

VISITOR FACILITY UPGRADES**HYAMS BEACH MASTERPLAN****HYAMS BEACH RESERVE AND CYRUS STREET****1. PROPOSED ACTIVITY****1.1 Introduction and Background**

Shoalhaven City Council (SCC) has been working closely with the Hyams Beach community to address safety and accessibility issues associated with high visitor numbers. High visitation has caused parking and traffic gridlock, impeding access for emergency vehicles. Increased pedestrian traffic and the absence of dedicated footpaths has meant that residents and visitors are regularly walking on busy roads.

Council has engaged in an ongoing process of consultation with the community and has commissioned several surveys seeking feedback on a range of issues to improve the amenity of Hyams Beach for visitors and residents. In response SCC has already implemented a system of traffic management and controls, constructed a roundabout on Booderee Avenue and Illowra Lane to assist with traffic management, built improved facilities at Seamans Beach Carpark, and installed additional amenities and waste services.

In October 2019, SCC was successful in being awarded \$5.3 million in grant funding from the NSW Government (Restart NSW Grant Funding – Sustainable Tourism and Infrastructure Package) including \$1,221,500 allocated for Hyams Beach.

In response to the Restart NSW grant, SCC developed the Hyams Beach Masterplan (Drawing Catalogue 5518) which is attached as Appendix A.

The implementation of the Masterplan will be undertaken in stages. This Review of Environmental Factors (REF) has been prepared for the first stage of the implementation of the Masterplan which focusses on supporting increased safety and access improvements, *i.e.*:

- Formalise and construct parallel parking adjacent to Hyams Beach Foreshore Reserve and retain two-way traffic along Cyrus Street as per Plan 5518_02 and Plan 5581_05 (Figure 2 p.5).
- Formalise drop-off zones on Cyrus Street as per Plan 5518_07 (Figure 2 p.5).

- Construction of footpath on the eastern side of Cyrus Street from Chinamans Beach to connect with existing footpath at the intersection of Hyam Road as per Plan 5518_02 (Figure 2 p.5).
- Construction of a double unisex accessible amenities as per Plan 5518_14 (Figure 2 p.5).
- Installation of other visitor facilities within the Hyams Beach Foreshore Reserve such as gardens and landscape features, seats and bins, relocation and repair of fencing, accessible paths, barbecues, shelters and playground as per adopted Masterplan (Appendix A).

The Masterplan also identifies visitor upgrades at the Seamans Beach Carpark, Hyams Boat Ramp Reserve and other streets within the village. However, these will be subject of separate environmental assessments prior to their commencement.

The Masterplan acts as a guide only and may change slightly during further consultation and detailed design. Any major deviations will be reviewed and if necessary amendments to this REF would be made.

SCC is the proponent and the determining authority under Part 5 of the EP&A Act. The environmental assessment of the proposed activity and associated environmental impacts has been undertaken in the context of Clause 228 of the *Environmental Planning and Assessment Regulation 2000*. In doing so, this Review of Environmental Factors (REF) helps to fulfil the requirements of Section 5.5 of the Act that SCC examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

1.2 Location

The proposed activity would be undertaken in the Cyrus Street road reserve and Hyams Beach Foreshore Reserve at Hyams Point, Hyams Beach (Figure 1 and Table 1 below and Appendix A).

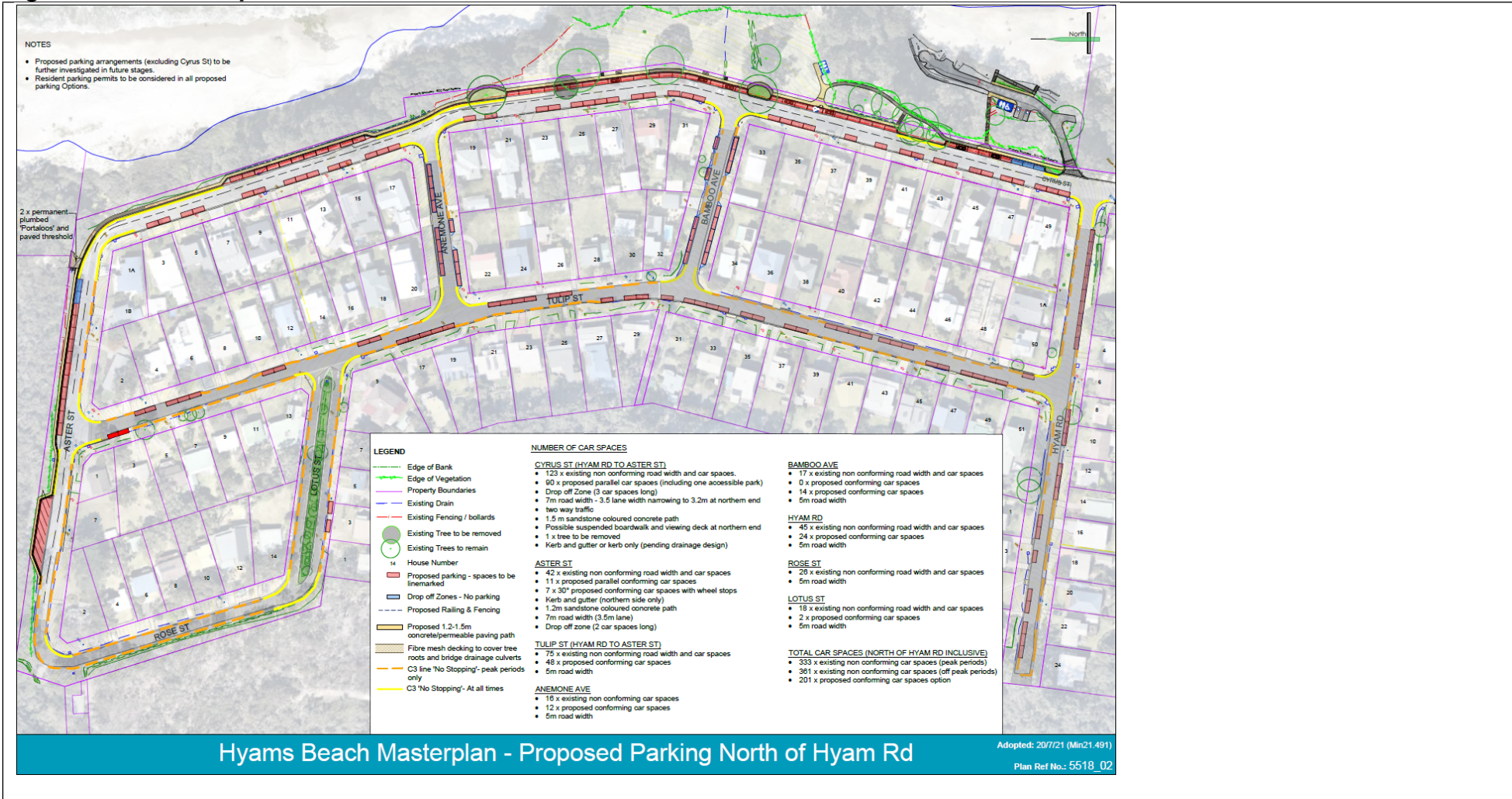
Table 1: Lands affected by the proposed development

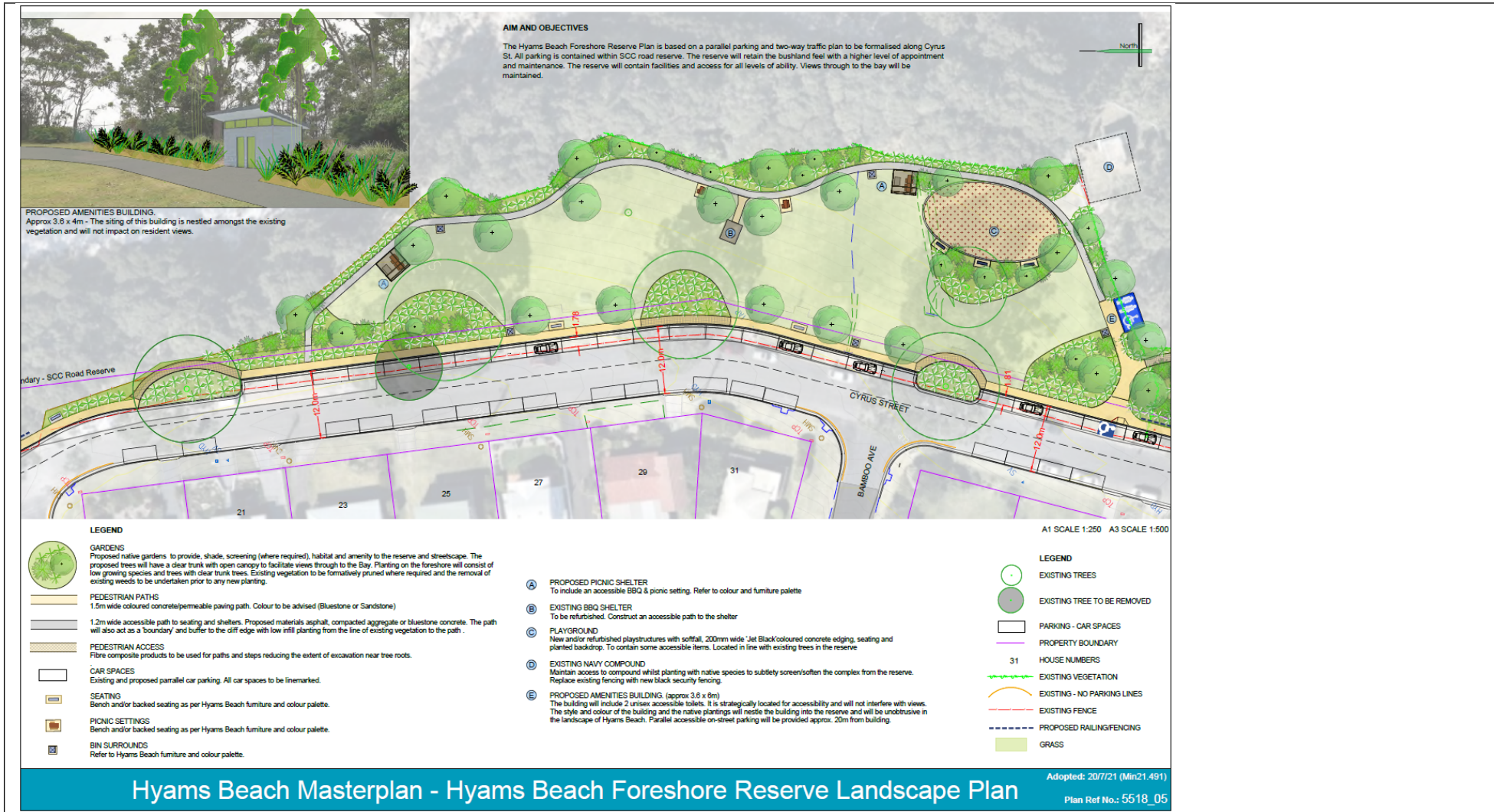
Property	Proposed Activities (Refer to Appendix A)	Pertinent information
Cyrus Street road reserve	<p>Additional and formalisation of car parks</p> <p>Gardens and other landscape features.</p> <p>1.5 metre wide pedestrian path along Cyrus Street</p> <p>Installation of seating and bins.</p> <p>Relocation of fencing.</p>	<p>SCC is the roads authority.</p> <p>Cyrus Street is not a “classified road” as defined in the NSW <i>Roads Act 1993</i>.</p>
<p>Lot 7001 DP1121952</p> <p>Hyams Beach Foreshore Reserve</p>	<p>Construction of a 1.2 metre wide accessible path to new and existing seating, BBQ and picnic shelters, and bins.</p> <p>Upgrade of playground.</p> <p>Landscaping.</p> <p>Construction of an amenities buildings on Hyams Point Reserve and associated 1.5 metre wide concrete path from Cyrus Street.</p> <p>Installation of steps and paths.</p>	<p>Contains existing visitor facilities.</p> <p>Crown Reserve R82567 gazetted on 20/05/1960 for the purpose of Public Recreation.</p> <p>SCC is the appointed Crown Land Manager.</p> <p>Subject to unresolved Aboriginal Land Claim and Native Title Claim.</p> <p>Zoned RE1 Public Recreation under the Shoalhaven Local Environmental Plan 2014.</p>

