

REPAIR OF SHARED USERS PATH CONCRETE BOARDWALK**BEACH STREET HUSKISSON****1. Background**

City Services intend to repair the damaged shared user path (SUP) boardwalk that suffered undermining of founding soils during the multiple storm events during June to August 2022. The structure inspection¹ found that the existing concrete piers require re-construction, whilst the concrete planks and bearers are suitable for reuse.

The proposed activity is a “minor activity” as described in the *Guidelines for Division 5.1 Assessments*² prepared under the NSW *Environmental Planning and Assessment Regulation 2021*. As such this Review of Environmental Factors (REF) takes the form of a summary environmental assessment document, through:

- a threatened species impact assessment (Section 5 of this REF)
- an environmental and planning approvals due diligence checklist (Section 6)
- an assessment of the proposed activity against the factors listed in clause 171(2) of the EP&A Regulation (Section 7).

The proposed activity includes the environmental impact mitigation measures and safeguards prescribed in Section 8 of this REF.

2. Proposed activity

The proposed activity is to reconstruct the SUP boardwalk using the existing concrete permatrak planks, supported on suitably designed driven H5 treated hardwood timber piles. The piles would be founded nominally two metres into the weathered bedrock layer and cantilever out of the ground to the underside of the permatrak bearers. The pile locations would match the existing pier design locations to support the permatrak bearers in the same location.

The existing permatrak concrete planks and bearers would be carefully removed and stacked for re-use, utilising manual labour and small excavator / bobcat or similar. The existing failed foundations would be demolished and removed. The driven hardwood piles would be driven using a minimum seven tonne excavator and the boardwalk would then be reinstalled onto the new pile foundations.

The surface underneath the boardwalk would be better protected from future erosional events through the installation of jute mesh and <250mm rock rip rap armour. This will also require removal of the existing geofabric and vegetation comprising mainly weed species (Vasey Grass *Paspalum urvillei*, Kikuyu *Cenchrus clandestinus*, and Pennywort *Hydrocotyle bonariensis*) and Bracken *Pteridium esculentum* prior to the installation of the jute mesh (refer to photos in Section 4 of this REF).

The proposed activity would also include several environmental impact mitigation measures and safeguards listed in Section 8 of this REF.

¹ Front End Structural Engineering 2023 *Beach Street, Huskisson Pedestrian Walkway Structural Assessment Report*. Unpublished report for Shoalhaven City Council (reference D23/229371)

² <https://www.planning.nsw.gov.au/sites/default/files/2023-02/guidelines-for-division-51-assessments.pdf>

3. Location description

Refer to Figure 1 below.

The proposed activity would predominately be undertaken within Lot 7044 DP 1117433 (Lot 7044) with a minor encroachment into Lot 7045 DP 1117438 (Lot 7045). Access to the site would via Beach Street and Lot 143 DP 855834. A description of each parcel is provided in Table 1 below. For the purposes of this summary environmental assessment document, pertinent environmental features of the site are as follows:

- The vegetation at the boardwalk and the locality comprises the endangered ecological community *Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions* ('Bangalay Sand Forest') listed under the NSW *Biodiversity Conservation Act 2016*.
- There are no threatened species apparent at the location.
- The geology at the site to the boardwalk repair works comprises Holocene coastal sand deposits (marine-deposited quartz-lithic fine- to medium-grained sand, shell and shell material, polymictic gravel). As such:
 - the risk of acid sulfate soils is low
 - there is potential for unrecorded Aboriginal ancestral remains to be present in the beach facies of the locality.
- The sand deposit is above Wandrawandian Formation. The piles are likely to be driven into this geology comprising mid-grey to blue-grey fine-grained quartz-lithic sandstone, mudstone, siltstone matrix. This is exposed at the nearby rock platform (Tapalla Point) which is on the heritage schedules of the Shoalhaven Local Environmental Plan 2014. The proposed activity would have no effect on the heritage values of Tapalla Point (presence of exposed glendonites).
- The boardwalk spans over a drainage channel which does not comprise key fish habitat for the purpose of the NSW *Fisheries Management Act 1994*.
- The proposed activity would be undertaken above the mean high water mark and therefore beyond the regulated boundaries of Jervis Bay Marine Park.

