Shoalhaven City Council

# Review of Environmental Factors (REF) - Dog off-leash access

## Nelsons Beach, Vincentia

## Assessment and approvals overview

| Item | Details |
|---|---|
| Assessment Type | Division 5.1 *Environmental Planning and Assessment (EP&A) Act 1979* (NSW) - REF |
| Proponent | Shoalhaven City Council |
| Determining authority / authorities | Shoalhaven City Council |
| Required approvals (consents, licenses and permits) | Nil |
| Required publication | This REF is published on Shoalhaven City Council's website (as the determining authority), in accordance with Section 171(4) *Environmental Planning and Assessment Regulation 2021* (as a matter of public interest). |

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# 1 Introduction

This document provides the environmental assessment for a dog off-leash access area and associated ancillary works at Nelsons Beach, in line with requirements for such activities under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This assessment relates to the impact of the proposed activity on the community and the environment in accordance with Section 171 of the *Environmental Planning and Assessment Regulation 2021* (NSW) (EP&A Regulation).

Shoalhaven City Council has recently amended the Shoalhaven Off-Leash Exercise Areas for Dogs Policy and created a new draft Policy, being renamed the Access Areas for Dogs Policy. This REF is one of several REFs that assess the viability and suitability of each dog off-leash access area throughout the Shoalhaven local government area (LGA).

This document will provide general details of the proposed activity, legislative context, and potential impacts on the community and the environment to satisfy the due diligence and legislative requirements and obligations of Shoalhaven City Council (Council).

Information obtained through stakeholder engagement, including with the NSW National Parks and Wildlife Service (NPWS) and broader community, was considered in the preparation of this assessment.

Section 9 of this REF includes the mitigation measures required to be implemented by Council in relation to the ongoing use of the Nelsons Beach dog off-leash exercise area.

## 1.1 Proposed activity

The use of parts of Nelsons Beach for dog off-leash access constitutes an ‘activity’ under Part 5 of the EP&A Act. The dog off-leash access area, referred to as the subject site herein, is the stretch of Nelsons Beach where direct impacts on the community and the environment from dog off-leash access may occur and have been assessed (Figure 1). An area including a 50-metre buffer to the subject site, where direct and indirect impacts on the community and the environment may occur, has also been assessed, and is referred to as the study area. The subject site is designated as a dog off-leash access area under the Access Areas for Dogs Policy and has been used for dog off-leash access since 2001.

The proposed activity includes:

- Provision of a dog off-leash access area with restricted times, where dogs can be off-leash during off-peak times (1 October to 30 April from 4 pm to 8 am; 1 May to 30 September from 3 pm to 10 am) to limit impacts on other beach users and recreational activities.

Ancillary works associated with this activity will include the installation of Access Areas for Dogs Policy signage. Existing signposts will be utilised where possible.


*Figure 1 Location of the dog off-leash access area at Nelsons Beach.*

## 1.2 Sources of information

This REF has been informed by:

- Database searches:
  - NSW BioNet (accessed on 6 September 2022 and 14 June 2023).
  - Birdata (including Birdlife Australia's shorebird monitoring program survey data) (accessed on 6 September 2022).
  - Council's GIS Enquiry (various data layers from September 2022 to July 2023). This contains GIS layers with data sourced under licence, including sensitive data locations and records of threatened species.
  - Aboriginal Heritage Information Management System (AHIMS) (accessed on 10 November 2022 and 24 July 2023).
  - Council records and archives (January 2023).
- Consultation with the NSW DPE agency NPWS, including consultation with the NPWS Shorebird Ranger and records from the NSW Shorebird Recovery Program.
- Consultation with Council's Rangers to ascertain the appropriateness of existing controls and the enhancement of mitigation measures to ensure a nil to negligible impact on the community and the environment.
- Consultation with the community.
- An on-site survey for the presence of Aboriginal objects on 22 November 2022.
- A site inspection on 22 November 2022 to assess the range of environmental factors required to be considered.

Likelihood of occurrence was assessed for threatened flora and fauna listed under the *Biodiversity Conservation Act 2016 (*NSW) (BC Act) and *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) that have been recorded within 10 kilometres of the subject site (referred to hereafter as the 'locality').

Based on the nature of the subject site and proposed activity, it was considered that the above listed habitat assessment, literature review and database searches were appropriate means for assessing the potential impact on environmental factors in accordance with Section 171 of the EP&A Regulation.

# 2 Location and context

## 2.1 Location

Nelsons Beach is a sand beach located at Vincentia, on the southwest shore of Jervis Bay. The beach is approximately 1.2 kilometres long, extending south from the reserve at Plantation Point, where there is a rocky platform on the shoreline, to another rocky shore in the south near Nudist Beach (**Error! Reference source not found.**; Plates 1-16, Appendix 1 Photographs of the subject site).


*Figure 2 Location of Nelsons Beach, on the southeast coast of NSW.*

Nelsons Beach and reserve (Lot 7023 DP 1117371) is zoned as RE1 – Public Recreation (Shoalhaven LEP 2014 (SLEP)). Under SLEP 1985, the land was zoned as Open Space—Recreation 'A' (Existing).

The subject site and study area are adjacent to Jervis Bay Marine Park, which is managed by NSW Department of Primary Industries.

## 2.2 Land ownership and management

The Nelsons Beach foreshore (Lot 7023 DP 1117371) is owned by the State of New South Wales and managed as Crown Land under the *Crown Land Management Act 2016* NSW (CLM Act). The purpose of this Crown Land reserve (No. 64234) was deemed to be for 'public recreation', published in the NSW Government Gazette on 27 October 1933.

Under the CLM Act, dedicated or reserved Crown Land managed by Council is assigned categories in accordance with Section 3.23 of the CLM Act, whereby the land is managed as if it were community land under the *Local Government Act 1993* (NSW) (LG Act). Nelsons Beach foreshore was categorised as Community Land – Natural Area in 2020. Plantation Point Reserve was categorised as Community Land – Park in 1993. The Plantation Point Plan of Management and

Landscape Plan (2012) (Plantation Point PoM) was developed for the park area at Plantation Point, 'purposely for the Land Transfer Agreement' for Lot 180 DP 536100 (near Barfleur Beach).

All land below the mean high-water mark was gazetted as part of the Jervis Bay Marine Park in January 1998.

# 3 Existing environment

## 3.1 Community values

Very similar to other beaches in the Shoalhaven LGA, Nelsons Beach is a shared-use area used by the community for social and recreational purposes. The beach is used by residents and visitors for activities such as walking, swimming, paddle boarding, kayaking and fishing.

Nelsons Beach is a popular holiday destination, and holiday accommodation is located through the suburb of Vincentia.

There is a carpark and amenities block located at the northern end at Plantation Point Reserve, and there are parking spaces along Plantation Point Parade. There is a paved pathway along Plantation Point Parade, adjacent to Nelsons Beach.

Plantation Point Reserve has dual categorisation under the CLM Act (in accordance with the LG Act) as Park and Natural Area. The park areas include picnic tables, gas barbeques, a toilet block with showers, an exercise park and a children's playground. Plantation Point Reserve is used for a number of community events, such as sailing club events, triathlons, and an annual Dog Christmas Party.

The public use Nelsons Beach as a timed dog off-leash access area throughout the year.

Many people have a strong affinity to the coast. Nelsons Beach is valued for many reasons, including some of the following:

- Aesthetics — passive recreation undertaken to appreciate the aesthetic appeal.
- Cultural and spiritual values — water is particularly important for indigenous peoples.
- Aquatic ecosystems — the health or integrity of the waterway's ecosystem(s).
- Recreation – including swimming and beach activities.

## 3.2 Landscape features

Nelsons Beach is located within the Interim Biogeographic Regionalisation for Australia (IBRA) Sydney Basin bioregion and subregion of Jervis (SYB14). Nelsons Beach is a sand beach located on the southwest shore of Jervis Bay. It extends for 1.2 kilometres along the township of Vincentia and is backed by a foreshore reserve. The beach begins at Plantation Point, at a rocky point, and curves southward towards a rocky shore where the beach ends. Beyond that rocky point, a 50-metre pocket of sand occurs, known as Nudist Beach.

Landscape features and significant vegetation is described in Section 6.1.

## 3.3 Biodiversity

Sandy beaches, such as Nelsons Beach, are key foraging and roosting sites for shorebirds and seabirds (refer to Section 6).

In the context of this REF, the subject site:

- may contain potential habitat for threatened species listed under the BC Act and the EPBC Act.
- is not mapped on the Biodiversity Value Map (BV Map) which identifies land with high biodiversity value as defined by the *Biodiversity Conservation Regulation 2017* (NSW) (BC Regulation).

A detailed habitat and vegetation assessment is provided in Section 6.1 and a detailed assessment of threatened biodiversity is provided in Section 6.2.

## 3.4 Cultural heritage

An AHIMS search was conducted on 10 November 2022 and 24 July 2023 and indicated that there were no recorded Aboriginal heritage sites within the subject site. There was one recorded Aboriginal heritage site 100 metres from Nelson's Beach on Plantation Point Reserve. However, the impact of the proposed activity on the Aboriginal heritage site is considered negligible.

One item of local non-indigenous heritage significance listed in the SLEP is located within proximity to the subject site.

Further assessment of indigenous and non-indigenous heritage is provided in Section 6.3.

# 4 Permissibility

The proposed activity is permissible under all relevant legislation (refer to Table 1 below).

*Table 1 Summary of legislation and permissibility*

| **Relevant legislation** |
|---|
| **NSW State Legislation** |
| *Environmental Planning and Assessment Act 1979* (EP&A Act) |
| Permissible ☑ Not permissible ☐ |
| Section 4.1 (Development that does not need consent) of the EP&A Act states that:<br>*'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.'*<br>Designating an off-leash area constitutes an 'activity' (given activity also applies to 'use of the land'). Section 2.73(3) of the NSW *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport & Infrastructure SEPP) provides that:<br>*'Any of the following development may be carried out by or on behalf of a council without consent on a public reserve under the control of or vested in the council—*<br>*(a) development for any of the following purposes—*<br>*(ii) recreation areas and recreation facilities (outdoor), but not including grandstands'*<br>Section 4.68(1) (Continuance of and limitations on other lawful uses) of the EP&A Act states:<br>*'Nothing in an environmental planning instrument operates so as to require consent to be obtained under this Act for the continuance of a use of a building, work or land for a lawful purpose for which it was being used immediately before the coming into force of the instrument or so as to prevent the continuance of that use except with consent under this Act being obtained.'*<br>The use of the land at Nelsons Beach for dog off-leash exercise constitutes 'continuing use' under Section 4.68(1). The use of the beach and foreshore reserve at Nelsons Beach for the purpose of recreation commenced prior to the introduction of the requirement to obtain development consent for that use under relevant environmental planning instruments. The use of the land at Nelsons Beach does not involve the enlargement, expansion or intensification for the purpose of a recreation area.<br>Therefore, in accordance with Section 4.1 and Section 4.68 of the EP&A Act, the activity can be carried out by (or on behalf of) a public authority as development without consent. As with other Part 5 activities, Part 5.5(1) of the EP&A Act requires that *a determining authority in its consideration of an activity shall… examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity.*<br>This document provides the Part 5.5(1) assessment in the form of a REF. |
| *Crown Land Management Act 2016* |
| Permissible ☑ Not permissible ☐ |
| Council is the appointed Crown Land Manager (CLM) of Nelsons Beach (Crown Land Reserve: R64234, Lot 7023 DP 1117371). |

