

DOCUMENT B: COASTAL MINOR WORKS OVERVIEW AND LEGISLATIVE REVIEW

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DEFINITIONS

Term	Definition
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
ALA	Atlas of Living Australia
AS	Australian Standard
ASS	Acid Sulfate Soils
BC Act	<i>Biodiversity Conservation Act 2016 (NSW)</i>
Beach Nourishment	Replacement of, or addition of, sediment on a beach through the means of transporting sand from one location and depositing at the location (beach) where it is required.
Beach Scraping	A form of beach nourishment involving the movement of sand from the immediate and adjacent dynamic zone to the foredune
CAMBA	China-Australia Migratory Bird Agreement
Contaminated LM Act	<i>Contaminated Land Management Act 1997 (NSW)</i>
Crown LM Act	<i>Crown Land Management Act 2016 (NSW)</i>
CM Act	<i>Coastal Management Act 2016 (NSW)</i>
CMP	Coastal Management Program
CZMP	Coastal Zone Management Plan
Coastal Minor Works	Works as defined in Section 3 of this document.
Coastal Protection Works	As defined in <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> s 2.16
CZEAS	Coastal Zone Emergency Action Subplan
Council	Shoalhaven City Council
DAWE	Department of Agriculture, Water and the Environment
DEE	Department of Environment and Energy
DPE	Department of Planning and Environment
DPI - Fisheries	Department of Primary Industries - Fisheries

Term	Definition
Due Diligence Guidelines	Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales
Dynamic Zone	Area between the incipient dune and the water. Includes intertidal areas and waterway inlets
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Act 1999 (Cth)</i>
EPI	Environmental Planning Instruments
ESCP	Erosion and Sediment Control Plan
FM Act	<i>Fisheries Management Act 1994 (NSW)</i>
GIS	Geographic Information System
Intertidal Area	Area between the highest and lowest astronomical tide
JAMBA	Japan-Australia Migratory Bird Agreement
KFH	Key Fish Habitat as per <i>Fisheries Management Act 1994 (NSW)</i>
KTP	Key Threatening Processes
LGA	Local Government Area
Locality	Total area within 10 km of the proposed work site
MEM Act	<i>Marine Estate Management Act 2014 (NSW)</i>
MEMA	Marine Estate Management Authority
MEMS	Marine Estate Management Strategy 2018-2028
MNES	Matters of National Environmental Significance
NABE	Nature Assisted Beach Enhancement
NP&W Act	<i>National Parks and Wildlife Act 1974 (NSW)</i>
NPWS	National Parks and Wildlife Service
NSW	New South Wales

Term	Definition
PASS	Potential Acid Sulfate Soils
PCT	Plant Community Type
PMST	Protected Matters Search Tool
POEO Act	<i>Protection of Environment Operations Act 1997</i> (NSW)
PoM	Plan of Management
Project manager	Council Officer responsible for the project under which the coastal minor works are being undertaken. As defined in Document A.
Proposed activity	Specific coastal management activities as described in executive summary Document A
Proposed work site	Location at setting as described in Section 4, Document A
RH SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)
RoKAMBA	Republic of Korea-Australia Migratory Bird Agreement
SEPP	State Environmental Planning Policy
Site Foreman	Works Contractor representative responsible for the undertaking of the coastal minor works identified in Document A.
Study Area	Proposed work site with additional nominal buffer as defined in the Document A to allow consideration of direct and indirect impacts on the community and the environment in response to the proposed activity.
TI SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021 (NSW)
TEC	Threatened Ecological Community
VIS	Vegetation Information System
Works Contractor	Appointed entity (internal or external) responsible for undertaking the coastal minor works for the location as specified in Document A.
Works	Those coastal management activities being implemented on the works site
Work site	As defined in the Works Plan Attachment 2, Document A

1. INTRODUCTION

This document (**Document B**) has been prepared to support the environmental assessment of Coastal Minor Works undertaken by Shoalhaven City Council (Council) throughout the local government area (LGA). It provides the legislative context to the environmental assessment and details regarding the proposed activity and general environmental considerations.

Document B is intended to be used in conjunction with the “Coastal Minor Works Document A” (**Document A**) which provides the site-specific assessment of the proposed activity to satisfy the due diligence and legislative requirements of Council and the contractor before the proposed activity can be undertaken, or to identify further requirements before doing so.