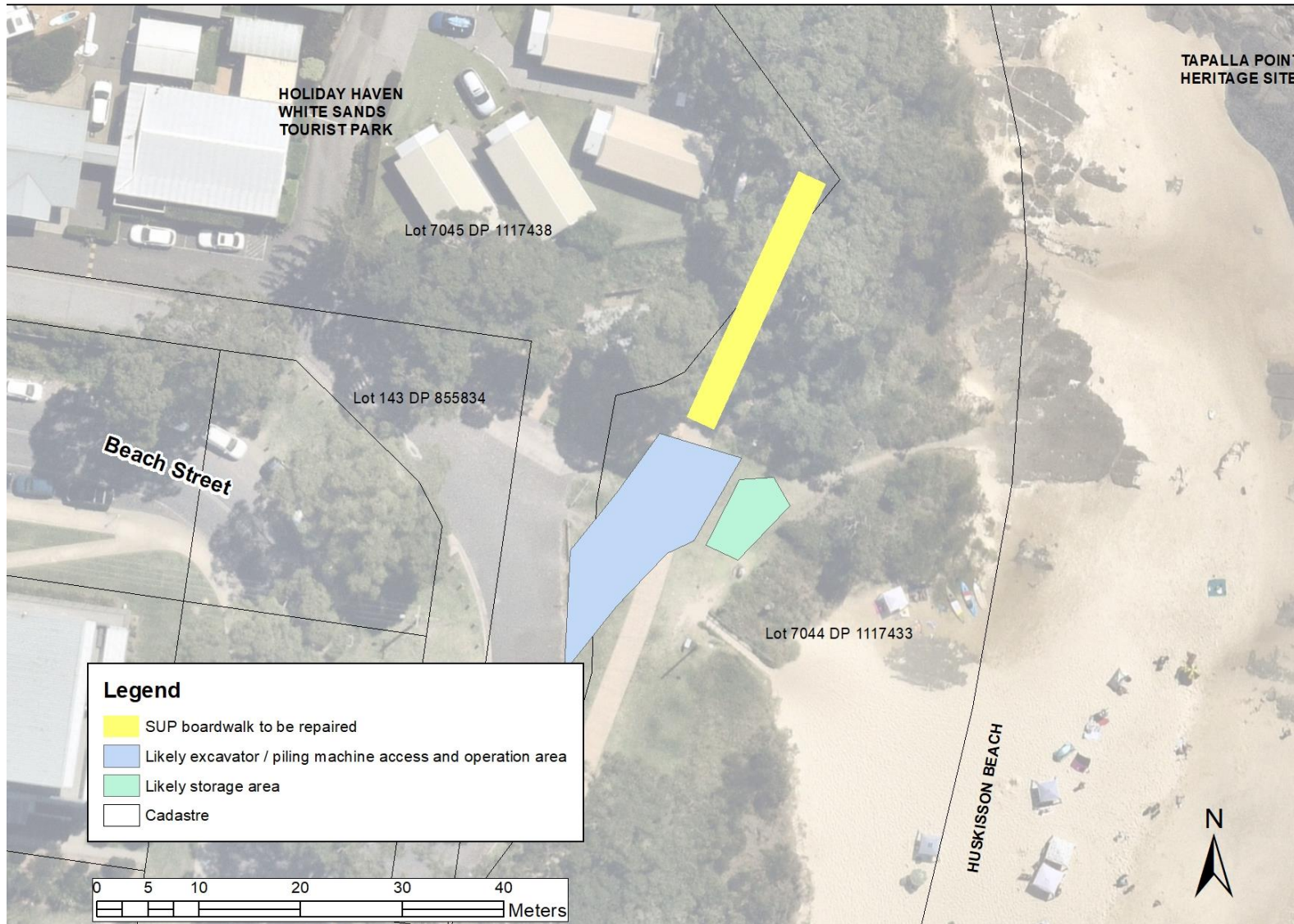
Photos of the proposed activity location are provided in Section 4 of this REF.

Table 1: Proposed Activity Location

Land Parcel	Activity Component	Pertinent Information
Lot 7044 DP1117433 Beach Street	Majority of the boardwalk repair works Sediment and erosion controls. Temporary storage of permatrack planks, bearers and handrails. Installation of jute mesh and rock rip rap armour.	Crown Reserve R76522 to which SCC is the appointed Crown Land Manager. Gazetted on the 27/06/2008 for the purpose of "public recreation, community purpose, environmental protection, tourist facilities and services. Subject of Native Title application and Aboriginal Land Rights claim.
Lot 7045 DP 1117438 2 Beach Street	Boardwalk repair works. Access to the boardwalk site.	Crown Reserve R76522 to which SCC is the appointed Crown Land Manager. Gazetted on the 27/06/2008 for the purpose of "public recreation, community purpose, environmental protection, tourist facilities and services.