| Relevant legislation |
| --- |
| Where a Plan of Management (PoM) exists for Crown Land it may identify and authorise certain works that can be undertaken by a public authority and the pre-conditions (if any) for implementing those works.<br><br>The Core Objectives for management of community land categorised as Natural Area that are set out in the Act include:<br><br>1. to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area, and<br>2. to maintain the land, or that feature or habitat, in its natural state and setting, and<br>3. to provide for the restoration and regeneration of the land, and<br>4. to provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion.<br><br>The PoM pertaining to the land is the Generic Community Plan of Management – Natural Areas https://doc.shoalhaven.nsw.gov.au/displaydoc.aspx?record=D16/208141. The Core Objectives for management of community land categorised as foreshore that are set out in the Act and the PoM are:<br><br>• To maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshores' role as a transition area, and<br>• To facilitate the ecologically sustainable use of the foreshore, and to mitigate impact on the foreshore by community use.<br><br>The proposed activity is in line with these objectives. The proposed activity will not impact on the foreshore's role as a transition area between the aquatic and terrestrial environment. The PoM, as well as Council's Foreshore Reserves Policy (POL23/24), does not preclude the activity.<br><br>The Plantation Point PoM recognises the usage of the area for dog exercise and that the park provides access to the off-leash area. The plan states that *'if, as part of some future review, it is considered that this Reserve should be included as an off-leash or dog prohibited area, then there is nothing in this Plan of Management that would restrict it'*. |
| *Coastal Management Act 2016* |
| Permissible ☑ Not permissible ☐ |
| The *Coastal Management Act 2016* establishes the framework and overarching objective for coastal management in New South Wales. The Act provides for the preparation of Coastal Management Programs (CMP) which set the long-term strategy for coordinated management of the coast with a focus on achieving the objects of the Act.<br><br>The 2018 Coastal Zone Management Plan for the Shoalhaven Coastline, *https://doc.shoalhaven.nsw.gov.au/DisplayDoc.aspx?record=D18/379377,* which is likely to provide the basis for the CMP in preparation at the time of writing, addresses the need to manage the impacts of pest species and dogs on beaches, particularly for the protection of threatened shorebirds. The implementation of the NSW South Coast Shorebird Recovery Program is listed as high priority.<br><br>The proposed activity is considered consistent with these strategies, because dogs will continue to be prohibited from environmentally sensitive areas. |

| Relevant legislation |
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| *State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)* |
| Permissible ☑ Not permissible ☐ |
| The subject site is mapped under Division 3 Coastal Environment Area and Division 4 Coastal Use Area for the purpose of the SEPP. The development controls relevant to these mapped areas do not apply to development that can be carried out without consent.<br><br>There are no areas mapped by this SEPP as Coastal Wetlands and Littoral Rainforests within the subject site. Coastal Vulnerability Areas (Coastal Hazard Lines) do exist immediately east of Plantation Point Parade, but the proposed activity is not considered to increase the risks of these forecasted hazards. |
| *Shoalhaven Local Environmental Plan 2014* (SLEP) |
| Permissible ☑ Not permissible ☐ |
| In circumstances where development consent is not required, the SLEP does not apply. However, all relevant factors of consideration as outlined in Part 5 of the EP&A Act are required to be complied with. This REF, including Section 5 Assessment of Environmental Factors (Section 171 of the EP&A Regulation), fulfils this requirement. |
| *Protection of the Environment Operations Act 1997* (POEO Act) |
| Permissible ☑ Not permissible ☐ |
| The proposed activity does not constitute scheduled development work or scheduled activities as listed in Schedule 1 of the POEO Act. The proposed activity therefore does not require an environmental protection licence.<br><br>The POEO Act regulates and controls pollution of land, air, water, and the emission of noise and provides for notices and offences pertaining to these. This Act also regulates waste management.<br><br>Impacts associated with pollution or waste management are considered unlikely to result from the proposed activity. |
| *National Parks and Wildlife Act 1974* (NPW Act) |
| Permissible ☑ Not permissible ☐ |
| The NSW Department of Planning and Environment (DPE) administers the NPW Act, which manages:<br><br>• Conservation of nature<br>• Conservation of objects, places and features of cultural value<br>• Public appreciation, understanding and enjoyment of nature and cultural heritage.<br>• Land reserved under this Act.<br><br>The NPW Act binds all activities and responsibilities of the Crown. DPE must consider the objectives listed above, the public interest and appropriate management of the subject site and study area. The NPW Act controls activities carried out in designated Parks, Reserves and Aboriginal areas. The NPW Act also requires consideration of impacts on all native birds, reptiles, amphibians and mammals protected under this Act. Additional consideration is required for potential impacts on Aboriginal cultural heritage. Such impacts are addressed in Section 6. |

| Relevant legislation |
| --- |
| *Biodiversity Conservation Act 2016* (BC Act) |
| Permissible ☑ Not permissible ☐ |
| The proposed activity is:<br>• Unlikely to have a significant impact on species and communities listed in the schedules of the Act (Section 6.2).<br>• Not within an area declared to be of 'outstanding biodiversity value' as defined in the Act.<br>• Unlikely to have a significant impact on threatened species and/or threatened ecological communities (TEC) listed in the schedules of the Act.<br>• Not considered to have a serious and irreversible impact on biodiversity values.<br>The proposed activity, therefore, is not deemed to be *likely to significantly affect threatened species* and a Biodiversity Development Assessment Report (BDAR) and entry into the Biodiversity Offset Scheme (BOS) is not required. |
| *Heritage Act 1977* (Heritage Act) |
| Permissible ☑ Not permissible ☐ |
| The Heritage Act is concerned with all aspects of the conservation of heritage places and items. Heritage items of state significance are listed on the State Heritage Register. The Heritage Act provides protection for non-Aboriginal historic artefacts and/or sites (older than 50 years). A review of potential impacts on non-Aboriginal heritage is detailed in Section 6.3. |
| *Local Land Services Act 2013* ☐ |
| Permissible ☑ Not permissible |
| No clearing of vegetation is proposed. No separate authorisation under the Act is required. |
| *Water Management Act 2000* |
| Permissible ☑ Not permissible ☐ |
| Local councils are exempt from s.91E(1) of the Act in relation to all controlled activites that they carry out in, on or under waterfront land (by virtue of Section 41 of the *Water Management (General) Regulation 2018).*<br>The proposed activity would not interfere with the aquifer and therefore an interference licence is not required (s.91F). |
| *Aboriginal Land Rights Act 1993* |
| Permissible ☑ Not permissible ☐ |
| There are unresolved land claims on the subject site. However, the Act does not preclude the activity taking place on the subject land. The Crown reserve has lawfully been used as a recreational area prior to the lodgement of the land claim.<br>The activity would not affect or complicate the assessment of the land claim as it does not permanently impact the land as the activity is ongoing and intermittent and would not diminish the size or nature of the land.<br>Therefore, the land would remain as 'claimable land' as defined in the Act. |

| Relevant legislation |
| --- |
| *Marine Estate Management Act 2014* |
| The Marine Estate Management Act provides for the management of the marine estate of NSW consistent with the principles of ecologically sustainable development.<br><br>Jervis Bay Marine Park is managed in accordance with this Act and the *Marine Estate Management (Management Rules) Regulation 1999*. Accordingly, consultation occurred with DPI Fisheries (Marine Parks) during the preparation and exhibition of the Access Areas for Dogs Policy. The subject site and study area are not located in areas whereby domesticated/companion animals are prohibited. Thus, the proposed activity can proceed without further approvals being sought from DPI Fisheries, and the fulfillment of the objectives of the Act can be demonstrated. |
| **Commonwealth legislation** |
| *Environment Protection and Biodiversity Conservation Act 1999* (EP&BC Act) |
| Permissible ☑ Not permissible ☐ |
| Matters of National Environmental Significance (MNES) are defined in Part 3 of the EPBC Act and include a range of environmental matters. These include world and national heritage, internationally important wetlands, nationally threatened species and communities, and migratory species, along with other matters.<br><br>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 (see Section 6.2 and Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species).<br><br>The proposed activity does not require Commonwealth referral. |
| *Native Title Act 1993* |
| Permissible ☑ Not permissible ☐ |
| The *Native Title Act 1993* recognises traditional interests in land of Aboriginal and Torres Strait Islander people and provides an avenue for land title claims against Crown land.<br><br>The proposed activity can be undertaken as a valid act under Subdivision 24LA *Low Impact Future Acts* as the act does not consist of, authorise, or otherwise involve:<br>• the grant of a freehold estate<br>• the grant of a lease<br>• the conferral of a right of exclusive possession<br>• the excavation or clearing of any of the land or waters.<br>• mining<br>• the construction of placing on the land, or in the waters, of any building, structure, or other thing (other than fencing or a gate), that is a fixture, or<br>• the disposal or storing, on the land or in the waters, of any garbage or any poisonous, toxic or hazardous substance.<br><br>The non-extinguishment principle applies to the act and no referral or request for comment to NTSCORP is required. |

# 5 Assessment of environmental factors

Section 171 of the EP&A Regulation lists the factors to be investigated when consideration is being given to the likely impact of an activity on the environment under Part 5 of the EP&A Act.

Table 2 summarises the assessment of each of the Section 171(2) factors in relation to the proposed activity. The identification of key environmental factors relevant to the proposed activity is further described in Section 6 and the assessments of potential impact are summarised in Section 8.

