Biodiversity Impact Assessment

for the

Redevelopment of Newport SLSC

at

Newport Beach

Date Published: 08/08/2024

GIS Environmental Consultants

45 Austin Ave, North Curl Curl 2099
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, www.ecology.net.au

Document Information

Project Information

Prepared for:	Northern Beaches Council
Revision No:	Final
File Number:	BIA240804

Document Control

Revision	Date Revised	Edited by	Details
A	01/08/2024	NS	Draft
Final	08/8/2024	NS + AB	Final for Issue

Work Acknowledgement

Principal Author:	Nicholas Skelton, B. Sc. (Hons), M. App. Sc. (Ecology & Vegetation Management)
Co-Authors:	Andreas Bartnitzky, B. Environmental Science
Fieldwork:	Nicholas Skelton, B. Sc. (Hons), M. App. Sc. (Ecology & Vegetation Management) Andreas Bartnitzky, B. Environmental Science
Cartography and GIS analysis:	Nicholas Skelton, B. Sc. (Hons), M. App. Sc. (Ecology & Vegetation Management)

Licences

Department of Primary Industries, Animal Research Authority: 18/366
Department of Planning, Industry and Environment EES: Scientific licence S101070
Department of Planning, Industry and Environment EES: BioNet Data Licence: CON97043
Department of Planning, Industry and Environment EES: Nicholas Skelton BAM Assessor: BAAS 17083

Approved for Release by

Nicholas Skelton, B.Sc. (Hons), M. App. Sc.
Principal Ecologist, GIS Environmental Consultants

Approval Date

8 August 2024

GIS Environmental Consultants

ABN: 66011504339
45 Austin Ave,
North Curl Curl, NSW 2099
Phone: (02) 9939 5129
Mobile: 0419 438 672
Email: ecology@ecology.net.au
Web: ecology.net.au

We acknowledge the traditional owners of this land and pay respect to elders, past, present and emerging.

Table of Contents

List of Maps

List of Tables

List of Photos

1 Introduction

1.1 Background

Northern Beaches Council is wishing to upgrade the Newport Beach Surf Life Saving Club DA2021/2173 at 394 Barrenjoey Road, Newport. Part of the works will involve installing coastal protection works in the form of a secant pile wall with reinforced concrete capping beam that will extend to the north and south of the existing surf club. The finished secant pile wall will be below the normal beach sand level, however, the construction process will require excavation into the sand dune to the north of the surf club. It is also proposed to extend the promenade on the north end of the site by 4.5m into the existing sand dune to allow for movement of equipment and watercraft. The proposed works are set out in further detail in section 2. The sand dune is currently covered with native Coastal Foredune Wattle Scrub vegetation.

The works will permanently remove native dune vegetation and habitat within the footprint of the proposed works area will be temporarily disturbed.

This report assesses the importance of the habitat on the land to the conservation of Threatened flora and fauna species, Ecological Communities and other native species, then assesses the likely impacts of the proposed development on terrestrial biodiversity values as required by Federal, State and Local Government legislation.

Impacts to biodiversity values that are likely to occur during construction and occupation are identified and ways these impacts can be avoided and minimised have been discussed with the developer and the plans have been modified. Recommendations to further mitigate ecological impacts are provided in the Ameliorative Conditions and Recommendations section of this report.

An accurate description of the environment, habitat, flora and fauna that occur on the site is required so an accurate description of the ecological impact can be submitted to the determining authority to allow assessment of the application, as required by NSW and Commonwealth planning and environmental legislation.

1.1.1 Aims of this Report

The aims of this flora and fauna assessment are to:

- Record the **findings of an ecological survey** including a description of the flora, fauna and ecological communities and their habitats within the development footprint (site) and adjacent land;
- Describe the **importance of the habitat** on the site to the conservation of native flora and fauna;
- Determine the ecological **constraints** of the site and provide advice to the applicant on ways the impact can be **avoided** and **minimised** before finalising the proposal plans as required by the mitigation hierarchy of the Biodiversity Conservation Act 2016;
- **Assess** the likely **ecological impact** of the proposal (as described in this report) on the biodiversity values of the site in particular the significance of the impact to Threatened Species, Populations and Ecological Communities and their habitats as per the requirements of the *Environment Planning and Assessment Act* (EP&A Act) Sections 4.15(1) a, b and c, the *Biodiversity Conservation Act 2016* (including threshold test and 5-Part assessment of Significance) and other relevant legislation;
- Determine if the proposal triggers the **BOS threshold test** as required by the *Biodiversity Conservation Act 2016*, which would require the application of the Biodiversity Assessment Method (BAM) and a BDAR assessment;
- Determine if the proposal needs a **referral** to the Federal government for assessment under the EPBC Act; and
- Recommend ways the **ecological impacts** can be further **ameliorated** with management actions during construction for the life of the development.

1.2 Biodiversity Conservation Act BAM Threshold Assessment

The Biodiversity Conservation Regulation 2017 sets out threshold tests for when the Biodiversity Offset Scheme (BOS) will be triggered and a BAM assessment in the form of a BDAR report is required to accompany the DA.

The area threshold varies depending on the minimum lot size (shown in the Lot Size Maps made under the relevant Local Environmental Plan (LEP)), or actual lot size (where there is no minimum lot size provided for the relevant land under the LEP).

Native vegetation clearing thresholds that trigger the BOS.

Minimum lot size associated with the property	Threshold for clearing, above which the BAM and offsets scheme apply
Less than 1 ha	0.25 ha or more
1 ha to less than 40 ha	0.5 ha or more
40 ha to less than 1000 ha	1 ha or more
1000 ha or more	2 ha or more

The areas of native vegetation on the site are shown on Map 2. The part of the site that is likely to be disturbed is shown on Map 3.

This proposal is **not** considered to meet the BC Act threshold as;

1) The LEP minimum lot size for this location is less than 1ha, therefore the maximum cut off for clearing "Native vegetation" is 0.25ha. The total amount of disturbance to native vegetation by this proposal is 228m^2 which is below the threshold limit. Therefore, this proposal does **not** trigger this threshold limit, **and**
2) The *Biodiversity Conservation Regulation 2017,* Biodiversity Values Map (BV Map) identifies land with high biodiversity value, as defined by the *Biodiversity Conservation Regulation 2017*. The Biodiversity Offsets Scheme applies if the proposal occurs on land mapped on the Biodiversity Values Map. This site is **not** mapped on the "Biodiversity Values" Map, **and**
3) There is **not** likely to be a significant effect on any Threatened species or ecological communities or their habitats as has been determined by this report, and therefore a 5-part assessment of significance test (Section 7.3, BC Act) does not need to be completed.

