pursuant to Section 3.17 of the *Environmental Planning & Assessment Act 1979* ('the Act') and clause 10(2) of *State Environmental Planning Policy (Coastal Management) 2018* ('SEPP Coastal Management'), the development will be categorised as designated development, as development identified by clause 10(1) of SEPP Coastal Management is proposed on land that is identified as containing coastal wetlands.

The proposal is also integrated development pursuant to Section 100B of the *Rural fires Act 1997* ('Rural Fires Act') and Section 91 of the *Water Management Act 2000* ('WM Act').

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements issued by the NSW Department of Planning Industry and Environment, Part 4 of the *Environmental Planning and Assessment Act 1979*, and Schedule 2 of the *Environmental Planning and Assessment Regulations 2000*.

The proposed development of the site includes a residential subdivision that includes twelve (12) residential allotments, creek line works, civil works (including an extension of Lorikeet Grove), landscaping tree removal and the construction of residential development including two (2) residential flat buildings containing thirty-four (34) apartments with basement parking and associated services. The eleven remaining residential allotments will not be developed as part of the subject DA, and will be developed later as part of a separate DA(s).

Consultation with relevant stakeholders was undertaken throughout the design process in accordance with the Planning Secretary's Environmental Assessment Requirements ('SEARs'); such stakeholders included Council, relevant utility providers, Transport for NSW and the NSW Rural Fire Service. Advice received from these bodies has been incorporated into the proposal. Consultation was also undertaken with the owners of sites both adjoining and within the immediate vicinity of the site.

Any environmental risks associated with the project are able to be mitigated, consistent with the recommendations of submitted specialist reports. Due to the level of earthworks that are necessitated on the site to account for both flooding hazards and surrounding development, a variation to the 10.5 metre building height development standard prescribed within *Pittwater Local Environmental Plan 2011* ('PLEP 2014') is proposed. A written variation request with reasons as to why the departure from the standard should be supported is provided within the EIS.

The redevelopment aims to provide a variety of housing on the site that is consistent with development within the surrounding area, in addition to providing infrastructure and utilities that are well integrated with similar such developments within the Warriewood Valley locality. The development has been well



designed to provide excellent amenity for future residents, protect the residential amenity of surrounding sites, minimise risks from surrounding hazards and protect ecologically sensitive areas both on the subject site and within the surrounding area.

Accordingly, it is recommended that Council grant approval to the proposed application.



2.0 Introduction

2.1 Objectives and Overview of Proposed Development

The owner of the site (Warriewood Developers Pty Ltd) seek to redevelop the land, which consists of three (3) allotments that are legally described as 43, 45 and 49 Warriewood Road Warriewood (Lot 2, DP 972209, Lot 2, DP 349085 and Lot 1, DP 349085 respectively).

The proposed development includes subdivision of the site, which will comprise of twelve (12) residential allotments. One (1) allotment will feature integrated residential development including two (2) residential flat buildings containing thirty-four (34) apartments; both the flat buildings and centralised communal facilities will be located above a basement that will provide parking and services for residents. The remaining eleven (11) residential allotments will remain undeveloped and will be the subject of a future DA(s)¹.

Other works on the site will include tree removal, landscaping works, civil works including water management facilities, utilities and an extension of Lorikeet Grove and creek line works.

The development will be categorised as regional development, as one of the allotments (43 Warriewood Road) is owned by Council, and the capital investment value Capital Investment Value ('CIV') of the proposed works exceeds \$5 million. The estimated CIV of the project is \$19,852,573.00. The application must therefore be determined by the Sydney North Planning Panel.

The primary objectives of the development are outlined below.

- To provide an alternative form of high-quality housing for future residents of the locality, noting that there are few developments within the Warriewood Valley that offer terrace-style dwellings,
- Provide high levels of amenity to internal living, private open space and communal open space areas,
- To avoid unreasonable and adverse impacts on the amenity of surrounding residential sites,
- To avoid adverse impacts on the surrounding environment, and
- Enable the stimulation of regional labour markets and investment during the construction phase of the project and facilitate increased economic activities at adjacent commercial centres.

¹ While development on those other allotments will be the subject of a future DA(s), as a result of dwelling density standards under PLEP 2014 such future development will likely consist of an individual dwelling house on each lot.



2.2 Analysis of Alternatives

In consultation with Northern Beaches Council, a number of schemes have been investigated for the site. The options have been discussed below:

Option 1 – 44 residential lot subdivision

A Pre-Lodgement meeting (PLM2019/0109) was held with Northern Beaches Council on 6 June 2019 for subdivision of the site into 44 residential lots. The scheme proposed that all residential allotments would be occupied by a dwelling; the dwellings to be proposed would constitute a variety of detached, semi-attached and attached designs of two-to-three storeys (illustrated in *Figure 1* below).



Figure 1 – Original 44 residential subdivision scheme Source: Archidrome

Council raised a number of issues with the development and the concerns have been summarised as follows:

- Duplication of internal roads and inconsistency with the Warriewood Valley Roads Masterplan with regard to the width of the road pavement and the road verges,
- Unsuitable dwelling design, and
- Insufficient landscaped treatment.

Generally, the proposal presents as an overdevelopment of the site, hitting the maximum dwelling yield without the incorporation of a residential flat building, being the housing typology anticipated with the higher yield.



Council also maintains concerns regarding the lack of information regarding the water management solution for the site, and the potential impacts upon the EEC. The size and design of the water management infrastructure will dictate the development potential/capacity of the site, and as such, the water management solution should be resolved as soon as possible.

Option 2 - twelve lot residential subdivision and 2 residential flat buildings

The concerns raised within the Pre-Lodgement meeting (PLM2019/0109) held on 6 June 2019 were thoroughly reviewed and a new scheme was sought for the development as a result. The proposal included the following:

- A thirteen (13) lot subdivision of the site to create one (1) super-allotment that would contain a residential flat building, eleven (11) allotments that would become Torrens-Title residential allotments, and one (1) allotment containing the creek line corridor.
- Construction of two (2) three-storey residential flat buildings; each of the RFBs would contain seventeen (17) dwellings for a total of thirty-four (34) residential apartments. Basement parking and facilities would be located beneath this development.
- Removal of forty-seven (47) trees (including one (1) dead tree and thirty-two (32) 'exempt' trees) from within the site boundaries.

Qualitative advantages and disadvantages for Option 2			
Advantages	Disadvantages		
 Address the future residential demand within the locality and provide 12 new residential lots and two residential flat buildings to accommodate 34 dwellings. Achieve an aesthetically pleasing building form that will contribute to the architecture and urban landscape of the Warriewood locality. Enable the stimulation of regional labour markets and investment during the construction phase of the project and facilitate increased economic activities at adjacent commercial centres. Achieve the objectives of the Warriewood Valley release area to provide residential dwellings. 	 The proposal would be classified as 'designated development' pursuant to Section 3.17 of the Act and clause 10(2) the Coastal Management SEPP. The proposal is integrated development pursuant to Section 100B of the Rural fires Act 1997 and Section 91 of the Water Management Act 2000. 		

Table 1 - Qualitative advantages and disadvantages for Option 2

Selected Option

The disadvantages associated with Option 2 are considered to cause less environmental impact than Option 1, which is the subject of this EIS, they are primarily limited to environmental constraints which are specific to the subject site's location. Given this option is otherwise preferable, it has been pursued by the applicant.



2.3 Secretary's Requirements

A written application was made to obtain the Secretary's Environmental Assessment Requirements (SEARs). The SEARs are used to inform this EIS. The SEARs were issued on 13 May 2020 and they are provided within **Appendix D**. Details of how the SEARs have been addressed within the EIS and its appendices, are detailed within the table below.

Table 2 - Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs)	Reference in Report	Reference in Appendices
General Requirements		
The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.	Complies	
1. Statutory and Strategic Context		
Address the statutory provisions contained in all relevant environmental planning instruments, including:		
 a detailed justification for the proposal and suitability of the site for the development 	Section 2.2, and 6.10	
 a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies 		-
 a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out. 	Section 8.0	-
2. Hazards and risk		
 an assessment of the risk of bushfire, including addressing the requirements of Planning for Bush Fire Protection 2006 (RFS). Any proposed Asset Protection Zones must not adversely affect environmental objectives (e.g. buffers) 		Appendix J
 any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations to address this 	Section 7.8	Appendix L
 an assessment of flood risk on the site. The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, and the development's impact (including filling) on flood behaviour of the site and adjacent lands; and address adequate egress and safety in a flood event 		Appendix X
3. Soil and Water		
a description of local soils, topography, drainage and landscapes	Section 7.7	
• details of water usage for the proposal including existing and proposed water licencing requirements in accordance with the <i>Water Act 1912</i> and/or the <i>Water Management Act 2000</i>		
 an assessment of potential impacts on floodplain and stormwater management and any impact to flooding in the catchment 	Section 7.7	Appendix W
 details of sediment and erosion controls to avoid impacts to water quality in Narrabeen Creek 	Section 7.7	Appendix W & R
a detailed site water balance		Appendix M



		in Appendices
 an assessment in accordance with ASSMAC Guidelines for the presence and exter of acid sulfate soils (ASS) and potential acid sulfate soils (PASS) on the site and where relevant, appropriate mitigation measures 		Appendix Z
• an assessment of potential impacts on the quality and quantity of surface an groundwater resources	d Section 7.8	Appendix M
 details of the proposed stormwater and wastewater management system (including sewage) 	าร	Appendix W & Q
 characterisation of the nature and extent of any contamination on the site an surrounding area 	d Section 7.8	Appendix K
a description and appraisal of impact mitigation and monitoring measures	Section 6.0	
. Traffic and Transport		
details of road transport routes and access to the site	Section 7.3	Appendix H & I
 road traffic predictions for the development during construction and operation including the impact on the nearby intersection of Warriewood and Pittwater road 		Appendix H & I
 swept path diagrams depicting vehicles entering, exiting and manoeuvrin throughout the site 	ng	Appendix H & I
 details of the proposed site access and the parking provisions associated with th proposed development including compliance with the requirements of the relevan Australian Standards 		Appendix H & I
• an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.	ie	Appendix H & I
. Biodiversity		
• accurate predictions of any vegetation clearing on site or for any road upgrades	Section 6.6, 7.4 and 8.2	Appendix O & P
 a detailed assessment of the potential impacts on any threatened specie populations, marine vegetation, endangered ecological communities or the habitats, groundwater dependent ecosystems and any potential for offse requirements 	ir 7.4 and 8.2	Appendix O & P
 the hydrology of the wetland in relation to the ecological and hydrological function of the wetland, including drainage through the wetland, particularly changes to the depth of standing water and any effects on survival of the wetland plants 		Appendix O 8 P
 an outline of how a vegetated riparian buffer will be maintained and improve where the subject property interfaces with Narrabeen Creek (refer to the NRA Guidelines for Controlled Activities on Waterfront Land) 		Appendix O & P
. Visual		
• including an impact assessment at private receptors and public vantage points.	Section 5.5 and 7.13	
. Heritage		
including Aboriginal and non-Aboriginal cultural heritage	Section 7.10	Appendix T
nvironmental Planning Instruments and Other Policies		
he EIS must assess the proposal against the relevant environmental plannin nstruments, including but not limited to:	g Section 6.8.1	N/A
State Environmental Planning Policy (Infrastructure) 2007		



	Reference in Report	Reference in Appendices
• State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	Section 6.8.2	
• State Environmental Planning Policy (Coastal Management) 2018	Section 6.8.3	
• State Environmental Planning Policy No. 19 – Bushland in Urban Areas	Section 6.8.4	
• State Environmental Planning Policy No. 33 – Hazardous and Offensive Development	Section 6.8.5	Appendix K
• State Environmental Planning Policy No. 44 – Koala Habitat Protection	Section 6.8.6	Appendix O
• State Environmental Planning Policy No. 55 – Remediation of Land	Section 6.8.7	Appendix K
• State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development	Section 6.8.8	Appendix F & DD
Pittwater Local Environmental Plan 2014	Section 6.8.10	Appendix A & C
• relevant development control plans and section 7.11 plans.	Section 7.12	N/A
hat must be taken into account in the environmental assessment of the proposed levelopment. Consultation		
During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and	Section 5.0	



3.0 Site Analysis

3.1 Site Location and Description

The site which is the subject of this application consists of three (3) contiguous allotments that are legally described as 43, 45 and 49 Warriewood Road, Warriewood (Lot 2, DP 972209, Lot 2, DP 349085 and Lot 1, DP 349085 respectively). 43 Warriewood Road is a narrow sliver of land that is owned by Council, while 45 and 49 Warriewood Road are semi-rural allotments.



Figure 1 - A map of the locality, showing the location of the site in relation to the surrounding area. Note: The base map data which forms this image is incorrect, in that it shows Lorikeet Grove as bisecting the site. While the map information shows the approximate location of the proposed Lorikeet Grove road corridor within the site, this road has not been constructed within the site boundaries, and forms part of this DA.
Source: Six Maps

Combined, the three allotments form an irregularly shaped site with an area of approximately 22,187m². The site contains a progressive north-to-south (i.e. front-to-rear) slope of approximately 9.2 metres. The site has four boundaries that are detailed as follows:

- Northern boundary:
 - o Adjoins Warriewood Road
 - o Total length: 83.93 metres
- Eastern boundary:
 - o Adjoins 41 Warriewood Road
 - o Total length 292.585 metres
- Southern boundary:
 - o Adjoins Narrabeen Creek
 - Total length: Approximately 81.4 metres



• Western boundary:

- Adjoins a number of residential allotments (formerly 85 Warriewood Road prior to subdivision of that site)
- o Total length: 262.18 metres



Figure 2 - An aerial photo of the subject site (outlined by the red border) and the wider area. This image encompasses the Warriewood Valley to the south and east of the industrial precinct, the southeast part of which is visible within the top left of this image. For reference, the routing of Warriewood Road, Macpherson Street and Pittwater Road have been superimposed onto the image, and are denoted by the blue, green and yellow lines respectively. Source: Nearmap, 27 September 2019

43 Warriewood Road contains an open drainage channel and is undeveloped except for existing wire boundary fences. The front halves of 45 and 49 Warriewood Road each contain a detached dwelling house, associated outbuildings and structures (i.e. sheds, paved areas/driveways, etc.) and a number of decrepit/unused greenhouses; the rear halves of these sites are largely undeveloped and are characterised by heavily vegetated areas within the Narrabeen Creek creekline corridor.