The Coastal Minor Works covered by this environmental assessment are defined in Section 3 and considered ‘development that does not need consent’ or ‘exempt development’ as per Section 4.1 (1) of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). This is due to the coastal minor works being considered an ‘activity’ for the purposes of Part 5 of the EP&A Act, being carried out by (or on behalf of) a public authority. In accordance with this part and Section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) an environmental assessment involving a review of environmental factors (REF) is required (**Section 7**).

If the proposed activity as described and evaluated in **Document A** is deemed ‘development with consent’ under Section 4.2 EP&A Act this document will not be suitable for the environmental assessment. Reference should be made to sections 4.12 to 4.18 of the EP&A Act and Part 3 of the EP&A Regulation.

The Coastal Minor Works covered by this environmental assessment and the subsequent REF are the following:

- Beach scraping
- Beach access track maintenance
- Revegetation
- The placement of sandbags (for the purposes of coastal protection works for a period no greater than 90 days).

2. SHOALHAVEN COASTAL ZONE

The coastline of the Shoalhaven LGA consists of a series of beaches, river estuaries and bays, punctuated by rocky headlands primarily composed of sedimentary rock.

Beach areas contain complex dune systems which typically consist of an unvegetated sand berm in continuous interaction with ocean waves. The landward side of the dune is characterised by a sequence of lightly vegetated incipient dune and a foredune consisting of woody vegetation which provides structure (**Figure 1**). The area from the incipient dune forward to the water, including intertidal areas and waterway inlets (the '**dynamic zone**') undergoes constant geomorphological change due to a combination of interaction with wind and tidal forces, and its lack of stabilising vegetation. The vegetation of the foredune however provides sediment stabilisation and protection to the immediate and landward zones, particularly during storm events which impact on the site beyond the normal range of wind and tidal forces.

The Shoalhaven coastline regularly undergoes severe erosion events which threaten the stability of the dune system and create coastal hazards. Such erosion can threaten to cause scarping to foredunes, potentially compromising to the structural integrity of dune systems and impacting the protective, established dune vegetation. To preserve the protective function of the dune systems, maintain a balance between ecological enhancement, and enable sustainable community use, intervention measures are often required to manage risk of coastal erosion hazards, within an area (see **Section 3**, below).