Therefore, the proposal **does not trigger the need for a BAM assessment report (BDAR)** and offsetting. However, the DA does need a Flora and Fauna Report to address Council legislation and development controls, and section 4.15 of the EP&A Act.
https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap

1.2.1 Commonwealth Environment Protection and Biodiversity Conservation Act, EPBC Act

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is the Commonwealth Government's main piece of environmental legislation. Two primary aims of the Act are to conserve biodiversity and provide for the protection of the environment, especially regarding Matters of National Environmental Significance (MNES). There are currently nine MNES:

(1) world heritage properties;
(2) national heritage places;
(3) wetlands of international importance;
(4) nationally threatened species and ecological communities;
(5) migratory species;
(6) Commonwealth marine areas;
(7) the Great Barrier Reef Marine Park;
(8) nuclear actions (including uranium mining); and
(9) a water resource, in relation to coal seam gas development and large coal mining development.

The NSW Biodiversity Offsets Scheme (BOS) has been endorsed by the Australian Government for assessment and offsetting of all projects requiring approval under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This was achieved via an amendment to an existing Bilateral Agreement with the NSW Government and formal endorsement of the BOS under the Australian Government's EPBC Act Condition Setting Policy. Proponents will need to meet their offset requirement for EPBC-listed entities in accordance with clause 6.6A of the Biodiversity Conservation Regulation, by retiring like-for-like credits, paying into the Biodiversity Conservation Fund, or funding a conservation action. This means that NSW proponents who need EPBC Act approval can use the NSW BOS to assess and meet their biodiversity offset requirements for biota that occur under both Acts. There is a Bilateral Agreement between the Federal Government and the NSW Government in which section 4.1 states that an action does not require assessment under part 8 of the EPBC Act if the action is being assessed as a DA under Part 4 Division 4 NSW EP&A Act.

This report also identifies flora and fauna species or communities, relevant to the site that are listed under Part 13 Division 1 of the *Environment Protection & Biodiversity Act 1999 (Cwlth)* (EPBC). Species or communities listed in the Act are considered to be "matters of national environmental significance" and consideration needs to be given as to whether the proposed development will or is likely to have a "significant impact" on "matters of national environmental significance". In determining whether a "significant impact" will occur, consideration is given to the document EPBC Act Administrative guidelines on significance (DEH 2006).

Should the assessment in this report determine that a "significant impact" will occur or is likely to occur on "matters of national environmental significance", the proposed development will need to be referred to the Minister (Cwlth) to determine whether or not the proposed development is a "controlled action".

Part 13 Division 1 of the *Environment Protection & Biodiversity Conservation Act 1999 (Cwlth)* (EPBC) lists flora, fauna and ecological communities that are considered to be "matters of national environmental significance". Under the Act consideration must be given as to whether the proposed actions will or is likely to have a "significant impact" on "matters of national environmental significance".

Assessment of a Development Application with respect to the EPBC Act 1999 is not a Council issue but is the responsibility of the proponent. Proponents should be advised by their ecological consultant whether a referral is necessary. Assessment under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is needed if the proposal is considered likely to have an impact on a 'matter of National Environmental Significance (MNES)'. The proposal would then need detailed assessment and referral to the Federal Department of Climate Change, Energy, the Environment and Water (DCCEEW), thus providing a trigger for referral of the proposal to the Environment Department for assessment. Matters of national environmental significance identified in the Act are: world heritage properties; national heritage places; RAMSAR wetlands; nationally threatened species and communities; migratory species protected under international agreements; the Commonwealth marine environment; nuclear actions and a water resource, in relation to coal seam gas development and large coal mining development.

The Act also protects the environment when actions are taken on Commonwealth land, and impact upon Commonwealth land by an Australian Government agency anywhere in the world that impact Commonwealth Heritage places or areas overseas.

This report addresses the requirements of this legislation, and concludes that no Matters of National Significance or Nationally listed Threatened species are likely to occur on this site area and referral to the Commonwealth government is not considered necessary.

1.3 Definitions and Acronyms

APZ (Bushfire hazard fuel reduction Asset Protection Zone) - Defined in the document '*Planning for Bushfire Protection 2006*' by the NSW Rural Fire Service. Usually consisting of an Inner Protection Area (**IPA**) and an Outer Protection Area (**OPA**).

BAM - Biodiversity Assessment Method (2020) referred to by the BC Act regulation. This method describes how to apply the Assessment of Impact and calculates the Biodiversity Offset Credits part of the BOS.

BC Act - NSW Biodiversity Conservation Act 2016 establishes a legal framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity. Supporting the BC Act are the Biodiversity Conservation Regulation 2017, the Biodiversity Assessment Method 2020, the Biodiversity Offset Scheme (BOS), threatened flora and fauna species lists, definitions of Endangered Ecological Communities, the 5-part Test of Significance, and definitions of AOBV, SAII and prescribed impacts.

BOS (Biodiversity Offset Scheme) - This is the system of trading biodiversity offset credits, paying for offsets and the Biodiversity Conservation Trust.

Commonwealth DCCEEW – Commonwealth Department of Climate Change, Energy, the Environment and Water – The department is responsible for the protection and management of Australia's environment, biodiversity and heritage. DCCEEW – NSW Department of Climate Change, Energy, the Environment and Water - DPIE group formerly OEH, NPWS, DEC, DECC, DECCW and EES. The department responsible for the conservation of native flora and fauna in NSW.

DCP (Development Control Plan) - A local planning instrument for each LGA.

Direct Impacts - impacts that directly affect habitat, ecosystems and individuals. They include, but are not limited to, death, trampling, poisoning of the animal/plant itself and the removal of vegetation and suitable habitat. When applying each factor, consideration must be given to all of the likely direct impacts of the proposed activity or development during construction. As defined by the 2006 DECC Assessment of Significance guidelines.