The subject site is located within the suburb of Warriewood, which is located within the Northern Beaches (formerly Pittwater) Local Government Area ('LGA'). The site is approximately 850 metres south of the Mona Vale town centre and 21 kilometres northeast of the Sydney Central Business District ('CBD').

The subject site is located within an R3 Medium Density Residential zone; the rear boundary adjoins an RE1 Public Recreation zone however all other boundaries adjoin R3-zoned areas (refer to *figure 19*). Sites within older residential areas on the northern (i.e. opposite) side of Warriewood road are within



an R2 Low Density Residential zone, while residential sites further to the north are located within an E4 Environmental Living zone.

PLEP 2014 maps the site as being within an Urban Release Area, with 43, 45 and 49 Warriewood Road identified as forming Buffer Zones 1h, 1g and 1f respectively. The PLEP 2014 also maps the site as containing Class 3, 4 and 5 acid sulfate soils, while southern parts of the site are mapped as being of biodiversity significance. Council's mapping also indicate that southern parts of the site are bushfire prone and flood affected; the front (i.e. northern) areas of the site are largely unaffected by flooding, however the level of flood risk increases towards the southern end of the site, due to Narrabeen Creek being located at the rear boundary. The NSW Department of Planning Industry and Environment also maps areas at the rear of the site around Narrabeen Creek as containing Coastal Wetlands, with most the site mapped as being within a proximity area for Coastal Wetlands. The site is not identified as being affected by any other hazards or major constraints. The site does not contain a heritage item nor is it within a heritage conservation area; the site is also not in close proximity to another heritage item.



Figure 3: A closer aerial photo of the subject site and surrounding allotments. Note recent subdivision works and associated residential development which have been undertaken immediately to the east and west of the subject site. Source: Nearmap, 13 April 2020





Figure 4: A closer aerial photo of the subject site. Note that Lorikeet Grove has not been constructed through the site, as indicated on mapping information within *figure 2*. Source: Nearmap, 13 April 2020



Figure 5: 45 Warriewood Road, as viewed from Warriewood Road; 43 Warriewood Road is located at the far left of the image. Source: CPS, 14 December 2019





Figure 6: 49 Warriewood Road, as viewed from Warriewood Road. Source: CPS, 14 December 2019



Figure 7: The dwelling house at 45 Warriewood Road, as viewed from the front boundary. Source: CPS, 14 December 2019





Figure 8: The dwelling house at 45 Warriewood Road, as viewed from the front boundary. Source: CPS, 14 December 2019



Figure 9 The northern (i.e. front) part of the site, as viewed from the common boundary separating 45 and 49 Warriewood Road, in front of the thick vegetation that is located within the creek line corridor. Source: CPS, 14 December 2019

3.2 Land Ownership and Current Use

43 Warriewood Road is owned by Northern Beaches Council, and as indicated above contains an open drainage channel. 45 and 49 Warriewood Road are owned by Warriewood Developers Pty Ltd. The site contains derelict buildings on the rural allotments which are currently unoccupied.

3.3 Surrounding Development

Development within the surrounding area is highly diversified, however it consists predominately of residential development. Sites adjoining both side boundaries and along the southern side of Warriewood Road more broadly consist of urban/rural allotments, most of which are subject to works



related to the subdivision of those sites and associated civil works and residential development; such residential development contains a variety of one, two and three storey low-density residential development (i.e. dwelling houses) and two-three storey residential flat buildings ('**RFB**s'), with the site at the intersection of Warriewood Road and Macpherson Street also containing a large multi-storey aged care development (Arcare Warriewood). The following approvals for other residential flat buildings within the surrounding are also noted:

- Development Consent DA2018/0607 approved a three-storey residential flat building at 29-31 Warriewood Road in 2018; this building is currently under construction,
- Development Consent DA2018/1826 approved three-storey residential flat buildings above multi-level basement parking at 25-27 Warriewood Road in 2019, though it is understood that construction has yet to have substantially commenced.



Figure 10 The Arcare seniors housing development at the corner of Warriewood Road and Macpherson Street, Warriewood. Source: CPS, 14 December 2019

Sites on the northern side of Warriewood Road contain older and well-established residential areas, with development in these areas consisting predominantly of low-density residential development (i.e. predominantly one and two storey dwelling houses, dual-occupancies, etc.).





Figure 11 The recently completed residential subdivision at 41 Warriewood Road, as viewed from the completed section of Lorikeet Grove within that site. Dwellings under construction in the background are located within the recently-completed residential subdivision located at 29-31 Warriewood Road. Source: CPS, 14 December 2019



Figure 12 The recently completed residential subdivision at 85 Warriewood Road. The subdivision of this site separated the dwelling and associated structures at the front of the site (shown within the centre-left of this photo) from new allotments towards the rear (shown centre right). Development on the new allotments consist of three-storey semi-attached dwellings. Source: CPS, 14 December 2019

Development to the south of Narrabeen Creek (i.e. along Macpherson Street) is part of the Warriewood Valley Urban Release area, and contains a wide variety of predominately residential development. Such development includes low, medium and high-density residential accommodation in addition to seniors housing developments.



3.4 Warriewood Valley locality

The subject site is located within the Warriewood Valley locality (refer to *figure 13*). The locality statement for this area under Section A4.16 of Pittwater 21 Development Control Plan ('P21 DCP') is as follows:

Warriewood Valley is situated at the base of the escarpment, known as Ingleside Chase Reserve, between Mona Vale and Warriewood (see map). It comprises of land known as "Stage 1 Release" and land identified as the Warriewood Valley Release Area.

The Warriewood Valley Release Area, first identified in 1997 as a Release Area, comprises of 110 hectares including 32.68 hectares of industrial/commercial land and associated community facilities and infrastructure. Two recent reviews have been undertaken, firstly the Warriewood Valley Strategic Review 2012 and secondly the Warriewood Valley Strategic Review Addendum Report 2014. The Release Area now includes land within 400m of the Warriewood Sewerage Treatment Plant (known as Buffer Areas 1, 2 and 3) encompassing an area of approximately 190 hectares.

Warriewood Valley Release Area is primarily a residential area expected to provide a total of 2,451 new dwellings (this figure includes the dwellings approved under the former Part 3A legislation but does not include development in Stage 1 Release considered to be completed in 1997.). When completed, it is anticipated to accommodate 6,618 residents (based on an average household occupancy of 2.7 persons per household).





Figure 13: The Warriewood Valley locality, as shown by Section A4.16 of Pittwater 21 Development Control Plan. Source: Northern Beaches Council, 2019

Warriewood Valley Release Area continues to be developed as a desirable urban community in accordance with the adopted planning strategy for the area, and will include a mix of low to medium density housing, industrial/commercial development, open space and community services. The creek line corridors, roads and open space areas form the backbone of the new community, complemented with innovative water management systems, the natural environment, pedestrian/cycle path network, public transport, and recreation facilities.

Stage 1 Release, has a residential component and a business/industrial component. The residential area is characterised by two storey residential attached dwellings with the area fully developed. The industrial/business area is defined by up to three storey large complexes that generally contain smaller units. The majority of the business/industrial zoned land has been developed with some smaller parcels still to be developed in the northern industrial area.



The Warriewood Valley locality is characterised by a mix of residential, retail, commercial, industrial, recreational, and educational land uses.

Warriewood Valley is affected by various hazards and contains heavily vegetated areas, threatened species, or areas of natural environmental significance, which are identified on various maps within the Pittwater LEP 2014.

A number of identified heritage items are located in Warriewood Valley.

3.5 Site history

Excluding planning proposals, Council's Development Application tracker indicates that the only development consent that affected any the allotments within the site was Development Consent No. N0081/98, which approved the construction of a shed on 22 March 2000.

A pre-lodgement meeting (PLM2019/0109) was held on 6 June 2019 to discuss a concept development proposal. The development which was the subject of that meeting took a substantially different form to the development being proposed as part of this development proposal.



4.0 Description of Development

4.1 Demolition and Tree Removal

Demolition of existing structures are not sought as part of this proposal. Demolition of such structures will be subject to separate consent.

It is proposed to remove forty-seven (47) trees (including one (1) dead tree and thirty-two (32) 'exempt' trees) from within the site boundaries. No trees are proposed to be removed from surrounding areas, noting that trees at the front of the site are located within the site boundaries.

4.2 Subdivision

Part of the proposal will include a thirteen (13) lot subdivision of the site. The subdivision would create:

- One (1) super-allotment that would contain the proposed residential flat building (detailed within Section 4.3 below) and associated works. This allotment would be strata subdivided,
- Eleven (11) allotments that would become Torrens-Title residential allotments, and
- One (1) allotment containing the creek line corridor.

Table 5. All outline of the apartments within the proposed development.					
Allotment number	Allotment Area	Allotment number	Allotment Area		
1	226m ²	8	856m ²		
2	226m ²	9	620m ²		
3	226m ²	10	609m ²		
4	233m ²	11	611m ²		
5	225m ²	12	7004m ²		
6	253m ²	13	9325m ²		
7	282m ²				

 Table 3: An outline of the apartments within the proposed development.

The extension of Lorikeet Grove would be excluded from the above allotments, and is to be allocated to Council as a public road upon completion.



Figure 14: An extract of the lot layout plan, showing the locations and sizes of proposed allotments. Source: C&M Consulting Engineers, 2020



4.3 Residential development

The proposal incorporates residential development, which would include the construction of two (2) three-storey residential flat buildings (identified as 'Block B' and 'Block C'; each of the RFBs would contain seventeen (17) dwellings for a total of thirty-four (34) residential apartments. Basement parking and facilities would be located beneath this development.

The Torren-Title allotments addressing Warriewood Road and Lorikeet Avenue would not be developed as part of this application, and would be individually developed as separate future consents.

The bottom two storeys of each RFBs would contain ten two-storey 'terrace' style apartments that would be accessible both at ground level via the central communal area (which can be reached from the basement by both stairs and elevators) and stairways contained within individual garages for each of these dwellings within the basement level. Private open space areas for these dwellings would be located both to the front and rear of each dwelling (i.e. private open space areas would address both the site's side boundaries and the internal communal area). The third level of both RFBs would contain seven (7) single-level apartments, which would be accessed via lobbies with stair and lift access to both ground floor communal areas and the basement level; private open space areas for these apartments would be provided as balconies.

Four (4) of the proposed apartments (Units C11, C12, D11 and D12) would be adaptable, however atgrade or lift access would be provided to all apartments.

Unit Number	Number of	Internal floor	Unit Number	Number of	Internal floor
	bedrooms	area		bedrooms	area
C1	4	208m ²	D1	4	176m ²
C2	4	208m ²	D2	4	208m ²
C3	4	208m ²	D3	4	208m ²
C4	4	208m ²	D4	4	208m ²
C5	4	208m ²	D5	4	208m ²
C6	4	208m ²	D6	4	208m ²
C7	4	208m ²	D7	4	208m ²
C8	4	208m ²	D8	4	208m ²
С9	4	208m ²	D9	4	208m ²
C10	4	176m ²	D10	4	192m ²
C11	3	127m ²	D11	3	120m ²
C12	3	127m ²	D12	3	121m ²
C13	3	124m ²	D13	3	124m ²
C14	3	124m ²	D14	3	124m ²
C15	3	120m ²	D15	3	121m ²
C16	3	121m ²	D16	3	127m ²
C17	3	121m ²	D17	3	127m ²

An outline of the apartments within the proposed residential flat building is as follows:

 Table 4: An outline of the apartments within the proposed development. Also refer to additional information within the assessment of the Apartment Design Guide for further details regarding specific areas and design information/



Communal facilities within the centre of the site will include paved and landscaped areas, picnic facilities and a swimming pool for use by residents. Pathways parallel to the main driveway and between Lots 9 and 10 will also provide pedestrian access through the site to both Lorikeet Grove and Warriewood Road.

The exterior of the residential flat building would also be finished with a variety of materials (consisting predominately of rendered masonry walls and brick veneer surfaces) that would be mostly finished in dark tones with ancillary metal finishes; refer to *figure 15*. The plans propose a contemporary and highly articulated design that would address all boundaries within the super lot (refer to *figure 16* and *figure 17*), noting that the building would be separated from adjoining roads by the separate allotments.



Figure 15: An extract of the architect's materials schedule. Source: Archidrome, 2020



Figure 16: An extract of a montage showing Block C from the southeast corner of the building. Source: Archidrome, 2020





Figure 17: An extract of a montage showing Block D from the northwest corner of the building. Source: Archidrome, 2020

With regard to the above, a breakdown of the proposed apartment mix and types are as follows:

Dwelling types:	Dwelling numbers	Proportion of total number of dwellings (%)
Three bedrooms	20	58.8%
Four bedrooms	14	41.2%
Total	34	100%

Table 5: Numbers and proportional mixes of apartment types within the proposed development.

The basement level would be designed in an 'H'-shaped configuration. Parking areas for Blocks C and D would be located beneath their respective buildings, with each section located beneath the respective residential flat building. Each 'section' would contain both residential and visitor parking (refer to Section 4.4 below for allocation) and residential storage and lift lobbies for common/residential areas above, though the basement below Block D would contain a large plant room and garbage transport room. Part of the basement section connecting the two main parking areas would also contain bicycle parking, a car-wash bay and garbage drop-off area.

Resident car parking spaces for the terrace-style apartments would be secured within the basement by individual garage doors; direct stairway access would also be provided from within these garages to the apartments above, with lift access also provided via the central common area on the ground floor. The basements would otherwise be accessible via stairways and lifts from the levels above.

4.4 Vehicular access and car parking

Vehicular access and parking facilities (including visitor spaces) are to be provided for all apartments within the basement levels of the RFB.

A total of eighty-one (81) car parking spaces are proposed. Two (2) car parking spaces are to be allocated to each dwelling (i.e. sixty-eight (68) residential spaces would be provided in total, including four (4) accessible spaces) with thirteen (13) visitor spaces to be provided, including two (2) accessible spaces.



As indicated within Section 4.3 above, the main car parking areas would be split into two sections, with each section and associated access to be located beneath the respective apartment building.

Access to the basements would be provided via a two-way access driveway and ramp that would connect to the basement below Block C. Two-way driveways would provide access to all parking spaces. The basement would be secured by a security roller door.

Car parking for the top-floor apartments would be contained within 90-degree car parking, with parking for the terrace apartments to be contained within individually secured garages with internal stairway access to be provided from each garage to the respective terrace apartment above.

Vehicular access to the other residential allotments would be provided via driveway crossovers from Warriewood Road and Lorikeet Grove (which will be included as part of the civil works).

Waste collection vehicles would access the site and collect bins from the enclosed bin collection area, which is located at the southern end of Block D.