Land Parcel	Activity Component	Pertinent Information
		<p>Subject of Native Title application and Aboriginal Land Rights claim.</p> <p>Managed as the Holiday Haven White Sands Tourist Park.</p>
Beach Street	Access to the site.	Public Road with SCC as the Road Authority.
Lot 143 DP855834 Fegen Street	Access to the site (from Beach Street)	<p>Crown Reserve R76522 to which SCC is the appointed Crown Land Manager. Gazetted on the 27/06/2008 for the purpose of “public recreation, community purpose, environmental protection, tourist facilities and services.</p> <p>Subject of Native Title application and Aboriginal Land Rights claim.</p> <p>Managed as the Holiday Haven White Sands Tourist Park, including entry way off Beach Street.</p>

Figure 1: Location of the Proposed Activity



Shared Users Path boardwalk repair
Beach Street, Huskisson
D23/236584

4. Photos

Photo 1: Boardwalk to be repaired



Photo 2: Bangalay to which the lower limbs would be removed to allow piling

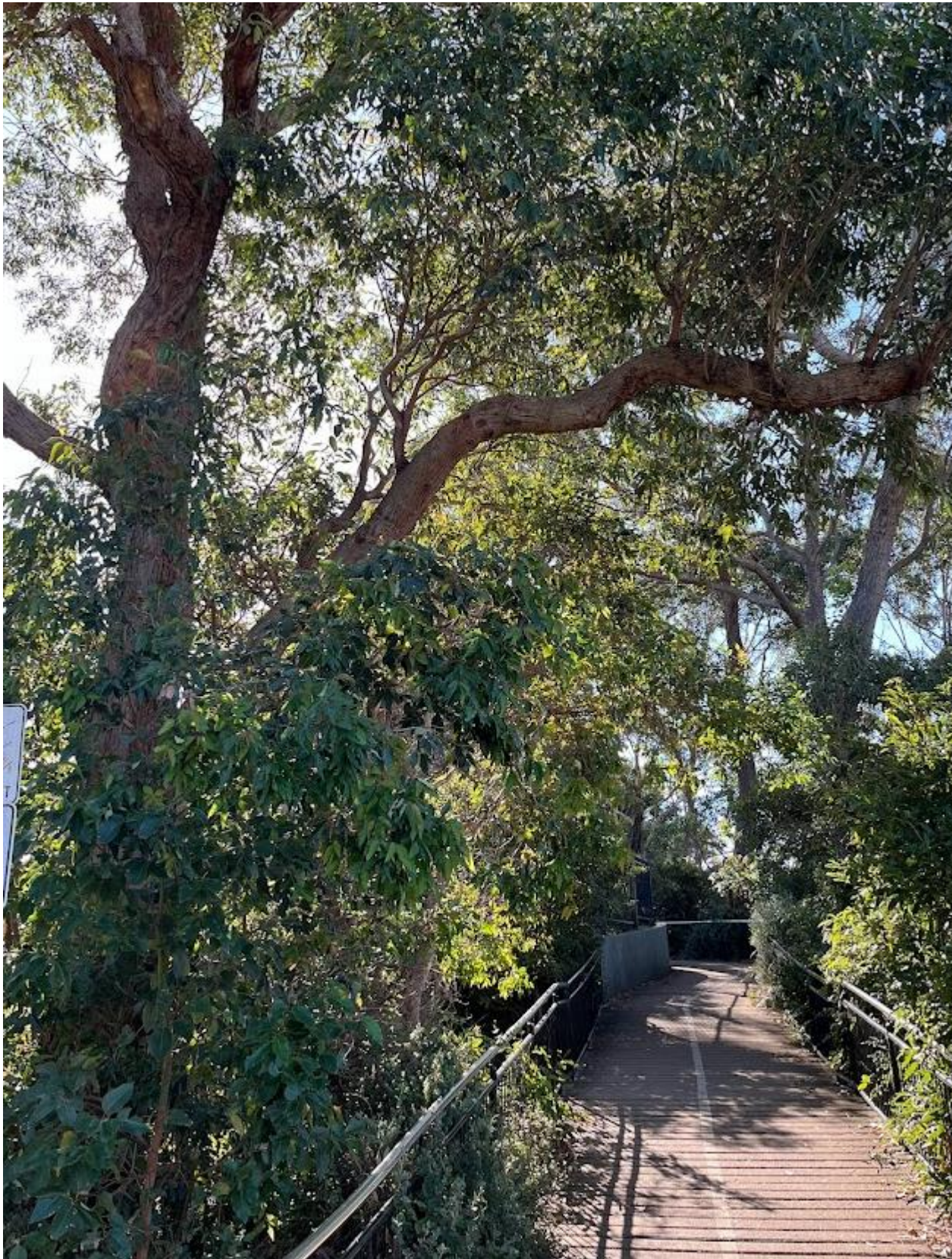


Photo 3: Access would be through the existing timber bollards off the Holiday Haven Tourist Park entrance road and Beach Street



Photo 4: Likely storage area



Photo 5: Surface underneath the boardwalk where the existing geofabric would be removed and replaced with jute mesh and rock rip rap armour.