DPIE - NSW Government Department of Planning, Industry and Environment, formerly OEH, NPWS, DEC, DECC and DECCW.

Environment and Heritage Group - DPIE group. The department responsible for the conservation of native flora and fauna.

EPA Act (EP&A Act) - NSW Environment Planning and Assessment Act 1979, controls development in NSW.

EPBC Act - (Federal Environment Protection and Biodiversity Conservation Act 1999) – Identifies matters of national environmental significance to protect nationally significant fauna, ecological communities and heritage sites.

GBD (General Biosecurity Duty) - All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.

Indirect Impacts - Occur when project-related activities affect species, populations or ecological communities in a manner other than direct loss. Indirect impacts can include loss of individuals through starvation, exposure, predation by domestic and/or feral animals, loss of breeding opportunities, loss of shade/shelter, deleterious hydrological changes, increased soil salinity, erosion, inhibition of nitrogen fixation, weed invasion, fertiliser drift, or increased human activity within or directly adjacent to sensitive habitat areas. Indirect impacts may occur after construction during the life of the development, e.g. escape of garden plants, excess nutrients and changes in fire frequency and grazing. As with direct impacts, consideration must be given to all of the likely indirect impacts of the proposed activity or development (2006 DECC Assessment of Significance Guidelines).

IPA (Bushfire hazard Inner Protection Area) - Defined in the document '*Planning for Bushfire Protection 2006*'.

LEP (Local Environment Plan) - A local planning instrument for each LGA.

Native Vegetation – as defined in the Local Land Services Act 2013 Section 60B:

"**native vegetation**" means any of the following types of plants native to New South Wales:

(1) (a) trees (including any sapling or shrub or any scrub),

(b) understorey plants,

(c) groundcover (any type of herbaceous vegetation),

(d) plants occurring in a wetland.

(2) A plant is native to New South Wales if it was established in New South Wales before European settlement. The regulations may authorise conclusive presumptions to be made of the species of plants native to New South Wales by adopting any relevant classification in an official database of plants that is publicly accessible.

(3) For the purposes of this Part, native vegetation extends to a plant that is dead or that is not native to New South Wales if:

(a) the plant is situated on land that is shown on the native vegetation regulatory map as category 2-vulnerable regulated land, and

(b) it would be native vegetation for the purposes of this Part if it were native to New South Wales.

(4) For the purposes of this Part, native vegetation does not extend to marine vegetation (being mangroves, seagrasses or any other species of plant that at any time in its life cycle must inhabit water other than freshwater). A declaration under section 14.7 of the *Biodiversity Conservation Act 2016* that specified vegetation is or is not marine vegetation also has effect for the purposes of this Part.

OPA (Bushfire hazard Outer Protection Area) - Defined in the document '*Planning for Bushfire Protection 2006*'.

Property - Adjacent or nearby lot(s) that have the same ownership.

Study Area - The Subject Site and any additional areas that are likely to be affected by the proposal, either directly or indirectly. The Study Site should extend as far as is necessary to take all potential impacts into account (DECC 2006).

Subject Site - The area directly affected by the proposal (DECC 2006), i.e., the Development Footprint.

Test of Significance (5-Part Test) - Assessment under Section 7.3 of the BC Act to determine whether a proposed development or activity is likely to significantly affect threatened species, ecological communities, or their habitats.

Threatened Species or Ecological Community - Refers to those biotas listed in the schedules of the Biodiversity Conservation Act 2016 as "Critically Endangered ", "Endangered" or "Vulnerable".

1.4 Assumptions and Limitations

- This report only addresses the impacts of the proposal described in this report and shown on the maps in this report. If there are changes or additions to the proposal that affect the ecological impact, then this report will require updating.
- This report describes the habitat and species within the Study Site at the time of the field survey. Vegetation and habitat will change over time, as does legislation. Therefore, the findings of this report are likely to be out of date in 12 months and an update may be needed.
- This report assesses only the current proposal and does not consider the cumulative impact of other developments on this property or adjacent land, unexpected impact or impacts caused by the occupation of the land.
- There may be flora and/or fauna species present within the Study Site that were not recorded because they are seasonal, cryptic and/or have large home ranges. Some threatened species may occasionally use the Study Site as habitat. The conclusions regarding habitat suitability are a result of testing, observation, and experience.
- This report should be read in its entirety and no part should be taken out of context.
- No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.
- The preparation of this report has been in accordance with the brief provided by the Client and has relied upon the data and results collected within the time constraints set by the Client. All findings, conclusions or recommendations contained within the report are based only on the aforementioned circumstances.
- This document only assesses the areas within the property boundary and does not include adjacent properties or Council land except where explicitly specified.

1.5 Qualifications and Experience of the Field Ecologist and Authors

Nicholas Skelton's formal qualifications include a Bachelor of Science with Honours (B. Sc. (Hons) USyd) and a Masters in Applied Science (M. App. Sc. in Vegetation Management UNSW). Nick has been an Environmental Scientist for 25 years, including a university lecturer, research ecologist and a bush regenerator for 8 years. His work is focused on the Sydney bioregion and he has published many papers in independently reviewed journals on the ecology of NSW. He has expert knowledge of the local soils, the climate of this area and the local indigenous plants and animals as a result of over 900 ecological surveys. Nick is a member of the relevant professional organisations including a practising member of the Ecological Consultants Association of NSW and Royal Zoological Society. He is licensed by NSW OEH and NSW Department of Primary Industries to carry out surveys on threatened plants and animals and he is a qualified Biodiversity Assessor under the BC Act 2016. Nick was the principal ecologist on all field surveys and was responsible for map making, report writing and editing.

Andreas Bartnitzky holds a Bachelor of Science (Environmental Science) (B. Sc. in Environmental Science). Andreas has two years of experience in fieldwork and report writing on environmental matters.