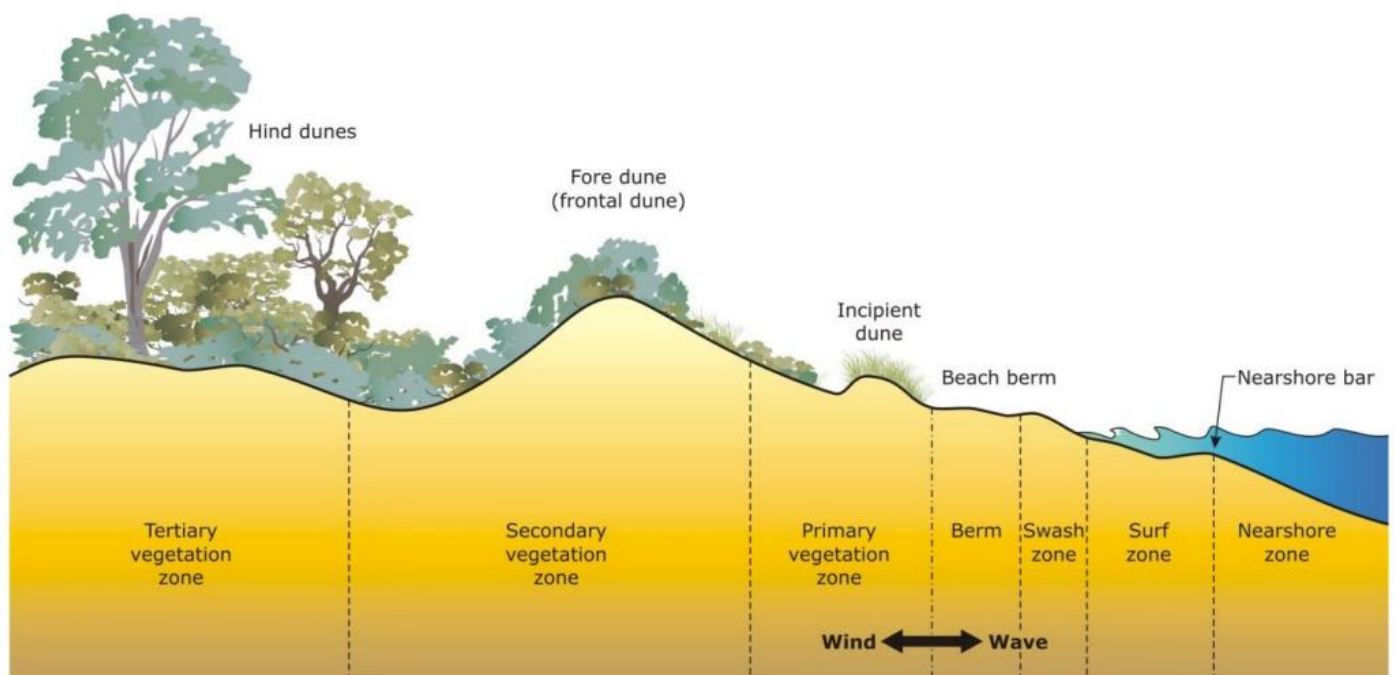


Figure 1 Dune system diagram. The area from the incipient dune forward to the intertidal zone is defined in this assessment as the 'dynamic zone' (Source: Carley and Cox, 2017, following NSW Government, 2001).

3. COASTAL MINOR WORKS

The following sections outline the objectives and provides an overview along with general considerations for each of the activities identified as coastal minor works for the purposes of this document. General legislative permissibly, the need for licenses and permits and consultative requirements are detailed in **Sections 4** and **Section 5**, and specific consideration of such associated requirements is provided in **Document A**. **Document A** presents the detailed works process and equipment to be used in undertaking each activity and should be referred to in order to determine the extent and nature of works covered by this environmental assessment. Depending on the proposed work, **Document A** may not present information for all coastal minor works listed here.

3.1 Beach scraping

3.1.1 Objectives

The objectives of **beach scraping** is:

- a. To mitigate against erosion damage and coastal hazards on Shoalhaven coastline and estuary foreshores.
- b. To preserve access and amenity of the beach to the public.
- c. To achieve the above without compromising the environmental, cultural or social values of the Shoalhaven coastline and estuary foreshores.

3.1.2 Overview and considerations

Beach scraping (also known as Nature Assisted Beach Enhancement, or NABE) are environmental management techniques for coastal environments which consist of excavating marine sands from areas with surplus/accretion within the dynamic zone (i.e. scraping), and transporting to replenish areas with a deficit (i.e. nourishment). It is considered a form of beach nourishment utilising sand from within the immediate area for the purpose to mitigate against erosion, and to preserve the geomorphological function of the coastal environment for both environmental and anthropogenic purposes. The technique aims to preserve the coastal foredune as the primary natural buffer zone to mitigate risk of coastal hazards impacting on the integrity of the natural area or on other identified at-risk public assets.

During beach scraping marine sand will be excavated from areas of the beach with sufficient reserve, and moved to areas with a deficit, particularly areas where erosion and loss of sand threatens significant foreshore recession or scarp erosion of the foredune. Sites for excavation may include surplus in creek or estuary outlets, watercourse shoals and windblown sand deposits within the dynamic zone.

Scraping, transport and nourishment will only occur in the dynamic zone. This will allow works to avoid impacts on established dune vegetation including small pioneer species. Beach scraping

and nourishment will be strictly limited to marine sands, and works will cease where other sediment types are encountered.

Where sand is to be extracted from intertidal areas (i.e., areas below the typical high tide line), works would be undertaken during the low tides aspect of the tidal phase, and only when low wave energy is expected to occur.

Access for construction and maintenance machinery would be along existing vehicle access tracks through the dune system. Typical machinery for removing and transporting the material would consist of:

- Excavator up to 36 tonnes gross weight (e.g. Cat C4.4 ACERT)
- 4WD & 6WD articulated dump trucks up to 40 tonnes gross weight
- Bulldozers up to 30 tonnes gross weight (e.g. Cat D6)
- Tracked skid steers loader up to 10 tonnes gross weight.