*Table 2 Assessment of Section 171 (EP&A Regulation) matters*

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| a) the environmental impact on the community | Negligible/ Positive | The subject site is located within Community Land and is frequently used as a public reserve for social and recreational activities.<br>The proposed activity would not impact the community's access to, and amenity of Nelsons Beach.<br>The proposed activity would not impact on views, community services and infrastructure such as water, waste management, educational, medical or social services. |
| b) the transformation of the locality | Negligible | The subject site is located adjacent to the Jervis Bay Marine Park and is an environment comprising a beach and coastal foreshore reserve.<br>The locality will remain a beach and coastal foreshore reserve. |
| c) the environmental impact on the ecosystems of the locality | Negligible | The ecosystems in the locality range from aquatic, intertidal and terrestrial. The proposed activity is relevant because the presence of dogs can impact on other wildlife.<br>However, analysis indicates the impact on these ecosystems is considered negligible given the assessments carried out and with the implementation of mitigative controls.<br>Refer to Section 6.2 for details. |
| d) reduction of the aesthetic, recreational, scientific or | Negligible/ Positive | There would be minimal impact on the aesthetic, recreational, scientific or other |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| other environmental quality or value of the locality | | environmental qualities or value of the locality. The subject site will remain a public reserve and recreation opportunities would not be diminished.<br><br>The proposed activity would enhance the recreational values of the subject site by providing a controlled dog off-leash access area that allows shared and balanced use for the public. Time restrictions enable both dog owners and non-dog owners to utilise the beach intermittently without disruption. The beach will remain family friendly, and recreational activities can still be conducted without dog disturbance within on-leash times. Dogs must remain on-leash at Plantation Point Reserve, which will reduce impacts on families and other community members utilising the reserve for recreational purposes.<br><br>Dog disturbance will be minimal during dog off-leash times as dogs are required, under the *Companion Animals Act 1998* (NSW) (CA Act), to remain under control of their owner/walker. The person in control of the dog(s) is also responsible for waste disposal (including dog faeces). Compliance inspections will be carried out regularly to enforce these legal obligations and to help build a culture of appropriate public pet supervision. This will be reinforced with appropriate communications such as signage and website information.<br><br>The proposed activity would not involve any direct impact on the natural attributes of the subject site. The beach and coastal foreshore reserve is regularly monitored for erosion and appropriate land management is implemented at the subject site.<br><br>The establishment of a time restricted dog off-leash access area would result in an |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| | | ongoing noise source (i.e., dogs barking) during the designated off-leash times. The subject site is adjacent to existing public and recreational facilities, such as children's playgrounds and barbeque picnic areas, where noise is generated. The beach and foreshore reserve are heavily used by the public for a diversity of activities. Therefore, noise levels from the dog off-leash access area are considered to be within a normal range conducive to the existing public use of the beach. As a result, noise would not be considered a disruptive level. Reports or complaints made to Council regarding noise will be monitored. |
| e) the effects on any locality, place or building that has –<br>(i) aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or<br>(ii) other special value for present or future generations | Negligible | The subject site has no significant aesthetic, architectural, cultural, historical, scientific or social values likely to be impacted on by this activity.<br>No items in the vicinity of the subject site listed on the State Heritage Register and the SLEP would be impacted on by the proposed activity.<br>The subject site is not within an Aboriginal Place declared under the NPW Act.<br>In accordance with the NSW DPE's Due Diligence Code of Practice, the proposed activity does not require an Aboriginal Heritage Impact Permit as the proposed activity is unlikely to harm an Aboriginal artefact to harm Aboriginal heritage sites.<br>Refer to Section 6.3 for details |
| f) the impact on the habitat of protected animals, within the meaning of the Biodiversity Conservation Act 2016 | Negligible | The impact on protected animals listed under the BC Act, that have been recorded within the locality, have been considered in association with the proposed activity.<br>No habitat will be removed or otherwise impacted on by the proposed activity. |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| | | The Test of Significance (BC Act) detailed in Appendix 3 Test of Significance (BC Act) concludes that the proposed activity would not have a significant impact on threatened fauna and flora.<br><br>Protected animals listed under the BC Act that occur in the Shoalhaven LGA, including all native birds, reptiles, amphibians and mammals will not be significantly impacted on by the proposed activity and no further assessment is required.<br><br>Refer to Section 6.2 and Section 8.1 for details. |
| g) the endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air | Negligible | The subject site is a beach and coastal foreshore reserve that contains limited animal, plant, or other form of life habitat.<br><br>There are no species likely to rely on the subject site to the extent that modification would result in further endangering of the species.<br><br>The Tests of Significance (BC Act) provided in Appendix 3 Test of Significance (BC Act) concludes that the proposed activity would not have a significant impact upon threatened flora and fauna.<br><br>If a planned development or activity is likely to have any impact on a threatened species, populations or ecological communities, or their habitats listed under the *Fisheries Management Act 1994* (FM Act), a preliminary assessment of the potential impacts must be made (under Division 12, Part 7A), which is known as the 'Assessment of Significance' or '7 Part Test'.<br><br>As the proposed activity is unlikely to have an impact on threatened species, populations or ecological communities, or their habitats listed under the FM Act, a 7 Part Test is not required. |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| | | Refer to Section 6.2 and Section 8.1 for details. |
| h) long-term effects on the environment | Negligible/ Positive | The use of the subject site for time restricted dog off-leash access will result in intermittent and ongoing use of the beach and foreshore reserve by the public.<br><br>The assessments undertaken and mitigation measures to be implemented indicate there will be no long-term effects on the environment.<br><br>Regular monitoring by Council Rangers will occur to enforce compliance. The presence of Council Rangers will also enable the provision of education to the community.<br><br>Refer to Sections 6, 8 and 9 for details. |
| i) degradation of the quality of the environment | Negligible | The proposed activity involves ongoing and intermittent use of the beach and foreshore reserve by the public for the use of dog off-leash access. The mitigation measures (Section 9) to be implemented will minimise impacts on, and risks to the quality of the environment.<br><br>Dune stability will be managed in accordance with the NSW Coastal Dune Management Manual and the Jervis Bay Coastal Management Program (CMP) (currently under development). Access tracks are established to minimise impacts to surrounding dune vegetation. No additional access tracks are proposed.<br><br>The proposed activity is unlikely to introduce priority weeds, vermin, or feral animals into the area or contaminate the soil.<br><br>Long-term or long-lasting impact on aquatic ecosystems through the input of sediment or nutrient into the ecosystem is unlikely. |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| | | The proposed activity is unlikely to disturb the soil surface within the subject site beyond that which occurs in response to natural events and other recreational uses. |
| j) risk to the safety of the environment | Negligible / Positive | The subject site is a sensitive natural environment located on the shores of Jervis Bay National Park.<br>The proposed activity would not increase the levels of risks that may occur in response to hazardous wastes, bushfire, flood, landslip or coastal hazard. |
| k) reduction in the range of beneficial uses of the environment | Negligible/ Positive | The subject site is used for social and beach related recreation opportunities, as well as access to them. The proposed activities would have no impact on this beneficial use.<br>The proposed activity would not prevent the use of other recreational activities, as it is currently used as a passive recreation area, and the local picnic area is located outside of the dog off-leash access area.<br>Some of the nearby beaches, including Blenheim Beach and Collingwood Beach, are dog-prohibited, providing dog-free beaches for residents who do not wish to access the beach with dogs. |
| l) pollution of the environment | Negligible | The proposed activity is not expected to result in pollution of the environment. It is unlikely that the activity (including mitigation measures) would result in water, noise (see item d above), or air pollution, spillages, dust, odours, vibration or radiation.<br>With the requirement that dog owners clean up faeces, waste pollution from dogs is unlikely to have an impact on the natural environment. Garbage receptacles are located at main access points to the off-leash area to promote compliance. |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| m) environmental problems associated with the disposal of waste | Negligible | The proposed activity involves time restricted dog off-leash access within the subject site. There would be no trackable waste, hazardous waste, liquid waste, or restricted solid waste as described in the POEO Act as a result of this activity.<br><br>Under the requirement that dog owners clean up faeces, waste pollution from dogs is unlikely to have an impact on the natural environment. Garbage receptacles are located at main access points to the off-leash area to promote compliance and these are regularly serviced to prevent overburden. |
| n) increased demands on natural or other resources that are, or are likely to become, in short supply | Negligible | No natural or other resources that are, or are likely to become, in short supply will have increasing demands in response to the proposed activity. |
| o) the cumulative environmental effect with other existing or likely future activities | Negligible | The subject site is used for social and recreational activities all year round. The proposed activity would not create a cumulative environmental effect with other existing or likely future activities within the subject site. |
| p) the impact on coastal processes and coastal hazards, including those under projected climate change conditions | Negligible | The proposed activity is not likely to have any impact on coastal processes and coastal hazards, including those projected under climate change conditions.<br><br>The beach and coastal foreshore reserve is regularly monitored for coastal erosion and appropriate dune management will be implemented at the subject site. Beach access tracks are established to minimise impact on the surrounding dunes and vegetation. No additional access tracks are proposed. |
| q) applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1 | Negligible | The proposed activity is consistent with *Shoalhaven 2040* Our *Strategic Land-use Planning Statement* (Shoalhaven City Council, 2020) or the *Illawarra Shoalhaven Regional Plan 2041* (NSW DPE, 2021) |

| In accordance with Section 171(2) of the EP&A Regulation, Council has considered the following environmental factors: | Assessment of impact | Reason |
|---|---|---|
| r) other relevant environmental factors | Negligible | There are no other relevant environmental factors. |

*Note – the 'locality' in this context is as per the EP&A Regulation and refers to the subject site and study area within this REF.*

# 6 Detailed assessment of key environmental factors

The following sections present the detailed assessments of the key environmental factors relevant to the proposed activity. Threatened fauna and flora, heritage and community values are included. Potential impacts of the proposed activity in relation to these are assessed in Section 8.

## 6.1 Habitat and vegetation assessment

The subject site was assessed by Council's Biodiversity Project Officer on 22 November 2022. Survey involved a vegetation and habitat assessment of the subject site and study area. Flora and fauna species within the subject site and study area were documented as well as an investigation of habitat availability for threatened fauna species.

There are no TECs listed under the BC Act mapped to occur within the subject site and study area. Plant Community Types (PCT) mapped within the subject site and study area include PCT3654 *Shoalhaven Lowland Bloodwood Shrub Forest* (Figure 3).

Within the subject site, the Nelsons Beach berm is largely devoid of living vegetation, although wrack (accumulation of seagrass) is common (Plate 5, Appendix 1 ).

The southern portion of Nelsons Beach is backed by a steep rocky foredune (Plate 6 and 7, Appendix 1 ), which gradually flattens out toward the middle section of the beach. The northern foredune steepens out again with rocky sections that stretch around the headland at Plantation Point Reserve (Plate 9 and 10, Appendix 1 ).

The canopy along the hind dune is dominated by Bangalay (*Eucalyptus botryoides*) and Coast Banksia (*Banksia integrifolia*). Common understorey species include Coast Teatree (*Leptospermum laevigatum*), Coastal Wattle (*Acacia longifolia sophorae*), Coastal Beard-heath (*Leucopogon parviflorus*), with Black She-oak (*Allocasuarina littoralis*), Milk Vine (*Marsdenia rostrata*) and Australian Cheesewood (*Pittosporum undulatum*) scattered throughout (plates 12 and 13, Appendix 1). Ground layer species include Spinifex (*Spinifex sericeus*), Spiny-headed Mat-rush (*Lomandra longifolia*), Pigface (*Carpobrotus glaucescens*), Common Bracken (*Pteridium esculentum*), Kidney Weed (*Dichondra repens*), Knobby Club Rush (*Ficinia nodosa*) and Dune Thistle (*Actites megalocarpus*) (Plates 12 and 13, Appendix 1 ).

Located at the northern end of Nelsons Beach is Plantation Point Reserve, which contains a carpark, amenities area, playground, and picnic tables, surrounded by large, grassed areas (Plate 15, Appendix 1 ). Eucalypts including *E. botryoides, E. pilularis and E. robusta,* as well as *Corymbia gummifera*, are scattered around Plantation Point Reserve (Plate 15, Appendix 1 )

A paved pathway extends the length of Nelsons Beach from Plantation Point Reserve to the southern car park, along Plantation Point Parade (Plate 14, Appendix 1 ).