2 The Proposal

Proposal Summary	
Applicant	Northern Beaches Council
DA Number	DA2021/2173
Local Government Area (LGA)	Northern Beaches Council
Type of Proposal	The proposal is a development that requires consent under Part 4 of the *Environmental Planning & Assessment Act 1979 (*EP&A Act*)*, that involves terrestrial biodiversity values

2.1 Site and Context

The existing Newport Surf Life Saving Club is a 2-storey masonry building with public toilets, outdoor showers and taps, promenade, and ramp access to the beach. The dunes with native vegetation that will be excavated are on the northern side. Newport Beach is to the east and there is a sealed carpark with kerb and gutter to the west. There are large Norfolk Island trees to the north and south of the development. The context is shown on an aerial photograph on Map 1 and the photos on Photo pages 1 and 2.

2.2 Proposed Works

The alterations and additions of the Newport Surf Life Saving Club (SLSC) involves the redevelopment of the SLSC building, including extensions of the promenade around the eastern and northern sides, and construction of new stairs, ramps, a buried seawall and landscaping. The proposed civil works are shown on Map 3 and the above ground finished club house and landscaping are shown on Map 4.

In summary, the biodiversity impact will be:

- Removal of 228 sqm of moderate condition Coastal Foredune Wattle Scrub, PCT 3788
- Temporary impact to less than 2000 sqm of beach
- protection/refurbishment of 3 small gardens
- Retension and protection of 2 Norfolk Island Trees
- Indirect impact and edge effects impacting immediately adjacent habitat

Measures to mitigate environmental impacts during construction are described in the recommendations section. In summary they include:

- Retention of the large Norfolk Island trees
- Tree protection during construction
- Protection of the dune vegetation that does not need to be removed with environment protection fencing and signage to protect habitat and prevent encroachment
- Installation of winf erosion protection fencing
- Revegetation of the dunes with Coastal Foredune Wattle Scrub
- Landscaping with mostly local native plant species
- Weed control to assist revegetation of the disturbed dune area

2.3 Proposal Plans and Reports Used for this Report

Title	Author	Rev	DWG./Doc. No./Ref.	Date

Site Survey	Adriano Pupilli Architects	D	001	31/07/2024
Site Plans	Royal Haskoning DHV	P01	PA2407-RHD-00-105-DR-MA-0011	30/07/2024
Arboricultural Impact Assessment Report	Tree Management Strategies	-	-	07/08/2024
Supplementary Coastal Engineering Report	Royal Haskoning DHV	Final	PA2407-102-105-RP-0001	06/08/2024
Landscape Context Plan	Adriano Pupilli Architects	C	LA-000	26/07/2024

Legend

Map 1
Site, Aerial Photograph

GIS Environmental Consultants
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, ecology.net.au

Date: 4/8/2024
Cartographer: Nicholas Skelton
Version: 1.0
File Path: Server/Projects/Current/GIS/Maps
Projection: GDA 94 MGA 56

0 8 16 m

Legend

Newport SLSC

Existing Vegetation and Habitat

- Coastal Foredune Wattle Scrub PCT 3788 395 sqm
- Garden 114 sqm
- Norfolk Island Pine Tree 286 sqm
- Beach 2000+ sqm
- Existing Surf Club

Map 2
Existing Vegetation and Habitat

GIS Environmental Consultants
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, ecology.net.au

Date: 4/8/2024
Cartographer: Nicholas Skelton
Version: 1.0
File Path: Server/Projects/Current/GIS/Maps
Projection: GDA 94 MGA 56

0 8 16 m

Photo Page 1 – Site Features

Photo 1. Northern end of the site, looking northeast

Photo 2. Northern end of the site, looking southeast

Photo 3. Sand dune habitat, looking northeast

Photo 4. Sand dune habitat, looking north

Photo 5. Sand dune habitat, looking west

Photo 6. Sand dune habitat, looking south

GIS Environmental Consultants

Photo Page 2 – Site features

Photo 7. Western side of site, garden bed a.

Photo 8. Western side of site, garden bed b and c.

3 Methods

3.1 Literature and Database Search

Relevant Threatened Species information was obtained from literature, local knowledge, and established sources such as scientific journals, electronic databases, and reports. Historic records from electronic databases such as: BioNet (DPIE EES Atlas of NSW Wildlife records), eBirds, iNaturalist, Atlas of Australia, Protected Matters Search Tool and the BAM-C.

This information was used to ascertain constraints which threatened species are known to occur within approximately 5km of the Study Site. The data were then refined using local knowledge and the habitat on the site to compile a target list of plant and animal species for specific targeting during fieldwork.

Relevant environmental information was collated from printed literature, scientific journals, electronic databases, reports and local knowledge. They are referenced in the text and the references are listed in the general references section, and below.

Environmental data sources include;

BioNet Vegetation Classification

Biodiversity Values map

BioNet Threatened Biodiversity Data Collection (TBDC)

BioNet Atlas

Directory of Important Wetlands in Australia, https://www.environment.gov.au/cgi-bin/wetlands/search.pl?smode=DOIW

Matters of National Environmental Significance (MNES) database EPBC Act

Protected Matters Search Tool

SEED information database, https://www.seed.nsw.gov.au/

Six spatial information, https://six.nsw.gov.au

eSPADE, https://www.environment.nsw.gov.au/eSpade2Webapp/ for Geology and soils

3.2 Field Survey

The field survey was carried out on the 5th of July 2024 by experienced ecologists over 2 person-hours. The weather was clear, and the temperature was 20-22ºC with little rainfall within the previous week. During the field survey, all sections of the Study Site and some of the surrounding were traversed on foot, with a focus on the native vegetation to be removed.

The Study Site was searched for the presence of Threatened flora and fauna species and their habitat. Endangered Ecological Communities were assessed for likelihood of occurrence.

The field survey involved the following procedures:

- Initial familiarisation with the Study Site and its extent and surrounding land;
- Assessment of the physical characteristics of the Study Site and location of the proposal;
- Identification and recording of all flora species across the whole of the property;
- Identification of fauna through sightings, calls and potential habitat;
- Search for scats, remains, nests, dreys, bones, feathers, fur, diggings, scratches, tracks, owl whitewash and food sources. Examination of trees for scratchings, sap-feeding notches, and hollows;
- Classification of any vegetation into communities according to their structural and floristic attributes;
- Assessment of the habitats within the site;
- Detailed search for targeted threatened species;
- Assessment of the extent of disturbance and weed invasion;
- Photography of the Study Site.

The primary reference for plant identification was Flora of NSW in PlantNet.