4.5 Civil works

Civil works are to include water collection and catchment facilities, which would be largely centred around a large Onsite Stormwater Detention (OSD) system, which would be located below beneath the driveway, waste collection area and central common area. Stormwater from Warriewood Road that was previously channelled to Narrabeen Creek via the drainage depression within 43 Warriewood Road will continue to be channelled to this area but via an enclosed pipe. Runoff from Lorikeet Grove will also channel to an infiltration basin within the creek line reserve. Further civil works would include earthworks, flood mitigation measures, vehicular access/parking facilities and construction of Lorikeet Grove between the subdivisions at 41 and 53 Warriewood Road.

Refer to the detailed engineering plans and information (prepared by C&M Consulting Engineers) for further detail regarding civil and engineering works.

4.6 Waste management

Waste from dwellings within the residential flat buildings would be transferred by residents to a garbage drop-off room that would be centrally located within the car park. Prior to collection, all bins would be relocated to a garbage transport room at the southeast part of the site, before being moved via a waste lift to an enclosed the temporary storage area above on the southern side of Block D. Bins would then be collected by a waste collection vehicle from this location.

4.7 Landscaping works

A variety of landscaping treatments are proposed within the site. A range of trees and vegetation (including trees, plants, shrubs, ground covers and turfed areas) are to be located within private open space and common areas. Street trees are also proposed to be planted within both the Warriewood Road and proposed Lorikeet Grove road reserves. In accordance with the arboricultural report, thirty (30) large (i.e. 15+ metre high) endemic tree plantings (i.e. *Casuarina glauca* (Swamp Oak), *Eucalyptus*



botryoides (Bangalay), *Eucalyptus robusta* (Swamp Mahogany) and *Melaleuca quinquenervia* (Broadleaved Paperbark) are also proposed to be planted on the site to compensate for trees that are to be removed during works.

Works are also proposed to be undertaken to remove weed and exotic plant growth within the creek line corridor areas.

4.8 Utilities

The subject site is connected to all essential services. Utilities and connection points for necessary service wills will be provided in consultation with the particular agencies and authorities. All overhead electricity infrastructure within Warriewood Road will be relocated underground as part of the proposal.

5.0 Consultation

5.1 General

Consultation with external parties has been undertaken since the inception of the project and will continue as the assessment of the development application progresses. The consultation process has been employed to inform and seek feedback from key stakeholders and the local community. All feedback received during the consultation process has been carefully considered and integrated into the proposal where appropriate.

In accordance with the SEARs issued by the Department of Planning Industry and Environment, consultation has been carried out with the following organisations:

- Department of Planning, Industry and Environment, specifically the:
 - Biodiversity and Conservation Division
 - o Water Group
 - Department of Primary Industries
- Northern Beaches Council;
- Transport for NSW;
- Fire & Rescue NSW
- NSW Rural Fire Service
- Sydney Water
- WaterNSW
- Metropolitan Local Aboriginal Land Council
- the surrounding landowners and occupiers that are likely to be impacted by the proposal.

Further discussion is contained within the remainder of this section.

5.2 Northern Beaches Council

Ongoing consultation has occurred with Northern Beaches Council, including a pre-lodgement meeting (PLM2019/0109) held on 6 June 2019 and ongoing communication since this initial meeting. The following correspondence from Council is provided as follows:

• The plans demonstrated an unnecessary centre roadway and roundabout that should be deleted in favour of landscaped area. Vehicular movements should rely on the loop road. The loop road is to be redesigned to be suitable for Council's waste vehicles. Comment:

It is understood the central road and roundabout have been deleted and that a basement car parking system is proposed to service for two residential flat buildings, where semi-detached dwellings were originally proposed. This resolves the concern regarding too little landscaped area across the site.

• The proposed dwellings along Warriewood Road present higher than acceptable density and semi-detached or detached dwellings with distinct breaks for landscaping are recommended.



Front setbacks to these dwellings are to be increased, and the three-storey presentation is to be broken up with articulation. Massing to Lorikeet Grove is also to be reduced.

Comment:

Fewer lots are proposed to front Warriewood Road and Lorikeet Grove, and the remaining lots are of greater dimensions (significantly so to Warriewood Road). While no dwellings are proposed on these lots at this stage, the reduction in the number of lots is likely to result in acceptable building separation, subject to future design. It is recommended that these lots remain at the proposed dimensions and not be subject to future subdivision. It should be noted that further subdivision of these lots is not permitted if the proposed residential flat buildings remain at 34 units, as the proposal achieves the maximum density permissible across the lots by Clause 6.1 of the PLEP 2014.

• Dwellings on Lots 7 and 8 are to be deleted. Comment:

The relevant dwellings and lots have been deleted.

Insufficient separation has been provided between the internal dwellings (i.e. those that do not face Warriewood Road or Lorikeet Grove).

Comment:

It is understood the dwelling typology for the internal portion of the development has changed from 24 semi-detached dwellings to two residential flat buildings, containing a total of 34 apartments.

The proposed development is to incorporate 43 Warriewood Road (Lot 2 DP 972209). *Comment:*

The proposed development includes 43 Warriewood Road (Lot 2 DP 972209).

A minimum of 35% landscaped area is to be provided to allow for sufficient water infiltration. Comment:

Council's Water Management team are generally supportive of the proposed development, subject to previous comments provided.

The amended plans appear to ameliorate Council's original concerns. However, a number of new concerns are raised:

 Both residential flat buildings include breaches to the maximum height of buildings development standard, but also include greater than necessary floor to ceiling heights.

CPS Response

A Clause 4.6 Variation has been provided at Appendix A.

- The proposal does not provide compliant visitor parking, with 9 spaces proposed where 12 are required for the two residential flat buildings.
- The Traffic and Parking Report identifies 12 bicycle racks, though only 6 can be located on plans.
- The basement parking area does not incorporate a delivery/loading/emergency services bay. •



CPS Response

The basement car parking has been amended to include 13 visitor car parking spaces, 12 bicycle racks and incorporates a delivery/loading/emergency services bay. This information has been provided within the Traffic and Parking Impacts Report and on the Architectural Plans.

• The proposal does not provide compliant adaptable units across the two residential flat buildings, with 4 adaptable units proposed where 7 are required.

CPS Response

Section C1.9 of P21 DCP requires that 20% of the apartments be adaptable. Four apartments (i.e. 11.7% of the total number) would be adaptable apartments. The proposal would however satisfy the 20% requirement for the Liveable Housing Guideline's silver level universal design features in accordance with the design guideline.

• The proposal includes numerous acoustic conflicts in both residential flat buildings, with many bedrooms being located adjacent to another unit's private open space, living room, bathroom or kitchen, or adjacent to common circulation spaces like lifts and stairs.

CPS Response

Appropriate acoustic attenuation will be provided to ensure the above items are not considered to be conflicts.

• The residential flat buildings do not include an adequate mix of apartments, with only 3- and 4bedroom units proposed.

CPS Response

A range of apartment typologies, layouts and sizes are proposed. They are well-designed and significantly larger than minimum requirements and provide generous internal and external spaces. The proposed mix anticipates demand for such housing by families seeking a larger number of bedrooms with larger private open space areas like those being proposed within this development. The size of the dwellings (in terms of number of bedrooms, floor space and POS area) is reflective of similar such development residential development within the surrounding area.

5.3 Transport for NSW

Transport for NSW responded to SEARs on 8 May 2020, outlining a range of items that must be addressed within the EIS. These items to be addressed included traffic modelling to identify the daily peak traffic movements, site access and parking provisions, parking provisions and compliance with the relevant standards, details of heavy vehicle movements, travel demand, walking and cycling connections, existing public transport infrastructure to support the development and a construction pedestrian and traffic management plan. All information requested by Transport NSW has been



addressed within Section 7.3 of this EIS and the subsequent reports by the traffic consultant which includes a Traffic and Parking Impacts Report and addendum letter. The only information that has not been provided is the Construction Pedestrian and Traffic Management Plan (CPTMP). The traffic engineer has confirmed that this is a requirement that should be provided at Construction Certificate stage of the application, noting the size of the proposed development and that a builder has not yet been engaged for the project.

5.4 Utility Providers

Ausgrid responded on 4 May 2020, indicating that that the development must assesses the capacity of existing services and utilities and identify any upgrades required and assesses the impacts of the proposal on existing utility infrastructure and service provider assets and describe how any potential impacts would be managed. This information has been provided within Section 7.2 of this EIS and within the Ausgrid Electrical Infrastructure report prepared by JDG Consulting.

5.5 Community Consultation

Direct consultation with local members of the community was undertaken in accordance with the SEARs requirements. Such consultation included residential properties on the northern side of Narrabeen Creek that both adjoined and which were in close proximity to the subject site.

The proposed development will have no foreseeable impacts on properties on the southern side of Narrabeen Creek with regard to:

- Significant separation (i.e. approximately 150-180 metres) between such residences and the proposed residential allotments,
- Dense vegetation consisting primarily of significant trees within the aforementioned area, and
- The inability of pedestrian/vehicular traffic being able to directly enter areas to the south of Narrabeen creek from the subject site,

As such, residents on the southern side of Narrabeen Creek were not included as part of the community consultation process.

Community consultation was undertaken in two ways. For existing/developed properties within the immediate surrounding, a letter drop was undertaken on 10 June 2020 (refer to *Figure 18*). At the time that consultation was undertaken, residential allotments both directly adjoining and in close proximity to the subject site along Bubalo Street had not been occupied and a letter drop to such sites was not possible; owner details and the contact details of those affected owners were subsequently obtained, with emails being sent directly to those owners on 10 June 2020 (refer to *Figure 18*).

The Warriewood Resident Association ('WRA') was also contacted by email on 10 June 2020; such correspondence was unsuccessful, and after alternative contact information was obtained from Council, another email was sent to the alterative address on 11 June 2020.

The notification process ran for twenty-one (21) days from June 11 until July 1 inclusive.




Figure 18: The areas affected by community consolation. The sites/areas identified by the green border were notified by the letter drop, while those identified by the red border were notified by email. Image source: Nearmap, 1 October 2020

Excluding general enquiries, seven (7) submissions were received from notified residents. A response was not provided by the WRA. It was also requested by some of the responding residents that an onsite meeting be held with CPS/the applicant; given the nature of the submissions and that they were unlikely to result in significant design changes and/or resolution of the issues raised (refer to these and the associated responses below), such a meeting was not convened.

Excluding general enquiries, all submissions:

- Objected to the proposal,
- Were from owners of properties on Bubalo Street, which are located immediately to the southeast of the site.

Given the level of detail raised by some submissions, the issues raised by local residents are outlined below; a planning response by CPS has also been provided.



Issue: Traffic generation

The proposal will create significant volumes of traffic. The roads within the Warriewood Valley are already congested and the development will put further strain upon local infrastructure.

CPS Response

The proposed development is unlikely to significantly increase local traffic volumes. Clause 6.1(3) of PLEP 2014 requires compliance with dwelling numbers within specific residential buffer areas within the Warriewood Valley locality. The number of dwellings proposed are in accordance with this standard, therefore the number of dwellings (and the subsequent impacts on local infrastructure such as roads) has been envisioned by Council.

The traffic engineer consulted for this project has also advised that based on adopted traffic generation rates (based on Roads and Maritime Services (RMS's) Guide to Traffic Generating Developments (as updated), the proposed subdivision (incorporating both the residential flat buildings and future dwellings) would generate a maximum 18 morning peak hour trips and 11 afternoon peak hour trips.

Issue: Parking

The nature of limitation of the parking possibilities for several units in a location of family homes surrounded will get tenants and owners/ visitors for this redevelopment spreading out in adjoining streets to find suitable parking. This will result in loss of on-street parking in surrouding areas.

CPS Response

Two spaces would be provided for each proposed apartment in addition to nine visitor spaces. The number of resident spaces are in accordance with Council's requirements, with visitor parking to exceed the guidelines created by Roads and Maritime Services (RMS).

Issue: Road access

As most driveways (including that for the residential flat buildings) are to enter onto Lorikeet Grove, vehicular traffic will utilise Bubalo Street to obtain access to Warriewood Road. This will sufficiently increase the volume of traffic on this street, which will adversely affect the safety of residents.

CPS Response:

The proposed design and location of driveway access points has sought to minimise the number of driveways and vehicles directly accessing Warriewood Road from the proposed subdivision; this is in accordance with Council's Development Control Plan.

Since community consultation was undertaken, an additional access point has been created from Lorikeet Grove to Warriewood Road; this has been facilitated through the opening of Lorikeet Grove to its intersection with Warriewood Road and Hill Road (i.e. to the southeast of the site adjacent to the Arcare Aged Care Development). Even if the subdivision of sites to the west of the subject site (i.e. 53A and 53B Warriewood Road) do not provide additional direct access points between Lorikeet Grove and Warriewood Road, the completion of the Lorikeet Grove as part of such future subdivisions will provide additional vehicular access points to Warriewood Road (e.g. via Brands Lane).



In summary, it is therefore likely that by the time occupation of the proposed development occurs, at least two vehicular access points will be available; additional vehicular access points between Lorikeet Grove and Warriewood Road will also continue to be provided. While the actions of individuals cannot be predicted, given the different directions of travel it is unlikely that all residents of the development will solely utilise Bubalo Street to access Warriewood Road (noting the relatively small number of vehicles that will enter/exit the development during peak times).

Issue: Visual privacy

Concerns are raised regarding the outlook of residents within the apartment buildings. Of particular concern are outlooks towards the southeast (i.e. to the rear of properties addressing Bubalo Street and Lorikeet Grove) and potential visual privacy impacts that would arise.

CPS Response:

The building line of the 'Block D' building (i.e. the south-eastern apartment building) is proposed to be set back 11 metres from the southeast side boundary (minor and uninhabitable articulation features such as feature walls would be set back 9.45 metres from the boundary); such a distance is nearly double the minimum six metre requirement specified by Part 3F (Visual Privacy) of the Apartment Design Guide, which guides the design of residential flat building developments above two storeys in NSW. In addition to excessively large setbacks, the side setback area (containing ground-level private open space areas for the terrace apartments) will contain a variety of landscaping treatments including large trees, which will further filter/screen views between the apartments and adjoining sites.

Issue: Solar access

The proposed 'Block D' building (i.e. the south-eastern apartment building) will significantly overshadow residential allotments to the southeast.

CPS Response:

As shown by the submitted shadow plans, the development has been designed to provide at least two hours of solar access to the private open space areas and dwellings on surrounding allotments (i.e. both the proposed allotments addressing Lorikeet Grove which form part of the proposed subdivision and the allotments).