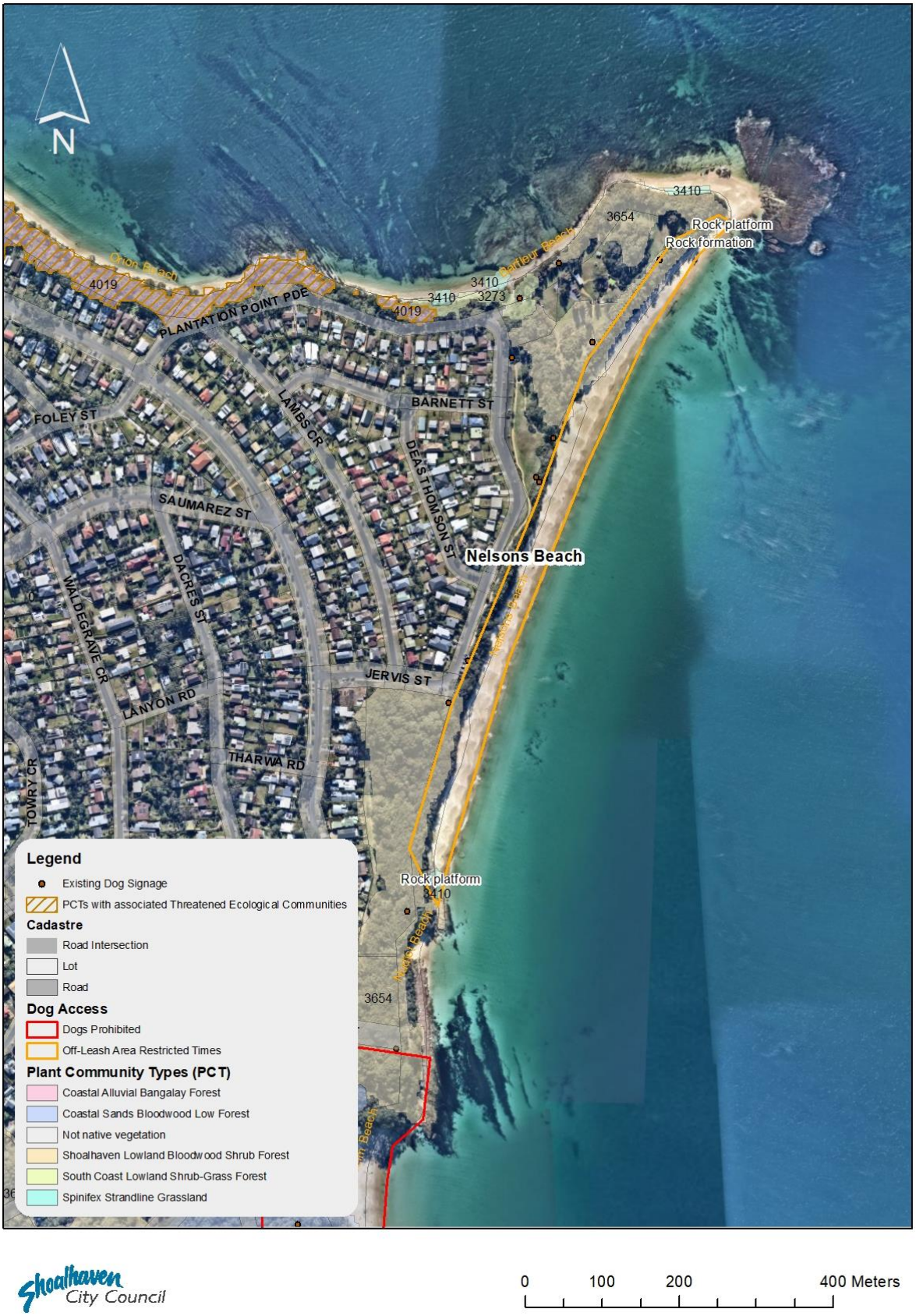


*Figure 3 Plant Community Types and Threatened Ecological Communities recorded within, and adjacent to, the dog-off leash access area.*

## 6.2 Threatened species and ecological communities

This section has been informed by desktop analysis (including databases searches of BioNet, Birdlife Australia's *Birdata*, the EPBC Protected Matters Search Tool and Council's GIS Enquiry), consultation with relevant agencies including NPWS (detailed in Section 7), and a site inspection conducted on 22 November 2022 by Council's Biodiversity Project Officer.

The likelihood of occurrence for threatened fauna and flora listed under the BC Act and/or EPBC Act recorded within the locality (10 kilometres of the subject site) were identified from a database search and site visit. The likelihood of occurrence was assessed as high, medium or low based on species records and habitat features and are shown in Appendix 2, along with consideration of all species listed that have potential to occur within the subject site.

### 6.2.1 Threatened fauna

Based on the habitat present within the subject site (including the beach environment and the foreshore reserve), BC Act listed threatened fauna species that have the potential to occur at the subject site are:

- Birds:
  - Eastern Osprey *Pandion cristatus*
  - Pied Oystercatcher *Haematopus longirostris*
  - Sooty Oystercatcher *Haematopus fuliginosus*
  - Square-tailed Kite *Lophoictinia isura*
- Mammals
  - Yellow-bellied Glider *Petaurus australis*

During the site inspection in preparation for this REF, Sooty Oystercatchers were observed on the rock platform located around Plantation Point Reserve.

Yellow-bellied Glider is also listed within Matters of National Environmental Significance (MNES) under the EPBC Act. Additional fauna species listed as MNES that have the potential to occur at the subject site, include the migratory species Common Sandpiper, Grey-tailed Tattler and Crested Tern (records of this species occur at Plantation Point from 2019 and prior).

Hollow-bearing trees are located within close proximity to Nelsons Beach at Plantation Point Reserve. No other threatened fauna or signs of threatened fauna were detected during surveys. Targeted nocturnal surveys were not undertaken since no potential threatened species roosting/nesting habitat (e.g., hollows) would be removed or otherwise impacted on as part of the proposed activity.

An assessment of potential impact on threatened fauna based on the above findings is provided in Section 8.1.1.

### 6.2.2 Threatened flora

There are no threatened flora species likely to occur at the subject site. No further assessment is required.

### 6.2.3 Threatened ecological communities (TECs)

There are no threatened TECs likely to occur at the subject site. No further assessment is required.

## 6.3 Heritage

### 6.3.1 Indigenous

Under Section 86 of the NPW Act, it is an offence to disturb, damage, or destroy any Aboriginal heritage object without an Aboriginal Heritage Impact Permit (AHIP). The NPW Act 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 NPW Act). To affect this, the NSW DPE have published the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (hereafter referred to as '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.

Step 1 of the Due Diligence Code does not apply to the proposed activity as disturbance to the ground surface is negligible.

In accordance with Step 2a of the Due Diligence Code, a search on AHIMS indicated that there were no recorded Aboriginal heritage sites within the subject site.

Step 2b of the Due Diligence Code then requires a consideration of whether Aboriginal objects are likely to be in the area of the proposed activity with consideration to certain landscape features listed in the Code to have higher propensity for objects, *i.e.:*

- within 200 metres of waters; or
- located in a sand dune system; or;
- located on a ridge top, ridge line or headland; or
- located within 200 metres below or above a cliff face; or
- within 20 metres of or in a cave, rock shelter, or cave mouth.

The proposed activity area does comprise such landforms (within 200 metres of waters and sand dune).

A literature search was also conducted utilising Council's document archive on 10 November 2022. An Aboriginal cultural heritage site is located 100 metres from the subject site on Plantation Point Reserve. An AHIP for test excavations to be carried out at Plantation Point Reserve was requested in August 2019, and a document titled *Preliminary Results for Plantations Point Test Excavations* was released in February 2020. Aboriginal cultural objects were found by archaeologists at Plantation Point Reserve and appropriate actions and mitigation measures have been outlined to protect and conserve this area. As this area is located outside of the subject site, the impact of the proposed activities on these sites is considered negligible.

Parts of the dune and foreshore environment are not classified as disturbed land and have the potential for cultural heritage values.

Step 3 of the Due Diligence Code applies if the activity is on land that is not disturbed or contains known Aboriginal objects. Due to the nature of the activity, i.e., dog walking, it can be determined that disturbance of the landscape feature(s) can be avoided. Therefore, the proposed dog access activity can proceed with caution and Step 4 (which includes further investigation by a competent person) is not required.

Signage installation at additional locations where signposts are not already present has potential to cause harm to Aboriginal objects or disturbance to landscape features. In this case, Step 4 will be applied.

In the context of this environmental assessment the area to be affected by the proposed activity:

- is subject to undetermined Aboriginal Land Claims.
- is not an Aboriginal Place in the context of the NPW Act.

In consideration of the above, it is reasonable to conclude that there is a low probability of Aboriginal objects being impacted on by the proposed activity. As a result, an AHIP is not required, and the proposed activity can proceed.

### 6.3.2 Non-Indigenous

Heritage items listed under Schedule 5 of the SLEP 2014 include:

- Item 502 Plantation Point Rock Platform

Heritage item 502 is of local significance to the Shoalhaven. However, the item will not be impacted on by the proposed activity.

The proposed activity would not involve, or be close to, items on the state heritage list. No further consideration is warranted.

# 7 Consultation

This REF was prepared in consultation with internal and external stakeholders. This section reports on the stakeholders involved and the submissions received in relation to the proposed activity.

### 7.1.1 Department of Primary Industries (NSW Fisheries)

No dredging or impact on fish habitat, or the Jervis Bay Marine Park, consultation is not required.

### 7.1.2 Department of Planning and Environment (DPE)

The NPWS Shorebird Ranger for the Shoalhaven region was consulted during the development of this REF. Corroborating evidence of threatened and migratory shorebird nesting locations was provided. In addition, recommendations were made in relation to mitigative measures including Council Ranger presence to encourage compliance, and educational signage regarding threatened shorebirds in the area.

### 7.1.3 Council Departments

This REF has been prepared by Council's Environmental Services Department, in consultation with Council's Certification and Compliance (Ranger Services Unit) and Recreation Projects – Planning and Delivery Departments.

Ranger Services have confirmed a monitoring presence will continue at Nelsons Beach, Vincentia. Other internal representatives from various council teams were also consulted and attended internal workshops, including Shoalhaven Animal Shelter, Tourism, Community Engagement, and Property.

### 7.1.4 Community

Council undertook a comprehensive review of Access Areas for Dogs Policy in 2021, which involved community and stakeholder engagement. The Council provided workshops, drop-in sessions, online surveys, and Council submissions to allow community members and relevant stakeholders to share their views on dog off-leash access areas in the Shoalhaven LGA. The Community Engagement Summary Report released on 7 December 2021 revealed that external stakeholder input included:

- Jervis Bay Marine Park/Department of Primary Industries
- DPE
- NPWS
- Destination NSW
- Destination Sydney Surrounds South
- Shoalhaven Tourism Advisory Group

There were 123 community working group members engaged in the consultation which included a range of demographics reflecting the Shoalhaven community, including both dog and non-dog owners, dog trainers, members of Community Consultative Bodies (CCB), business operators, people living with disabilities and shorebird rescue organisations. There were 1,396 survey respondents (80.6% were residents, 14.6% ratepayers (but not full-time residents) and 4.8% visitors) and 216 community members engaged in five public drop-in sessions located at Plantation Point Reserve in Vincentia, Mollymook Beach in Mollymook, Broughton Court in Berry, Jellybean Park in Nowra and outside Ulladulla Civic Centre. Council also received 108 submissions from residents, visitors, and community groups.

The various submissions received both supported and raised concerns with the proposed activity, including issues such as:

- Signage – confusion regarding the boundaries of off-leash, on-leash and prohibited dog areas, inconsistent and confusing messaging, a lack of signage at access points, non-visual signs making it difficult for other language groups, no indication of offences on signs.
- Compliance – Council Ranger presence, dog off-leash activity outside of designated hours, and people not picking up after their dogs.
- User conflict and safety – conflict between beach-users with and without dogs, and conflict between dogs and native fauna.

The mitigation measures in Section 96.3 have been developed in accordance with the consultation undertaken, notably:

- Increased Council Ranger presence.
- Increased and improved signage that is clear and consistent across the Shoalhaven.
- Dog prohibited buffer between off-leash area and sensitive areas or of high biodiversity value.
- The provision of plastic bags and rubbish bins for dog faeces.
- Off-peak time restrictions to reduce conflict with other beach-users.
- Liaison with NPWS South Coast Shorebird Recovery Program Coordinator.