3.2.1 Field Assessment of the Vegetation Types (PCT)

The vegetation within the Study Site was classified using structural and floristic indicators and was compared with Threatened Ecological Communities listed in the BC Act 2016, the document titled The Native Vegetation of the Sydney Metropolitan Area V3 Volume 2 (OEH 2016) and the BioNet PCT vegetation type database.

The floristic composition (plant species that occur on the site) is listed in Table 1.

This information was then used to determine the Plant Community Types (PCTs) present, the presence of any Endangered Ecological Communities (EECs) listed in schedule 2 of the BC Act 2016, and the composition and structure of the native vegetation.

3.2.2 Threatened Fauna Habitat Survey

Fauna species were actively searched for across the whole site. A list of non-threatened fauna found on the site can be found in Table 2.

A survey that strictly followed the *Threatened Species Survey and Assessment Guidelines* (OEH 2018) was not undertaken as sufficient information to determine the likelihood of occurrence of threatened species was achieved by a targeted survey and habitat assessment that was undertaken during the field survey.

3.2.3 Threatened Species

Several Threatened (BC Act 2016) fauna species have been historically recorded in the immediate vicinity of the site. These include Sperm Whales, turtles, Dugongs, estuarine birds, birds of prey (e.g. Owls, Sea Eagles and Ospreys), sea birds, micro-bats, Grey-Headed Flying Foxes, and Eastern Pygmy Possums.

There is a threatened plant species that occurs in the dune vegetation along this region of the coast known as Sand Spurge (*Chamaesyce psammogeton*). This species was specifically targeted during the field survey.

4 Findings

4.1 Plant Species

The plant species that occur on a site is fundamental to determining the vegetation type (PCT) and condition.

Table 1 lists the plant species that were recorded in the study site along with their:

- scientific name (Genus and Species);
- common name;
- family;
- taxonomic grouping;
- Growth Form;
- status; and
- location in the study site.

The species are listed in alphabetical order by genus and species and are grouped according to where they occur within the site. The Growth Form of each species of native plant in NSW has been determined by the NSW government BAM.

Table 1 summarises plants found on the site classified by status into the following categories:

- **BC Act Threatened** – determined as Vulnerable, Endangered, Critically Endangered and Presumed Extinct under the BC Act 2016
- **Native to NSW (non-Threatened)** – as per Flora of NSW
- **Planted Native** – as per the BAM 2020
- **Planted Non-native** – Landscape or horticultural plants
- **Weed Other** – Non-native plants that are not Priority Weeds or Planted*
- **Weed Regional Syd Priority** – Greater Sydney Regional Strategic Weed Management Plan 2023-2027
- **Weed Reg Syd & State Priority** – see both categories above*
- **Weed State Priority** – Biosecurity Act 2015 or Biosecurity Regulation 2017*

No threatened plant species were found on the site. The site consists of native and non-native species that are not listed as Vulnerable, Endangered, Critically Endangered or Presumed Extinct species.

Table 2. Plant Species List

with summaries of Status, Floristics and Cover

Newport Surf Club

5 July 2024

by Nicholas Skelton, GIS Environmental Consultants

GIS Environmental Consultants
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, ecology.net.au

Table 2c Plant Species List

Part of Site	Genus and Species	Family	Common Name	Status	Growth Form
Site	Acacia longifolia var. sophorae	FABACEAE	Coastal Wattle	Native to NSW	Shrub
Site	Carpobrotus glaucescens	AIZOACEAE	Pig Face	Native to NSW	Herb
Site	Correa alba	RUTACEAE		Native to NSW	Shrub
Site	Isolepis nodosa	CYPERACEAE	Knobby Club-rush	Native to NSW	Sedge
Site	Lomandra longifolia	LOMANDRACEAE	Spiny-headed Mat-rush	Native to NSW	Herb
Site	Myoporum boninense subsp. australe	MYOPORACEAE	Boobialla	Native to NSW	Shrub
Site	Rhagodia candolleana subsp. candolleana	CHENOPODIACEAE		Native to NSW	Herb
Site	Spinifex sericeus	POACEAE	Spinifex	Native to NSW	Grass
Site	Tetragonia tetragonoides	AIZOACEAE	Warrigal Greens, Native Spinach	Native to NSW	Herb
Site	Acetosa sagittata	POLYGONACEAE	Turkey Rhubarb	Weed	Vine
Site	Araucaria heterophylla	ARAUCAREACEAE	Norfolk Island Pine	Non Native	Tree
Site	Bidens pilosa	ASTERACEAE	Cobbler's Pegs, Pitchforks	Weed	Herb
Site	Cakile edentula	BRASSICACEAE	Sea Rocket	Weed	Herb
Site	Conyza bonariensis	ASTERACEAE	Fleabane	Weed	Shrub
Site	Ehrharta erecta	POACEAE	Ehrharta	Weed	Grass
Site	Hydrocotyle bonariensis	APIACEAE	Kurnell Curse	Weed	Herb
Site	Parietaria judaica	URTICACEAE	Asthma Weed, Pellitory	Weed	Herb
Site	Solanum nigrum	SOLANACEAE	Black-berry Nightshade	Weed	Herb
Garden	Acacia longifolia var. sophorae	FABACEAE	Coastal Wattle	Native to NSW	Shrub
Garden	Banksia integrifolia subsp. integrifolia	PROTEACEAE	Coastal Banksia	Native to NSW	Tree
Garden	Dianella congesta	PHORMIACEAE		Native to NSW	Herb
Garden	Doryanthes excelsa	AGAVACEAE	Gymea Lily	Native to NSW	Herb
Garden	Hibbertia scandens	DILLENIACEAE	Golden Guinea Flower	Native to NSW	Vine
Garden	Isolepis nodosa	CYPERACEAE	Knobby Club-rush	Native to NSW	Sedge
Garden	Pandanus tectorius	PANDANIFLORAE	Screw Pine	Native to NSW	Tree
Garden	Aspidistra elatior	LILLIACEAE	Cast Iron Plant	Weed	Herb
Garden	Agave attenuata	AGAVACEAE	Century Plant	Weed	Herb
Garden	Aloe ssp.	LILLIACEAE	Aloe	Weed	Herb
Garden	Ehrharta erecta	POACEAE	Ehrharta	Weed	Grass
Garden	Lillitrope sp. Cultivar	LILIACEAE	Lilltrope	Weed	Herb
Garden	Sonchus oleraceus	ASTERACEAE	Sow Thistle	Weed	Herb

4.1.1 Native Plants on the Study Site

There are an estimated 24,000 native terrestrial plant species in Australia, and 4677 species in NSW. Of the 4677 native NSW terrestrial plant species, 658 have been declared Threatened plant species by the Threatened Species Scientific Committee and these are listed in Schedule 1 of the Biodiversity Conservation Act 2016. The native and naturalised plants in NSW are classified and described by the Royal Botanic Gardens of NSW and are provided as the website PlantNET (https://plantnet.rbgsyd.nsw.gov.au/floraonline.htm) which also provides a key for identification of species. This database is regularly kept up to date with the BAM-C.