With regard to the objectors' concerns, the 9.45-11 metre southeast setback of the Block D building has specifically sought to minimise the overshadowing impacts of sites to the southeast; on June 21, there will be no significant impact on those adjoining sites until after 1:00pm; this affords more than four hours of direct solar access to the private open space and dwelling areas of those allotments, which is well in excess of the minimum two hours that is stipulated by Part D16.9 of the DCP.



Issue: Size of the development

Owners of allotments to the southeast purchased such allotments to obtain afternoon sun and with the likelihood of there being two storey dwellings houses behind them on the subject site. Such owners did not envision development of the scale being proposed.

The overwhelming, dominant development type on the northern side of Narrabeen Creek is single-lot low rise residential. It is acknowledged that a three-storey residential flat building is under construction on the nearby Karinya development and that this may be used as a precedent in support of the subject project.

CPS response:

Both the subject site and other allotments on the southern side of Warriewood Road are within an R3 medium density residential zone; aside from lower-density forms of development such as dwelling houses and dual-occupancies, such zoning also permits higher-density forms of residential development that includes multi-dwelling housing and residential flat buildings with heights of up to 10.5 metres.

Council's planning vision for the Warriewood Valley includes specific dwelling yields within certain specific parts of the Warriewood Valley locality, which in some cases are only capable of being realised through a variety of dwelling typologies in such areas. This is reflected by a relatively large number of higher-density forms of development on the northern side of Narrabeen Creek In addition to the Arcare site to the southeast, a number of residential-flat buildings that are of a similar height and scale to that being proposed. In addition to the abovementioned development at what was formerly 29-31 Warriewood Road (approved by Development Consent No. DA2018/0607), other such residential flat buildings include those approved at 53C Warriewood Road (approved by Development Consent No. DA2018/1826).

In summary, residential flat building developments are both permitted in the zone and are envisioned by Council within this part of the Warriewood Valley. Structures of a similar height and scale have already been approved and/or are under construction on surrounding sites. This proposal has also specifically sought to address impacts on the amenity of the surrounding area, and has been designed to minimise adverse impacts on adjacent sites.

Issue: Impacts on land value

The value of surrounding properties will be adversely affected, as the site to the rear will contain three storey flat buildings and not dwelling houses.

CPS Response:

CPS are unable to quantify what (if any) impact the proposed development will have on local property values, however impacts on property values are not a matter for consideration under Section 4.15 of the Act. As indicated above, sites on the southern side of Warriewood Road were part of the R3 Medium Density Residential zone prior to subdivision; such zones permits the construction of residential flat buildings to a height of three storeys, and there are already similar such structures either approved/under construction/built within that part of Warriewood Valley.



Further, the design of the proposed residential flat buildings seek to minimise any adverse and unreasonable impacts (e.g. setbacks that are well beyond minimum requirements, centralisation/undergrounding of services and facilities away from common boundaries, etc.) that may affect surrounding residential allotments.

Impacts: Fencing

Neighbouring properties at 53C Warriewood Road and 14 Pheasant Place Warriewood are concerned about the materials of the proposed fences, if the current fences would be replaced.

CPS Response:

The materials of any boundary fence would be subject to a number of potential future requirements imposed by Council and/or the NSW Rural Fire Service. Any such fencing would however be capped at 1.8 metres in height and – subject to those aforementioned potential conditions – would likely consist of timber 'lapped and capped' or metal fencing.

Noise:

Greater dwelling density will likely create greater activity and as such more noise and disturbance for adjoining residences.

Plant and equipment, including air conditioning units should not be located in such a way as not to add to ambient levels. Simply saying that an additional 5dba is the standard, is not acceptable. This is because as additional development occurs and additional traffic is generated by this development, new and increased ambient levels continue to occur.

CPS Response:

The design of the development has sought to avoid acoustic disturbance within the surrouding area. Plant equipment is proposed to be internalised/located underground, preventing acoustic disturbance to surrounding sites. Further, the communal open space facilities within the centre of the site, in order to limit acoustic disturbance to surrounding sites (i.e. the two residential 'Blocks' would act like large shields that would block noise distribution to either side of the site). The placement of the driveway for the residential flat buildings will also adjoin Lorikeet Grove to the south of the site, and will direct any associated noise away from sensitive areas.

Temporary waste collection area:

The site plan shows a large garbage structure located at the south eastern corner of the unit development site. It is understood that this is an open sided structure. In order to avoid concerns relating to the attraction of vermin, emission of odours and noise during garbage collection operations, this structure should be enclosed on the southern, eastern and northern sides and/or relocated to a central area of the subject site where the impact is limited to onsite residents and not neighbouring properties.



CPS Response:

The temporary waste collection area is to be enclosed on the southern and eastern elevations to prevent acoustic disturbance for surrounding residences. While the main waste collection area will be designed so as to prevent the harbouring of vermin, by its very nature the temporary collection point is unable to be fully enclosed; the purpose of this area is to provide a collection point for waste by a waste management vehicle, which would be physically incapable of accessing the basement. Such an collection arrangement is common throughout the Sydney area, and any requirement to fully enclose this area is considered to be unreasonable.

Overdevelopment of the site:

The design represents an overdevelopment of the site, which attempts to secure maximum development potential and financial return. The long-lasting effects of the project will be borne by the nearby residents long after the developer completes the projects and vacates the area. Simply covering minimum development standards does not automatically produce a good quality, acceptable project design. This is fundamental to the intent of sections 4.15(1)(a)(iii), 4.15(1)(b), 4.15(1)(c) and 4.15(1)(e) of the Environmental Planning and Assessment Act 1979.

CPS Response:

It is disputed that the proposal is an overdevelopment of the site. The residential density of the development is in accordance with those sought by PLEP 2014 and has been designed so as to prevent adverse impacts affecting the surrounding locality. As is demonstrated by the submitted plans, the design of the buildings goes well beyond minimum requirements to avoid adverse impacts (e.g. overshadowing and privacy) on surrounding sites. As is clearly demonstrated by this EIS and with regard to Section 4.15 of the Act, the proposal will not have adverse and unreasonable impacts on the built and natural environments. Further, the site is suitable for the proposed development, which is subsequently in the public interest.

5.6 Aboriginal Consultation

An AHIMS Web Search was undertaken for the site on 9 December 2019 to determine if there were any known Aboriginal sites recorded in or near the site and if any Aboriginal places have been declared in or near the site. The search determined that no Aboriginal sites or places have been declared or recorded for the site or within a 200m buffer area. No further consultation with the Metropolitan Land Council is required.

5.7 NSW Rural Fire Service

Correspondence was received from NSW Rural Fire Service on 25 May 2020, requesting an updated Bushfire Assessment Report which adequately address the *Planning for Bush Fire Protection 2019*, in particular section 5 - Residential and Rural Residential Subdivisions. In response, an updated report prepared by Advanced Bushfire Performance Solutions has been prepared to address this requirement and subsequently discussed within Section 7.5 of this EIS.



5.8 Fire & Rescue NSW

Fire & Rescue NSW (FRNSW) have acknowledged the receipt of the response to SEARs on 30 April 2020. They have confirmed that at the preliminary stages of the application they have no comment however they have requested to be consulted once the application progresses.

5.9 Department of Primary Industries Fisheries Management

Department of Primary Industries Fisheries Management acknowledged receipt of SEARs on 8 May 2020 and provided the following comments:

- EIS should identify any potential harm to marine vegetation.
- EIS should identify any proposed dredging or reclamation in the context of the Fisheries Management Act.
- EIS should outline how erosion and sedimentation will be managed at the site during and post construction to avoid impacts to water quality in Narrabeen Creek.
- EIS should outline how a vegetated riparian buffer will be maintained and improved where the subject property interfaces with Narrabeen Creek (refer to the NRAR Guidelines for Controlled Activities on Waterfront Land).

In response to the above, the information has been adequately provided at Section 6.7 of this EIS and within the relevant consultant reports including the BDAR Report, Biodiversity Management Plan, Preliminary Groundwater Assessment and the Engineering Report. The proposed development is not considered to have any undue environmental impact upon marine vegetation or water quality in Narrabeen Creek.

5.10 Sydney Water

Sydney Water provided a response to SEARs on 8 May 2020. Requesting sufficient information to demonstrate the developments service demands, impacts on Sydney Water's stormwater assets and sustainability initiatives of the development.

Correspondence from Sydney Water dated 9 September 2020 have confirmed that the sizing of the new sewer in the proposed locality can service the development's needs. The service demands of the development and sustainability initiatives have been addressed within the Engineering Report prepared by C & M Consulting Engineers.

5.11 Department of Primary Industries – Water

A response to SEARs was received by the Department of Primary Industries Water division on 6 July 2020. The items requested to be addressed included the following:

• The identification of an adequate and secure water supply for the life of the project. This includes confirmation that water can be sourced from an appropriately authorised and reliable supply.



- Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Existing and proposed regulatory requirements in accordance with the Water Act 1912/Water Management Act 2000 (whichever is relevant) and relevant Water Sharing Plan/s. This is to demonstrate that existing licences and/or approvals and licensed uses are appropriate, and to identify where additional licences and/or approvals are required. This is to include an assessment of the current market depth where additional water entitlement is required.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and groundwater sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- Separation of clean and dirty water, and development of sediment and erosion control measures in accordance with industry standards will be required.
- Assessment of flood related impacts and consistency with relevant floodplain management plans or strategies. Where impacts are identified, measures to mitigate these impacts will be required.
- *Proposed surface and groundwater monitoring activities and methodologies.*
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Assessment against the "Guidelines for Controlled Activities on Waterfront Land (NRAR 2018)" for watercourse crossings and works within waterfront land. Identification of relevant buffers for works within waterfront land will be required.
- A statement of where each element of the SEARs is addressed in the EIS in the form of a table.
- Full technical details and data of all surface and groundwater modelling.
- Where groundwater may be intercepted or impacted a detailed assessment against the NSW Aquifer Interference Policy (2012) using Dol Water's assessment framework. Justification is required to support a statement that groundwater is not to be intercepted.
- Details of the final landform of the site, including final void management (where relevant) and rehabilitation measures.

Section 7.8 of this EIS provides discussion on groundwater quality, monitoring activities and methodologies. This is provided in detail within the Preliminary Groundwater Quality Report and Groundwater Study Progress Report No.1 prepared by NG Child & Associates. Due to the timing of the original reporting, the findings of the six month report are imminent and the report will be submitted to Council upon its completion. A Flood Impact Assessment has been prepared by BMT Commercial Australia to assess the proposal against the existing flood conditions pertaining to the site and is discussed within Section 7.7 of this EIS.



6.0 Environmental Assessment

6.1 General

This section of the EIS details pertinent legislation and environmental planning instruments that affect the proposed development. This includes an environmental assessment of the relevant matters outlined within the SEARS, as well as any other relevant legislation and instruments.

6.2 Environmental Planning and Assessment Act, 1979

6.2.1 Section 1.3 - Objects of the EP&A Act

The objects of *Environmental Planning and Assessment Act, 1979* ("the Act") are broadly outlined within Section 1.3. The provision of residential subdivision and two residential flat buildings would generally be expected to be consistent with the following selected objects:

- (a) 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,
- (b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,
- (c) to promote the orderly and economic use and development of land,
- (e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,
- (f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),
- (g) to promote good design and amenity of the built environment,
- (h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

The proposed development will redevelop an underutilised site within the Warriewood Valley land release area and is considered to be consistent with the objectives listed above as it seeks to promote the orderly development of land whilst providing a range of housing opportunities for the locality which promotes social and economic welfare.

6.2.2 Section 4.12 – Development Requiring Consent

Section 4.12(8) indicates that a development application for designated development is to be accompanied by an environmental impact statement prepared by or on behalf of the applicant in the form prescribed by the *Environmental Planning and Assessment Regulation 2000*. This document is prepared in response to that requirement – see below.

6.3 Environmental Planning and Assessment Regulation 2000

Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* ("the Regulations") provides the requirements for the preparation of environmental impact statement. This EIS has been prepared in accordance with the procedural and documentation requirements of this schedule.



The relevant approvals required to be obtained are outlined within Section 8 of this EIS. A signed declaration is provided within this EIS to indicate that the EIS is consistent with these requirements.

6.4 Rural Fires Act 1997

As indicated within Section 3.1 of this EIS, the subject site is bushfire prone. As the proposal includes a residential subdivision of bushfire phone land, pursuant to Section 100B of the *Rural Fires Act 1997*, the consent authority is to refer the application to the NSW Rural Fire Service ('**RFS**') for concurrence.

As demonstrated by the Bushfire Report submitted as part of this application, the proposed subdivision and associated development would satisfy the provisions of *Planning for Bushfire Protecting 2019*.

6.5 Coastal Management Act 2016

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 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.

It should be noted that the mapping of coastal wetlands are inaccurate, in that parts of the site that are mapped as 'coastal wetlands' include no such environment (noting that areas such as the completed section of Lorikeet Grove within the adjoining site at 41 Warriewood Road are mapped as such areas). The proposed development would satisfy such objectives however, as development and primary subdivision works would be located outside of higher-quality wetland areas. The plans propose to retain almost all significant vegetation within the Creekline Corridor, and exotic trees and weeds are proposed to be both removed and managed under the submitted Biodiversity Management Plan.

Refer to the submitted Biodiversity Development Assessment Report ('BDAR') for further information.



6.6 Biodiversity Conservation Act 2016

The purpose of BC Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The BC Act provides tools to avoid, minimise and offset biodiversity impacts from development and clearing through the Biodiversity Offset Scheme ('**BOS**'; refer to Part 6 of this Act). In regard to this proposal, the BOS would be triggered based on the presence of an area of Biodiversity Value that is located within the southern part of the site.

The most significant development would be situated within northern parts of the site; and are considered to be of least impact, to avoid remnant vegetation at the rear of the site. The proposed development would retain a 'no go' zone within the southern part of the site, which would protect the majority of remnant vegetation on the site; no threated species listed under the BC Act would be directly or indirectly affected by the proposal. Further, offset credit obligations would be payable for the areas to be cleared.

As such, the relevant requirements of the BC Act would be satisfied; refer to the BDAR submitted with this application for further information.

6.7 Fisheries Management Act

The purpose of The Fisheries Management Act are to conserve, develop and share the fishery resources of the State for the benefit of present and future generations. The proposed development is not considered to impact upon the ecosystems of existing fishery resources and therefore no further consideration against this Act is required.

6.8 Environmental Planning Instruments

6.8.1 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 ("the Infrastructure SEPP") provides a statewide planning regime for the consideration of the provision of infrastructure, the impacts on existing infrastructure and on consultation with public authorities.