Council's Access Areas for Dogs Policy and associated Dog Off-leash Guide provides dog owners with public domain conduct guidelines as well as defining dog off-leash, on-leash and prohibited areas within the ownership, management, care, and control of Council.

Signage and supporting infrastructure will need to be erected to ensure community awareness, and compliance with the CA Act and Council's Access Areas for Dogs Policy.

# 8 Impact assessment

This section reports on the potential for impacts in relation to the environmental factors identified in Section 6 associated with the proposed activity, to comply with relevant legislation identified in Section 4.

Consultation referred to in Section 7 was considered in the assessment of impacts on threatened fauna, flora and threatened ecological communities.

Many of the mitigation measures provided in Section 9 are informed through these assessments.

## 8.1 Potential impacts

Section 1.7 of the EP&A Act applies the provisions of Part 7 of the BC Act that relate to the operation of the Act in connection with the terrestrial and aquatic environment.

### 8.1.1 Threatened fauna

The impact of dog off-leash access on the species listed in Section 6.2.1 have been assessed in this section.

Disturbance of nesting shorebirds and direct predation of eggs and chicks by domestic dogs has been recorded as a threat for all threatened shorebirds.

In a review of the impacts of dogs on nesting shorebirds, Maguire (2018) detailed the following impacts:

- Disturbance: ‘chasing and the unpredictable movement, proximity and speed of unrestrained dogs’ can lead to the prolonged absence of adult shorebirds from the nest.
- Egg predation.
- Egg crushing.
- Chick predation.

Maguire (2018) concluded that, while dog-free areas are the most effective at protecting shorebirds, this must be combined with alternative off-leash areas to promote greater compliance in more environmentally sensitive areas where dogs are prohibited.

Tests of Significance have been undertaken for the relevant BC Act listed species in Appendix 3 Test of Significance (BC Act). These Tests of Significance determined that the impact of the proposed activity on BC Act listed threatened species that have the potential to occur at the subject site is negligible.

The Yellow-bellied Glider is listed as Matters of National Significance (MNES) under the EPBC Act as Vulnerable. Additional fauna species listed as MNES that have the potential to occur at the subject site, include Common Sandpiper, Grey-tailed Tattler and Crested Tern as ‘Migratory’.

Assessments in accordance with the Commonwealth Significant Impact Guidelines 1.1 have been undertaken for these MNES (Appendix 4  Significant Impact Criteria for EPBC Act Listed Threatened Species). The assessment against the Significant Impact Criteria determined that the impact of the proposed activity on MNES that have the potential to occur at the subject site is negligible.

### 8.1.2 Threatened flora and ecological communities

There are no impacts on threatened flora species or threatened ecological communities within the subject site.

# 9 Impact mitigation

Mitigation hierarchy provides a multi-step approach to limit the amount of harm an action will have. Avoidance is the primary and preferential level of the hierarchy, resulting in no harm. This is followed by minimisation measures that aim to reduce the duration, intensity and/or extent of the impacts that are unable to be completely avoided. Offsetting is typically the final level of the hierarchy whereby unavoidable harm is compensated for elsewhere.

An adaptive management framework has been established for the subject site for the proposed activity. The implementation of management actions can be adjusted based on monitoring to ensure required outcomes are met.

Following the detailed assessment of environmental factors relating to the proposed activity in Section 6, consultation outcomes in Section 7 and the assessment of potential impact in Section 8, the following safeguards are required to mitigate potential impacts of the proposed activity on the community and environment:

- The nearby dog prohibited areas (Blenheim and Collingwood beaches) and adjacent dog on-leash access area at Plantation Point Reserve will mitigate the impact of the dog off-leash access area on members of the public using the reserve.
- Signage clearly detailing the dog on-leash transit areas and dog off-leash area will ensure dog owners and dog walkers are aware of these.
- New signage will utilise existing posts where possible.
- Educational signage regarding the threat of dogs to shorebirds will be installed at priority access points.
- The off-leash area is restricted to off-peak times (4 pm - 8 am Australian Eastern Daylight-Saving Time; 3 pm – 10 am Australian Eastern Standard Time) to limit impacts on other beach users.
- Regular monitoring by Council Rangers will occur to enforce compliance. The presence of Council Rangers will enable the provision of education to the community.
- A penalty infringement notice will be issued, following an initial caution, for any repeat offenders observed during regular inspections.
- Council's Environmental Services Department will liaise with NPWS South Coast Shorebird Recovery Program Coordinator on a regular basis, including key breeding season times. This will enable the provision of further subject matter expertise and a regulatory and collaborative influence from NPWS, to inform adaptive management of controls.
- Mitigation measures will be revised, as required, to ensure threatened and migratory shorebirds are adequately protected. Council will collaborate with NPWS South Coast Shorebird Recovery Program Coordinator regarding any revised mitigation measures.
- An adaptive management approach will be incorporated into the ongoing monitoring and maintenance of the site, which will respond to changes including threatened species distribution, human behaviour and resulting from ongoing engagement with stakeholders.

The above-listed mitigation measures address the key environmental factors assessed in Section 6 of this REF. All impacts from the proposed activity have been considered and the mitigation measures required to minimise these have been listed in Appendix 5  Impact mitigation measures.

# 10 Determination

This REF has assessed the likely environmental impacts, in the context of Part 5 of the EP&A Act of a proposed activity by Shoalhaven City Council to permit dogs off-leash on a stretch of Nelsons Beach, including the associated signage installation.

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

- The proposed safeguards identified in the report (Section 9 and Appendix 5 Impact mitigation measures) shall be adopted and adaptive management of the subject site will be implemented.
- It is unlikely that there will be any significant environmental impact in response to the proposed activity and an Environmental Impact Statement is not required for the proposed activity.
- 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.
- The proposed activity is not a 'controlled action' for the purposes of the EPBC Act and referral to the Commonwealth Environment Minister is not required.

Dr Michael Roberts

**Dr Michael Roberts**
Manager, Environmental Services
Shoalhaven City Council

**Date**: 22 August 2023

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# Appendix 1 Photographs of the subject site


Plate 1: Signage and access track at the northern end of Nelsons Beach.

Plate 2: Signage located at the southern end of Nelsons Beach.


Plate 3: Signage located at Plantation Point Reserve.

Plate 4: Access track located at the southern end of Nelsons Beach.

Plate 5: Southern aspect of Nelsons Beach.

Plate 6: Rock platform located at the southern end of Nelsons Beach.

Plate 7: Rocky cliff and vegetation along the southern portion of Nelsons Beach.

Plate 8: Rocks and drainage located at a southern access track of Nelsons Beach.

Plate 9: Northern end of Nelsons Beach.

Plate 10: Northern aspect of Nelsons Beach.

Plate 11: Vegetation and soil profile at the northern end of Nelsons Beach.

Plate 12: Vegetation along the foredune of Nelsons Beach.

Plate 13: Vegetation toward the southern end of Nelsons Beach.

Plate 14: Pathway along Plantation Point Parade that extends along Nelsons Beach.

Plate 15: Main area of park infrastructure at Plantation Point Reserve.

Plate 16: Plantation Point Reserve at the southern end of Nelsons Beach

# Appendix 2 Threatened species listed under BC Act and EPBC Act

An assessment of likelihood of occurrence was made for threatened and migratory species identified from database searches (Council's GIS Enquiry, Birdata and BioNet) and site visits (Table 1**Error! Reference source not found.**). Likelihood of occurrence was assessed for the species listed under BC Act and EPBC Act that have been previously recorded within the locality.

The terms for likelihood of occurrence (Table 3) are defined as below:

- High – the species was or has been observed/recorded on the site, and/or the site provides important habitat known to the species.
- Medium – the species was or has been observed/recorded on the site, and/or suitable habitat is located on the site, and/or the species is known to occupy the site habitat occasionally.
- Low – the species was or has been observed/recorded near the site. However, the site's habitat is considered unsuitable or unlikely for species to occur to the extent their life cycle would be impacted.

For threatened species determined to have a medium or high likelihood of occurrence listed under the BC Act, a Test of Significance (ToS) pursuant to section 7.3 of the BC Act has been conducted (Appendix 3).

For those listed under the EPBC Act, a Significant Impact Criteria (SIC), in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance, has been conducted (Appendix 4).

The following abbreviations are used to indicate the State and Commonwealth Status of species:

- CE = critically endangered
- E = endangered
- V = vulnerable
- M = migratory

*Table 3 Likelihood of occurrence of threatened species listed under BC Act and EPBC Act that may occur at the subject site*