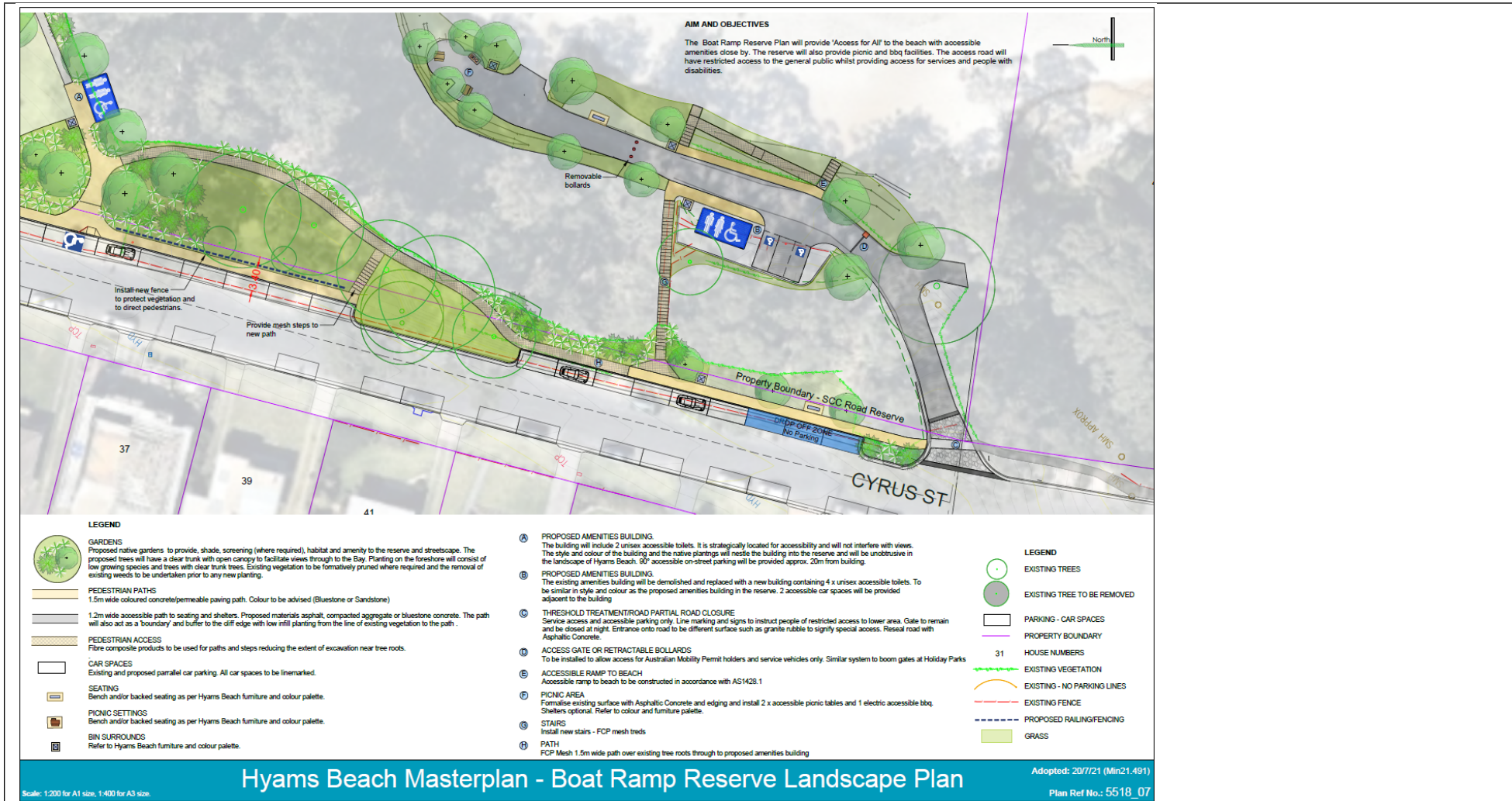
Figure 1 The subject land

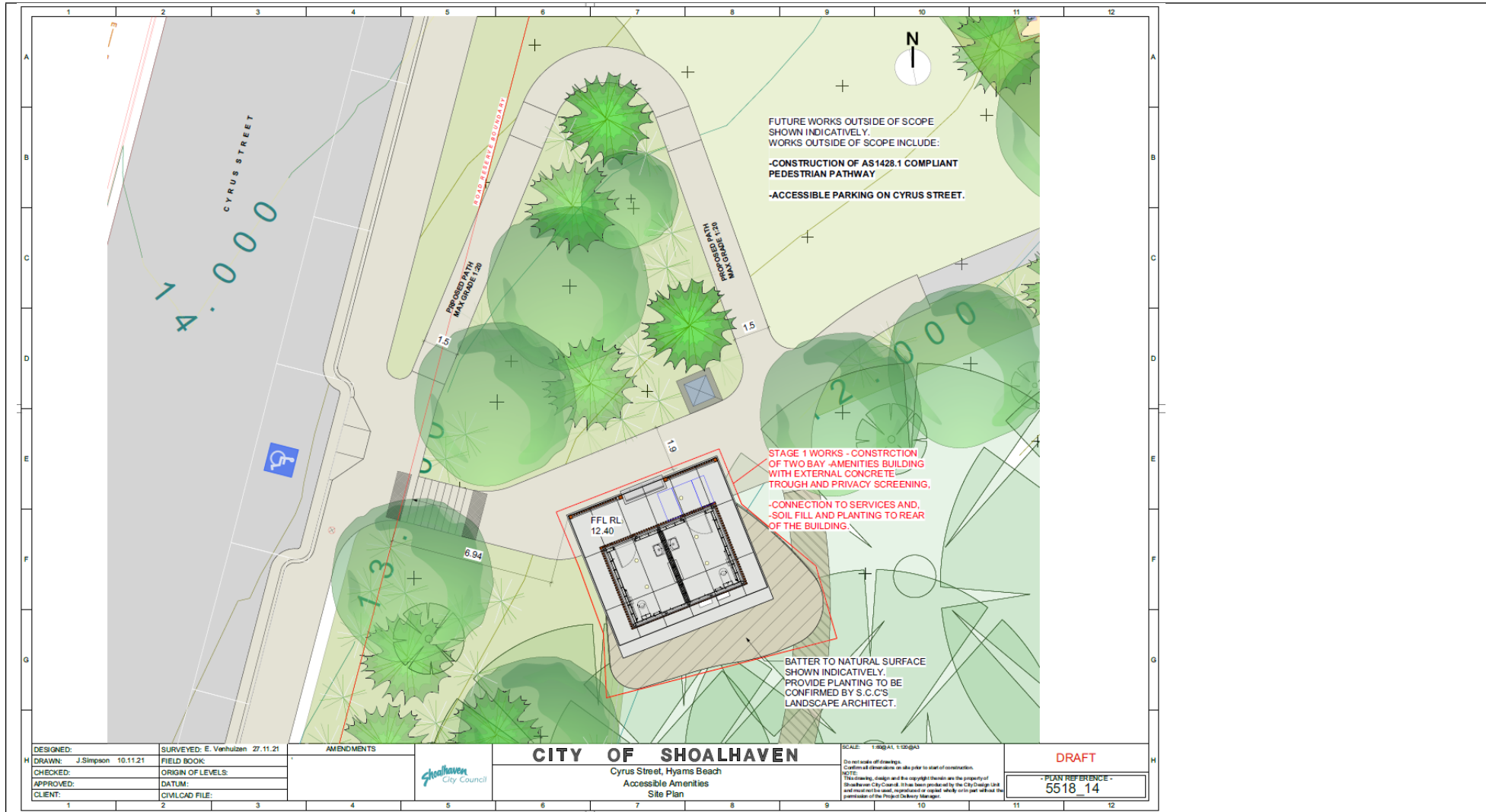


Figure 2 The masterplan









1.3 Limitations

This EIA has been informed by:

- Database searches (NSW BioNet, SCC's GIS Enquiry, Aboriginal Heritage Information Management System (AHIMS), EPBC Protected Matters, MinView)
- Numerous site inspections and surveys
- Onsite surveys for the presence of Aboriginal objects undertaken on the 14 December 2021.
- Onsite surveys, vegetation and habitat assessment undertaken on the 14 December 2021.

The above listed targeted surveys, habitat assessment, literature review and database searches were considered an appropriate means of assessing the likelihood of species presence and potential environmental impact.

2. EXISTING ENVIRONMENT

2.1 Geology / geomorphology

Hyams Beach Reserve lies on a down-fold (syncline) with Snapper Point Formation Sandstone dipping towards the centre of the Bay (Figure 3 below). The Reserve is flanked by Hyams Beach to the south and Chinamans Beach to the north. These beaches are curved beaches typical of Jervis Bay. In contrast to the yellow sand on the ocean beaches, the sand forming Hyams and Chinamans Beach is white as it does not have the thin skins of yellow iron oxide coating the sand grains due to the age of the source of the sand, *i.e.* the sand comes from the erosion of large old sand dunes created prior to the sea level rise that created the embayment.