The subject site is not located in close proximity to any part of the Classified Road network, therefore the provisions of Division 17 (Roads and traffic) of the ISEPP are not applicable.

Further, the development is not of a size that is identified by Schedule 3 of the Infrastructure SEPP as 'traffic generating development'. Council is therefore not required to make a referral to Roads and Maritime Services (RMS).

It is however acknowledged that as the proposal would require the placement of underground power lines; subject to clause 45(1)(d) of the Infrastructure SEPP, it is therefore expected that Council would



refer this DA to the relevant electricity supply authority for comment, and take into consideration any response received within 21 days of that notice.

6.8.2 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 applies to the subject application. Clause 7 of the SEPP states that a person must not clear non-exempt vegetation in any applicable area without the authority conferred by a permit granted by the Council. An arborist report accompanies the EIS, in order to provide an assessment of trees that are proposed for removal, as well as an assessment of the impacts on vegetation that is proposed to be retained.

Pursuant to clause 5(1) of the SEPP, the subject site is located within an applicable area as it is both within the Northern Beaches LGA and the R3 Medium Density Residential zone.

The aims of the policy are as follows:

- (a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and
- (b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

As outlined within the description of the development at Section 4.1 of this report, forty-seven (47) trees (including one (1) dead tree and thirty-two (32) 'exempt' trees) are to be removed from within the site boundaries. Only one (1) of the trees proposed to be removed is of high retention value, and the proposal does not exceed the biodiversity offsets scheme threshold. Further, the site does not form part of an Aboriginal object or that is within an Aboriginal place of heritage significance (refer to the assessment of clause 5.10 of PLEP 2014 for further information).

As such, the aims of the policy would be satisfied, and Council may permit to the proposed removal of trees.

6.8.3 State Environmental Planning Policy (Coastal Management) 2018

The subject site is not located in close proximity to the coast, however due to its proximity to Narrabeen Warriewood Wetlands, it is mapped as both containing coastal wetlands, and being within a proximity area for coastal wetlands. As such, Divisions 1 and 5 of the CM SEPP would be applicable to the application.

As is detailed within Sections 1.0 and 3.1 of this EIS, the proposal would be designated development, subject to the provisions of clause 10(2) of the CM SEPP. Council can therefore be satisfied that sufficient measures would be taken to protect and enhance where possible, the biophysical, hydrological, and ecological integrity of the coastal wetland.





Figure 19: An extract from the Coastal Management SEPP maps, showing the location of coastal wetlands and areas in proximity to such area. The subject site is outlined by the red border. Note that the details of the mapping are inaccurate, as they include areas which are clearly developed (such as constructed roadways, created allotments, highly disturbed areas, etc.) and/or of very poor environmental quality. Source: NSW Department of Planning and Environment

The requirements of clause 11 of the CM SEPP will be satisfied, as the proposal would not adversely affect the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland.

The requirements of Division 5 of the CM SEPP would be satisfied, in that the development would not result in any increased risks to coastal hazards, and noting that Council's website does not contain any Coastal Zone Management Plans that are applicable to the site.

In summary, the submitted information demonstrates that the proposal would take sufficient measures – where possible – to protect the biophysical, hydrological or ecological integrity, of coastal wetlands. Further, the development would not increase the risk of coastal hazards. As such, the relevant provisions of the CM SEPP would be satisfied.

6.8.4 State Environmental Planning Policy No. 19 – Bushland in Urban Areas

This policy aims to protect and preserve bushland areas. It is noted that the site is not located within the areas identified in Schedule 1. However, this policy applies to the site as the land adjoins bushland



zoned for public open space. The proposal is not considered to impact upon the adjoining bushland area.

6.8.5 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

The proposal for integrated residential subdivision and the construction of two residential flat buildings are not considered to be hazardous or offensive development as per the definitions outlined in Clause 3 of SEPP 33.

6.8.6 State Environmental Planning Policy (Koala Habitat Protection) 2019 This Policy applies to the Northern Beaches Local Government Area, in which the site is located. Specifically, it applies to land that:

- (a) is identified on the Koala Development Application Map, and
- (b) has an area of at least 1 hectare (including adjoining land within the same ownership), and
- (c) does not have an approved koala plan of management applying to the land.

The subject site is greater than 1 hectare in size, is identified on the Koala Development Application Map and the Site Investigation Area for Koala Plans of Management Map (see *Figure 20* below).



Figure 20 – State Environmental Planning Policy – Koala Habitat Protection Map. The subject site is outlined by the red border. Source: NSW Department of Planning, Industry and Environment



The Biodiversity Development Assessment Report (BDAR) prepared by Lesryk Environmental Pty Ltd has identified that there were no koalas present on site although suitable feed trees, Eucalyptus Robusta are located on the site, which are identified in Schedule 2 of the Koala Habitat Protection SEPP. This provides an opportunity for koala species to occur at a point in the future. Nevertheless, the land is not considered to be core koala habitat, a koala plan of management does not apply to the site and no further assessment under Koala Habitat Protection SEPP is required.

6.8.7 State Environmental Planning Policy No 55 – Remediation of Land

The *State Environmental Planning Policy No.* 55 – *Remediation of Land* applies to the proposed development. Clause 7 requires a consent authority to consider the contamination status of the land and be satisfied the land is, or will be made, suitable for the purpose for which the development is proposed to be carried out.

The subject site and surrounding sites are located within a residential area, however previous land uses on the site and surrounding sites have included both residential and rural/agricultural land uses. As such, Preliminary Stage 1 Site Investigation (prepared by NJ Child & Associates) has been prepared and submitted.

The findings show that despite earlier agricultural activities on the site, there was no sign of contamination. Further, there was no information to suggest that contaminated fill had been imported onto the site, and hazardous materials (e.g. asbestos, volatile compounds, etc.) were not identified. As such, there would be no foreseeable risks to the development, subject to recommendations regarding the demolition of structures on the site and processes regarding unexpected finds during works.

With regard to the above, the site is considered to be suitable in its present state for the proposed development, and no further investigations of site contamination is warranted.

6.8.8 State Environmental Planning Policy No. 65 - Design Quality of Residential Flat Development

As the proposed development includes residential flat buildings that are more than two storeys high, the provisions of *State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development* ('SEPP 65') would apply to the proposal. The proposal has been designed to comply with both the prescriptive and non-prescriptive provisions of SEPP 65 and the *Apartment Design Guide* ('ADG'), the latter of which provides design criteria and guidance about how development proposals can achieve the nine design quality principles contained within Schedule 1 of the SEPP.

The design of the building was directed by Tarun Chadha of Archidrome Architects, a registered architect (registration number 8777). The SEPP 65 Design Verification Statement accompanying this development application confirms that the design achieves the nine design principles set out in SEPP65 and that the building has been designed with regard to the ADG.

For reference, the responses to the Design quality principles are contained within the following table:



Table 6: Design Quality Principles Assessment.

Principle 1: Context and neighbourhood

<u>character</u>

Principle

Comment:

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Principle 2: Built form and scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

Principle 3: Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be

The proposed RFBs respond well to the context of the site and surrounding area, and are consistent with both the existing and desired character of the Warriewood Valley locality.

The buildings consider site limitations and context; the buildings will be stepped along the slope to minimise height and scale and to facilitate the amenity of surrounding sites. The proposed building heights, scale and designs are consistent with the future character of the area, noting that surrounding sites within the new-release areas already contain constructed and approved RFBs that are consistent with that being proposed. The layout of the subdivision will also enable the building to be partially screened from surrounding public areas (such as roads and the creek line corridor); the overall development will therefore present to such areas in a manner that is consistent with other subdivisions on the northern side of Narrabeen Creek to enable further consistency with the surrounding area.

The development is articulated with an appropriate massing and legibility of scale which is in line with the current development The proposal is appropriate for the site and controls. commensurate in density, scale, height and articulation with existing and approved development on surrounding sites and the subsequent future character of the locality.

The locations of the RFBs would be sited behind lower-density forms of development on lots addressing surrounding road corridors, and as such would further reduces the visual bulk of the structures from such roads.

The development is set to respond to the slope on the site to minimise the need for excavation/infill. The design proposal follows natural pattern of the site while maintaining vistas both to the north and south.

Most setback areas also include oversized separation to site boundaries, and separation between buildings surpasses ADG requirements.

The proposed development satisfies dwelling density requirements in support of Council's vision for future residential growth in the area, without disrupting the streetscape and maintaining the existing character along approach roads, Warriewood Road & Lorikeet Grove.



sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

It is envisioned that density targets will be attained through the provision of a range of dwelling typologies, as has been proposed by this application.

The proposed mix of type of units and the density ensures compliance with the existing street character while matching up to the desired future development character.

Principle 4: Sustainability

Good design combines positive environmental, R social and economic outcomes. Good th sustainable design includes use of natural cross ventilation and sunlight for the amenity and Th liveability of residents and passive thermal w design for ventilation, heating and cooling • reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of • sustainable materials and deep soil zones for groundwater recharge and vegetation.

Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree

The orientation, modulation, massing and articulation of the RFBs optimizes both cross ventilation and sunlight usage, thereby enhancing energy efficiency and sustainability.

The building orientation and facade elements are implemented with a climate control strategy as described below:

- Provision of POS areas to the front and rear of terrace apartments to provide solar access to open areas of such unit.
 - Provision of skylights on the top level units to maximise solar access to living areas within these apartments.
- The buildings are planned such that they completely utilise eastern, western and northern solar access.
- The building designs reflect efficient energy usage through effective cross ventilation.
- The buildings will incorporate energy and water efficient devices appropriate to specification of the building and BASIX requirements.
- Energy Efficient Design strategies for this development include:
 - Maximising occupants' access to daylight, ventilation and views;
 - External shutters that would appropriately shade balconies where needed.
 - Providing majority of units with cross ventilation.

The development is to be extensively landscaped to provide for outdoor landscaped recreation for the residents while maintaining the atmosphere of the surrounding natural aspects of the area.

The communal open space proposed along the central spine of the site, creates an adequate buffer between two rows of buildings while ensuring maximum amenity for residents. This central spine offers multiple viewpoints and vistas along and through the site.

The inner landscaping is designed with different characters to create a variety of landscaped spaces. They are equipped with



canopy, habitat values and preserving green networks. Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management.

seating areas, natural grass areas, BBQ's, outdoor seating areas children's play equipment and a swimming pool.

Areas that are inaccessible to the public will be planted with decorative groundcovers to provide visual interest, especially when viewed from above. The planting palette is proposed to be a mixture of predominately native planting. Trees that would be visible from public areas once grown would consist of native species that would reflect the development's environmental performance that would positively contribute to the surrounding natural environment.

Principle 6: Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.

The design of the RFBs has sought to maximise internal and external amenity for residents and neighbouring sites.

The unit sizes are generously proportioned and provide oversized rooms and private open space areas that are significantly larger than minimum requirements. The layouts of individual units are configured in a way to assure rooms of similar function are adjacent to common walls.

The vast majority of apartments would receive significant amounts of solar access and would be capable of being naturally ventilated. All apartments would have a visually pleasing outlook, with both elevations of terrace apartments looking onto landscaped areas and large private open space areas, while upper apartments would obtain views of the surrounding locality. Further, the layouts of the apartments would provide ample internal space and storage and direct access to communal areas within the centre of the site.

Communal areas would contain a range of environments that would obtain sufficient solar access to enable a range of activities within such areas.

The orientation and design of the buildings has capitalised upon the site orientation to maximise amenity within the site without excessively nor unreasonably overshadowing surrounding sites. The design of the buildings would also be aesthetically pleasing and would not adversely affect the visual amenity of surrounding sites and areas.

The separation of habitable rooms/balconies also follows recommendations of the Apartment Design Guide to limit overlooking of neighbouring buildings, in combination with significant boundary set-backs and landscape screening.



Principle 7: Safety

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose. The development provides secure parking with direct linkages between parking areas and dwellings for residents; highly visible walkways from both Warriewood Road and Lorikeet Grove are also provided. All units have lift access which means that with a keyed system, while terrace apartments contain internalised stairway access; a high degree of security is therefore assured.

All pedestrian areas are designed to provide clear sight lines and minimise potential for obscure places. All the public domain spaces and all lobbies are wide, brightly lit and can be observed from all surrounding apartments.

All landscaped spaces and pedestrian paths within the site will be well lit, and designed to maximise personal security, and a camera surveillance system forms a feature of the design. Wellmaintained security features have been provided to comply with Crime Prevention through Environmental Design factors.

Principle 8: Housing Diversity and social interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

Principle 9: Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape. A range of apartment typologies, layouts and sizes are proposed. They are well-designed and significantly larger than minimum requirements and provide generous internal and external spaces. Such a design would be well suited to the family-based demographics that would likely occupy this development.

The orientation of the RFBs, the location of the centralised communal area and the provision of private open spaces to both the front and rear of the terrace apartments would also promote social interaction and a sense of community.

The overall development has a high-quality aesthetic. The building masses are appropriately articulated, considering massing within the prescribed envelope. The landscaped setting ensures they are integrated well into their surroundings.

The buildings have a contemporary architectural style with a balanced composition of frame, glazed walls, recessed balconies and shutters. The form and mass of the buildings has been modelled to reduce the visual bulk of the structure. The topmost level units are setback further from the articulation frame so as to visually reduce their heights and thus, the apparent building bulk as a whole. Visual interest is also introduced through efficient use of variety of materials and finishes.



The design is in-line with the existing and desired future character of the area. An appropriate composition of building elements, material textures and colours has been utilised to reflect the building's residential character.

Elements such as large masonry frames, timber shutters, combination of subtle colours, with a series of articulated windows and entry canopies provide a contemporary refined aesthetic.

Compliance with the provisions of the ADG are contained within Appendix B, which is attached to the end of this document.

In summary, the design of the proposed development satisfactorily addresses the design principles of SEPP 65, and complies with the requirements of the ADG.

6.8.9 State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 operates in conjunction with the Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004 to ensure the effective introduction of BASIX in New South Wales.

Pursuant to Clause 6(1) of the SEPP, the SEPP would apply to 'BASIX affected development' (as defined by the Regulations). In accordance with the regulations, a BASIX certificate would be required.

As such, a BASIX certificate and accompanying documentation form part of the DA package, and demonstrate that the proposal is able to achieve all targets relating to water, thermal comfort and energy. Refer to the accompanying documentation for further information.

6.8.10 Pittwater Local Environmental Plan 2014

Permissibility and zone objectives

Pursuant to clause 2.6(1) of the LEP, subdivision of the site is permissible with development consent. The site located within an R3 Medium Density Residential zone.