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| **Birds** | | | | | | |
| Barking Owl | *Ninox connivens* | V | | Inhabits woodland and open forest, including fragmented remnants and partly cleared farmland. It is flexible in habitat use, and hunting can extend into closed forest and more open areas. Sometimes able to successfully breed along timbered watercourses in heavily cleared habitats due to the higher density of prey found on these fertile riparian soils. | Low | No – the species is unlikely to be reliant on the habitats located within the subject site. |
| Black Bittern | *Ixobrychus flavicollis* | V | | Inhabits both terrestrial and estuarine wetlands, generally in areas of permanent water and dense vegetation. Where permanent water is present, the species may occur in flooded grassland, forest, woodland, rainforest and mangroves. | Low | No – species records indicate presence is unlikely at the subject site, and the beach environs of the subject site lack the habitat requirements for this species. |
| Common Noddy | *Anous stolidus* | | M | Usually occurs on or near islands, on rocky islets and stacks with precipitous cliffs, or on shoals or cays of coral or sand. When not at the nest, individuals will remain | Low | No – the species is typically found on off-shore tropical islands. Records indicate presence is unlikely within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | close to the nest, foraging in the surrounding waters. Birds may nest in bushes, saltbush, or other low vegetation. | | |
| Common Sandpiper | *Actitis hypoleucos* | | M | Utilises a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins or rocky shores and rarely on mudflats. Occasionally utilises rocky shores. | Medium | **Yes** – (SIC Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species)<br>The species is known to use rocky shores on occasion and has been recorded at the subject site. |
| Crested Tern | *Thalasseus bergii* | | M | Coastal areas including open shores, low-lying sandy, rocky or coral islands and sometimes shrubland. | Medium | **Yes** – (SIC Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species)<br>The species has been recorded near the subject site and suitable habitat exists. |
| Dusky Woodswallow | *Artamus cyanopterus* | V | | Primarily inhabits dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and groundcover of grasses or sedges and fallen woody debris. It has also been recorded in shrublands, | Low | No – the species does not inhabit the sandy beach habitats present within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | heathlands and very occasionally in moist forest or rainforest. Also found in farmland, usually at the edges of forest or woodland. | | |
| Eastern Bristlebird | *Dasyornis brachypterus* | E | E | Dense, low vegetation including heath and open woodland with a heathy understorey. Age of habitat since fire is of paramount importance (15+ years required). | Low | No – while the species is known in the locality, it is unlikely to occur within the dune vegetation adjoining the subject site given the high level of human disturbance. |
| Eastern Curlew | *Numenius madagascariensis* | | CE, M | Generally, occupies coastal lakes, inlets, bays, estuarine habitats including intertidal mudflats and saltmarsh of sheltered coasts. Has been recorded on open beaches (often near estuaries, and coral reefs and rocky platforms). | Low | No – required habitat is not present within the subject site as the species is unlikely to utilise the beach environs. |
| Eastern Ground Parrot | *Pezoporus wallicus* | V | | Occurs in high rainfall coastal and near coastal low heathlands and sedgelands, 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 | Low | No – while the species is known in the locality, it is unlikely to occur within the dune vegetation adjoining the subject site given the high level of human disturbance. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | opportunities. It spends most of its time on or near the ground. | | |
| Eastern Osprey | *Pandion cristatus* | V | | Favours coastal areas, especially the mouths of large rivers, lagoons and lakes. | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act))<br>The species has been recorded near the subject site and suitable habitat is located nearby. |
| Gang-gang Cockatoo | *Callocephalon fimbriatum* | V | E | In spring and summer, generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests.<br>In autumn and winter, the species often moves to lower altitudes in drier more open eucalypt forests and woodlands, particularly box-gum and box-ironbark assemblages, or in dry forest in coastal areas and often found in urban areas. | Low | No – while the species has been recorded near the subject site, required habitat types are absent. |
| Glossy Black-Cockatoo | *Calyptorhynchus lathami* | V | V | Inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur. Black Sheoak (*Allocasuarina littoralis*) and Forest Sheoak (*A. torulosa*) are important foods. | Low | No – while the species has been recorded near the subject site, required habitat types are absent. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| Grey-tailed Tattler | *Tringa brevipes* | | M | Found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. Also found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide. | Medium | **Yes** – (SIC Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species)<br>The southern portion of the subject site contains a rock platform, and the species has been recorded within the subject site. |
| Latham's Snipe | *Gallinago hardwickii* | | M | Occurs in open, freshwater wetlands that have some form of shelter (usually low and dense vegetation) nearby, or saline or brackish water, such as saltmarsh, mangrove creeks, around bays and beaches, and at tidal rivers. | Low | No – no suitable habitat is present within the subject site in the form of wetland areas. |
| Little Eagle | *Hieraaetus morphnoides* | V | | Occupies open eucalypt forest, woodland or open woodland. Sheoak or Acacia woodlands and riparian woodlands of interior NSW are also used. Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter. | Low | No – species records indicate presence is uncommon at the subject site and suitable habitats are absent. |
| Little Lorikeet | *Glossopsitta pusilla* | V | | Forages primarily in the canopy of open *Eucalyptus* forest and woodland, yet also finds food in *Angophora, Melaleuca* and other | Low | No – required habitat is not present within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity. | | |
| Masked Owl | *Tyto novaehollandiae* | V | | Dry eucalypt forests and woodlands from sea level to 1100 m. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Olive Whistler | *Pachycephala olivacea* | V | | Mostly inhabit wet forests above about 500 m. During the winter months they may move to lower altitudes. | Low | No – this species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Pied Oystercatcher | *Haematopus longirostris* | E | | Favours intertidal flats of inlets and bays, open beaches and sandbanks. Coastal or estuarine beaches. | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act))<br>This species has been recorded in the study area and is a known resident of the Shoalhaven. |
| Powerful Owl | *Ninox strenua* | V | | Inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. Requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. | Low | No - this species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| Regent Honeyeater | *Anthochaera phrygia* | E | CE | Inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak. These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes. | Low | No – records indicate the species is unlikely to occur at the subject site. No breeding habitat for the species occurs in the Shoalhaven. |
| Short-tailed Shearwater | *Ardenna tenuirostris* | | M | Pelagic species. Coastal areas including open shores, low lying sandy, rocky, or coral island, and sometimes shrubland. | Low | No – this is a pelagic species with no suitable habitat present within the subject site. |
| Sooty Tern | *Onychoprion fuscata* | V | | Found over tropical and sub-tropical seas and on associated islands and cays around Northern Australia. In NSW, only known to breed at Lord Howe Island. Occasionally seen along coastal NSW, especially after cyclones. | Low | No – presence is unlikely at the subject site. |
| Sooty Owl | *Tyto tenebricosa* | V | | Occurs in rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forests. | Low | No – this species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Sooty Oystercatcher | *Haematopus fuliginosus* | V | | Favours rocky headlands, rocky shelves, exposed reefs with rock | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act)) |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | pools, beaches and muddy estuaries. | | The species has been recorded near the subject site and suitable habitat is present. |
| Square-tailed Kite | *Lophoictinia isura* | V | | Found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses. | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act))<br>The species has been recorded near the subject site and suitable habitat is located within the study area. |
| Swift Parrot | *Lathamus discolor* | E | CE | Occur in areas where eucalypts are flowering profusely or where there are abundant lerp (from sap-sucking bugs) infestations. Favoured feed trees include winter flowering species such as Swamp Mahogany *Eucalyptus robusta*, Spotted Gum *Corymbia maculata*, Red Bloodwood *C. gummifera*, Forest Red Gum *E. tereticornis,* Mugga Ironbark *E. sideroxylon,* and White Box *E. albens*. Commonly used lerp infested trees include Inland Grey Box *E. microcarpa,* Grey Box *E. moluccana,* Blackbutt *E. pilularis*, and Yellow Box *E. melliodora*. | Low | No - species records and habitat assessment indicate the species is unlikely to occur at the subject site. No breeding habitat for the species occurs in the Shoalhaven. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| Turquoise Parrot | *Neophema pulchella* | V | | Lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland. | Low | No – species records indicate presence is unlikely at the subject site. |
| Varied Sittella | *Daphoenositta chrysoptera* | V | | Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. | Low | No – species records indicate presence is unlikely at the subject site. |
| Wedge-tailed Shearwater | *Ardenna pacifica* | | M | Mostly a pelagic, marine species. Found along inshore and offshore water masses. | Low | No – the species relies on offshore islands for breeding and typically forages at sea. The species is not reliant on the habitats located within the subject site. |
| White-bellied Sea Eagle | *Haliaeetus leucogaster* | V | | Occurs around areas of open water including larger rivers, swamps, lakes, and the sea. Occurs at sites near the sea or seashore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves; and at, or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs and saltmarsh. Terrestrial habitats include coastal dunes, tidal flats, | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act))<br>Species has been recorded near the subject site and suitable habitat exists. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | grassland, heathland, woodland, and forest (including rainforest). | | |
| White-throated Needletail | *Hirundapus caudacutus* | | V, M | Mostly found in coastal areas, in most vegetation and habitat types including forested wetlands, freshwater wetlands, grasslands, saline wetlands, and coastal beaches and estuaries. | Low | No – typically an aerial species that do not breed in Australia. May roost in trees, but unlikely to rely on the beach habitats within the subject site. |
| **Frogs** | | | | | | |
| Giant Burrowing Frog | *Heleioporus australiacus* | V | V | Found in heath, woodland and open dry sclerophyll forest on a variety of soil types except those that are clay-based. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Green and Golden Bell Frog | *Litoria aurea* | E | V | Inhabits marshes, dams and stream-sides, particularly those containing bullrushes (*Typha* spp.) or spike rushes (*Eleocharis* spp.).<br>Optimum habitat includes waterbodies that are unshaded, free of predatory fish such as Plague Minnow (*Gambusia holbrooki*), have a grassy area nearby and diurnal sheltering sites available. | Low | No - the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | | | |
| **Reptiles** | | | | | | |
| Green Turtle | *Chelonia mydas* | V | V | Ocean-dwelling species spending most of its life at sea. | Low | No – marine reptile that does not breed on Shoalhaven beaches. |
| Hawksbill Turtle | *Eretmochelys imbricata* | | V | Ocean-dwelling species spending most of its life at sea. | Low | No – marine reptile that does not breed on Shoalhaven beaches. |
| **Insects** | | | | | | |
| Giant Dragonfly | *Petalura gigantea* | E | | Occupies a variety of permanent to semi-permanent coastal freshwater wetlands. | Low | No – species records indicate presence is unlikely at the subject site and no important habitat in the form of wetland areas are present within the subject site. |
| **Mammals** | | | | | | |
| Australian Fur-seal | *Arctocephalus pusillus doriferus* | V | | Occurs in inshore and offshore marine waters. | Low | No – species records and habitat observations indicate the species is unlikely to occur within the subject site. |
| Eastern Chestnut Mouse | *Pseudomys gracilicaudatus* | V | | Found in heathland and is most common in dense, wet heath and swamps. In the tropics it is more an animal of grassy woodlands. Optimal habitat appears to be in vigorously regenerating heathland | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | burnt from 18 months to four years previously. | | |
| Eastern Coastal Free-tailed Bat | *Micronomus norfolkensis* | V | | Occur in dry sclerophyll forest, woodland, swamp forests and mangrove forests. | Low | No – no impact as the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Eastern False Pipistrelle | *Falsistrellus tasmaniensis* | V | | Prefers moist habitats, with trees taller than 20 m. Generally, roosts in eucalypt hollows, but has also been found under loose bark on trees or in buildings. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Eastern Pygmy-possum | *Cercartetus nanus* | V | | 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. Occupy small patches of vegetation in fragmented landscapes, can be known to occur in grassy woodlands and the presence of Eucalypts alone is sufficient for populations of low densities. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Greater Broad-nosed Bat | *Scoteanax rueppellii* | V | | Utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, | Low | No – the species is unlikely to be reliant on the vegetation |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | though it is most commonly found in tall wet forest. | | communities or habitats located within the subject site. |
| Grey-headed Flying-fox | *Pteropus poliocephalus* | V | V | Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Humpback Whale | *Megaptera novaeangliae* | V | V | The population of Australia's east coast migrates from summer cold-water feeding grounds in Subantarctic waters to warm-water winter breeding grounds in the central Great Barrier Reef. | Low | No – ocean-going species. |
| Koala | *Phascolarctos cinereus* | E | E | Inhabit eucalypt woodlands and forests. | Low | No – species records indicate presence is unlikely within the subject site. |
| Large Bent-winged Bat | *Miniopterus orianae oceanensis* | V | | Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| New Holland Mouse | *Pseudomys novaehollandiae* | | V | Known to inhabit open heathlands, woodlands and forests with a heathland | Low | No – species records indicate presence is unlikely at the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | understorey and vegetated sand dunes. | | |
| New Zealand Fur-seal | *Arctocephalus forsteri* | V | | Prefers rocky parts of islands with jumbled terrain and boulders. | Low | No – species records and habitat observations indicate the species is unlikely to occur within the subject site. |
| Southern Brown Bandicoot (eastern) | *Isoodon obesulus* | E | E | Generally, only found in heath or open forest with a heathy understorey on sandy or friable soils. | Low | No – species records and habitat observations indicate the species is unlikely to occur within the subject site. |
| Southern Greater Glider | *Petauroides volans* | | E | Can be found in dry or wet sclerophyll forests, heathlands and temperate rainforests. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Southern Myotis | *Myotis macropus* | V | | Typically roosts close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Southern Right Whale | *Eubalaena australis* | E | E | Migrate between summer feeding grounds in Antarctica and winter breeding grounds around the coasts of southern Australia, New Zealand, South Africa and South America. They feed in the open ocean in summer | Low | No – ocean-going species. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| Spotted-tailed Quoll | *Dasyurus maculatus* | V | E | Utilise a variety of habitat types from rainforests to coastal heath. Occupy hollow-bearing trees, fallen logs, other animal burrows and caves for den sites. | Low | No – species records and habitat observations indicate the species is unlikely to occur within the subject site. |
| Squirrel Glider | *Petaurus norfolcensis* | V | | 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. Prefers mixed species stands with a shrub or Acacia mid-storey. | Low | No – species records and habitat observations indicate the species is unlikely to occur within the subject site. |
| White-footed Dunnart | *Sminthopsis leucopus* | V | | Can be found in 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. | Low | No – the species is unlikely to be reliant on the vegetation communities or habitats located within the subject site. |
| Yellow-bellied Glider | *Petaurus australis* | V | V | Occur in tall mature eucalypt forest generally in areas with high rainfall and nutrient-rich soils. Forest type preferences vary with latitude and elevation, moist coastal gullies and creek flats to | Medium | **Yes** – (ToS Appendix 3 Test of Significance (BC Act), SIC Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species) |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | tall montane forests in the south. | | The species has been recorded near the subject site and suitable habitat is located within the study area. |
| **Plants** | | | | | | |
| Bauer's Midge Orchid | *Genoplesium baueri* | E | E | Grows in dry sclerophyll forest and moss gardens over sandstone. | Low | No – habitat preferences are not available within the subject site. |
| Biconvex Paperbark | *Melaleuca biconvexa* | V | V | Generally, grows in damp places, often near streams or low-lying areas on alluvial soils of low slopes or sheltered aspects. | Low | No – habitat preferences are not available within the subject site. |
| Eastern Australian Underground Orchid | *Rhizanthella slateri* | V | E | Habitat requirements are poorly understood, and no particular vegetation type has been associated with the species, although it is known to occur in sclerophyll forest. | Low | No – species records and field observations indicate presence is unlikely within the subject site. |
| Jervis Bay Leek Orchid | *Prasophyllum affine* | E | E | Grows on poorly drained grey clay soils that support low heathland and sedgeland communities. | Low | No – habitat preferences are not available within the subject site. |
| Leafless Tongue Orchid | *Cryptostylis hunteriana* | V | V | Does not appear to have well defined habitat preferences and is known from a range of | Low | No – habitat preferences are not available within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| | | | | communities, including swamp-heath and woodland. | | |
| Magenta Lilly Pilly | *Syzygium paniculatum* | E | V | Occurs on grey soils over sandstone, restricted mainly to remnant stands of littoral (coastal) rainforest. | Low | No – species records and field observations indicate presence is unlikely within the subject site. |
| Pretty Beard Orchid | *Calochilus pulchellus* | E | | 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. In Booderee National Park it grows in a tall heathy association. In Morton National Park on the Little Forest Plateau, it occurs in low heath among scattered clumps of emergent eucalypts and *Banksia* in shallow coarse white sand over sandstone, in a near-escarpment area subject to strong orographic precipitation. | Low | No – species records and field observations indicate presence is unlikely within the subject site. |
| Scrub Turpentine | *Rhodamnia rubescens* | E | CE | Found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest usually on volcanic and sedimentary soils. | Low | No – species records and field observations indicate presence is unlikely within the subject site. |