The Reserve and Cyrus Street lie on Snapper Point Sandstone comprising marine sediments laid down in the Permian Period. The likelihood of Aboriginal skeletal remains and acid sulfate soils is therefore low.

There is a thin layer of wind-blown sand at the surface at certain locations within the park above the cliff line, however, the vegetation on the site is not associated with this thin layer of sand. Therefore, even though the site contains vegetation species that are within the characteristic assemblage of species, the ecological community at the site does not comprise the Endangered Ecological Community (EEC) *Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions* (refer to Section 2.2 of the REF) which occurs on deep sandy soils.

Figure 3 Site Geology (minview.geoscience.nsw.gov.au)



2.2 Vegetation

The proposed activity would be undertaken within a much-modified coastal strip and in a regularly mown and maintained park and roadside. Native vegetation comprises vegetation bordering and clinging to the face of the cliff which grades into a park predominantly comprising scattered, remnant Bangalays *Eucalyptus botryoides* with an open, grassed understorey (Figure 4 p.14; Photos 1-4).

Bangalay, Blackbutt *E. pilularis*, Coast Banksia *Banksia integrifolia* and Old Man Banksia *B. serrata* occur in the canopy and *Hardenbergia violacea*, Coastal Wattle *Acacia sopharae*, Climbing Guinea Flower *Hibbertia scandens*, Dusky Coral Pea *Kennedia rubicunda*, Sweet Pittosporum *Pittosporum undulatum*, Coastal Teatree *Leptospermum laevigatum*, Swamp Oak *Casuarina galuca*, Black Sheoak *Allocasuarina littoralis*, Bracken *Pteridium esculatum*, Blue Flax-lily *Dianella caerulea*, Blueberry Ash *Elaeocarpus reticulatus*, Coffee Bush *Breynia oblongifolia*, Blady Grass *Imperata cylindrica*, Coastal Rosemary *Westringia fruticosa*, and Spiny-headed Mat-rush *Lomandra longifolia*, all occur in the understorey and midstorey along and just below the cliff line east of the Park and Cyrus Street (Figure 4 and photos below)

Although floristically resembling the endangered ecological community *Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions*, the site is not associated with deep coastal sand plains of marine or aeolian origin as stipulated in the NSW Scientific Committee's Final Determination of the EEC (NSW Scientific Committee 2011). Instead, the site is underlain by Snapper Point Sandstone Formation with only a thin surface layer of wind blown sand.

Figure 4 Vegetation



2.3 Other

- The proposed works adjoin Jervis Bay National Park and Jervis Bay Marine Park. Consultation with these government agencies is required (refer to Section 4.1).
- The site is not mapped as having acid sulfate soil (ASS) risks. An ASS management plan is not required.
- The site is not flood prone and is not mapped as potentially contaminated.
- The site is not mapped as being in a coastal hazard area.
- Zoned RE1 Public Recreation (Foreshore Reserve) and R2 Low Density Residential (Cyrus Street) under the Shoalhaven Local Environmental Plan 2014
- The site does not contain any records of threatened species.
- The site is not mapped as bushfire prone.

2.4 Photos



Photo 1: Park like environment of the Hyams Beach Foreshore Reserve with scattered remnant Eucalypts



Photo 2: Blackbutt – Bangalay Open Forest along the cliff line east of the mown park



Photo 3: northern end of Cyrus Street where carparking will be formalised and footpath along the eastern edge (left-hand side) would be constructed.



Photo 4: Tree-less vegetation in the northern area of Cyrus Street predominantly comprising Lomandra and Bracken. Some of this vegetation would be impacted to provide footpath.

3. PERMISSIBILITY

3.1 Environmental Planning and Assessment Act 1979

Section 4.1 (Development that does not need consent) of the EP&A Act states that:

“If an environmental planning instrument provides that specified development may be carried out without the need for development consent, a person may carry the development out, in accordance with the instrument, on land to which the provision applies.”

In this regard, Clause 65(3) of the *State Environmental Planning Policy (Infrastructure) 2007* hereafter referred to provides that the following can be undertaken by Council on a public reserve under the control of the Council without development consent:

“(a)(i) roads, pedestrian pathways, cycleways, single storey car parks, ticketing facilities, viewing platforms and pedestrian bridges

(a)(ii) recreation area and recreation facilities (outdoor), but not including grandstands

...

(a)(v) landscaping, including landscape structures or features (such as are work) and irrigation systems,

(a)(vi) amenities for people using the reserve, including toilets and change rooms

...

(c) demolition of buildings (other than any building that is, or is part of, a State or local heritage or is within a heritage conservation area”

Additionally, clause 66 lists the following activities carried out by Crown Land Managers in a public reserve as exempt development:

“(1)(a)(i) walking tracks, raised walking paths (including boardwalks), ramps, stairways or gates

...

(iii) handrail barriers or vehicle barriers

...

(vii) play equipment if adequate safety measures (including soft landing surfaces) are provided, and in the case of the construction of such equipment, so long as the equipment is situated at least 1.2 metres away from any fence

(viii) seats, picnic tables, barbecues, bins (including frames and screening), shelters or shade structures...”

Exempt development does not require development consent or environmental impact assessment under Part 5 of the Act (s.1.6).

As the proposal does not require development consent, and as it constitutes an ‘activity’ for the purposes of Part 5 of the EP&A Act, being carried out by (or on behalf of) a public

authority, environmental impact assessment under Part 5 of the EP&A Act is required. This REF provides this assessment.

3.2 NSW Fisheries Management Act 1994

A Fisheries Permit is not required for the activities within the Foreshore Reserve assessed under this REF (refer to Table 2 below). However, the Masterplan includes an accessible pedestrian ramp to the beach within the Hyams Boat Ramp Reserve (Plan 5518_07, Appendix A). Detailed plans are not available at this stage. If the ramp encroaches below the highest astronomical tide level, a Fisheries Permit for dredging and reclamation would be required under Part 7 Division 3 of the Act.

3.3 NSW Marine Estate Management Act 2014

As the activities assessed by this REF would be conducted above mean high water mark, approval from the Marine Park authority is not required. However, the Masterplan also includes an accessible pedestrian ramp to the beach within the Boat Ramp Reserve (Plan 5518_07, Appendix A). Detailed plans are not available to establish the need to obtain approval from Jervis Bay Marine Park. If, however, the ramp encroaches below the MHWM, approval from Jervis Bay Marine Park would be required.

3.4 NSW Crown Land Management Act 2016 (CLM Act)

The proposed activity would be undertaken on a Crown Land Reserve R82567 to which SCC is the appointed Crown Land Manager. Under Section 3.21 of the Act, a council Crown Land manager is authorised to classify and manage its dedicated Crown Land as if it were public community land within the meaning of the *NSW Local Government Act 1993* (LG Act). In this regard, Part 2 Division 3 of the LG Act regulates the management of community land. Section 35 provides that Community Land is required to be used and managed in accordance with the plan of management adopted for the reserve.

The plan of management applicable to the reserve is SCC's Generic Community Land Plan of Management – Parks

(<https://doc.shoalhaven.nsw.gov.au/displaydoc.aspx?record=D11/116070>) . The proposed activity, being upgrades to visitor facilities meets the core objectives listed in the PoM for parks, *i.e.*: “to encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities”, “to provide recreational activities and for casual playing of games”, and “to improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management.” The proposed activity also meets many of the actions listed in the plan including:

- “To provide adequate car parking (on and off road), including disabled parking at all parks”
- “Improve pedestrian / cycle access to parks”

- *“To improve access to all parks for people with disabilities”*

The proposal is therefore consistent with the PoM, the LG Act, and the CLM Act, particularly as Native Title procedures have been followed (refer to Section 3.7).

3.5 NSW Local Government Act 1993

Section 68 prescribes a number of activities that require prior approval of the Council. Of relevance to the proposed activity:

- Carry out water supply work and draw from a council water supply - proposed amenities
- Carry out sewerage work – proposed amenities

As a consequence, approval from Shoalhaven Water should be sought for the new amenities.

3.6 NSW Roads Act 1993

Under Section 138 of the Act a person must not:

- “(1)(a) erect a structure or carryout a work in, on or over a public road, or*
 - (b) dig up or disturb the surface of a public road, or*
 - (c) remove or interfere with a structure, work or tree on a public road...*
- ...otherwise than with the consent of the appropriate roads authority.”*

Subsection (4) confirms that this applies to a *“roads authority and to any employee of a roads authority in the same way as it applies to any of the person”*. If any of the works are to be undertaken by contractors, s.138 approval must be obtained prior to commencement.

Cyrus Street is not a classified road to which Section 75 (*Public authorities to notify TfNSW of proposal to carryout road work on classified roads*) applies.

3.7 Commonwealth Native Title Act 1993

The proposed activity would affect Native Title. The applicable Future Act Option was assessed to be through Subdivision J (Reserves / Leased Land) of the Act for the following reasons:

- The reserve was gazetted as a public reserve on the 25/05/1960 and therefore before 23 December 1996 (Previous Exclusive Possession Act provisions)
- The proposal is consistent with the reserve’s purpose *i.e.* Public Recreation.

Gazette extracts are provided below. As a consequence, a Native Title Assessment was submitted to SCC’s Native Title Manager on the 21 September 2021(D21/406724) which recommended referral to NTSCORP for comments (28-day period). Once these procedures have occurred, the proposed activity could be considered a valid act under the Act and can commence.

(8830)

Sydney, 20th May, 1960.

RESERVES FROM SALE

IT is hereby notified that, in pursuance of the provisions of section 28 of the Crown Lands Consolidation Act, 1913, the Crown lands hereunder described shall be reserved from sale for the public purposes hereinafter specified, and they are hereby reserved accordingly.

J. M. A. McMAHON, Minister for Lands.

FOR PUBLIC RECREATION

LAND DISTRICT—METROPOLITAN; MUNICIPALITY—
HUNTER'S HILL

No. 82,566 from sale. Parish Hunter's Hill, county Cumberland, about 9 acres at Gladesville, being the Crown lands bounded by Crown-street, the areas of 1 acre 9½ perches and ½ perch resumed for road widening and shown on plan Ms. 16,032 Sy. roll, Victoria-road and the area of 11 acres 3 roods 35 perches dedicated 17th September, 1920, for public recreation. Ms. 1,022 Sy., L.F. P. 59-6,822.