Table 1 provides an assessment of beach scraping against other potential options for coastal protection works. The lower cost and relatively fast process of undertaking beach scraping makes it the preferred option for Council in undertaking coastal minor works. The alternatives that involve 'do nothing', and 'defer the decision and monitor situation' are not considered appropriate for mitigating erosion risks in situations where coastal minor works are required. If the alternative option involving 'hard engineering coastal protection works' is the preferred option, Council must assess that work in accordance with the relevant development assessment process.

Table 1 Options assessment – beach scraping and possible alternatives

Option	Advantage	Disadvantage
Beach scraping	Allows immediate mitigation of erosion risk, therefore minimising potential environmental damage from impending, current, and past extreme weather events. Cost of proactive work is far less than repair and rehabilitation following extreme weather events. Beach access track maintenance, and revegetation works being implemented concurrently to beach scraping will enable time efficient management and lead improved public safety and foreshore dune stabilisation. Will mitigate public safety risk from erosion impacts on natural areas and Council assets.	Immediate timing can be inconsistent with use of beach by the public and the environmental constraints (e.g., optimal tidal conditions are required), though these potential impacts can be mitigated through other means. Immediate time/cost input. Susceptible to extreme weather events until site has appropriately stabilised.

Option	Advantage	Disadvantage
Alternative Option 1 – Business as usual	No risk to flora and fauna or other environmental values through intervention although intervention through implementation of beach scraping is associated to the aim of restoring and maintaining viable habitats in the moderate to long term. No immediate time/cost input. No interruption to public use of the proposed work site as a result of intervention management.	Does not address beach erosion impacts, with potential further degradation of the dune system. This may result in a reduction in the functionality of the dune system as a coastal protection buffer and hence lead to a greater risk of coastal erosion hazards impacting on the proposed work site, and any proposed enhancement of biodiversity habitats. Cost for repair and restoration to address erosion impacting on the proposed work site without sacrificial protection associated with proactive beach scraping can be significantly greater than proactive management and immediate response to emergency. Provides limited options to address public safety hazards relating to beach access and amenity impacted on by coastal erosion.
Alternative Option 2 – Defer decision and monitor situation	Allows opportunity to monitor any natural resolution to erosion issues through an assessment of accretion and erosion cycles. May allow rescheduling actions to align with lower-use period or more seasonally favourable months with regard to environmental constraints.	Extreme weather events can happen successively in single seasons, with catastrophic impact on beach structure and dune systems. Erosion processes are slow to resolve under natural conditions, risking delayed restoration of dune and ecosystem integrity.
Alternative Option 3 – Hard engineering coastal protection works	Longer term, end-state solution – less ongoing costs.	Significant cost. Considered higher risk of impact on natural coastal processes. Not consistent with natural coastal processes. Significant environmental footprint and high likelihood of offsite impacts (i.e. end effects). Lengthier design and approval period. Large visual impact. High risk of limited community support.

3.2 Beach access track maintenance

3.2.1 Objectives

The objectives of **beach access track maintenance** works are:

- a. To maintain and improve access to the coastal and estuary foreshore for the public and for the purposes of access to carry out coastal works.
- b. To discourage damage to coastal landform and biodiversity through the use and development of informal beach access tracks.
- c. Address public safety considerations at erosion impacted assets.

3.2.2 Overview and considerations

Access tracks to beaches and coastal environments may exist through either formal construction, or through informal use. Over time, accessibility may be impacted on by coastal erosion hazards, which can be accelerated through mismanagement and use of informal access tracks. Access track maintenance works may include installation of signage and fencing to deter access and damage to the surrounding dune ecosystem. They may also be undertaken concurrently with beach scraping as sand nourishment offers an opportunity to maintain, improve or consolidate access.

With specific consideration to the proposed activity being assessed using this document, it is assumed that works to access track will avoid disturbance to vegetation as much as possible. Disturbance to shrubs and trees is only to be to the minimum extent necessary to facilitate maintenance of existing accessibility. Further discussion around vegetation disturbances and conservation is provided in **Section 6.2**.