| Common name | Scientific name | Legislation | | Habitat associations | Likelihood of occurrence | Significance assessment completed (Appendix 3 and 4) |
|---|---|---|---|---|---|---|
| | | BC Act | EPBC Act | | | |
| Thick Lip Spider Orchid | *Caladenia tessellata* | E | V | Generally found in grassy sclerophyll woodland on clay loam or sandy soils, though the population near Braidwood is in low woodland with stony soil. | Low | No – species records indicate presence is unlikely at the subject site. |
| | *Banksia vincentia* | CE | CE | Low sedgeland and grassy heath, sometimes amongst emergent mallee *Eucalyptus gummifera* and other tall shrubs of *Banksia* and *Hakea*.<br>Found on coastal sands over clay on sandstone.<br>One population known, containing 14 individuals. | Low | No – the species was not observed and is unlikely to be present within the subject site. Genetic testing has indicated that this is not a separate species. |
| | *Pterostylis ventricosa* | E | | Predominantly in more open areas of tall coastal eucalypt forest often dominated by one or more of the following tree species: Turpentine, Spotted Gum, Grey Ironbark, Blackbutt, White Stringybark, Scribbly Gum and Sydney Peppermint. Often favours more open areas such as along powerline easements and on road verges where the tree overstorey has been removed or thinned. | Low | No – species records indicate presence is unlikely at subject site. |

# Appendix 3 Test of Significance (BC Act)

Following the analysis of likelihood of occurrence (Appendix 2), the BC Act Test of Significance was applied to:

Fauna

- Sooty Oystercatcher
- Pied Oystercatcher
- White-bellied Sea Eagle
- Square-tailed Kite
- Eastern Osprey
- Yellow-bellied Glider

**a) 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.**

Threatened shorebirds – Sooty Oystercatcher, Pied Oystercatcher

Sooty Oystercatcher typically breed on offshore islands, and occasionally on isolated promontories. They tend to favour rocky headlands, rocky shelves, exposed reefs with rock pools, beaches, and muddy estuaries. Nelsons Beach provides suitable habitat in some locations for foraging behaviour, including the rock platforms located at the north and south ends of the beach. However, the disturbance to the species resulting from dogs being off-leash is unlikely to have a significant impact on the survival of the species as more adequate foraging habitat is located at nearby beaches that are dog prohibited.

Pied Oystercatchers have been previously recorded in the study area but have not been known to nest on Nelsons Beach. Nelsons Beach provides suitable habitat for the Pied Oystercatcher. However, as records, observations and consultation outcomes indicate nesting is unlikely, and more suitable habitat is located to the north at Collingwood Beach and Moona Moona Creek (which are dog prohibited), the proposed activity is considered unlikely to have a significant impact on the life cycle of the species.

As such, the proposed activity is unlikely to have an adverse effect on the life cycle of the Sooty Oystercatcher and Pied Oystercatcher such that a viable local population of the species is to be placed at risk of extinction. A Species Impact Statement (SIS) or entry into the BOS is not required.

Threatened birds – White-bellied Sea Eagle, Square-tailed Kite, Eastern Osprey

Nelsons Beach foredune and surrounding vegetation provides appropriate habitat for the White-bellied Sea Eagle. The species has been recorded in terrestrial habitats including coastal dunes, tidal flats, grassland, heathland, woodland, and forest (including rainforest). Breeding habitat consists of mature tall open forest, tall woodland, and swamp sclerophyll forest close to foraging habitat. Nest trees are typically large emergent eucalypts and often have emergent dead branches or large dead trees nearby which are used as ‘guard roosts’. This species has also been recorded to construct nests on a cliff edge, on a telegraph pole, and in some cases, on the ground or on rocks (where there are no suitable 30 metre or greater elevations). White-bellied Sea Eagles have not been recorded nesting in the area. However, if nesting was to occur, the species would be unaffected due to the nature and location of preferred potential nesting locations being outside the subject site.

Foraging habitat is also critical in the life cycle of White-bellied Sea Eagle. White-bellied Sea-eagles predominately feed on fish, birds and aquatic reptiles. The species is considered a scavenger, and forage over freshwater and marine landscapes where they hunt prey from a perch or whilst in flight. Prey is often consumed in flight or taken to a feeding platform, but some items are consumed on the ground. Foraging habitat along Nelsons Beach may be reduced by the presence of dogs. However, the waters of the bay and other beach areas provide extensive areas suitable for foraging.

The Square-tailed Kite species mainly inhabit open eucalyptus forests and woodlands, often dominated by stringybarks, peppermints or box–ironbark eucalypts. They will also utilise habitats dominated by Woollybutt, Spotted Gum, Manna Gum, Messmate, River Red Gums, as well as other trees such as Angophora, cypress-pines and casuarinas. It also occurs along the edges of dense forest and along road verges with remnant or planted trees, and in clearings within forest or in areas of regrowth, up to 4 years after the area has been devoid of vegetation. The species typically nests along or near watercourses, in a fork of a tree, or on large horizontal lead branches. Critical habitat needed for the survival of Square-tailed Kite is not located within the subject site and is therefore not considered to be affected by the proposed activity.

Eastern Osprey is considered uncommon to rare or absent from many closely settled parts of south-eastern Australia but has been recorded within the Vincentia locality. Eastern Osprey favour coastal areas, especially the mouths of large rivers, lagoons and lakes. When nesting, Eastern Osprey create nests in high dead trees within 1 km from the sea. Suitable habitat for nesting occurs along Nelsons Beach. However, the species has not been recorded nesting adjacent to the dog off-leash access area. It is unlikely that the proposed activity will have a significant impact on the survival of the species, due to the nature and location of nests, occurring high in trees. Eastern Osprey feed on fish over clear, open water, so foraging behaviour will remain unaffected.

It is therefore considered unlikely that the White-bellied Sea Eagle, Square-tailed Kite, and Eastern Osprey would be impacted on by the proposed activity. The proposed activity is unlikely to have an adverse effect on the lifecycle of these species such that a viable local population of any of these species is likely to be placed at risk of extinction.

Threatened mammals – Yellow-bellied Glider

Yellow-bellied Glider occurs in tall mature eucalyptus forest generally in areas with high rainfall and nutrient rich soils. This species creates dens in the hollows of large trees, often in family groups of two to six individuals. They are highly mobile and occupy large home ranges between 20 to 85 ha to encompass dispersed and seasonally variable food resources.

Given the absence of optimal habitats in the subject site and study area at Nelsons Beach, it is considered unlikely Yellow-bellied Glider will be impacted on by the proposed activity. The proposed activity is unlikely to have an adverse effect on the lifecycle of the Yellow-bellied Glider such that a viable local population of any of these species is likely to be placed at risk of extinction.

**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.**

Not applicable.

**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, and**

**(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, population or ecological community in the locality.**

No habitat of a threatened species or ecological community is likely to be removed/modified or become fragmented or isolated from other areas of habitat as a result of this proposed activity.

**c) 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 value have been declared in the City of Shoalhaven.

**d) 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 proposed activity will not contribute to any key threatening process listed under the NSW BC Act.

**Conclusion**

The Test of Significance concludes that the proposed activity will not have a significant impact on threatened species. As such, a Species Impact Statement or entry into the Biodiversity Offset Scheme is not required.

# Appendix 4 Significant Impact Criteria for EPBC Act Listed Threatened Species

The Commonwealth *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* details criteria to assess whether the proposed activity is likely to have a significant impact to matters of national environmental significance (MNES), and whether referral to the Commonwealth Department for further assessment and approval is required.

The Significant Impact Guidelines provide varying criteria depending on the conservation status. The relevant criteria for threatened species as per their commonwealth status is outlined in Appendix 4.

The following terminology is used throughout the Significant Impact Criteria (SIC) assessment and is defined below:

- **Population of a species:** an occurrence of the species in a particular area. In relation to critically endangered, endangered or vulnerable threatened species, occurrences include but are not limited to:
  - a geographically distinct regional population, or collection of local populations, or
  - a population, or collection of local populations, that occurs within a particular bioregion.
- **Important population of a species:** a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:
  - key source populations either for breeding or dispersal
  - populations that are necessary for maintaining genetic diversity, and/or
  - populations that are near the limit of the species range.
- **Invasive species:** an introduced species, including an introduced (translocated) native species, which out-competes native species for space and resources, or which is a predator of native species.
- **Habitat critical for the survival of a species** refers to areas that are necessary:
  - for activities such as foraging, breeding, roosting, or dispersal
  - for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators)
  - to maintain genetic diversity and long-term evolutionary development, or
  - for the reintroduction of populations or recovery of the species or ecological community
- **Important habitat for migratory species:**
  - habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or
  - habitat that is of critical importance to the species at particular life-cycle stages, and/or
  - habitat utilised by a migratory species which is at the limit of the species range, and/or

- habitat within an area where the species is declining.