The residential development component is most appropriately defined as 'residential accommodation', and more specifically as 'residential flat buildings'.

Residential flat buildings are a form of development that is permissible with consent within the R3 zone under PLEP 2014.

The objectives of the R3 zone are as follows:



- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a limited range of other land uses of a low intensity and scale, compatible with surrounding land uses.

The proposed development would provide for the housing needs of the community by providing dwellings within the medium density residential environment and developable land upon which to support future lower-density residential development; a variety of housing types (i.e. different sized apartments and land that would accommodate a variety of detached dwellings) would therefore be provided within the context of the surrounding medium density residential environment. Further, the development would not affect the ability of surrounding sites to accommodate development, land uses and/or services that would both serve the needs of the community in a manner that would consistent with the character of the surrounding area. As such, the development would satisfy the objectives of the R3 zone.



Source: www.legislation.nsw.gov.au



Development standards

The following table provides an assessment of the proposed development against the relevant provisions of PLEP 2014.

Table 7: PLEP 2014 D				
Pittwater Local Er	1			
Clause	Requ	irement	Proposed	Complies
2.6 Subdivision— consent requirements	(2)	Land to which this Plan applies may be subdivided, but only with development consent.	Consent is sought for the subdivision of the site.	Yes
2.7 Demolition requires development consent	(1)	The demolition of a building or work may be carried out only with development consent.	Noted, however demolition is not sought as part of this application.	N/A
4.1 Minimum subdivision lot size		The size of any lot resulting from a subdivision of land to which this clause applies is not to be less than the minimum size shown on the Lot Size Map in relation to that land.	Does not apply to the Urban Release Area.	N/A
4.3 Height of buildings	(3)	The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.	Maximum permitted height: 10.5m Maximum proposed height: 12.34m Refer to Appendix A for a written variation request.	No, refer to cl.4.6 written request
	(2F)	Despite subclause (2), development on land identified as "Area 6" on the Height of Buildings Map must not exceed 8.5 metres within the area that is 12.5 metres measured from the boundary of any property fronting Orchard Street, Macpherson Street, Warriewood Road or Garden Street.	Maximum permitted height within street frontage: 10.5m Maximum proposed height: Development is not proposed within allotments addressing Warriewood Road that are subject to the 8.5m height standard.	N/A
4.4 Floor space ratio		The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.	Not applicable to the site.	N/A
4.6 Exceptions to development standards	(2)	Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is	Refer to Appendix A for a written variation request to the building height standard.	Yes

Table 7: PLEP 2014 Development Standards.



expressly excluded from the operation of this clause.

	 (3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating— (a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and (b) that there are sufficient environmental planning grounds to justify contravening the development standard. 	As above.	Yes
5.10 Heritage conservation	 (2) Requirement for consent is required for any of the following— (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)— (i.) a heritage item, (ii.) an Aboriginal object, (iii.) a building, work, relic or tree within a heritage conservation area, (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item, (c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, (d) disturbing or excavating an Aboriginal place of heritage significance, (e) erecting a building on land— (i.) on which a heritage item is located or that is within a heritage item is located or that is within an Aboriginal place of heritage significance, 	The site does not contain a heritage item, is not within a heritage conservation area nor is it in close proximity to a heritage item. A check of the Aboriginal Heritage Information Management System (AHIMS) for each allotment has not identified any record of an indigenous place or object(s) being located on and/or in close proximity to the site. Further, as a result of earlier development on the site and works on adjoining sites encroaching onto the owner's site, the rear of the site has already been significantly disturbed. It is therefore unlikely that the site would contain items of aboriginal culture. The consent authority could however impose a condition of consent regarding processes associated with unexpected archaeological finds.	Yes



	 (i) on which a heritage item is located or that is within a heritage conservation area, or (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance. 	
6.1 Warriewood Valley Release Area	(2) This clause applies to the land in the I Warriewood Valley Release Area.	Noted
	for development on land in a buffer area or sector or at an address mentioned in Column 1 of the table to this clause unless the consent authority is satisfied that the total number of dwellings shown opposite that buffer area, sector or address in Column 2 of that table will be erected.Column 1Column 2Buffer area 1fNot more than 21 Lot less than 14Buffer area 1gNot more than 23	Required: Note more than 45 and not less than 31.Yes34 dwellings are proposed, in addition to a further 11 allotments each capable of
	for development on land to which this of clause applies unless the consent authority of is satisfied that the proposed development will not have any significant adverse impact on any of the following— (a) opportunities for rehabilitation of for aquatic and riparian vegetation, habitats for and ecosystems within creek line r corridors, for the water quality and flows within creek for	The proposed development Yes will not adversely affect water quality and flows within the creek line corridor, nor the stability of the creek bed, shore and banks of Narrabeen Creek. Development within the creek line corridor would be minimised, and would subsequently maximise rehabilitation opportunities within the corridor.
7.1 Acid sulfate soils	carrying out of works described in the table	The subject site is mapped as Yes containing Class 3, 4 and 5 acid sulphate soils.
	under this clause for the carrying out of S works unless an acid sulfate soils t management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been	A preliminary Acid Sulphate Soils assessment is lodged with this application. Testing undertaken indicates an absence of acid sulphate soils on the site. While not proposed, if excavation were



		to exceed two metres on areas of the site that are mapped as containing Class 4 acid sulphate soils are to be treated and reused at the site to minimise any acid sulphate generating potential.	
7.2 Earthworks	 (2) Development consent is required for earthworks unless— (a) the earthworks are exempt development under this Plan or another applicable environmental planning instrument, or (b) the earthworks are ancillary to development that is permitted without consent under this Plan or to development for which development consent has been given. 	Noted.	-
	 (3) In deciding whether to grant development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters— (a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development, (b) the effect of the development on the likely future use or redevelopment of 	The site is not subject to a geotechnical hazard; given the level of earthworks proposed however, Council's Geotechnical Risk Management Plan applies. A geotechnical assessment (prepared by JK Geotechnics) has been prepared and submitted as part of this proposal.	Yes
	 the land, (c) the quality of the fill or the soil to be excavated, or both, (d) the effect of the development on the existing and likely amenity of adjoining properties, (e) the source of any fill material and the destination of any excavated material, (f) the likelihood of disturbing relics, (g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or 	This report has found that, subject to its recommendations, that the level of earthworks being proposed will not adversely affect the stability of the site and surrounding areas. Further, the accompanying reports have found that the proposed development would	
	 (h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development, (i) the proximity to and potential for adverse impacts on any heritage item, archaeological site or heritage conservation area. 	not adversely affect drainage patterns nor the adjoining waterway. The site is not mapped as containing any items of indigenous heritage, and the unlikely discovery of any such items during works could be readily addressed by Council.	
7.3 Flood planning	(2) This clause applies to land at or below the flood planning level.	Noted.	-



	 (3) Development consent must not be granted to development on land to which this claus applies unless the consent authority satisfied that the development— (a) is compatible with the flood hazard of the land, and (b) will not significantly adversely affect flood behaviour resulting in detriment increases in the potential flood affectation of other development of properties, and (c) incorporates appropriate measures the manage risk to life from flood, and (d) will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourse and (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding. 	 (prepared by BMT) submitted with this application has found that the proposed subdivision will provide adequate protections for all proposed lots, the levels of which would be situated above the flood planning level; the development will also not significantly reduce storage within the flood catchment. Refer to these documents for further information. 	Yes
7.6 Biodiversity	(2) This clause applies to land identified a "Biodiversity" on the Biodiversity Map.	ns Noted.	-
	 (3) Before determining a development application for development on land the which this clause applies, the consert authority must consider— (a) whether the development is likely the have— (i.) any adverse impact on the condition, ecological value and significance of the fauna and flow on the land, and (ii.) any adverse impact on the importance of the vegetation of the land to the habitat and survive of native fauna, and (iii.) any potential to fragment, disturd or diminish the biodiversities structure, function and composition of the land, and (iv.) any adverse impact on the habitate and survive of the land, and (iv.) any adverse impact on the habitate and composition of the land, and (iv.) any adverse impact on the habitate and composition of the land, and (b) any appropriate measures proposed the avoid, minimise or mitigate the impaction of the development. 	 Environmental) forms part of this application package. Such reporting has found that the development would not adversely affect the natural environment. Development would be situated towards the northern end of the site, with southern ends of the site (i.e. those containing remnant vegetation) to be designated as 'no go' zones to prevent further disturbance and fragmentation. Ongoing management of this section of the site would be subject to the requirements of the submitted Biodiversity Management Plan, prepared by Land Eco Consulting. 	Yes
	(4) Development consent must not be granted to development on land to which this claus		Yes



	 applies unless the consent authority is satisfied that— (a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or (b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or (c) if that impact cannot be minimised—the development will be managed to mitigate that impact. 	impact, and the ongoing management of southern sections of the site would continue to manage and improve the environmental quality of remnant vegetation and the creek line corridor.	
7.10 Essential services	 Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the development are available or that adequate arrangements have been made to make them available when required— (a) the supply of water, (b) the supply of electricity, (c) the disposal and management of sewage, (d) stormwater drainage or on-site conservation, (e) suitable vehicular access. 	Essential services are already obtainable at the site. The proposal includes works that will provide all relevant utilities and adequate vehicular access.	Yes

6.9 Draft Planning Instruments

There are no draft planning instruments which apply to the subject site.

6.10 Policy Documents

6.10.1 Greater Sydney Region Plan A Metropolis of Three Cities

The Greater Sydney Region Plan a Metropolis of Three Cities is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services, and great places. This is consistent with the 10 Directions in Directions for a Greater Sydney which establish the aspirations for the region over the next 40 years and are a core component of the vision and a measure of the Plan's performance.

The site is located within the Eastern Harbour City, specifically the Northern District. Over the next 20 years there is a projected target of 92,000 dwellings to be provided within the Northern District. The site is in the immediate locality of the Mona Vale Strategic Centre and the Ingleside Growth Area. Therefore, the proposed dwellings are appropriately located to support growth within this region, provide key housing and housing diversity within 30 minutes of the Mona Vale Strategic Centre supporting the aims of the Greater Sydney Region Plan.



6.10.2 Our Greater Sydney 2056 North District Plan

Our Greater Sydney 2056 North District Plan expands upon the vision within the Greater Sydney Region Plan a Metropolis of Three Cities, with a key focus on achieving the goals and objectives for the North District.



Figure 21: North District Centres Map Source: Our Greater Sydney 2056 North District Plan, Greater Sydney Commission



Warriewood has been identified as a local centre within the North District (see *Figure 21*). The role of a local centre has been summarised as follows:

Local centres are a focal point of neighbourhoods and where they include public transport and transport interchanges, they are an important part of a 30-minute city. While local centres are diverse and vary in size, they provide essential access to day to-day goods and services close to where people live...

Local Centres:

- will be appropriate to accommodate additional housing as part of their housing strategy
- will need to grow to provide for the required goods and services of the community
- may also need to grow to deliver other roles for the community, such as recreational, cultural and community hubs

The proposal will assist in the growth of the Warriewood Local Centre as it will provide a range of housing typologies to assist in achieving the required housing stock in the locality. The redevelopment of the site will transform an underused and vacant site which will enhance the streetscape and immediate locality. The redevelopment of the site is well founded as it will assist in achieving the objectives of the North District Plan.

6.10.3 Towards 2040 Local Strategic Planning Statement

Towards 2040 Local Strategic Planning Statement (LSPS) is the Local Strategic Planning Statement for the Northern Beaches local government area. The LSPS provides a 20 year vision for the Northern Beaches, highlighting that there will be a demand of an extra 39,000 people, which is 3% of the grow envisaged for Greater Sydney.

Based on projected population growth, an additional 11,747 dwellings are required over the next 20 years. It is expected that the housing stock will be provided in existing areas including Warriewood which is one of the areas which has accommodated most of the recent housing stock. It is expected that additional housing stock will be provided within areas already identified for growth akin to the Warriewood Valley where the site is located. Nevertheless, the proposed development aligns with the Northern Beaches LSPS as it will provide housing stock within a growth area of the northern beaches.

6.10.4 State Infrastructure Strategy 2018 – 2038 Building the Momentum

The State Infrastructure Strategy 2018-2038 is developed by Infrastructure New South Wales and sets out infrastructure needs and priorities over the proceeding 20 years. The strategy provides six strategic directions for infrastructure in NSW including:

- 1 Continuously improve the integration of land and infrastructure planning so that population growth does not erode the amenity and character of our suburbs, towns and communities.
- 2 Plan, prioritise and deliver an infrastructure program that represents the best possible investment and use of public funds.
- 3 Optimise the management, performance and use of the State's assets to strengthen the management of infrastructure assets.



- 4 Ensure NSW's existing and future infrastructure is resilient to natural hazards and humanrelated threats by embedding consideration of risk and resilience into all projects.
- 5 Improve state-wide connectivity and realise the benefits of technology, ensuring that NSW becomes a leader in the adoption and use of digital technology.
- 6 Drive high quality consumer-centric services and expand innovative service delivery models in infrastructure sectors by being innovative in buying services and delivering new assets.

The strategy contains 122 recommendations across NSW's key infrastructure sectors of transport, energy, water, health, education, justice, social housing, culture, sport and tourism. The strategic objective in the Strategy relating to housing is:

Coordinating housing and employment supply to inform infrastructure planning Infrastructure NSW recommends that the Department of Planning and Environment establish by 2020 a housing and employment supply pipeline

The proposed development appropriately responds to this strategic objective as the redevelopment will add to the existing housing stock within NSW.

6.10.5 Pittwater 21 Development Control Plan

P21 DCP provides guidelines and controls for development in the Northern Beaches Council local government area. A detailed assessment of the proposed development against applicable provisions is attached to this report; refer to *Appendix C*.

To summarise however, the proposed development will satisfy the relevant provisions of the P21 DCP. Council is reminded that pursuant to section 4.15(3A)(b), it is to be flexible in applying the provisions of the P21 DCP where the objects of relevant provisions are satisfied.



7.0 Potential Impacts Associated with the Development

7.1 Design Quality of Residential Flat Development

As discussed within Section 6.7.8 of this report, the proposed development includes two (2) residential flat buildings that are more than two storeys high, and the provisions of SEPP 65 apply. The proposal has been designed to comply with both the prescriptive and non-prescriptive provisions of SEPP 65 and the ADG, the latter of which provides design criteria and guidance about how development proposals can achieve the nine design quality principles contained within Schedule 1 of the SEPP.