5. Threatened Species Impact Assessment

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 Act 1994* that relate to the operation of the EP&A Act in connection with the terrestrial and aquatic environment. Each are addressed below:

Part 7A Fisheries Management Act 1994

Part 7A relates to threatened species conservation. As the proposed activity would not affect key fish habitat or aquatic and marine environments, this part of the Act is not relevant and further assessment and consideration is not necessary.

Part 7 Biodiversity Conservation Act 2016

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 A - In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the lifecycle of the species such that a viable local population of the species is likely to be place at risk of extinction.

A survey of the area undertaken on 7 June 2023 did locate any threatened flora species and the site is unlikely to provide suitable habitat for cryptic species known occur in the Jervis Bay area e.g. Thick Lip Spider Orchid *Caledonia tessellata*, Leafless Tongue Orchid *Cryptostylis hunteriana*, *Pterostylis ventricosa*, and Bauer's Midge Orchid *Genoplesium baueri*.

Several threatened fauna species could be in the vicinity of the proposed activity area from time to time including White-bellied Sea-eagle *Haliaeetus leucogaster*, Eastern Osprey *Pandion cristatus*, Pied Oystercatcher *Haematopus longirostris*, Gang-gang Cockatoo *Callocephalon fimbriatum*, and Grey-headed Flying-fox *Pteropus poliocephalus*. The proposed activity however would not impact breeding habitat or significant food resources for these species. If present during the proposed works, these species would leave and thereby not be directly impacted.

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

- (i) 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**
- (ii) 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**

The vegetation community at the proposed activity site comprises the Bangalay Sand Forest endangered ecological community.

Bangalay Sand Forest is the name given to the ecological community associated with coastal sandplains of marine or aeolian origin. It occurs on deep, freely draining to damp sandy soils on flat to moderate slopes within a few kilometres of the sea and at altitudes below 100 metres.

The extent of the local occurrence is shown in Figure 2 below. The extent of the local occurrence is 0.42 hectares (4,200m²). The majority of this local occurrence has been significantly modified to a mown public park with predominantly isolated Bangalay *Eucalyptus botryoides* and Blackbutt *Eucalyptus pilularis* trees with other species consistent with the EEC present in patches and on the beach dunes. Bangalay Sand Forest is threatened by land clearing; degradation and disturbance associated with heavy recreational use, frequent burning; rubbish dumping and weed invasion.

The access and operational area for excavator / piling machine as well as the storage area would be on cleared, mown public park area and no vegetation would be impacted. The boardwalk however is within relatively more intact Bangalay Sand Forest community. To undertake the proposed activity, it is anticipated that vegetation above and immediately beside the boardwalk would either be removed, pruned or otherwise harmed to allow access. This would include:

- Pruning of two, non-hollowing bearing limbs of one Bangalay *eucalyptus botryoides* (refer photos)
- Removal / disturbance / pruning of approximately 17m² of native vegetation (~500mm either side of the boardwalk) comprising Bangalay saplings (x2), Coastal Rosemary *Westringia fruticosa*, White Correa *Correa alba*, Sweet Pittosporum *Pittosporum unadulatum*, Bracken *Pteridium esculatum*, Mock Olive *Notelea longifolia*, and Guinea Flower *Hibbertia scandens*.