Following the analysis of Likelihood of Occurrence (Appendix 2), the EPBC Act SIC were applied for the following taxa:

Vulnerable

- Yellow-bellied Glider

Migratory

- Common Sandpiper
- Grey-tailed Tattler
- Crested Tern

## Vulnerable species

- **Yellow-bellied Glider *Petaurus australis***

Each significant impact criterion is addressed below:

***Lead to a long-term decrease in the size of an important population of a species***

No important populations of the Yellow-bellied Glider have been recorded within the subject site. The subject site does not provide habitat for the species that would support key source populations for breeding or dispersal or populations necessary for maintaining genetic diversity.

***Reduce the area of occupancy of an important population***

No important populations of the Yellow-bellied Glider have been recorded within the subject site or study area.

The species is not known to occupy the subject site due to the absence of preferential and complementary breeding, sheltering and foraging habitat. Although the species may utilise the study area for foraging purposes, this is considered marginal as it prefers tall mature eucalyptus forest generally in areas with high rainfall and nutrient rich soils. Therefore, the proposed activity is not considered to reduce the area of occupancy for the Yellow-bellied Glider species.

***Fragment an existing important population into two or more populations***

No important populations of the Yellow-bellied Glider have been recorded within the subject site or study area.

Due to the absence of preferred habitats within the subject site and study area, the proposed activity is considered unlikely to fragment a population of this species.

***Adversely affect habitat critical to the survival of a species***

The Yellow-bellied Glider species occupies tall mature eucalypt forest, and in the southern part of their distribution, favour moist coastal gullies, creek flats and tall montane forests. Foraging habitat consists of nectar, sap, honeydew and manna. Breeding habitat comprises accompanying large hollow-bearing trees.

Due to the absence of preferred habitats within the subject site and study area, the proposed activity will not adversely affect habitat critical to the survival of the Yellow-bellied Glider.

***Disrupt the breeding cycle of an important population***

No important populations of the Yellow-bellied Glider have been recorded within the subject site or study area.

This species creates dens, often in family groups of two to six individuals, in large hollows. Such habitat for the species is not located within the subject site and study area. Therefore, it is considered unlikely that the proposed activity will disrupt the breeding cycle of the Yellow-bellied Glider.

***Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline***

Given the absence of breeding and foraging habitat for the Yellow-bellied Glider in the subject site and study area, the proposed activity will not destroy, remove, isolate or decrease the availability or quality of habitat for the species.

***Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat***

The proposed activity is unlikely to result in the establishment of an invasive species that is harmful to Yellow-bellied Glider.

***Introduce disease that may cause the species to decline, or***

The proposed activity is unlikely to result in the introduction of a disease that may cause the Yellow-bellied Glider species to decline.

***Interfere substantially with the recovery of the species.***

Considering the above factors, the proposed activity will not interfere substantially with the recovery of the species.

**Conclusion**

The proposed activity is not considered to constitute a significant impact on the Yellow-bellied Glider and therefore a referral to the Commonwealth is not recommended.

## Migratory Species

- **Common Sandpiper *Actitis hypoleucos***
- **Grey-tailed Tattler *Tringa brevipes***

Both the Common Sandpiper and Grey-tailed Tattler occupy a similar habitat consisting of intertidal mudflats or sand flats, or rock platforms, located near estuaries, lakes, lagoons, or harbours, so have been considered together. Each significant impact criterion has been assessed below:

***Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species***

The Common Sandpiper occupies shallow, pebbly, muddy or sandy riparian areas of rivers and the associated tributaries and are found in a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity. The Common Sandpiper has been recorded in estuaries and deltas of streams, as well as on banks further upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties. The muddy margins utilised by the species are often narrow and may be steep. The species is often associated with mangroves, and sometimes

found in areas of mud littered with rocks or snags. On occasion, the species has been recorded on sandy beaches. However, occurrence is rare.

The Grey-tailed Tattler is often found on sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide. It has been found around shores of rock, shingle, gravel or shells and also on intertidal mudflats in embayments, estuaries and coastal lagoons, especially fringed with mangroves. Occasionally, the species is recorded on sandy beaches.

The proposed activity is unlikely to modify important habitat for the Common Sandpiper or Grey-tailed Tattler. Important habitat along nearby coastal habitats, such as Moona Moona Creek, will remain unaffected by the proposed activity, as it is dog prohibited. No important habitat will be destroyed or isolated due to the proposed activity.

***Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or***

Important habitat for the Common Sandpiper or Grey-tailed Tattler does not occur within the subject site or study area.

The proposed activity is unlikely to result in the establishment of an invasive species that is harmful to Common Sandpiper or Grey-tailed Tattler.

***Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.***

The Common Sandpiper breeds in Europe and Asia between April and August. The Grey-tailed Tattler breeds in the Siberia from late May to August. There will be no impact to the breeding cycle of both species.

Common Sandpiper generally forages in shallow water and on bare soft mud at the edges of wetlands, often where obstacles project from substrata, e.g. rocks or mangrove roots. The species sometimes venture into grassy areas adjoining wetlands. Similarly, Grey-tailed Tattler forages in shallow water, on hard intertidal substrates, such as reefs and rock platforms, in rock pools and among rocks and coral rubble, over which water may surge. It has also been recorded foraging on exposed intertidal mudflats, especially with mangroves and possibly seagrass nearby. Occasionally, it forages on intertidal sandflats, around banks of seaweed or protruding rocks or lumps of coral. Both species have occasionally been recorded on open-coast sandy beaches, but sandy beaches do not provide significant habitat for feeding, therefore there would be no impact on the foraging behaviour of both species.

Common Sandpiper roosts on rocks or in roots or branches of vegetation, especially mangroves. The species is known to perch on posts, jetties, moored boats, and other artificial structures, and to sometimes rest on mud or 'loaf' on rocks. Grey-tailed Tattler usually roosts in the branches of mangroves or, rarely, in dense stands of other shrubs, or on snags or driftwood. Where mangroves are not present, it roosts on rocks that are sometimes partly submerged. It is also known to roost on beaches and reefs. However, it has been rarely reported roosting on bare sandy beaches or sandbanks.

The subject site does not provide suitable habitat for the breeding, feeding or resting behaviour of the Common Sandpiper or Grey-tailed Tattler, and migratory behaviour of these species will not be affected by the proposed activity.

**Conclusion**

The proposed activity is not considered to constitute a significant impact on the Common Sandpiper and Grey-tailed Tattler. A referral to the Commonwealth is not recommended.

- **Crested Tern *Thalasseus bergii***

Each significant impact criterion has been assessed below:

**Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species.**

The Crested Tern is found in a variety of coastal environments, including open shores, low-lying sandy, rocky or coral islands, estuaries, and sometimes shrubland.

The proposed activity is unlikely to modify the sandy habitats available within the subject site and study area. Important habitat nearby, such as Orion Beach and Blenheim Beach, remain unaffected by the proposed activity.

**Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species.**

Important habitat for the Crested Tern does not occur within the subject site and study area.

The proposed activity is unlikely to result in the establishment of an invasive species that is harmful to the Crested Tern species.

**Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.**

The Crested Tern is classified as migratory because they breed on offshore islands in large colonies. The species are oceanic forages, and dive for small fish. During calm weather, Crested Tern may rest on the surface of the ocean. However, during more extreme weather, they will shelter within sand dunes, rocks or vegetation. Nelsons Beach does provide suitable habitat for such resting behaviour, but occurrence is unlikely to coincide with the proposed activity as it typically takes place during bad weather. Nearby beaches will remain dog prohibited (Collingwood Beach and Blenheim Beach); therefore, suitable and more preferred habitat for Crested Tern will be available, and thus, the proposed activity will not seriously disrupt the breeding, feeding, migratory or resting behaviour of the species.

**Conclusion**

The proposed activity is not considered to constitute a significant impact on the Crested Tern and therefore, a referral to the Commonwealth is not recommended.

# Appendix 5 Impact mitigation measures

*Table 4 Environmental safeguards and mitigation table for potential impacts on the community and environment in response to the proposed activity*

| Category | Type of Impact | Safeguard/Mitigation Measure |
|---|---|---|
| Flora and Fauna | Loss of threatened species and associated habitats | Educational signage regarding the presence of threat of dogs to shorebirds will be installed at priority access points. |
| | | Council's Environmental Services Department will liaise with NPWS South Coast Shorebird Recovery Program Coordinator on a regular basis, including key breeding season times. This will enable the provision of further subject matter expertise and a regulatory and collaborative influence from NPWS, to inform adaptive management of controls. |
| | | No trees or vegetation will be removed. |
| | | Adaptive management of the subject site will be implemented. Mitigation measures will be revised, as required, to ensure threatened and migratory shorebirds are adequately protected. Council will collaborate with NPWS South Coast Shorebird Recovery Program Coordinator regarding any revised mitigation measures. |
| | Vegetation clearing | Signage installation will utilise existing posts where possible. |
| | Trail proliferation and trampling | Existing access tracks will be utilised to ensure surrounding vegetation remains undisturbed. |
| | | If the vegetation surrounding the access tracks become disturbed or degraded, fencing will be installed to confine beach users to the transit access tracks only. |
| | Invasive species | Equipment used for signage installation and ancillary works will be cleaned prior to entering and leaving the subject site to ensure invasive plant species are not introduced or transported. |

| Category | Type of Impact | Safeguard/Mitigation Measure |
|---|---|---|
| Water | Water pollution – dog waste | Dog owners/walkers are required to clean up dog faeces under the CA Act. Compliance activities will help to enforce this obligation. |
| Heritage items | Aboriginal heritage – unexpected finds of heritage items | If Aboriginal heritage items are uncovered during signage installation and ancillary works, all works will cease and the steps under the NSW Department of Planning and Environment's Due Diligence Code of Practice for the Protection of Aboriginal Objects will be followed. |
| | Non-indigenous heritage – unexpected finds of heritage items | If heritage items listed under the *Shoalhaven Local Environmental Plan 2014* or the State Heritage List are uncovered during signage installation and ancillary works, all works will cease, and a statement of heritage impact will be prepared. |
| Noise | Noise during dog off-leash hours | Reports and submissions regarding noise will be monitored and adaptive management will be implemented. |
| | | The works involved in signage installation would be very short term and the noise generated will occur during normal working hours. There are no sensitive receivers in the vicinity of the proposed works. |
| Social | Impact on beach users | The off-leash area is limited to off-peak times (4 pm to 8 am Australian Eastern Daylight-Saving Time; and 3 pm to 10 am Australian Eastern Standard Time) to limit impacts on other beach users. |
| | | The restricted time dog off-leash access area is designated at Nelsons Beach as it is not a significantly high use area. High-use areas in proximity to Nelsons Beach, including Blenheim Beach, and Collingwood Beach, are dog prohibited to provide a dog-free area for the public. |
| | | Dog owners/walkers are required to have control of their dogs at all times and are responsible for waste disposal from dog faeces under the CA Act. Compliance activities will help to enforce this obligation. |

| Category | Type of Impact | Safeguard/Mitigation Measure |
|---|---|---|
| | | Signage clearly detailing the dog on-leash and off-leash areas will ensure dog owners are aware of dog access restrictions. |
| | | Council Rangers will monitor the subject site regularly to enforce compliance and to determine if on-leash transit areas are being appropriately utilised. |
| | | A penalty infringement notice will be issued, following an initial caution, for any repeat offenders observed during regular inspections. |
| | | An adaptive management approach will be incorporated into the ongoing monitoring and maintenance of the site, which will respond to changes including threatened species distribution, human behaviour and resulting from ongoing and regular assurance activities with stakeholders |
| Waste minimisation and management | Amenity and pollution | Garbage bins are located at main access points to the off-leash zone to promote compliance. |