The design of the building was directed by Tarun Chadha of Archidrome Architects, a registered architect (registration number 8777). The SEPP 65 Design Verification Statement accompanying this development application confirms that the design achieves the nine design principles set out in SEPP65 and that the building has been designed with regard to the ADG. The ADG assessment has been provided at *Appendix B* of this report.

7.2 Infrastructure and Servicing

Essential services are currently available to the site; however, augmentation of existing electrical infrastructure services will be required. An Ausgrid Electrical Infrastructure report has been prepared by JDG Consulting to assess the capacity of the current network and the impacts of the proposal on the existing network and any additional infrastructure required.

The geographic area is serviced by Ausgrid with existing underground network and a small portion of overhead network remaining on the Warriewood Road boundary of the site. To service the subdivision, Ausgrid network infrastructure is required to provide LV supply to each of the 11 Torrens Title Lots and LV supply to Lot 12 which includes 34 Apartments. Ausgrid allow for provision of supply using a predetermined After Diversity Maximum Demand (ADMD) per dwelling of 3.5kVA for Sydney Urban Residential Developments (URDs). Based upon the proposed development the following supply requirements are required:

- 11 Torrens Title Lots 11 x 3.5kVA: 38.5kVA, 55.8Amps
- Two residential Flat buildings with 34 Apartments: 34 x 3.5kVA: 119kVA, 172.5Amps
- Total Supply Requirement: 157.5kVA, 228Amps

The supply arrangement of the proposed development will include the following:

- The proposed development supply requirement is 157.5kVA, 228Amps, (Refer Section 1.0).
- A new substation will be established facing Warriewood Road and service the subdivision load requirements.
- The proposed Torrens title lots facing Warriewood Road (4 lots 14kVA) will require new trenching, conduits, LV cable and LV pillars connected into the existing LV network.
- The proposed Torrens title lots facing the Lorikeet Grove (7 lots 24.5kVA) will require new trenching, conduits, LV cable and LV pillars connected into the existing LV network.



- The proposed 34 apartment residential development within the one lot 12 will require a single point of connection to allow a supply of 119kVA (172.5Amps) which can come from a dedicated LV fuse from the substation or from an LV pillar as nominated in design.
- The existing HV and LV overhead conductors are to be removed and replacement will require new trenching, conduits and HV and LV underground cable to maintain existing connectivity. The existing supply arrangement from existing timber poles will be removed and supply to existing customers will be maintained by new trenching, conduits, LV cable and LV pillars connected into the new LV network.
- New Street Lighting columns will be provided on Warriewood Road and Lorikeet Grove to Council requirements.

7.3 Traffic and Parking

The application has been accompanied by a Traffic and Parking Impacts Report prepared by TEF Consulting to consider how the proposal is able to accommodate parking on site, and whether appropriate amelioration measures are required to ensure that the increased vehicle movements can be accommodated within the road network. The proposal also assesses the existing public transport network and its ability to service the proposed development. An additional letter was prepared by TEF Consulting dated 14 September 2020 to supplement the Traffic and Parking Impacts report and to address the requirements within the SEARs and referral letter from TfNSW.

The proposed residential flat buildings include basement car parking which accommodates 81 car parking spaces. Specifically, 68 space are dedicated to residents (including 4 disabled spaces) and 13 spaces for visitors (including 2 disabled spaces). The basement car park will also provide one (1) car wash bay and 12 bicycle spaces. The report prepared outlines that the DCP car parking rates are achieved as each proposed dwelling is provided with two (2) car parking spaces each and 13 visitor spaces are proposed which exceeds Councils requirements by one (1) visitor car parking space.

Using TfNSW (RMS) Guide trips rates, modelled traffic predictions indicate that during the morning peak, a maximum of 18 trips per hour (in and out) will occur; a maximum of 11 trips per hour (in and out) are also predicted during the afternoon/evening peak period. It was concluded in the TPIA that the estimated additional number of vehicular trips was too low to have any effect on the operation of the road network generally and on the critical intersections specifically. Council's dwelling density standards for the Warriewood Valley locality within PLEP 2014 envision the number of dwellings proposed both on the subject site and surrounding sites, and the planned road infrastructure has subsequently been designed to accommodate for the forecast growth within the area.

The design of vehicular access, car parking and internal passageways are capable of complying with the relevant standards.

Allowances have been made for the pedestrian pathway/cycleway which will connect to the adjoining developments. The 2.5 m pathway follows the southern side of Lorikeet Grove until it deviates in order to connect to the pathway network at the rear of 53 Warriewood Road.



On-site waste collection at the ground floor level is proposed. Entry and exit from the collection point in a forward direction is achievable by a typical large waste collection vehicle (9.9 m long).

TfNSW have requested the preparation of a preliminary Construction Pedestrian and Traffic Management Plan (CPTMP) to demonstrate the proposed management and impact in relation to construction traffic. The response provided by TEF Consulting states that such information cannot be provided at this stage of the proposal, as a builder has not been engaged for this project and future construction activities are not known; it is however accepted that in the event of an approval such documentation will need to prepared prior to the issue of a Construction Certificate. Refer to documentation prepared by TEF Consulting for further detail regarding this issue.

7.4 Biodiversity

A Biodiversity Development Assessment report (BDAR) is required for this development as detailed within Section 8.2 of this EIS. The BDAR has been prepared by Lesryk Environmental. A field investigation of the subject site was carried out by Kurtis Lindsay on 10 and 11 February 2020 and again on 12 March 2020 and by Deryk Engel on 20 January and 4 February 2020.

To facilitate the proposal a small area of native vegetation will require removal. The development has been deliberately sited in the 'area of least impact' to avoid the remnant bushland at the rear of the subject property, and the mapped 'Coastal Wetland' area. The design has been situated to avoid any impacts to the Narrabeen Creek habitat corridor.

The native vegetation observed within the site was representative of a single vegetation community, PCT 1795 Swamp Mahogany / Cabbage Tree Palm - Cheese Tree – Swamp Oak tall open forest on poorly drained coastal alluvium in the Sydney basin. The entire extent of native canopy trees and shrubs on the subject property corresponds to the threatened ecological community 'Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions' which is listed as an EEC under BC Act (NSW Scientific Committee 2005). It is therefore of high retention value. 13 mammals (including three introduced), 49 birds (including three introduced), four reptiles and four amphibians had been detected within, or in close proximity to, the subject land. A number of introduced animals were also recorded.

No threatened species listed under the BC Act are expected to be directly or indirectly impacted by the proposed development. The only threatened species recorded within the subject property were mobile fauna, expected to be passing through, or using the habitat at the rear of the property which will be protected and enhanced.

To ensure the remanent vegetation on the site is protected, fauna is not displaced in the clearing or thinning of any vegetation a Biodiversity Management Plan has been prepared by Land Eco Consulting to accompany the application.



7.5 Bushfire Risk

Advanced Bushfire Performance Solutions Pty Ltd has prepared a Bushfire Assessment Report to accompany the application as part of the site is classified as part Vegetation Category 2 and part Vegetation Buffer.

The site is located within 140m of significant and unmanaged bushfire hazard vegetation to the south. To ensure the development is capable of complying with minimum Asset Protection Zones, setbacks from the edge of the unmanaged bushfire hazard vegetation to the nearest part of the building envelope are required. The proposal must provide a minimum setback of 12 metres, which is achieved.

The findings of the report have provided a list of recommendations, one of the recommendations includes that the construction of proposed residential flat building must be constructed to the requirements of BAL – 12.5 of AS3959-2018 Construction of buildings in bushfire prone areas. The report has demonstrated that the proposal can comply with the relevant requirements of *Planning for Bush Fire Protection 2019*, including the provision of adequate Asset Protection Zones (APZ), as well as appropriate design and construction standards.

7.6 Landscaping

An Arborist Report has been prepared by Creative Planning Solutions to accompany the application and supplement the BDAR report. The report surveyed sixty-one (61) trees and groups of trees within and adjoining the site. The recommendations of the report include removal of one (1) dead tree, removal of thirty-two (32) 'exempt' trees, removal of fourteen (14) site trees of 'Low', 'Medium' & 'High' retention value due to impacts resulting from the proposed construction and building works. Fourteen (14) trees in total will be retained and protected.

A detailed landscape concept has been prepared by CPS. The landscape design is aimed at providing an aesthetic and ecological benefit to the site. The central portion of the central lot is to be dedicated as a large communal open space for the residential flat buildings and is to contain for passive and active recreational pursuits. Each of the ground floor units of the residential flat buildings are to include generous private open space courtyards containing paved patios, open lawns and garden surrounds. The communal open space also serves as the primary pedestrian circulation providing equitable access from Warriewood Road to Lorikeet Grove and the through site link at the rear creek line corridor. In accordance with the arboricultural report, thirty (30) large (i.e. 15+ metre high) endemic tree plantings (i.e. *Casuarina glauca* (Swamp Oak), *Eucalyptus botryoides* (Bangalay), *Eucalyptus Robusta* (Swamp Mahogany) and *Melaleuca quinquenervia* (Broad-leaved Paperbark) are also proposed to be planted on the site to compensate for trees that are to be removed during works.

7.7 Flooding

The site is located adjacent to Narrabeen Creek (flowing along the southern boundary of the site) and is classified as Flood Category 1 – High Hazard, with the southern portion of the site being inundated by floodwaters in the 1% AEP flood event. A Flood Impact Assessment has been prepared by BMT Commercial Australia to assess the proposal against the existing flood conditions pertaining to the site. The results of the modelling and flood impact assessment have confirmed:



- There are negligible adverse flood impacts on surrounding properties or on flooding processes for any event up to the Probable Maximum Flood (PMF) event;
- Climate change conditions will not have any adverse impact on the development site for any event up to the Probable Maximum Flood (PMF) event;
- No additional flood prone lots are created within the proposed subdivision; and
- All lots, apart from the south eastern corner lot, are flood-free at the PMF event.

The proposed development does encroach on the 1% AEP flood storage area and results in a minor decrease in the overall 1% AEP flood storage volume on the site. However, the model results show that this minor loss of flood storage does not result in peak flood level impacts on surrounding properties.

7.8 Contamination and Geotechnical

As indicated in the discussion relating to SEPP 55, initial geotechnical and contamination investigations were undertaken across the site.

A Preliminary (Stage 1) Site Investigation has been prepared for the site by NG Child & Associates to identify any potential contaminates are present on site. The historical use of the site prior to 1912 has been for low intensity agricultural purposes and between 1921 and 2016 significant portions of the land have been used for market gardening and residential uses.

Twenty-three soil samples were collected from various depths at five soil bores at representative locations throughout the site. A preliminary review of the physical appearance of representative soil samples from the site and supporting laboratory analysis has been undertaken to ensure that chemical contamination form past uses has not affected soil quality at the site. None of the 23 soil samples collected from and examined at the site provided any physical indication during the drilling and sampling process of contamination, either by discoloration, staining, odour or hydrocarbon residue response to examination by a photoionisation detector. Asbestos was not detected in any of the representative surface and near surface soil samples from the site. The subject site has therefore been found to satisfy the residential soil quality criteria relevant to the proposed development.

Geotechnical Investigation was undertaken for the site by JK Geotechnics for the proposed residential development which includes site excavation to a maximum depth of 4.2 metres to achieve basement bulk excavation level. The fieldwork for the investigation was carried out on 9 September 2020 and comprised three Cone Penetration Tests (CPT1 to CPT3) completed to refusal depths of 9.57m, 12.01m and 19.22m below the existing surface levels, using a 24 tonne truck mounted CPT rig.

A risk assessment was carried out to determine if there are any potential collapse of retaining walls, in accordance with AGS 2007c (Practice Note Guidelines for Landslide Risk Management 2007), and found that there was a 'rare' likelihood of 'such an event occurring. The proposal would be subject to 'medium' risk should any instability occur. Subject to the geotechnical engineer's recommendations the overall the risk to the development is Low, which is considered acceptable in accordance with the recommendations provided in AGS 2007c.



The investigations have determined that groundwater is relatively shallow and seepage is expected to occur. Bulk excavation will extend below the groundwater level and tanking of the basement will be required if permission cannot be obtained to drain the basement.

A Preliminary Groundwater Quality Report, Groundwater Monitoring Program, Water Table Monitoring Program has been prepared by NG Child & Associates. The report has been prepared to assess groundwater quality and potential groundwater contamination at the site. Findings from the report have acknowledged that heavy metal concentrations in the two samples collected from the two southern bore holes were low, and significantly lower than relevant groundwater quality and investigation levels. The groundwater tested at these two locations did not reflect any leached contamination from the former market gardens within the area. The results from the two separate bore holes did not identify any contamination.

As discussed within the A Preliminary Groundwater Quality Report, groundwater levels for the site are to be measured over a six month period from a minimum of three groundwater monitoring wells. The wells were installed on site on 9 April 2020. The investigations to study groundwater depth and behaviour at the site have been provided within the Groundwater Study Progress Report No.1 prepared by NG Child & Associates. The outcomes of the progress report identify that groundwater was encountered in all three wells. Preliminary measurements of groundwater depth following installation of the wells indicate depths of 4.4 metres, 2.4 metres and 1.9 metres below ground level at the Warriewood Road, central and rear wells. These groundwater depths indicate levels below the basement car park. The findings of the six-month report are currently being collated; as the completion of the six-month report is imminent, it will be provided to Council upon its completion.

A Preliminary Acid Sulfate Soil Assessment was prepared for the site by NG Child & Associates as the site is mapped upon the Acid Sulfate Soils Map as containing Class 4 and Class 5 acid sulfate soils pursuant to PLEP 2014. Physical observations and laboratory test results indicate that there are no actual acid sulphate soils (AASS) present at the site.

7.9 Social and Economic Impacts

The proposed development will have positive social and economic impacts for the community. The proposal would enable the provision of a significant number of well-designed dwellings that will provide additional housing choice (i.e. high-quality and well-equipped family-sized homes in terrace configurations) that are not commonly provided within the locality. Further, such housing is well designed, in that high levels of residential amenity will be afforded to the vast majority of dwellings; a range of community facilities are within the centre of the site that will promote community interaction, involvement and wellbeing for residents.

Accordingly, it is submitted that the proposed development will not contribute to any negative community/social impacts, but rather a positive community/social impact the local area.

Significant and positive economic impacts will be associated with the proposed development, both within the locality and the Northern Beaches LGA more broadly as a result of the following:



- More efficient use of land resources, existing infrastructure and existing services;
- Employment of tradesmen and other construction-related professionals during construction;
- Ongoing employment to manage the site and biodiversity of creek line areas,
- On-going consumption of local products and services by the residents of the development; and
- Cost savings associated with improved energy and water efficiency of a new consolidated development.