FOR PUBLIC RECREATION

LAND DISTRICT—NOWRA; SHIRE—SHOALHAVEN

No. 82,567 from sale. Parish Bherwerre, county St. Vincent, about 25 acres, shown by green tint, yellow edging and red hatching on plan catalogued Ms. 12,438 Sy. roll, in the Department of Lands (includes portion 42). V. 3,437-2,013. P. 60-2,640.

3.8 Other

The proposed activity is permissible under other relevant environmental legislation (Table 2 below).

Table 2 Summary of legislation and permissibility

NSW State Legislation
<i>Shoalhaven Local Environmental Plan 2014 (SLEP)</i>
Permissible <input checked="" type="checkbox"/> Not permissible <input type="checkbox"/>
Justification: Under the SLEP the proposed activity may have required development consent. The provisions of SEPP Infrastructure, however prevail over the SLEP where there is an inconsistency by virtue of Section 3.28 of the EP&A Act. Consequently, development consent is not required. In circumstances where development consent is not required, the

environmental assessment provisions outlined in Part 5 of the Act are required to be complied with. This REF fulfils this requirement.

Protection of the Environment Operations Act 1997

Permissible Not permissible

Justification:

The proposed activity does not constitute scheduled development work or scheduled activities as listed in Schedule 1 of the Act. The proposed activity therefore does not require an environmental protection licence.

Biodiversity Conservation Act 2016

Permissible Not permissible

Justification:

- The proposed development is unlikely to have a significant impact on species and communities listed in the schedules of the Act (refer to Section 6.3 of this EIA).
- The proposed development is not within an area declared to be of “outstanding biodiversity value” as defined in the Act.
- The proposed development is unlikely to have a significant impact on threatened species and/or threatened ecological communities listed in the schedules of the Act. Therefore there is no requirement to ‘opt in’ to the Biodiversity Offset Scheme.
- There are no *serious and irreversible impacts on biodiversity values* present at the site of the proposed activity.

The proposed activity therefore is not deemed to be *likely to significantly affect threatened species* and a Species Impact Statement (SIS) or entry into the Biodiversity Offset Scheme (BOS) is not required.

It is also a defence to a prosecution for an offence under Part 2 of the Act (harming animals, picking plants, damaging the habitat of threatened species or ecological communities *etc*) if the work was essential for the carrying out of an activity by a determining authority within the meaning of Part 5 of the EP&A Act after compliance with that Part. The activity is considered permissible as this EIA has been prepared and determined in accordance with the EP&A Act.

Local Land Services Act 2013

Permissible Not permissible

Justification:

Any clearing of vegetation would be of a kind that is authorised under Section 60O(b)(ii) of the *Local Land Services Amendment Act 2016* (“*an activity carried out by a determining authority within the meaning of Part 5 of the Act after compliance with that Part.*”). No separate authorisation under the Act is required.

Water Management Act 2000	
Permissible	✓ Not permissible <input type="checkbox"/>
<p>Justification:</p> <ul style="list-style-type: none"> Local councils are exempt from s.91E(1) of the Act in relation to all controlled activities that they carry out in, on or under waterfront land by virtue of clause 41 of the <i>Water Management (General) Regulation 2018</i>. The proposal would not interfere with the aquifer and therefore an interference licence is not required (s.91F). 	
Fisheries Management Act 1994	
Permissible	✓ Not permissible <input type="checkbox"/>
<p>Justification:</p> <p>The provisions in the Act are not applicable as the proposed activity:</p> <ul style="list-style-type: none"> would not involve dredging and/or reclamation (Part 7, Division 3 of the Act) would not harm mangroves and protected marine vegetation (Part 7, Division 4 of the Act) would not affect declared aquatic reserves (Part 7, Division 2 of the Act) would not involve disturbance to gravel beds where salmon or trout spawn (s.208 of the Act) does not involve the release of live fish (Part 7, Division 7) does not involve the construction of dams and weirs (s.218) would not result in the blocking of the passage of fish (s.219) would not impact declared threatened species or endangered ecological communities (Part 7A) (also refer to Section 6.3) does not constitute a declared key threatening process (Part 7A) - refer to Section 6.3 would not use explosives in a watercourse (Clauses 70 and 71 of the <i>Fisheries Management (General) Regulation 2010</i>). 	
Aboriginal Land Rights Act 1993	
Permissible	✓ Not permissible <input type="checkbox"/>
<p>Justification:</p> <p>The reserve is affected by the 7 February 2017 blanket and multiple Aboriginal land claims. However the proposed activity can still proceed as:</p> <ul style="list-style-type: none"> the reserve was lawfully utilised for public recreation, supported by facilities, prior to the claim. The Act does not preclude the site's use and proposed activity. the site is unlikely to be considered claimable land under the definitions of the Act. 	

Commonwealth Legislation	
Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EP&BC Act)	
Permissible ✓	Not permissible <input type="checkbox"/>
<p>Justification:</p> <p>The proposed activity would not be undertaken on Commonwealth land and no Matters of National Environmental Significance are likely to be significantly impacted by the proposed activity. The proposed activity is therefore not a controlled action and does not require commonwealth referral.</p>	

4. CONSULTATION WITH GOVERNMENT AGENCIES

4.1 Infrastructure SEPP requirements

Clause 13 – Development with impacts on council-related infrastructure or services (Council)

The proposed activity:

- would not have a substantial impact on stormwater management
- is not likely to generate additional traffic
- is unlikely to involve structures or enclosing of public place that would cause a disruption to pedestrian or vehicular traffic that is more than minor or inconsequential.

However as the proposed amenities requires connection with sewerage and water supply systems, approval through a s.68 of the *Local Government Act 1993* would be sought (refer also to Section 3.5 of this REF).

If works within Cyrus Street are carried out by contractors, Section 138 (Roads Act 1993) shall be obtained.

Clause 14 – Development with impacts on local heritage (Council)

The site would not impact any items of local heritage as listed in the schedules of the Shoalhaven Local Environmental Plan 2014. There are no such items in the vicinity of the proposed activity. Consultation with relevant sections of SCC is therefore not required.

Clause 15 – Development with impacts on flood liable land (Council)

And

Clause 15AA – Development with impacts on flood liable land (State Emergency Service)

The site is not on flood liable land as defined in the SEPP or mapped as such by SCC. Consultation with relevant Section of SCC and the State Emergency Service is therefore not required.

Clause 15A – Development with impacts on certain land within coastal zone

The site of the proposed development has not been identified as land that is within a coastal vulnerability area. Consultation with relevant SCC officers is therefore not required.

Clause 16 – Consultation with public authorities other than councils

With regard to the consultation requirements specified in this clause, the proposed activity:

- would be undertaken adjacent to land reserved under the *National Parks and Wildlife Act 1974* (cl.16(2)(a))
- would not be undertaken on land zoned E1 *National Parks and Nature Reserves* or similar (cl.16(2)(b)).
- would be undertaken adjacent to a marine park declared under the *Marine Estate Management Act 2014* (cl.16(2)(c))
- would not be undertaken in the foreshore area within the meaning of the *Sydney Harbour Foreshore Authority Act 1998* (cl.16(2)(d))
- does not comprise a fixed or floating structure in or over navigable waters (cl.16(2)(e))
- is not a development for the purposes of an educational establishment, health services facility, correctional centre or group home, or for residential purposes, in an area that is bush fire prone land (cl.16(2)(f))
- would not increase the amount of artificial light in the night sky and located on land within the dark sky region as identified on the dark sky region map (cl.16(2)(g))
- would not be undertaken within Defence communications facility buffer (cl.16(2)(h))
- would not be undertaken on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961* (cl.16(2)(i)).

As the proposed activity would be undertaken adjacent to Jervis Bay Marine Park and Jervis Bay Marine Park, a notice of intention was sent to both entities in accordance with clause 16 of the Infrastructure SEPP on the 7 December 2021 (D21/526796). As of 31 May 2024 no response has been received. As this is past the prescribed 21 day period of comment, no further consultation needs occur before proceeding.

5. COMMUNITY ENGAGEMENT

SCC has worked closely with the Hyams Beach Village Association and other community and business representatives in the development of the masterplan.

SCC has also made available to the community a dedicated “Get Involved” webpage <https://getinvolved.shoalhaven.nsw.gov.au/hyams-beach-options> where interested parties can register an interest to receive updates and comment on the project. The Get Involved webpage provides the community with a detailed history of the project.

Community feedback on a draft masterplan was provided through an online survey. A summary of results is available as D21/282471 and each response as D21/282471. After consideration of all the feedback, SCC adopted the masterplan that is the subject of this REF.

Subsequent submissions from the community have been taken and responded to (refer to container 57530E).

Although, this level of community engagement is consistent with SCC’s Community Engagement Policy POL12/28 for a local area – low impact project, SCC will continue to engage with the local community before and during the proposed activity.

6. ASSESSMENT OF LIKELY ENVIRONMENTAL IMPACT

6.1 Summary of proposal and associated impacts

The proposed activity would involve:

- the removal of a narrow (<1m) strip of coastal scrub along Cyrus Street to accommodate parking and footpath (Photo 3 p.16)
- the removal of approximately 20m² of native vegetation likely to have been planted to accommodate the new amenities and associated batters (Photo 5 below)
- the removal of one large eucalypt (Bangalay *Eucalyptus botryoides*) within the Cyrus Street road reserve (Photo 6 below)
- excavation works and associated ground disturbance and noise
- change of outlook for residents opposite the Foreshore Reserve.

An assessment of these impacts is provided in the following subsections.



Photo 5: Site of the proposed amenities. The likely planted *Lomandra*, the single *Acacia obliquinervia*, and lower limb of the Bangalay are likely to be removed (as indicated in red).



Photo 6: The only tree to be removed - to accommodate parking and footpath

6.2 Aboriginal heritage

Under Section 86 of the NSW *National Parks and Wildlife Act 1974* (NPW Act) it is an offence to disturb, damage, or destroy any Aboriginal object without an Aboriginal

Heritage Impact Permit (AHIP). The Act, however, provides that if a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an AHIP (Section 87(2) of the Act). To effect this, the NSW Department of Environment, Climate Change and Water have prepared the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (hereafter referred to as the 'Due Diligence Code') to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for an AHIP.

In accordance with the Due Diligence Guidelines (DECCW 2010), a search on the Aboriginal Heritage Information Management System (AHIMS) indicated that no Aboriginal heritage sites were known for the vicinity of the site (refer report below). The site of the proposed activity, however, is in a landform that has a higher propensity for artefacts, i.e. (DECCW 2010):

- Within 200 metres of waters
- Located on a ridgetop, ridge line or headland
- Located within 200 metres below or above a cliff face

As a consequence, a search for reports on SCC database and AHIMS and an onsite survey of the area was conducted on the 14 December 2021. No reports were located on the databases and no Aboriginal sites were located during field investigations.