Only 13 native plants were found in the study area. This low number of native species is due to the harsh conditions that occur on sand dunes and the patchy condition of the habitat. The native species that occur are listed in Table 1 and are typical of sand dunes along the Sydney coastline.

4.1.2 Weeds and Planted Species

The word 'weed' is a general term for plants growing where they are not wanted. Under the *Biosecurity Act 2015*,[1] the definition of 'weed' is a plant that is a pest, and the definition of a 'pest' is a plant or animal (other than a human) that has an adverse effect on, or is suspected of having an adverse effect on, the environment, the economy or the community.

At the Commonwealth level, Weeds of National Significance (WoNS) are agreed by Australian governments. They are recognised as priority current and future biosecurity threats as they are causing major economic, environmental and/or social impacts. The Australian Weeds Strategy (AWS) 2017-2027 developed by the Invasive Plants and Animals Committee (IPAC)[2] describes the national management approach to weeds, including WoNS. In the past, 32 weeds have been identified as WoNS. However, a new list of WoNS is being developed (2024). When this list is released, these species will require consideration and are likely to be already included in the State Priority Weeds. The WONS/WINS will be selected using the National Established Weed Priorities (NEWP) framework.[3]

Many Councils also identify environmental weeds that reduce the value of biodiversity and habitat. Weeds produce allergenic substances, some of which are toxic to people or stock, and are known to cause rashes, allergies, hay fever, asthma, hives or poisoning. The sight of weeds also decreases the perception of a property's value. Landowners are required by the Biosecurity Act to control weeds on their land.

The high number of weeds reflects the long history of disturbance on this site and the exposed nature of sand dunes. The weeds on this site are listed in Table 1 along with their status. Priority Weeds on this site and the required management (Biosecurity Act, and Greater Sydney Regional Strategic Weed Management Plan).

4.2 Existing Fauna Habitat

The vegetation within the property is heavily disturbed with a lawn and planted exotic species, hence contains low habitat value.

There was no roosting habitat for microbats found as part of the existing structures.

The site is likely to be part of a large foraging home range for common and Threatened birds, small reptiles, mammals, and microbats, but does not contain any specific or important habitat for Threatened species.

The habitat features on this site are shown on the photos on Photo Page 1 and Photo Page 2.

[1] NSW Parliament, Biosecurity Act 2015. https://legislation.nsw.gov.au/view/html/inforce/current/act-2015-024

[2] Invasive Plants and Animals Committee (2016) Australian Weeds Strategy 2017-2027, Australian Government. https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/pests-diseases-weeds/consultation/aws-final.pdf

[3] Weeds Working Group of the Environment and Invasives Committee (2023) National Established Weed Priorities Framework. https://www.agriculture.gov.au/sites/default/files/documents/newp-framework.pdf

4.3 Fauna Species

During the field survey, the fauna species in Table 2 below were found using the Study Site:

Table 2 Fauna Species Recorded on the Site

Common name	Scientific Name	Evidence
Ghost Crab	*Ocypode cordimanax*	O
Silver Gull	*Chroicocephalus novaehollandiae*	O

Key

*Introduced species, +Listed as Threatened Species under the NSW Biodiversity Conservation Act 2016, ? Species presence uncertain

Observation Types; Observed (O), Heard call (W), Scat (P), Nest/roost (E), Tracks or scratchings (T), Burrow (B), Crushed Cones (G), Hair (H), Feathers or skin (F), Dead (K), Camera (Q), In scat (X), Bone or teeth or shell (Y), In raptor/owl pellet (Z), Ultrasonic bat detector (U), Anecdotal (A)

4.4 Wildlife Corridors

The is a north-south wildlife corridor along the dune and row of Norfolk Island trees alignment to the north and south of the site that may be used by highly mobile bird and mammal species. The connectivity of the site can be seen in the aerial photograph on Map 1.

4.5 Vegetation Types (Ecological Communities, PCT)

Map 2 shows the existing native vegetation types and habitat within the site area.

The floristics and structure of the native vegetation on the site is consistent with Coastal Foredune Wattle Scrub (PCT 3378) as defined in the SVTM 2022 vegetation type classification.

There is 395 sqm of Coastal Foredune Wattle Scrub (PCT 3378) native vegetation on or near the site as shown on Map 2.

The vegetation is in a moderate patchy condition and is not a Threatened ecological community.

4.6 Garden Habitat

The site contains 3 small gardens with a total area of 114 sqm. The extent and location of these area is shown on Map 2 and the native an exotic plant species are listed in Table 1.

4.7 Tree Habitat

The site and the adjacent land contains 3 trees, 2 large Norfolk Island Pine trees and a small Banksia integrifolia tree in the central garden. The extent and location of these canopy habitat area is shown on Map 2 and the species are listed in Table 1.

4.8 Beach Habitat

The site contains at least 2,000m^2 of beach which will be disturbed temporarily due to the development. The beach habitat is shown on Map 2. Sandy upper beaches is likely habitat for several species including the ghost crab (*Ocypode cordimanax* and *Ocypode ceratopthalma*) and sand hoppers (*Allorchestes* spp., *Talorchestia* spp.). Beaches are also home to many shores birds, such as Silver Gulls (*Larus novaechollandiae*), Crested Tern (*Sternia hirundo*), and Oystercatcher (*Haematopus longirostris*). There is also the possiblility that the beach incuding the surf club is used by the Rakali (Hydromys chrysogaster).