The development will also not adversely affect the development potential of, and subsequent economic activity on, surrounding sites. As such, there are no unacceptable economic impacts that would be associated with the proposed development.

7.10 Heritage

<u>Aboriginal</u>

An AHIMS Web Search was undertaken for the site on 9 December 2019 to determine if there were any known Aboriginal sites recorded in or near the site and if any Aboriginal places have been declared in or near the site. The search determined that no Aboriginal sites or places have been declared or recorded for the site or within a 200m buffer area.

<u>European</u>

The site is not identified as an item of local or state heritage significance nor is it located within a heritage conservation area. There are no heritage items in the immediate vicinity of the site.

7.11 Waste

Waste is to be stored in designated areas within the basement. The bins will be moved to a partially enclosed temporary holding area prior to collection by a waste management vehicle, prior to being placed back within the designated waste storage areas. A Waste Management Plan has been prepared by Dickens Solutions which describes the waste management requirements and practices to be adopted for the demolition, construction works and ongoing waste management on the site for the proposed residential flat buildings.

7.12 Contributions

There are multiple development contributions plans in force within the Northern Beaches local government area, with only one of the plans being relevant to the subject land, being the *Warriewood Valley Development Contributions Plan (Amendment 16, Revision 3)*. The plan applies to land within and adjacent to the Warriewood Valley Release Area and was prepared in accordance with Section 7.11 of the EPAA Act.

7.13 Visual Impacts

The proposal also includes the construction of two seventeen-apartment developments containing a total of thirty-four dwellings. Such development is permissible within the R3 Medium Density Residential zone, and the height, scale and appearance of such buildings is consistent with that either approved or under construction within the surrounding area. The proposed height variation is created only because of inclusion of ground works; once complete, when viewed from finished ground levels



the height of the development will appear to be consistent with that of the height standard and similar higher-density forms of residential development within the surrounding area. The design of the buildings have carefully considered the constraints of the site, and will minimise impacts (e.g. visual privacy, acoustic disturbance, overshading etc.) on the surrounding area. Further, the appearance of these buildings will be further minimised from the public domain through their situation behind the proposed Torrens lots and providing oversized private open space and deep soil areas along both sides of the superlots; this subsequently enables larger landscaped areas (both on the Torrens lots and superlot) that will further filter the development from the public domain.

As demonstrated by attached planning assessments, a high degree of compliance is obtained by the proposed design; there will subsequently be no adverse impacts (such as excessive and unreasonable overshadowing or visual privacy impacts) on surrounding sites and the public domain. Further, the development will promote good amenity and high levels of sustainability, noting that the vast majority of proposed apartments will be capable of obtaining solar access and natural ventilation.

The dwellings offer future residents efficient layouts with high levels of amenity (noting that very high levels of compliance are attained with regard to natural cross ventilation, solar access (to dwellings, private and communal open space), acoustic privacy and visual privacy) and will not adversely nor unreasonably affect surrounding residential sites.

The building line of the 'Block D' building (i.e. the south-eastern apartment building) is proposed to be set back 11 metres from the southeast side boundary (minor and uninhabitable articulation features such as feature walls will be set back 9.45 metres from the boundary); such a distance is nearly double the minimum six metre requirement specified by Part 3F (Visual Privacy) of the Apartment Design Guide, which guides the design of residential flat building developments above two storeys in NSW. In addition to excessively large setbacks, the side setback area (containing ground-level private open space areas for the terrace apartments) will contain a variety of landscaping treatments including large trees, which will further filter/screen views between the apartments and adjoining sites.

Accordingly, the visual privacy of future occupants and nearby developments will be maintained as discussed above.



8.0 Other Statutory Approvals

8.1 General

Whilst a range of legislation is relevant to the proposed development as spelled out within this EIS and its appendices, this Section of the EIS considers only legislation under which separate approvals are required to be obtained before the development may be lawfully carried out, consistent with the requirements for content for environmental impact statements, prescribed by clause 7(1)(d)(v) of *Environmental Planning and Assessment Regulation 2000*.

8.2 Biodiversity Conservation Act 2016

The general purpose of the *Biodiversity Conservation Act 2016* ("the BC Act") is described within section 1.3 of that Act, being to maintain a healthy, productive and resilient environment for the greatest wellbeing of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The BC Act provides tools to avoid, minimise and offset biodiversity impacts from development and clearing through the Biodiversity Offset Scheme ('BOS'; refer to Part 6 of this Act). In regard to this proposal, the BOS would be triggered based on the presence of an area of Biodiversity Value that is located within the southern part of the site. The proposed action will result in the removal/modification of a cumulative total of 0.79ha of highly modified 'Swamp Mahogany / Cabbage Tree Palm - Cheese Tree - Swamp Oak tall open forest on poorly drained coastal alluvium', this being comprised of 0.68 ha of Exotic/Weed Dominant and 0.20 ha of Canopy Remnant (weed-infested).



Source: www.lmbc.nsw.gov.au/Maps/



Regulation 7.2 of the BCR 2017 provides a table which sets out that the maximum area of land that may be cleared may be dependent on the minimum lot size that applied to the land. The site is affected by a minimum lot size of 550m² pursuant to the PLEP 2014. The area of native vegetation clearing threshold for the proposed development is 0.25 ha. The proposed development will directly impact on less than 0.88ha of native vegetation; as the threshold is exceeded, the BOS subsequently applies. Further discussion on the BDAR is provided within Section 7.4 of this EIS.

The proposed development is to retain and maintain a large remnant bushland area under a BMP which will protect the majority of the remnant vegetation on the subject property, including the most species diverse, structurally diverse habitat containing the only hollow-bearing trees. This area will protect approximately 0.75 ha of vegetation, which will be managed under a BMP (Land Eco Consulting 2020). Further, offset credit obligations would be payable for the areas to be cleared.

8.3 Rural Fires Act 1997

As indicated within Section 7.5 of this EIS, the subject site is bushfire prone. As the proposal includes a residential subdivision of bushfire phone land, pursuant to Section 100B of the *Rural Fires Act 1997*, the consent authority is to refer the application to the NSW Rural Fire Service ('RFS') for concurrence.

As demonstrated by the Bushfire Report submitted as part of this application, the proposed subdivision and associated development will satisfy the provisions of *Planning for Bushfire Protecting 2019*, and it is expected that the concurrence will be forthcoming from the RFS.



9.0 Environmental Risk Assessment and Mitigation

An Environmental Risk Assessment (ERA) establishes matters where there may be a risk of potential environmental impacts as a consequence of the proposed development. *AS4369.1999 Risk Management and Environmental Risk Tools* provides a methodology for undertaking an ERA, which includes the following qualitative risk analysis matrix.

Likelihood			Consequence		
	Insignificant	Minor	Moderate	Major	Catastrophic
	1	2	3	4	5
A (almost certain)	Н	Н	E	E	E
B (likely)	М	Н	Н	E	E
C (moderate)	L	М	Н	E	E
D (unlikely)	L	L	М	Н	E
E (rare)	L	L	М	Н	н

Figure 4 Risk Assessment Matrix Source: AS4369.1999

The legend for the risk assessment matrix is provided below:

E: extreme risk; immediate action required
H: high risk; senior management attention needed
M: moderate risk; management responsibility must be specified
L: low risk; manage by routine procedures

The table below lists the potential environmental risks and the associated mitigation measures.

Environmental Rick Factor	Potential Impact	Risk	Mitigation Measure
Design Quality	Potential to interfere with the character of the locality and on views or outlook from neighbouring properties or the public domain.	Low	The design of the proposed residential subdivision and residential flat buildings have taken into consideration the relevant requirements of SEPP 65 and the ADG, PLEP 2014 and P21 DCP to ensure that the development is compatible with the future desired character of the
Infrastructure and Servicing	Impacts on capacity of local infrastructure to accommodate the development.	Low	existing services are to be augmented as described within Section 7.2.
	Availability of services to the development.	Low	Necessary existing services are currently already available to the site, with some additional provision (e.g. substation) required.
Traffic and Parking	Increase in traffic on surrounding streets and intersections.	Moderate	The Traffic Assessment Report and addendum letter concludes that the proposed development will not generate significant amounts of traffic that could adversely affect the surrounding road network or local intersections.
	Reduction in the availability of on-street parking on surrounding roads during operation.	Low	The proposed residential flat buildings will include basement car parking on site (including visitor parking that is in excess of minimum requirements) to accommodate 81 car parking spaces; it is not expected that the development would create undue impacts on the availability of on-street parking.
	Impacts on pedestrian safety.	Low	Full pedestrian and vehicular access is provided to each lot. Allowances have been made for the pedestrian pathway/cycleway which will connect to the adjoining developments.
Biodiversity	Impacts on threatened species	High	Surveys undertaken as part of the BDAR did not identify any threatened flora species or any fauna species credit species that would be affected by the development. Construction measures and ongoing management will ensure that the health of environmentally sensitive areas are to be maintained.
	Effect of removal of native vegetation on biodiversity	High	The proposal will directly impact on less than 0.88ha of native vegetation, and therefore a total of 22 ecosystem credits are required for the proposed development as outlined within the BDAR.
Bushfire Risk	Risk to life and property associated with the spread of bushfires	High	The Bush Fire Assessment Report has demonstrated that the proposal can comply with the relevant requirements of <i>Planning for Bush Fire Protection 2019</i> , including the provision of adequate Asset Protection Zones (APZ).
Landscaping	Removal of existing on site and street vegetation with managed area of site.	Moderate	30 replacement trees will be planted to mitigate impacts for the trees removed from the site.
	Potential for trees to be damaged during the construction process.	Moderate	Tree protection measures are to be installed as per recommendation.
	Potential changes to landscape character and landscaped amenity.	Low	New street plantings are proposed to compensate for any changes to landscaping.

Risk Notechnical or Low Otechnical or Low Moderate Moderate Boing waste Moderate				
Impacts of flooding on site or impacts on neighbouring Low properties. Low nation and Harm associated with contaminants currently located on Low ical Structural integrity of building affected by geotechnical or Low site. Structural integrity of building affected by geotechnical or Low pacts Impact on housing choice and availability Moderate Noderate pacts Impact on community cohesion. Moderate Low pacts Impact on community cohesion. Low Low pacts Impact on community cohesion. Low Low pacts Dis	Environmental Risk Factor	Potential Impact	Risk	Mitigation Measure
nation and Harm associated with contaminants currently located on Low site. Structural integrity of building affected by geotechnical or Low pacts Impact on housing choice and availability Moderate Noderate pacts Impact on housing choice and availability Moderate Noderate pacts Impact on community cohesion. Impact Impact Noderate pacts Impact on community cohesion. Impact Impact Impact Impact pacts Impact Impact I	Flooding	Impacts of flooding on site or impacts on neighbouring properties.	Low	The findings from the flooding report have determined there are negligible adverse flood impacts on surrounding properties or on flooding processes for any event up to the Probable Maximum Flood (PMF). No additional flood prone lots are created within the proposed subdivision, and the design of the subdivision and associated levels will not adversely affect the safety of residents during a PMF flood event
Structural integrity of building affected by geotechnical or chemical hazards. Low pacts Impact on housing choice and availability Moderate Impact on community cohesion. Moderate Noderate Discovery of items of archaeological significance during construction. Low Removal of construction waste and ongoing waste Moderate	Contamination and Geotechnical	1 associated with contaminants currently	Low	The Preliminary Site Investigation has identified that there are no contaminants currently on site and that the site is acceptable for the proposed use.
pacts Impact on housing choice and availability Moderate Impact on community cohesion. Moderate Impact on community cohesion. Moderate Discovery of items of archaeological significance during construction. Low Removal of construction waste and ongoing waste moderate arrangements for the operation of the school.		Structural integrity of building affected by geotechnical or chemical hazards.	Low	Geotechnical Investigation was undertaken for the site by JK Geotechnics and they have determined that the overall, the risk to property is Low which would be considered 'Acceptable', in accordance with the recommendations provided in AGS 2007c.
Impact on community cohesion. Moderate Discovery of items of archaeological significance during construction. Low Removal of construction waste and ongoing waste Moderate arrangements for the operation of the school. Moderate	Social Impacts	Impact on housing choice and availability	Moderate	The social impacts of the proposal are broadly positive as discussed within Section 7.9.
Discovery of items of archaeological significance during Low construction. Removal of construction waste and ongoing waste Moderate arrangements for the operation of the school.		Impact on community cohesion.	Moderate	The social impacts of the proposal are broadly positive as discussed within Section 7.9. The proposal will encourage community cohesion through the use of shared facilities in the immediate locality and on the site.
Removal of construction waste and ongoing waste Moderate arrangements for the operation of the school.	Heritage	Discovery of items of archaeological significance during construction.	Low	It is unlikely that Aboriginal or European heritage will be found on site.
	Waste	ongoing ool.	Moderate	A Waste Management Plan has been prepared to demonstrate how was can be organised and disposed/recycled, with minimal interference on amenity or safety.

10.0 Conclusion

This EIS has appropriately responded to the issues outlined in the SEARS and has been prepared in accordance with the requirements specified within Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*. It has been demonstrated throughout this EIS that the project is supportable with consideration of the relevant environmental planning instruments, built form, social and environmental outcomes, and relevant policy documents.

Specifically, the proposal is considered to warrant approval for the following:

- The proposed development is permissible within, and is consistent with the aims and objectives of the R3 High Density Residential zone,
- The proposal is consistent with the relevant provisions of Pittwater 21 DCP and both SEPP 65 and the ADG. Consistency with the objectives of relevant development provisions within applicable Environmental Planning Instruments and planning policies has been demonstrated.
- There are no excessive and unreasonable impacts that will arise as a result of the proposed development.
- The development will not adversely affect residents both within the proposed development and surrounding sites.
- The proposal will not increase resident exposure to risk from hazards both on the site and surrounding sites.
- The development will not have unreasonable adverse impacts on the natural environment, noting the steps taken to both minimise risk to the natural environment and improve the health and function of such areas.
- It is considered there are no matters that would warrant the refusal of the proposal on the grounds of it being contrary to the public interest.
- The proposal is generally consistent with the planning controls for the site. The proposal will not have any adverse impacts on the future development potential of the surrounding area or the amenity of surrounding sites, and would have significant beneficial impacts. As such, the proposal is considered to be in the public interest.

The proposal has merit and will make a positive contribution to the Warriewood Valley locality and the Northern Beaches LGA more broadly. It is therefore recommended that Northern Beaches Council support and approve this application.