As there are no recorded or visible Aboriginal sites, the Due Diligence Code requires no further assessment and can proceed with caution. Cautionary measures are prescribed in the Environmental Impact Mitigation Measures and Safeguards (Section 7 of this REF).

Shoalhaven City Council - Nowra

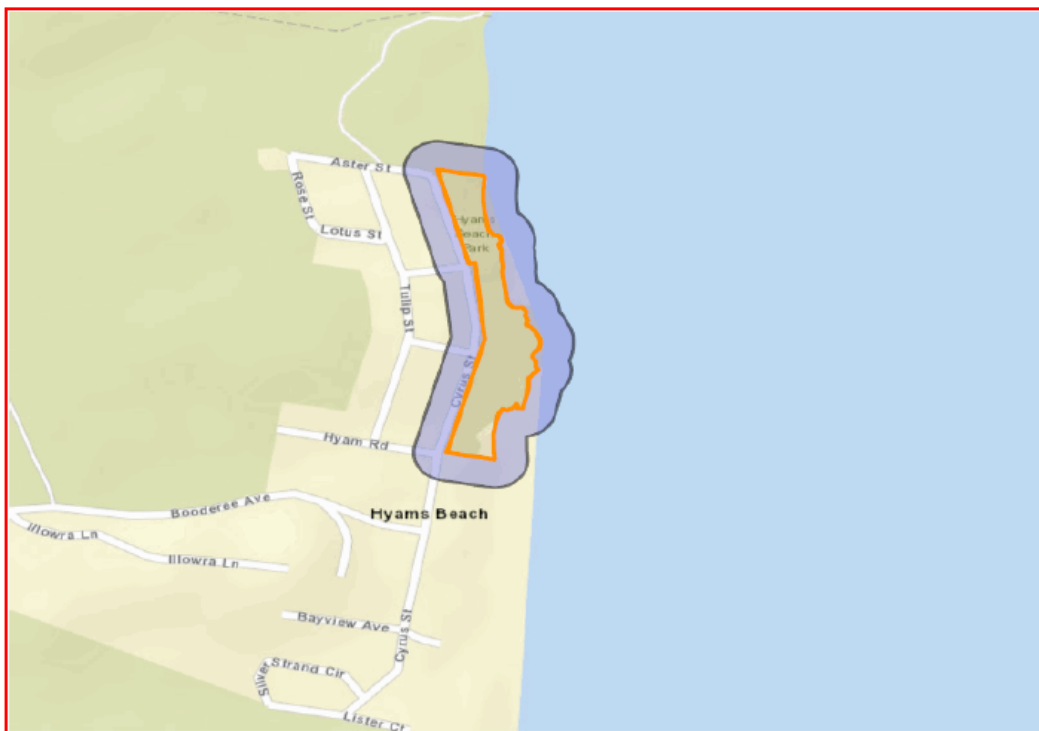
Date: 15 December 2021

PO Box 42 Bridge Rd
Nowra New South Wales 2541
Attention: Geoffrey Young
Email: geoff.young@shoalhaven.nsw.gov.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 7001, DP:DP1121952, Section : - with a Buffer of 50 meters, conducted by Geoffrey Young on 15 December 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

6.3 Section 1.7 of the EP&A Act 1979

Section 1.7 of the EP&A Act 1979 applies the provisions of Part 7 of the NSW *Biodiversity Conservation Act 2016* and Part 7A of the NSW *Fisheries Management Act 1994* that relate to the operation of the Act in connection with the terrestrial and aquatic environment. Each are addressed below.

Part 7A Fisheries Management Act 1994

The proposed activity would have no impact on waterways or fish habitat. No further consideration is required.

Part 7 Biodiversity Conservation Act 2016

Based on an analysis of likelihood of occurrence (Appendix B) the threatened species and endangered ecological communities that are known or have the potential to occur at in the site are:

- Eastern Coastal Freetail-Bat *Micronomus norfolkensis*
- White-bellied Sea-Eagle *Haliaeetus leucogaster*
- Eastern Osprey *Pandion cristatus*
- Gang-gang Cockatoo *Callocephalon fimbriatum*
- Glossy Black-cockatoo *Calyptorhynchus lathamii*
- Barking Owl *Ninox connivens*
- Varied Sittella *Daphoenositta chrysoptera*
- Dusky Woodswallow *Artamus cyanopterus cyanopterus*

Section 7.3 of the Act provides a 'five-part' test to determine whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats. Each part is addressed below:

Part 1: In the case of a threatened species, where the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is to be placed at risk of extinction.

Eastern Coastal Freetail-Bat

The Eastern Freetail-bat is found along the east coast from south Queensland to southern NSW. It occurs in dry sclerophyll forest, woodlands, swamp forests and mangrove forests of the Great Dividing Range. It roosts mainly in tree hollows but will also roost under bark or in man-made structures.

Although Hyams Foreshore Reserve provides suitable foraging and hunting areas for this species, the proposed activity is unlikely to have an adverse effect on the life cycle of the species such that a viable local population of the species is to be placed at risk of extinction for the following reasons:

- A population is not known for the site – the site only comprises suitable habitat.
- The proposed activity would not remove any roosting or breeding habitat for these species, *i.e.* there would be no hollow-bearing trees or similar enclosed areas removed.
- The proposed activity would not remove any foraging habitat and not create impediments to movement.

- Lighting for the amenities would consist of downward facing LED lamps directed and / or shielded to ensure minimal light spill into adjacent areas.
- Work will be undertaken during the day and therefore unlikely to impact nocturnal foraging activities of these species.

A Species Impact Statement (SIS) or entry into the Biodiversity Offset Scheme (BOS) is therefore not required for this species.

White-bellied Sea-Eagle, Eastern Osprey, and Barking Owl

Although the site provides suitable foraging habitat for these species, the proposed activity is unlikely to have an adverse effect on the life cycle of the species such that a viable local population of the species is to be placed at risk of extinction for the following reasons:

- A population is not known for the site – the site only comprises suitable habitat.
- The proposed activity would not remove breeding habitat for these species, *i.e.* there would be no large trees removed.
- There are no records of these species breeding at the site.
- The proposed activity would not remove any foraging habitat and not create impediments to movement.
- The proposed activity would not diminish food resources for these species.
- The activity would not remove any hollow-bearing trees or trees that appear to be utilised by the species for nesting (*e.g.* stick nests).

Disturbance to potential habitat is considered insignificant in comparison to the amount of potential habitat available in the immediate vicinity of the site and on a regional and national scale. The presence of these far-ranging species in the locality is possible from time to time. The area that would be impacted, however, is not considered useful or important and the species would likely vacate the area when works commence and be out of harm's way. As a result of the above assessment, a SIS or entry into the BOS for this Part for these species is not required.

Gang-gang Cockatoo and Glossy Black-cockatoo

The Gang-gang Cockatoo is distributed from southern Victoria through south and central NSW. In spring and summer, it is generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In autumn and winter, the species often moves to lower altitudes in drier more open eucalypt forests and woodlands or in dry forest in coastal areas. It favours old growth forest and woodland attributes for nesting and roosting. Nests are located in hollows that are 10 centimetres or larger and a least nine metres above the ground in eucalypts (OEH 2017).

The Glossy Black-cockatoo inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of Sheoak occur. Black Sheoak *Allocasuarina littoralis* are important foods. It is dependent on large hollow-bearing eucalypts for nest

sites (OEH 2017b). The proposed activity would not remove any Black Sheoaks that exhibit evidence of feeding by Glossy Black-cockatoos.

Although the site of the proposed activity provides suitable foraging areas, the proposed activity is unlikely to have an adverse effect on the life cycle of these species such that a viable local population of the species is to be placed at risk of extinction for the following reasons:

- The proposed activity would not remove any roosting or breeding habitat, *i.e.* there would be no hollow-bearing trees removed.
- The proposed activity would not remove any foraging habitat and not create impediments to movement.
- The proposed activity would not remove feeding resources critical for the species persistence in the area, *i.e.*, no large flowering and fruit trees and mistletoe would be removed and no mature Black Sheoaks would be removed.
- Whilst the site contain suitable foraging habitat, these resources are widespread and common in the region.

The presence of these far-ranging species in the locality is possible from time to time *e.g.* if they were to fly over, feed, or rest briefly at the site. The site, however, is not considered useful or important and these species would likely vacate the area when works commence and be out of harm's way. As a result, a SIS or entry into the BOS is not required.

Varied Sittella and Dusky Woodswallow

The Varied Sittella is sedentary and inhabits most of mainland Australia. The species inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. It feeds on arthropods taken from crevices in rough or decorticating bark, dead branches, standing dead trees and small branches and twigs in tree canopy. It builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy (OEH 2017c).

Dusky Woodswallows are widespread in eastern, southern and southwestern Australia. The species primarily inhabits dry, open eucalypt forests and woodlands, with an open to sparse understorey of eucalypt saplings, acacias and other shrubs, and a groundcover of grasses or sedges and fallen woody debris. It eats invertebrates, mainly insects, which are captured whilst hovering or sallying above the canopy or over water. Its nest is an open, cup-shape, made of twigs, grass, fibrous rootlets and occasionally casuarina needles. Nest sites vary greatly, but generally occur in shrubs or low trees, living or dead, horizontal or upright forks in branches, spouts, hollow stumps or logs, behind loose bark or in a hollow in the top of a wooden fence post (OEH 2017d).

Although the site provides suitable foraging areas the proposed activity is unlikely to have an adverse effect on the life cycle of the species such that a viable local population of the species is to be placed at risk of extinction for the following reasons:

- There are no actual populations known to occur at the site; there is only potential low-quality habitat.
- The proposed activity would not remove significant amount of habitat and feeding resources. Substantial amount of habitat would be left intact.
- The proposed activity would not create impediments to movement.

A SIS or entry into the BOS is therefore not required for these species.

Part 2 In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

(a) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(b) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

As determined in Section 2.1, the proposed activity would not be undertaken within vegetation communities that comprise an endangered ecological community.

Part 3 In relation to the habitat of a threatened species or ecological community:

(a) The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

(b) Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

(c) The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

Refer to responses in Part 1 and Part 2 above. A species impact statement is not required for this part.

Part 4 Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

No “areas of outstanding biodiversity values” have been declared in the City of Shoalhaven.

Part 5 Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The only key threatening process listed under Schedule 3 of the NSW *Biodiversity Conservation Act 2016* relevant to the proposed activity is “clearing of native vegetation”. Clearing, as defined by the determination, refers to the destruction of a sufficient proportion of one or more strata (layers) within a stand or stands of native vegetation (OEH 2021).