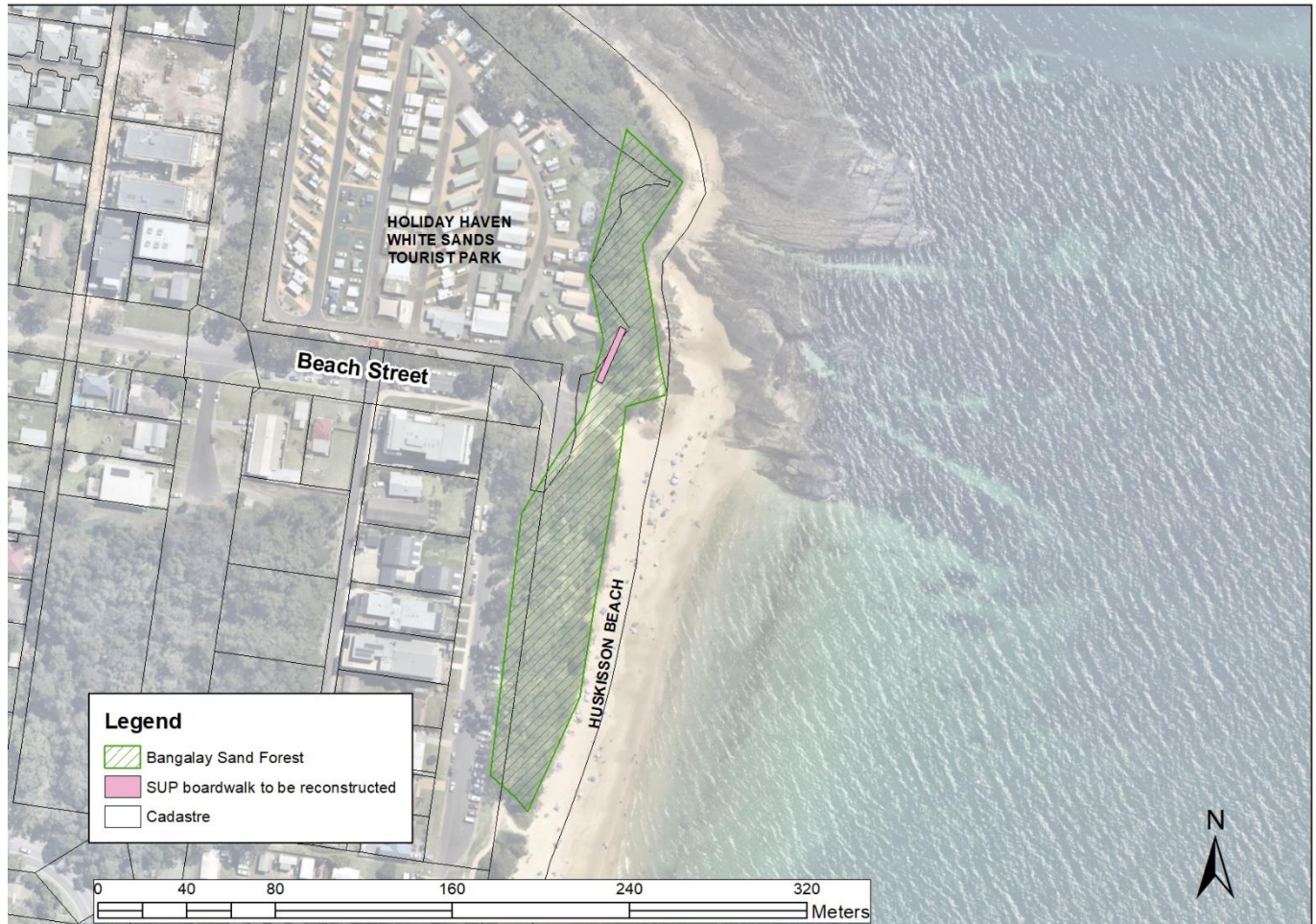
The proposed activity is unlikely to have a significant impact on the local occurrence of the EEC for the following reasons:

- The 17m² that would be harmed represents only 0.4% of the local occurrence.
- The species that would be harmed are common species and are likely to naturally re-colonise the disturbed area.
- The proposed activity would not comprise the other main threats to the EEC (heavy recreational use, frequent burning, rubbish dumping and weeds).

The proposed activity is replacing existing infrastructure within the same footprint. When native plants re-colonise the impacted area there would be no net loss attributed to the activity.

A SIS and / or entry into the BOS is therefore not required for this Part.

Figure 2: (Approximate) Local Extent of the Bangalay Sand Forest



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

- (i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity**
- (ii) 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**
- (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality.**

No important habitat for threatened species would be removed or otherwise significantly impacted (see Part A).

No EEC would not be further fragmented or isolated, nor removed or modified to an extent that would affect the long-term survival of the EEC occurring in the locality (refer to Part B).

The proposal will therefore not affect the long-term survival of any threatened species or endangered ecological community in the locality.

Part D – 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 E – 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.

No key threatening processes listed in the NSW *Biodiversity Conservation Act 2016* are considered relevant to the proposed activity. The proposed activity would not involve clearing of native vegetation as defined by the Scientific Committee's determination, i.e.:

“the destruction of a sufficient proportion of one or more strata (layers) within a stand or stands of native vegetation so as to result in the loss, or long-term modification, of the structure, composition and ecological function of a stand or stands.”

Conclusion of the Part 7 Biodiversity Conservation Act 2016 ‘five-part test’

The proposed activity is unlikely to have a significant impact on threatened species, endangered ecological communities, critically endangered ecological community, and declared areas of outstanding biodiversity values and does not comprise or significantly exacerbate a key threatening process. A species impact statement (SIS) or entry into the Biodiversity Offset Scheme (BOS) is therefore not required.