Several Threatened (BC Act 2016) fauna species have been historically recorded in the NSW Wildlife atlas on the beach habitat in the immediate vicinity of the site, these include Sperm Whales, turtles, Dugongs, estuarine birds, birds of prey (e.g. owls, sea eagles and ospreys), sea birds, and micro-bats. These threatened species recorded in historic records are all marine animals or highly mobile, and do not rely on the habitat within the footprint of the proposal and are only transient through the beach habitat.

4.9 Threatened Species Occurrence

No Threatened species or important habitat for threatened species was found on the site or are likely to occur during the proposed works.

4.10 Presence of Threatened Ecological Communities

No Threatened ecological communities occur on the site or near to the site.

5 Impact Assessment

5.1 Avoidance and Minimisation of Impact

The Biodiversity Conservation Act 2016 requires that all developments "Avoid" and then "Minimise" ecological impacts.

The main ecological constraint at this site is the dune on the north end of the site.

The the proposed buried secant wall needs to extend beyond the existing footprint to enable sufficient storm hazard protection. It is proposed to use a construction method that augers the substrate to pour the concrete piles rather than deep excavation, this method of construction will avoid and minimise the footprint of the disturbance area. The concrete structure will then be buried, and the dune restored and revegetated.

The promenade at the northern end of the site will extend 4.5 metres into the existing sand dune habitat. The majority of the part of the proposal that is outside the existing building envelope is the secant wall that will be buried under sand and revegetated and will not be a permanent impact.

Due to the design of the buried sea wall the biodiversity impact due to this this proposal will be adequately avoided and minimised.

5.2 Vegetation and Habitat Impact

The proposal will impact 228 sqm of the native dune Coastal Foredune Wattle Scrub habitat, as shown in pink on Map 3, of which approximately 190 sqm will only be temporary imp-acted and will be revegetated in accordance with a Biodiversity Management Plan. The extent of the 190 sqm dune habitat restoration area is shown in green on Map 4.

The proposal will also temporarily disturb approximately 2000 sqm of beach and there will also likely be removal of some of the garden planted native vegetation in the three small gardens on the western side of the surf club shown on Map 2. Two of these gardens will be restored and expanded as shown on Map 4.

The Arborist has concluded that the proposal is not likely to harm the two Norfolk Island Pine (*Araucaria heterophylla*) trees at either end of the site or the Banksia in the garden, if the tree protection fences (Habitat Protection Areas) shown on Map 3 and the other recommended measures are carried out.

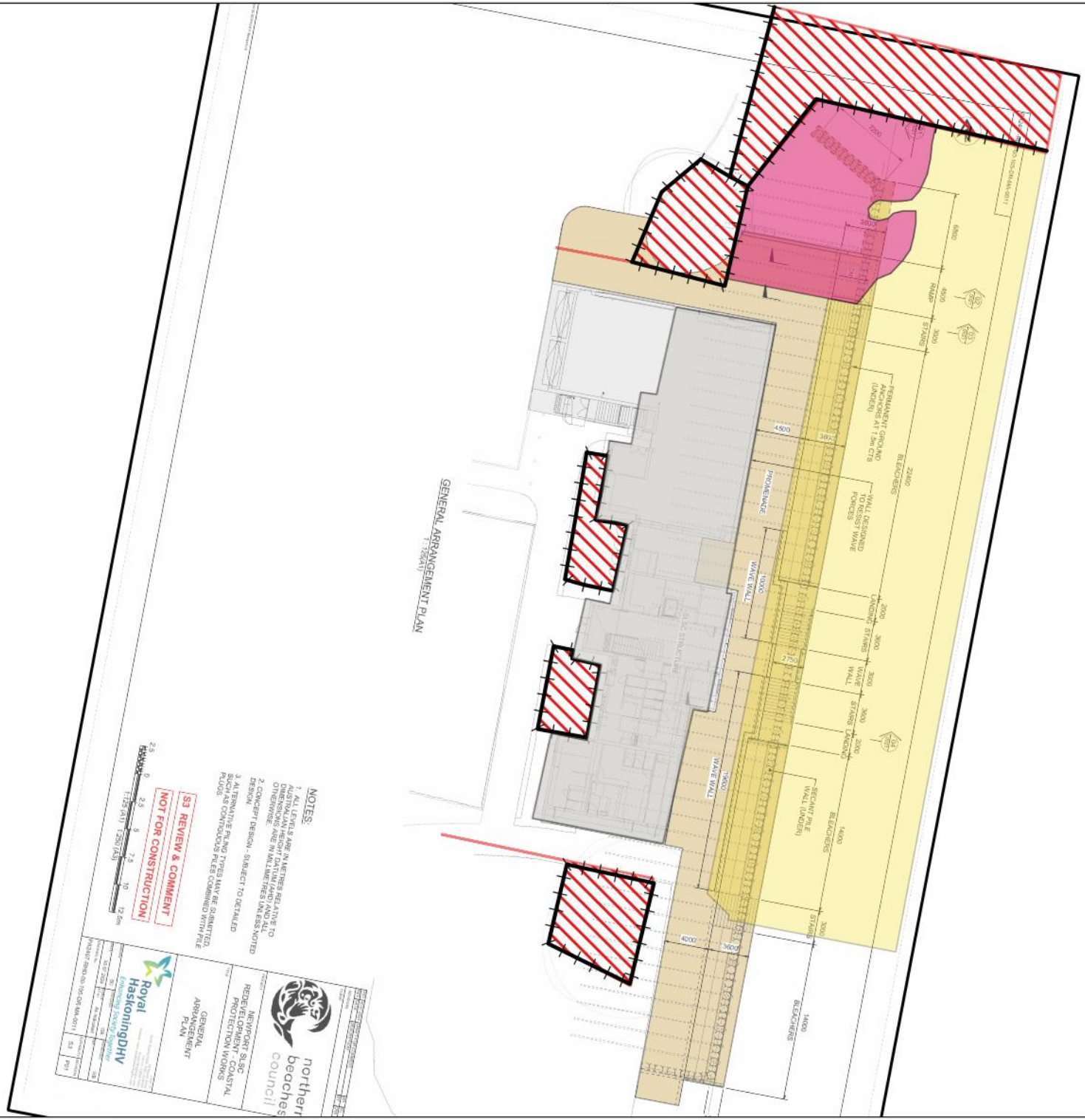
5.2.1 Impact to Threatened Species and their Habitat

The only part of then site that could be important habitat for Threatened species is the Coastal Foredune Wattle Scrub which is low value habitat for the Threatened plant Sand Spurge (*Chamaesyce psammogeton*). The site was well searched for this species and the species does not occur on the site and the species will not be impacted by the proposal, the potential habitat is proposed to be revegetated after the works.