The native vegetation clearing required to undertake the activity is not considered to be significant for the following reasons:

- There is likely to be a net increase in native vegetation with numerous native gardens being installed.
- Only one tree is proposed to be removed.
- The 20m² of native vegetation lost for the new amenities is likely to have been planted for landscaping of the reserve.
- The narrow strip (< 1 metre) of roadside vegetation at the northern end of Cyrus Street would not significantly exacerbate fragmentation.
- The proposed activity would not cause a loss of biological diversity, extinction of species or loss of local genotypes.
- Endangered ecological communities would not be impacted.
- The species that would be removed are common and widespread in the locality.

A SIS or entry into the BOS is therefore not warranted for this Part.

6.4 Clause 228 matters of consideration

Clause 228(2) of the *Environmental Planning and Assessment Regulation 2000* lists the factors to be taken into account when consideration is being given to the likely impact of an activity on the environment under Part 5 of the EP&A Act. The following assessment deals with each of the factors in relation to the proposed activity.

Table 5 Clause 228 (EP&A Regulation) matters

DOES THE PROPOSAL:	ASSESSMENT	REASON
a) Have any environmental impact on a community?	Positive	The proposed activity would provide numerous benefits to the community including but not limited to: <ul style="list-style-type: none"> • new accessible amenities • increased carparking

DOES THE PROPOSAL:	ASSESSMENT	REASON
		<ul style="list-style-type: none"> • safer, off-street access for pedestrians • additional visitor facilities such as paths, seating, and picnic shelters. <p>The proposed activity would not impact views, community services and infrastructure such as water, waste management, educational, medical or social services.</p>
<p>b) Cause any transformation of a locality?</p>	<p>negligible</p>	<p>The locality will remain as a public reserve managed as a park, and road-side but with improved parking and pedestrian access.</p>
<p>c) Have any environmental impact on the ecosystem of the locality?</p>	<p>negligible</p>	<p>Refer to Sections 6.1 and 6.3.</p> <p>The activity would have no impact on any threatened flora and fauna and ecological communities.</p> <p>The activity would only remove one tree which is within the Cyrus Street Road reserve and a small amount of coastal scrub along Cyrus Street and 20m² of native vegetation at the site of the proposed amenities likely to have been planted.</p>
<p>d) Cause a diminution of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</p>	<p>Positive</p>	<p>The proposed activity would improve access, safety and environmental management to facilitate recreation at the location.</p> <p>The proposal would not remove significant amount of vegetation and extensive vegetated areas would</p>

DOES THE PROPOSAL:	ASSESSMENT	REASON
		<p>remain. As such the park like setting would be retained.</p> <p>There are no significant scientific environmental qualities noted for the site.</p>
<p>e) Have any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations?</p>	<p>Negligible</p>	<p>The proposed activity does not affect a site listed on the State Heritage List or a site listed in the heritage schedules of the SLEP 2014. Underground ‘relics’ (as defined in the NSW Heritage Act) are also not anticipated.</p> <p>The site is not within an Aboriginal Place declared under the <i>National Parks and Wildlife Act 1974</i>.</p> <p>The proposed activity is unlikely to harm Aboriginal heritage objects (refer to Section 6.1).</p>
<p>f) Have any impact on the habitat of protected fauna (within the meaning of the Biodiversity Conservation Act 2016)?</p>	<p>Negligible</p>	<p>The Test of Significance provided in Section 6.3 above concludes that the proposed activity would not have a significant impact upon threatened fauna and flora.</p>
<p>g) Cause any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</p>	<p>Low adverse</p>	<p>There are no species likely to rely on the site of the proposed works to the extent that modification would put them further in danger.</p> <p>The Tests of Significance provided in Section 6.3, concludes that the proposed activity would not have a</p>

DOES THE PROPOSAL:	ASSESSMENT	REASON
		significant impact upon threatened fauna.
<p>h) Have any long term effects on the environment?</p>	<p>Low adverse</p>	<p>The works would be relatively short term and the noise generated will occur during normal working hours. There are no sensitive receivers in the vicinity of the proposed works.</p> <p>In the long-term, the area will stabilise and revegetate and long-term effects from the works are considered unlikely.</p> <p>The proposed activity would not use hazardous substances or use or generate chemicals which may build up residues in the environment.</p>
<p>i) Cause any degradation of the quality of the environment?</p>	<p>Low adverse</p>	<p>The environmental safeguards (Section 7) to be undertaken would minimise impacts and risks to the quality of the environment.</p> <p>The proposal would not intentionally introduce noxious weeds, vermin, or feral animals into the area or contaminate the soil.</p> <p>Impacts would largely be confined to existing disturbed areas.</p> <p>The proposal is unlikely to generate sulphuric acid from the exposure of potential acid sulphate soils, cause degradation in water quality, or impact sensitive environmental areas (e.g. water bodies, watercourses, wetlands, erosion prone areas, slopes greater than 18 degrees).</p>

DOES THE PROPOSAL:	ASSESSMENT	REASON
j) Cause any risk to the safety of the environment?	Negligible / positive	<p>The proposed activity would not involve hazardous wastes and would not lead to increased bushfire or landslip risks.</p> <p>The activity is unlikely to adversely affect flood or tidal regimes, or exacerbate flooding or bushfire risks.</p>
k) Cause any reduction in the range of beneficial uses of the environment?	Positive	<p>The site is used for passive recreation within a bushland / park-like setting and on-street parking. The proposed activity would increase and benefit this use.</p>
l) Cause any pollution of the environment?	Low adverse	<p>The proposal would involve an increase in noise during the construction phase due to the use of machinery. However this would not affect any sensitive receivers such as schools, childcare centres and hospitals.</p> <p>The activity is not expected to result in the oxidation of acid sulphate soils and subsequent leaching back into the waterways.</p> <p>It is unlikely that the activity (including the environmental impact mitigation measures) would result in water or air pollution, spillages, dust, odours, vibration or radiation.</p> <p>The proposal does not involve the use, storage or transportation of hazardous substances or the use or generation of chemicals which may build up residues in the environment.</p>
m) Have any environmental problems associated with the disposal of waste?	Low adverse	<p>The waste that would be generated by the activity could be re-used in accordance with resource recovery exemptions or taken to a licensed waste facility.</p>

DOES THE PROPOSAL:	ASSESSMENT	REASON
		<p>There would be no trackable waste, hazardous waste, liquid waste, or restricted solid waste as described in the NSW <i>Protection of the Environment Operations Act 1997</i>.</p>
<p>n) Cause any increased demands on resources (natural or otherwise) which are, or are likely to become, in short supply?</p>	<p>Negligible</p>	<p>The amount of resources that would be used are not considered significant and would not increase demands on current resources such that they would become in short supply.</p>
<p>o) Have any cumulative environmental effect with other existing or likely future activities?</p>	<p>negligible</p>	<p>The assessed impacts of the proposal are not likely to interact.</p> <p>There are no other activities proposed in the reserve and Cyrus Street that have similar impact factors.</p>
<p>p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions</p>	<p>negligible</p>	<p>The proposed activity would have no effect on coastal processes including those projected under climate change conditions.</p> <p>The proposal site is not located in an identified coastal hazard area.</p>

7. ENVIRONMENTAL SAFEGUARDS AND MEASURES TO MINIMISE IMPACTS

7.1 Pre-construction, detailed designs and additional approvals

Safeguard / Measure	Responsibility
<p>1. Any major deviations from the masterplan (e.g. additional vegetation clearing, additional structures) shall be subject to a separate environmental assessment and if necessary amendments to this REF shall be made.</p>	<p>Environmental Operations Officer and SCC Project Manager</p>
<p>2. An approval to Carry Out Plumbing and Drainage Works (Section 68 of the <i>Local Government Act 1993</i>) may need to be obtained prior to the construction of the amenities.</p>	<p>SCC Project Manager</p>
<p>3. The proposed amenities building, and path shall comply with the Building Code of Australia (BCA) and AS1428.01 <i>Design for access and mobility – General requirements for access – New building work</i>, and:</p> <ul style="list-style-type: none"> a. A Certifier (for example SCC – <i>Building and Compliance</i>) shall be engaged and all requirements of the Certifier, including inspection schedule, shall be followed b. A BCA Assessment Report shall be obtained from the Certifier demonstrating compliance with the BCA. c. When obtained, the requirements of the Appointment of Council as Principal Certifying Authority, shall be complied with before and during construction. Failure to comply may prevent Council from issuing a Final Completion Letter and permitting the amenities to be used and occupied. 	<p>SCC Project Manager</p>
<p>4. Design and construction of the carpark associated with the new amenities must comply with AS2890.6.</p>	<p>SCC Project Manager</p>
<p>5. If contractors are engaged to undertake works within the road reserve, a Section 138 (<i>Roads Act 1993</i>) approval must be obtained prior to commencement.</p>	<p>SCC Project Manager and Contractor.</p>

Safeguard / Measure	Responsibility
6. Amenities lighting shall consist of downward facing LED lamps, directed and/or shielded to ensure minimal light spill into adjacent bushland areas.	SCC Project Manager

7.2 Construction

Safeguard / Measure	Responsibility
7. Sediment and erosion control measures in accordance with the 'Blue Book' (Landcom 2004) shall be implemented for the project. This is to include staging of works to minimise bare-earth exposure, rapid re-establishment of groundcover of areas disturbed by the activity, and the installation of sediment fences and diversion drains for any stockpiles of soil.	Construction Contractor
8. If Aboriginal heritage objects are uncovered, works shall stop, and Heritage NSW shall be immediately contacted for advice.	Construction Contractor
9. All construction work shall be restricted to the hours of 7:00 am and 5:00 pm Monday to Friday.	Construction Contractor
10. Pruning of trees shall be undertaken in accordance with AS4343 – Pruning of Amenity Trees.	Construction Contractor

7.3 After construction

Safeguard / Measure	Responsibility
11. An asset form must be trimmed to file 44574E on commissioning of the boardwalk, carpark and associated fixtures in accordance with POL15/8 Asset Accounting Policy section 3.1.4 and POL16/79 Asset Management Policy section 3.3.	SCC Project Manager
12. A Final Completion Letter shall be obtained by the Certifier prior to the operation of the new amenities.	SCC Project Manager

8. SIGNIFICANCE EVALUATION

The proposed activity, which includes the implementation of the environmental safeguards specified in Section 7, is unlikely to have a significant impact on the environment for the following reasons:

- An assessment of the statutory matters of consideration reveals no potential high adverse impacts.
- All identified potential adverse impacts are considered acceptable considering the need for the activity and its potential benefits to the community and environment.
- There are a number of impact mitigation measures that would be in place to reduce any adverse environmental effects
- The Section 1.7 EP&A Act assessment of significance undertaken in accordance with Part 7 of the *Biodiversity Conservation Act 2016* and Part 7A of the *Fisheries Management Act 1994* indicates that the proposed activity is unlikely to have a significant effect on threatened species or ecological communities.