6. Environmental and Planning Approvals Due Diligence Checklist

Tick True or False (Any False answers may require further assessment or investigations)	True	False	Comments
1. Council has lawful authority to carry out the activity.	<input checked="" type="checkbox"/>		<p>SCC is the appointed Crown Land Manager for the Crown reserve. Under Section 3.21 of the <i>NSW Crown Land Management Act 2016</i>, a Council manager is authorised to manage its reserved Crown land as if it were public land with the meaning of the <i>NSW Local Government Act 1993</i>.</p> <p>The proposed activity can be undertaken without development consent through Section 2.73(3)(a) of the <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>. https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0732#sec.2.73</p>
2. The works would not cause significant traffic disruptions or affect access to businesses.	<input checked="" type="checkbox"/>		
3. The works would not have a substantial impact on Council infrastructure and services.	<input checked="" type="checkbox"/>		

Tick True or False (Any False answers may require further assessment or investigations)	True	False	Comments
<p>4. The development will be carried out in accordance with relevant requirements of <i>Managing Urban Stormwater: Soils & Construction</i> (4th edition, Landcom, 2004), commonly referred to as the “Blue Book”.</p> <p>If unsure see: The Blue Book - Volume 1</p>	<input checked="" type="checkbox"/>		<p>This would be required as part of the environmental impact mitigation measures prescribed for the proposed activity (Section 8 of this REF)</p>
<p>5. The development will not have a more than minimal impact on the heritage significance of a state or local listed heritage item or conservation area.</p>	<input checked="" type="checkbox"/>		<p>The nearby Tapalla Point Geological Rock Platform and associated glendonites would be unaffected by the proposed activity.</p>
<p>6. Hazards and Resilience SEPP mapped Coastal Wetlands, Littoral Rainforest and Coastal Vulnerability Area layers do not apply to the land.</p>	<input checked="" type="checkbox"/>		

Tick True or False (Any False answers may require further assessment or investigations)	True	False	Comments
7. The land is not in, or adjacent to, a Marine Park (having regard to Section 56 of the Marine Estate Management Act). https://legislation.nsw.gov.au/view/html/inforce/current/act-2014-072#sec.56		<input checked="" type="checkbox"/>	The works would be above mean high water mark (MHWM) and therefore not within the regulated boundaries of the Jervis Bay Marine Park (JBMP). Although the proposed activity would be adjacent to JBMP the proposed activity is unlikely to have an effect on the plants and animals within the Marine Park. Commensurate with Section 56 of the NSW <i>Marine Estate Management Act 2014</i> , a 'notice of intention' was sent to Jervis Bay Marine Park on 9 June 2023 (SCC ref. D23/231945). As of 13 June 2023 no comments or advice have been received.
8. The land is not reserved under the National Parks and Wildlife Act 1974.	<input checked="" type="checkbox"/>		
9. There is a low likelihood of the occurrence of an Aboriginal artefact being present and/or harmed.	<input checked="" type="checkbox"/>		The area is highly disturbed and AHIMS database indicates there are no recorded site in the location (AHIMS search conducted on the 9/6/23 ID:790114).
10. There are no records of threatened species at the site of the proposed works – check GIS under Environmental Layers.	<input checked="" type="checkbox"/>		
11. The proposal does not involve carrying out work on, or affect, a classified road.	<input checked="" type="checkbox"/>		

Tick True or False (Any False answers may require further assessment or investigations)	True	False	Comments
12. The activity complies or is not inconsistent with the relevant community land Plan of Management (if applicable).	<input checked="" type="checkbox"/>		Generic Community Land Plan of Management – Parks is likely to be the relevant plan of management. The proposed activity contributes to meeting Core Objective 1 of “ <i>to encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities</i> ” and the ‘sub-objective’ “ <i>To improve pedestrian/cycle access to parks</i> ”. https://doc.shoalhaven.nsw.gov.au/displaydoc.aspx?record=D11/116070
13. The activity would not occur in land mapped as Acid Sulfate Soils (ASS) Class 1, 2 and 3. (Check GIS under the Shoalhaven LEP layer)	<input checked="" type="checkbox"/>		Mapped as class 5 (low risk).
14. The activity does not involve dredging, reclamation or the blockage of fish passage within key fish habitat as defined / mapped by NSW Fisheries. NSW DPI – Shoalhaven Key Fish Habitat Map	<input checked="" type="checkbox"/>		The works would not be conducted in key fish habitat and would be above highest astronomical tide level. NSW <i>Fisheries Management Act 2014</i> does not apply.