Several Threatened (BC Act 2016) fauna species have been historically recorded in the immediate vicinity of the site, these include Sperm Whales, turtles, Dugongs, estuarine birds, birds of prey (e.g. owls, sea eagles and ospreys), sea birds, and micro-bats. These threatened species recorded in historic records are all marine animals or highly mobile, and do not rely on the habitat within the footprint of the proposal. The proposal will not harm important habitat for any of these species.

5.2.2 Impact on Wildlife Corridor

There will be no impact to the wildlife corridor as the trees will not be impacted and the dune vegetation will be revegetated.



Legend

Newport SLSC

- Existing Surf Club
- Habitat Protection Fence

Construction Footprint

- Habitat Protection Area Access Prohibited

Biodiversity Impact

- Beach approx 1000 sqm
- Coastal Foredune Wattle Scrub 228 sqm

Basemap is the Civil Plans.

Map 3
Biodiversity Impact and Habitat Protection

GIS Environmental Consultants
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, ecology.net.au

Date: 8/8/2024
Cartographer: Nicholas Skelton
Version: 1.0
File Path: Server/Projects/Current/GIS/Maps
Projection: GDA 94 MGA 56

0 8 16 m

Legend

Newport SLSC

Dune Habitat Restoration Area 190 sqm

Map 4
Dune Habitat Restoration

GIS Environmental Consultants
Ph: (02) 9939 5129, Mobile: 0419 438 672
ecology@ecology.net.au, ecology.net.au

Date: 4/8/2024
Cartographer: Nicholas Skelton
Version: 1.0
File Path: Server/Projects/Current/GIS/Maps
Projection: GDA 94 MGA 56

0 8 16 m

5.3 Assessment of Significance 5-Part Test

No Threatened species or populations were found during the field survey or likely to have important habitat in the site. There is not potential for significant impact on any Threatened species or ecological communities or their habitats, and a 5-part test will not be required.

5.4 EPBC Act 1999 Assessment

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) would only become relevant if it was considered that an impact on a Matter of National Environmental Significance (MNES) was likely, thus providing a trigger for referral of the proposal to the Department of Climate Change, Energy, the Environment and Water.

A Protected Matters search was conducted within a 10km radius of the site. A Protected Matters search is a broad-scale assessment that includes World Heritage Properties, National Heritage Places, Wetlands of International Importance, Great Barrier Reef Marine Park, Commonwealth Marine Areas, Listed Threatened Ecological communities, Listed Threatened Species and Listed Migratory Species.

The report lists the following ecologically relevant items:

- Threatened Ecological Communities
- Threatened species
- Migratory Species

No Matters of National Significance or Nationally listed Threatened species are likely to occur on this site area and referral to the Commonwealth government is not considered necessary.

6 Biodiversity Impact Conclusions

- In the planning and design of this proposal, sufficient measures were taken to avoid and minimise environmental impacts.
- The proposal will remove 228 sqm of Coastal Foredune Wattle Scrub, of which approximately 190 sqm will be revegetated.
- There will be temporary impact to 2000 sqm of beach during construction.
- The site contains only low quality fauna habitat.
- The site is part of a wildlife corridor, but the proposal will not prevent or isolate areas of habitat.
- The proposal does not trigger the BC Act thresholds test and, a Biodiversity Development Assessment Report (BDAR) is not needed in relation to this proposal.
- The proposal will not have a significant impact on any Threatened Species, Population, or Ecological Community.
- The proposal is not considered to be a 'matter of National Environmental Significance' EPBC Act. Referral of the proposal to the Minister (Cwlth) is not considered necessary.

Based on the information gathered and the assessments of potential impacts of the proposal, it is considered that the proposal will not have a significant impact on any Threatened Species, Populations or Endangered Ecological Community. Further assessment in the form of a BDAR is not recommended in relation to this proposal.

7 Ameliorative Conditions & Recommendations

It is recommended that the ameliorative conditions and management recommendations in this report be followed to further reduce disturbance during construction and to improve ecological outcomes in the long term. Recommendations are made and could be used as the basis of conditions of consent.

- Before the start of construction and at all times during construction the trees, gardens and the areas of dune vegetation that are to be retained, are to be protected from accidental construction impacts by fencing and appropriate signage.
- During construction wind resistant fencing is required to prevent wind erosion of exposed sand dunes.
- Measures to mitigate impacts during construction should be included in the form of a Construction Environment Management Plan (CEMP). This would include the use of Environmental Protection fencing and wind reduction fencing.
- Areas of the dune that are disturbed are to be revegetated with appropriate sand dune Coastal Foredune Wattle Scrub local native tubestock plants at a density of at least 5 plants per square meter.
- A bush regeneration nursery is to be contracted at least 6 months in advance to propagate and grow suitable dune plants so they are ready for planting immediately when the sea wall is complete.
- As soon as the buried coastal protection works are constructed, the dune profile is to be graded and permanent dune protection fencing of knitted mesh fencing is to be attached to the permanent fencing to reduce the chance of wind erosion of the dune. The fencing is to have wind reducing mesh and coir logs. The site is extremely exposed to strong southerly and easterly wind which may otherwise erode the sand dunes and deposit sand in the adjacent car park and cause damage to the dunes and its vegetation. To revegetate the dunes and prevent wind erosion regular watering, fence maintenance, weed control and replacement of any plants are to be carried out for a period of 2 years.
- It is recommended that there be a Biodiversity Management Plan to document how the disturbed parts of the dune will be stabilised and revegetated after construction in accordance with Councils' guidelines (Northern Beaches Council 2024, Guideline 3: Biodiversity Management Plan https://www.northernbeaches.nsw.gov.au/media/62464?1716974121).