This evaluation has been undertaken in accordance with the document “Is an EIS required? Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979 (DUAP 1996). The evaluation of ‘not significant’ determines that an environmental impact statement is not required.

9. DETERMINATION

This Environmental Impact Statement has assessed the likely environmental impacts, in the context of Part 5 of the *Environmental Planning and Assessment Act 1979*, of a proposal by Shoalhaven City Council to upgrade visitor facilities in the Hyams Beach Foreshore Reserve and Cyrus Street road reserve.

Shoalhaven City Council has considered the potential environmental effects of the proposal and the effectiveness and feasibility of measures for reducing or preventing detrimental effects. It is determined that:

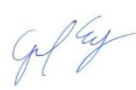
1. The proposed safeguards identified in the report (Section 7) shall be adopted and implemented.
2. It is unlikely that there will be any significant environmental impact because of the proposed work and an Environmental Impact Statement is not required for the proposed works.
3. The proposed activity is not likely to significantly affect threatened species or ecological communities, or their habitats and entry into the Biodiversity Offset Scheme or preparation of a Species Impact Statement is not required.
4. The proposed activity is not a 'controlled action' for the purposes of the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* and referral to the Commonwealth Environment Minister is not required.

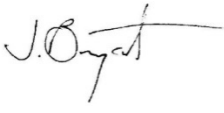


Craig Exton
 Manager – Technical Services
 Shoalhaven City Council

Date: 11/02/2022

Document Review

	Name	Signature	Date
Author	Geoff Young Environmental Officer		21/01/2022

Reviewer	Jeff Bryant		09/02/2022
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10. REFERENCES

- DECCW 2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New south Wales*. State of New South Wales and the Department of Environment, Climate Change and Water NSW.
- DUAP (Department of Urban Affairs and Planning, NSW) 1996. *Is an EIS required? – Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979*. ISBN 0 7310 8920 0
- NSW Scientific Committee 2011 *Bangalay Sand Forest of the Sydney Basin and South East Corner bioregions - Determination to make a minor amendment to Part 3 of Schedule 1 of the Threatened Species Conservation Act*.
<https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/nsw-threatened-species-scientific-committee/determinations/final-determinations/2011-2012/bangalay-sand-forest-of-the-sydney-basin-south-east-corner-bioregions-minor-amendment-determination>
- OEH (Office of Environment and Heritage) 2017 *Gang-gang Cockatoo – Threatened Species Profile*
<https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10975>
- OEH (Office of Environment and Heritage) 2017b *Glossy Black-cockatoo – Threatened Species Profile*
<https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10140>
- OEH (Office of Environment and Heritage) 2017c *Varied Sittella – Threatened Species Profile*
<https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=20135>
- OEH (Office of Environment and Heritage) 2017d *Dusky Woodswallow – Threatened Species Profile*
<https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=20303>
- OEH (Office of Environment and Heritage) 2021 *Clearing of Native Vegetation – Key Threatening Process Profile*
<https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=20023>
- OEH (Office of Environment and Heritage) 2022 *Eastern Coastal Free-tailed Bat – Threatened Species Profile*
<https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10544>

APPENDIX A: THE PROPOSED ACTIVITY

Drawing Catalogue 5518

APPENDIX B: LIKELIHOOD OF OCCURRENCE

The table of likelihood of occurrence evaluates the likelihood of threatened species to occur on the subject site. This list is derived from previously recorded species within a five kilometre radius (taken from Office of Environment and Heritage (OEH) Wildlife Atlas) around the subject site. Ecology information has been obtained from the Threatened Species Profiles on the NSW OEH website (www.threatenedspecies.environment.nsw.gov.au).

Likelihood of occurrence in study area

1. Unlikely – Species, population or ecological community is not likely to occur. Lack of previous recent (<25 years) records and suitable potential habitat limited or not available in the study area.
2. Likely – Species, population or ecological community could occur and study area is likely to provide suitable habitat. Previous records in the locality and/or suitable potential habitat in the study area.
3. Present – Species, population or ecological community was recorded during the field investigations.

Possibility of impact

1. Unlikely – The proposal would be unlikely to impact this species or its habitats. No EP&A Act 7-Part Test or EPBC Act significance assessment is necessary for this species.
2. Likely – The proposal could impact this species, population or ecological community or its habitats. An EP&A Act 7-Part Test and/or EPBC Act significance assessment is required for this species, population or ecological community.

<i>Endangered Ecological Community name</i>	<i>Status</i>	<i>Likelihood of presence within areas impacted by the activity</i>
Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i>	This EEC does not occur in the subject land (refer to Section 2.1)
Coastal Saltmarsh in the NSW North Coast, Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i> Vulnerable - Commonwealth <i>EPBC Act</i>	This EEC does not occur in the subject land.

<i>Endangered Ecological Community name</i>	<i>Status</i>	<i>Likelihood of presence within areas impacted by the activity</i>
Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	Endangered - <i>NSW BC Act</i> Critically Endangered - <i>Commonwealth EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site
Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Endangered - <i>NSW BC Act</i> Critically Endangered - <i>Commonwealth EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Swamp Oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions	Endangered - <i>NSW BC Act</i> Endangered - <i>Commonwealth EPBC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.
Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions	Endangered - <i>NSW BC Act</i>	Does not occur on-site and is not mapped as occurring in close proximity to the site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
FLORA			
Biconvex Paperbark <i>Melaleuca biconvexa</i>	Vulnerable EPBC Act and NSW BC Act	The species generally grows in damp places, often near streams or low-lying areas on alluvial soils of low slopes or sheltered aspects.	No. No suitable habitat present within the site and not sighted during field investigations.
Scrub Turpentine <i>Rhodamnia rubescens</i>	Endangered BC Act and Critically Endangered EPBC Act	The species is found in littoral, warm temperate and subtropical forest usually on volcanic and sedimentary soils.	No. No suitable habitat present within the site and not sighted during field investigations.
Magenta Lilly Pilly <i>Syzygium paniculatum</i>	Endangered BC Act Vulnerable EPBC Act	On the south coast, the Magenta Lilly Pilly occurs on grey soils over sandstone, restricted to remnant stands of littoral rainforest.	No. No suitable habitat present within the site and not sighted during field investigations.
Pretty Beard Orchid <i>Calochilus pulchellus</i>	Endangered NSW BC Act	At Vincentia, the species grows in low Scribbly Gum dominated woodland with a low wet heath understorey. The soil is a sandy loam overlying sandstone.	Unlikely. No suitable habitat present within the site.
Leafless tongue Orchid <i>Cryptostylis hunteriana</i>	Vulnerable EPBC Act Vulnerable NSW BC Act	Occurs in a wide variety of habitats from moist sandy soil to dense heathland, sedgeland and verges of fire trails. The larger populations typically occur in woodland dominated by Scribbly Gum (<i>Eucalyptus sclerophylla</i>), Silvertop Ash (<i>E. sieberi</i>), Red Bloodwood (<i>Corymbia gummifera</i>) and Black Sheoak (<i>Allocasuarina littoralis</i>); appears to prefer open areas in the understorey of this community and is often found in association with the Large Tongue Orchid (<i>C. subulata</i>) and the Tartan Tongue Orchid (<i>C. erecta</i>).	Unlikely. No suitable habitat present within the site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
<i>Petrostylis ventricosa</i>	Endangered NSW BC Act	The species is known from populations at St Georges Basin, Sussex Inlet, west of Nowra, near Tallong and Mittagong. Predominantly occurs in more open areas of tall coastal eucalypt forest often dominated by one or more of the following tree species: Terpetine, Spotted Gum, Grey Ironbark, Blackbutt, White Stringybark, Scribbly Gum and Sydney Peppermint.	No. No suitable habitat present within the site.
Bauer's Midge Orchid <i>Genoplesium baueri</i>	Endangered EPBC Act and NSW BC Act	Grows in dry sclerophyll forest and moss gardens over sandstone	No. No suitable habitat present within the site.
Jervis Bay Leek Orchid <i>Prasophyllum affine</i>	Endangered EPBC Act and NSW BC Act	Currently known from three areas south-east of Nowra; Kinghorne point, Wowly Gully, and Vincentia. Grows on poorly drained grey clay soils that support low heathland and sedgeland communities.	No. No suitable habitat present within the site.
<i>Banksia vincentia</i>	Endangered NSW BC Act Critically Endangered EPBC Act	The species is possibly Australia's rarest banksia, confined to a single population near the Bay and Basin Leisure centre on low sedgeland and grassy heath, sometimes amongst emergent mallee Red Bloodwood and other tall shrubs and Hakea. Found on coastal sands over clay on sandstone.	Unlikely. No suitable habitat present within the site. Not sighted during site investigations.
AMPHIBIANS			
Giant Burrowing Frog <i>Heleioporus australiacus</i>	Vulnerable EPBC Act and NSW BC Act	The species is found in heath, woodland and open dry sclerophyll forest on a variety of soil types that are clay based.	Unlikely. No suitable habitat present within the site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
Green and Golden Bell Frog <i>Litoria aurea</i>	Vulnerable <i>EPBC Act</i> Endangered <i>NSW BC Act</i>	Inhabits marshes, dams and stream-sides, particularly those containing bullrushes (<i>Typha spp.</i>) or spikerushes (<i>Eleocharis spp.</i>). Optimum habitat includes water-bodies that are unshaded, free of predatory fish such as Plague Minnow, have a grassy area nearby and diurnal sheltering sites available	Unlikely to occur within works areas. No suitable habitat present within the site.
REPTILES			
Green Turtle <i>Chelonia mydas</i>	Vulnerable <i>EPBC Act</i> Vulnerable <i>NSW BC Act</i>	Ocean-dwelling species spending most of its life at sea. Eggs are laid in holes dug in beaches throughout their range.	No – no habitat present
MICROCHIROPTERAN BATS			
Eastern False Pipistrelle <i>Falsistrellus tasmaniensis</i>	Vulnerable <i>NSW BC Act</i>	Prefers moist habitat that contains trees greater than 20 m high with a dense understorey. Roosts in hollow trunks of eucalyptus trees, in colonies of 3 – 80. Also may roost in caves and old wooden buildings. Although they prefer habitat with a dense understorey, they prefer to forage along flyways to avoid the thick understorey. They prefer continuous forest and avoid remnant vegetation.	Unlikely to occur within works areas. No suitable habitat present within the site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
Eastern Bentwing-bat <i>Miniopterus orianae oceanensis</i>	Vulnerable <i>EPBC Act</i>	Specific caves are known maternity sites with other caves being primary roosting habitat outside breeding period. Also uses derelict mines, storm-water tunnels, buildings and other man-made structures. Hunts in forested areas, catching moths and other flying insects above the tree tops.	Unlikely to occur within works areas. No suitable habitat present within the site.
Eastern Coastal Freetail-Bat <i>Micronomus norfolkensis</i>	Vulnerable <i>EPBC Act</i>	Small tree hollows/fissures in bark for roosting in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range.	Possible – the site contains suitable foraging habitat.
Greater Broad-nosed Bat <i>Scoteanax ruepelli</i>	Vulnerable <i>NSW BC Act</i>	Found mainly in gullies and river systems that drain the Great Dividing Range, it utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, below 500m, though it is most commonly found in tall wet forest. Although this species usually roosts in tree hollows, it has also been found in buildings. Forages after sunset, flying slowly and directly along creek and river corridors at an altitude of 3 - 6 m	Unlikely to occur within works areas. No suitable habitat present within the site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
Southern Myotis <i>Myotis macropus</i>	Vulnerable NSW BC Act	This species is predominantly roosts in caves, however, is known to roost in trees and man-made structures close to water. Roosts are generally located close to water, where the bats forage in small groups of three or four. They have a strong association with streams and permanent waterways in areas that are vegetated rather than cleared.	Unlikely to occur within works areas. No suitable habitat present within the site.
BIRDS			
Shy Albatross <i>Thalassarche cauta</i>	Vulnerable NSW BC Act	This is a pelagic or ocean-going species that inhabit subantarctic and subtropical marine waters, spending the majority of its time at sea.	Unlikely. The activity site does not contain such habitat.
Black Bittern <i>Ixobrychus flavicollis</i>	Vulnerable NSW BC Act	Terrestrial and estuarine wetlands generally in areas of permanent water and dense vegetation that may comprise grassland, woodland forest rainforest and mangroves. Roosts in trees or on ground amongst dense reeds, nests in branches overhanging water	Unlikely. The activity site does not contain such habitat.
White-bellied Sea-Eagle <i>Haliaeetus leucogaster</i>	Vulnerable NSW BC Act	Found in coastal habitats (especially those close to the sea-shore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands. The habitats occupied by the sea-eagle are characterized by the presence of large areas of open water (larger rivers, swamps, lakes, the sea).	Possible. The proposed activity contains potential habitat.
Square-tailed Kite <i>Lophoictinia isura</i>	Vulnerable NSW BC Act	The species is found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses.	Unlikely. The activity site does not contain such habitat.