Tick True or False (Any False answers may require further assessment or investigations)	True	False	Comments
15. There are no Aboriginal Land Claims over the site. (Check GIS under Administration layers).		<input checked="" type="checkbox"/>	<p>The Crown reserves are subject to the following land claims:</p> <ul style="list-style-type: none"> • ALC26319 lodged on the 21 June 2010 • The 2017 'blanket and multiple' claim <p>The NSW <i>Aboriginal Land Rights Act 1983</i> does not preclude the proposed activity and the risk to SCC proceeding with the activity is low as both the public park, shared users path and associated boardwalk were in place prior to the lodgement of these land claims. As such the site is unlikely to be "<i>claimable Crown Lands</i>" as defined in Section 36 of Act being lawfully used or occupied and needed for an essential public purpose.</p>
16. Native title has been extinguished, e.g. freehold land, roads, or existing structures / features built before January 1994.		<input checked="" type="checkbox"/>	<p>Native Title may have been impacted by the initial construction of the shared users path boardwalk. The proposed reconstruction would not exacerbate this impact as it would be within the same footprint.</p>
17. The land is not flood prone. (Check GIS layers under Shoalhaven LEP layers).	<input checked="" type="checkbox"/>		

7. Clause 171(2) Factors EP&A Regulation 2021

Does the proposal:	Assessment	Reason
a) Have any environmental impact on a community?	Low adverse - Positive	<p>The proposed activity would not have a significant impact on the community. Measures would be in place to mitigate the impact to users of the path route (refer to Section 8 of this REF).</p> <p>The proposed activity would extend the life of this important component of the Vincentia to Huskisson shared users path.</p> <p>The proposed activity would not have any impact on other community services and infrastructure such as power, water, waste water, waste management, educational, medical or social services.</p>
b) Cause any transformation of a locality?	Nil	The locality would not be transformed.
c) Have any environmental impact on the ecosystem of the locality?	Low adverse	Vegetation disturbance would be minimal (two tree limbs and 17m ²) and is likely to recover. The vegetation disturbance would not have a significant impact to threatened species and endangered ecological communities (refer to Section 5 of this REF)
d) Cause a diminution of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	Low adverse / positive	<p>In the context of the locality, the visual impact of the activity would be minimal.</p> <p>The proposed activity would improve the maintenance of the showground to retain recreational values and opportunities at the locality.</p> <p>Removal of vegetation and habitat will be minimal, occurring on existing edges and not resulting in significant fragmentation of habitat.</p> <p>The area that would be affected by the proposed activity has no significant value in terms of science. The proposed activity would have no impact on these values.</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?	Negligible	<p>The site of the proposed activity has no significant aesthetic, architectural, cultural, historical, scientific or social values. As such, the proposed activity would have no impact on these items.</p> <p>No items in the vicinity of the work site which are listed on the State Heritage Register and the Shoalhaven Local Environmental Plan would be impacted by the proposal.</p> <p>The site is not within an Aboriginal Place declared under the <i>National Parks and Wildlife Act 1974</i>.</p> <p>In accordance with the NSW Department of Environment, Climate Change and Water's Due Diligence Code of Practice, the proposed activity does not require an Aboriginal Heritage Impact Permit as the activity is unlikely to harm an Aboriginal heritage object.</p>

Does the proposal:	Assessment	Reason
f) Have any impact on the habitat of protected fauna (within the meaning of the Biodiversity Conservation Act 2016)?	Low adverse	No fauna habitat will be removed by the activity. No important habitat will be removed or otherwise impacted. The potential impact is therefore considered to be insignificant or inconsequential. The proposed activity would not have a significant impact upon threatened fauna. No hollows or important food resources would be removed.
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?	Negligible	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.
h) Have any long-term effects on the environment?	Negligible	The proposed activity would not use hazardous substances or use or generate chemicals which may build up residues in the environment.
i) Cause any degradation of the quality of the environment?	Low-adverse	Aquatic ecosystems are not likely to be significantly affected by the proposed activity and there is not likely to be any long-term or long-lasting impact through the input of sediment and nutrient into the ecosystem. The proposal would not intentionally introduce noxious weeds, vermin, or feral animals into the area or contaminate the soil.
j) Cause any risk to the safety of the environment?	Negligible	The proposed activity would not involve hazardous wastes and would not lead to increased bushfire or landslip risks. The activity is not anticipated to adversely affect flood behaviour or exacerbate flooding risks.
k) Cause any reduction in the range of beneficial uses of the environment?	Positive	The site and local environment will remain relatively unchanged. The area is currently being used as a shared users path. The proposed activity would improve this use.
l) Cause any pollution of the environment?	Nil	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. The proposal does not involve the use, storage or transportation of hazardous substances or the generation of chemicals which may build up residues in the environment. The proposed activity would not disturb and expose acid sulfate soils.
m) Have any environmental problems associated with the disposal of waste?	Negligible	The waste that would be disposed off-site can be recycled or re-used in accordance with resource recovery exemptions or taken to a licensed waste facility.

Does the proposal:	Assessment	Reason
		There would be no trackable waste, hazardous waste, liquid waste, or restricted solid waste as described in the <i>NSW Protection of the Environment Operations Act 1997</i> .
n) Cause any increased demands on resources (natural or otherwise) which are, or are likely to become, in short supply?	Nil	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.
o) Have any cumulative environmental effect with other existing or likely future activities?	Nil	The assessed low adverse or negligible impacts of the proposal are not likely to interact. Mitigation measures shall be implemented to minimise the risk of cumulative environmental effects. The current proposal would not significantly affect habitat connectivity or reduce any significant vegetation. No further construction activities are planned for this location.
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	Negligible	The proposed activity would have no effect on coastal processes including those projected under climate change conditions.
q) applicable local strategic planning statements, regional strategic plans or district plans made under the Act, Division 3.1	Positive	The proposed activity is consistent with the <i>Shoalhaven 2040 Strategic Land-use Planning Statement</i> , including Planning Priority 2 <i>Delivering infrastructure</i> and Planning Priority 7 <i>Promoting a responsible visitor economy</i> https://doc.shoalhaven.nsw.gov.au/displaydoc.aspx?record=D20/437277 . The activity is not inconsistent with the Illawarra Shoalhaven Regional Plan 2041 https://www.planning.nsw.gov.au/sites/default/files/2023-03/illawarra-shoalhaven-regional-plan-2041.pdf .
r) other relevant environmental factors	n/a	

8. Environmental impact mitigation measures and safeguards

- This REF shall be published on the NSW Planning Portal as per clause 171(4)(c) of the EP&A Regulation 2021 (public interest).
- The proposed activity should avoid peak holiday periods (*i.e.* school holidays, Easter, and triathlon events).
- Pruning of the Bangalay shall be undertaken in accordance with Australian Standard *AS4373 Pruning of Amenity Trees*.
- A pedestrian access management plan shall be prepared and implemented to provide for sign-posted alternative routes.
- Erosion and sediment controls in accordance with the 'Blue Book' shall be installed and maintained to prevent the entry of sediment into waterways. This should include:
 - 'clean water' diversion swales above / upslope of the work site
 - installation of straw-bales, keyed-in and staked across the channel immediately downslope of the works
 - minimising ground disturbance and rapid re-stabilisation (*e.g.* grass seed, jute-mesh) of any disturbed ground within the excavator operations and access area and the storage area
- An emergency spill kit shall be always kept on-site with procedures to contain and collect any leakage or spillage of fuels, oils, greases, etc from plant and equipment.
- Staff working at the site will be instructed to stop work immediately on identification of any suspected Aboriginal heritage artefact (except skeletal remains). If any objects are found, Heritage NSW (ph:131 555) shall be contacted.
- If skeletal remains that could be human are uncovered, works are to immediately cease, the site secured, and the NSW Police are to be notified. Notification to Heritage NSW and the Jerrinja Local Aboriginal Land Council shall be taken when/if advised by NSW Police.
- Any waste shall be managed, transported, stored, collected and disposed of in an environmentally satisfactory manner pursuant to NSW *Protection of the Environment Operations Act 1997*.
- An asset form must be trimmed to file 44574E on commissioning of the assets in Accordance with POL15/8 Asset Accounting Policy section 3.1.4 and POL16/79 Asset Management Policy section 3.3.



9. Conclusion and recommendations:

Assuming the prescribed environmental impact mitigation measures and safeguards are implemented (Section 8 above), the proposed activity is unlikely to have a significant impact on the environment and further environmental assessment (e.g. Environmental Impact Statement) is not warranted. In addition:

- No permits, engagement or further concurrence from government agencies is required.
- The proposed activity is unlikely to significantly affect threatened species, populations, ecological communities or their habitats and a species impact statement or biodiversity development assessment is not required.

The proposed activity can proceed.

Document Review:

	Name	Signature	Date
Author*	Geoff Young Environmental Officer Works and Services		13/06/2023
Proponent*	Beorn Hulme Senior Project Manager (Natural Disasters) City Services		27/06/2023

*Review and endorsement statement:

"I certify that I have reviewed and endorsed the contents of this REF document and, to the best of my knowledge, it is in accordance with the EP&A Act, the EP&A Regulation and the Guidelines approved under clause 170 of the EP&A Regulation, and the information it contains is neither false nor misleading".