<i>Species name</i>	<i>Status</i>	<i>Habitat requirements (www.environment.nsw.gov.au)</i>	<i>Likelihood of presence within areas impacted by the activity</i>
Eastern Osprey <i>Pandion cristatus</i>	NSW BC Act Vulnerable	Favour coastal areas, especially the mouths of large rivers, lagoons and lakes. Feed on fish over clear, open water. Breed from July to September in NSW. Nests are made high up in dead trees or in dead crowns of live trees, usually within one kilometre of the sea.	Possible. The proposed activity contains potential habitat.
Sooty Oystercatcher <i>Haematopus fuliginosus</i>	Vulnerable NSW BC Act	The species favours rocky headlands, rocky shelves, exposed reefs with rock pools, beaches and muddy estuaries. Forages on exposed rock or coral at low tide for foods such as limpets and mussels.	Unlikely to occur. No suitable habitat present on site.
Pied Oystercatcher <i>Haematopus longirostris</i>	Endangered NSW BC Act	Favours intertidal flats of inlets and bays, open beaches and sandbanks. Forages on exposed sand, mud and rock at low tide, for molluscs, worms, crabs and small fish. Nests mostly on coastal or estuarine beaches although occasionally they use saltmarsh or grassy areas. Nests are shallow scrapes in sand above the high tide mark, often amongst seaweed, shells and small stones.	Unlikely to occur. No suitable habitat present on site.
Gang-gang Cockatoo <i>Callocephalon fimbriatum</i>	Vulnerable NSW BC Act	Tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In winter, may occur at lower altitudes in drier more open eucalypt forests and woodlands, and often found in urban areas. preferring more open eucalypt forests and woodlands, particularly in box-ironbark assemblages, or in dry forest in coastal areas. Favours old growth attributes for nesting and roosting	Possible. The activity site contains potential habitat.
Glossy Black-cockatoo <i>Calyptorhynchus lathami</i>	Vulnerable NSW BC Act	The GBC inhabits open forest and woodlands of the coast where stands of she-oak occur. In the	Possible. The activity site contains potential habitat.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
		Jervis Bay region they feed almost exclusively on the seeds of the black she-oak <i>Allocasuarina littoralis</i> , shredding the cones with their bill	
Little Lorikeet <i>Glossopsitta pusilla</i>	Vulnerable NSW BC ACT	Forages primarily in the canopy of open Eucalyptus forest and woodland, yet also finds food in <i>Angophora</i> , <i>Melaleuca</i> and other tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity.	Unlikely to occur. No suitable habitat present on site.
Turquoise Parrot <i>Neophema pulchella</i>	Vulnerable NSW BC Act	The species lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland	Unlikely to occur. No suitable habitat present on site.
Eastern Ground Parrot <i>Pezoporus wallicus wallicus</i>	Vulnerable NSW BC Act	The Eastern Ground Parrot occurs in near coastal low heathlands and sedgeland, generally below one metre in height and very dense (up to 90% projected foliage cover). These habitats provide a high abundance and diversity of food, adequate cover and suitable roosting and nesting opportunities.	Unlikely to occur. No suitable habitat present on site.
Barking Owl <i>Ninox connivens</i>	Vulnerable NSW BC Act	The species inhabits woodland and open forest, including fragmented remnants and partly cleared farmland. It is flexible in its habitat use, and hunting can extend in to closed forest and more open areas	Possible. The activity site contains potential hunting habitat.
Powerful Owl <i>Ninox strenua</i>	Vulnerable NSW BC Act	Coastal Woodland, Dry Sclerophyll Forest, wet sclerophyll forest and rainforest- Can occur in fragmented landscapes Roosts in dense vegetation comprising species such as Turpentine <i>Syncarpia glomulifera</i> , Black She-oak <i>Allocasuarina littoralis</i> , Blackwood <i>Acacia melanoxylon</i> , Rough-barked Apple <i>Angophora</i>	Unlikely to occur. No suitable habitat present on site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
		<i>floribunda</i> , Cherry Ballart Exocarpus cupressiformis and a number of eucalypt species. Requires old growth elements-hollow bearing tree resources for nesting and prey resource.	
Masked Owl – <i>Tyto novaehollandiae</i>	Vulnerable NSW BC Act	Dry eucalypt forests and woodlands from sea level to 1100 m. Inhabits forest but often hunts along the edges of forests, including roadsides. The typical diet consists of tree-dwelling and ground mammals, especially rats. Pairs have a large home-range of 500 to 1000 hectares. Roosts and breeds in moist eucalypt forested gullies, using large tree hollows or sometimes caves for nesting Requires old growth elements-hollow bearing tree resources for nesting and prey source	Unlikely to occur. No suitable habitat present on site.
Sooty Owl <i>Tyto tenebricosa</i>	Vulnerable NSW BC Act	Occurs in rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forests	Unlikely to occur. No suitable habitat present on site.
Eastern Bristlebird <i>Dasyornis brachypterus</i>	Endangered NSW BC Act and EPBC Act	Habitat for central and southern populations is characterised by dense, low vegetation including heath and open woodland with a heathy understorey.	Unlikely to occur. No suitable habitat present on site.
Regent Honeyeater <i>Anthochaera phrygia</i>	Endangered NSW BC Act and Critically Endangered EPBC Act	The Regent Honeyeater mainly inhabits temperate woodlands and open forests on the inland slopes of south-east Australia	Unlikely to occur. No suitable habitat present on site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
Varied Sittella <i>Daphoenositta chrysoptera</i>	Vulnerable NSW BC Act	Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	Possible. The activity site contains potential habitat.
Olive Whistler <i>Pachycephala olivacea</i>	Vulnerable NSW BC Act	The species inhabits the wet forests on the ranges of the east coast.	Unlikely to occur. No suitable habitat present on site.
Dusky Woodswallow <i>Artamus cyanopterus cyanopterus</i>	Vulnerable NSW BC Act	The species primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris.	Possible. The activity site contains potential habitat.
MAMMALS			
White-footed Dunnart <i>Sminthopsis leucopus</i>	Vulnerable NSW BC Act	The species is found in a range of different habitats across its distribution, including coastal dune vegetation, coastal forest, tussock grassland and sedgeland, heathland, woodland and forest. In NSW, the species seems to favour vegetation communities with an open understorey structure.	Unlikely to occur. No suitable habitat present on site.
Eastern Pygmy-possum <i>Cercartetus nanus</i>	Vulnerable NSW BC Act	The species is found in a broad range of habitats from rainforest through sclerophyll (including Box-Ironbark) forest and woodland to heath, but in most areas woodlands and heath appear to be preferred.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Yellow-bellied Glider <i>Petaurus australis</i>	Vulnerable NSW BC Act	Occurs in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.

Species name	Status	Habitat requirements (www.environment.nsw.gov.au)	Likelihood of presence within areas impacted by the activity
Squirrel Glider <i>Petaurus norfolcensis</i>	Vulnerable NSW BC Act	Inhabits mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	Vulnerable EPBC Act Vulnerable NSW BC Act	Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Eastern Chestnut Mouse <i>Pseudomys gracilicaudatus</i>	Vulnerable NSW BC Act	In NSW, the species is mostly found, in low numbers, in heathland and is most common in dense, wet heath and swamps.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Australian Fur-seal <i>Arctocephalus pusillus doriferus</i>	Vulnerable NSW BC Act	Ocean going species preferring rocky parts of islands with flat, open terrain.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Southern Right Whale <i>Eubalaena australis</i>	Endangered EPBC Act Vulnerable NSW BC Act	Ocean species	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
Humpback Whale <i>Megaptera novaeangliae</i>	Vulnerable EPBC Act Vulnerable NSW BC Act	Ocean species.	Unlikely to occur or be otherwise impacted – no suitable habitat present on site.
INSECTS			
Giant Dragonfly <i>Petalura gigantea</i>	Endangered NSW BC Act	Lives in permanent swamps and bogs with some free water and open vegetation.	Unlikely to occur. No suitable habitat present on site.