Excavation, where required, will be limited to marine sands within the dynamic zone (see **Figure 1**), and will be consistent with depths originally excavated for the establishment of the track, in order to reduce risk of disturbing unknown Aboriginal heritage objects or places.

Table 2 provides an assessment of access track maintenance against other potential options for coastal minor works. The lower cost and relatively fast process of undertaking access track maintenance makes it the preferred option for Council. The alternatives that involve 'do nothing', and 'defer the decision and monitor situation' are not considered appropriate for mitigating erosion and public safety risks in situations where beach access track condition is degraded.

Table 2 Options assessment – access track maintenance and possible alternatives

Option	Advantage	Disadvantage
Beach access track maintenance	Allows immediate mitigation of erosion risk, therefore minimising potential environmental damage from impending, current and past extreme weather events. Cost of proactive work is far less than repair and rehabilitation following extreme weather events. Minimal vegetation disturbance. Beach access, and revegetation works being implemented concurrently to beach scraping will	Immediate timing can be inconsistent with use of beach by the public and the environmental constraints (e.g., optimal tidal conditions are required), though these potential impacts can be mitigated through other means. Immediate time/cost input. Susceptible to extreme weather events until site has appropriately stabilised. If access track closures are suggested for public safety and environmental

Option	Advantage	Disadvantage
	enable time efficient management and lead improved public safety and foreshore dune stabilisation. Will mitigate public safety risk from erosion impacts on natural areas and Council assets.	risk mitigation, access to the beach may be altered.
Alternative Option 1 – Business as usual	No risk to flora and fauna or other environmental values through intervention, through intervention through implementation of beach access track maintenance is associated to the aim of restoring and maintaining viable habitats in the moderate to long term. No immediate time/cost input.	Does not address beach erosion impacts, with potential further degradation of the dune system. This may result in a reduction in the functionality of the dune system as a coastal protection buffer and hence lead to a greater risk of coastal erosion hazards impacting on the proposed work site, and any proposed enhancement of biodiversity habitats. Cost for repair and restoration following successive extreme weather events impacting on unmaintained assets can dwarf cost of proactive maintenance works. Provides limited options to address public safety hazards relating to compromised beach access assets impacted on by coastal erosion.
Alternative Option 2 – Defer decision and monitor situation	Allows opportunity to monitor site for natural resolution to erosion issues. May allow rescheduling actions to align with lower-use period or more seasonally favourable months with regard to environmental constraints.	Extreme weather events can happen successively in single seasons, with catastrophic impact on beach infrastructure and assets. Erosion processes are slow to resolve under natural conditions, risking delayed restoration of dune and ecosystem integrity. Public use may be restricted until access is restored to safe condition. This may lead to the creation of informal access tracks around the affected asset which may lead to further dune degradation.

3.3 Revegetation

3.3.1 Objectives

The objectives of **revegetation** works are:

- To maintain and improve the integrity of natural coastal and estuarine ecosystems.
- To stabilise and mitigate erosion risk to exposed areas of coastal dunes.

3.3.2 Overview and considerations

Revegetation may be undertaken where required to stabilise areas of exposed dune, whether or not directly subject to beach scraping.

Under the umbrella of coastal minor works, revegetation should be undertaken in a manner that limits the disturbance to ensure a nil to negligible impact on Aboriginal archaeological heritage. Further details on how to determine appropriate areas (i.e. areas known to have experienced substantial disturbance since European colonisation) is provided in **Section 6.3**.

Species selection will be determined in consultation with applicable Council Officer and with reference to the New South Wales (NSW) [Coastal Dune Management Manual](#) (DLWC, 2001).

Table 3 provides an assessment of revegetation against other potential options for coastal minor works. The lower cost and relatively fast process of undertaking revegetation makes it the preferred option for Council. This approach also offers higher environmental benefits than the alternatives. The alternatives that involve 'do nothing', and 'defer the decision and monitor situation' are not considered appropriate for long-term stabilisation of dune areas that are impacted on by erosion. If the alternative option involving 'hard engineering coastal protection works' is the preferred option, Council must assess that work in accordance with the relevant development assessment process.

Table 3 Options assessment – revegetation and possible alternatives

Option	Advantage	Disadvantage
Revegetation	Provides long-term benefit in stabilising dune systems and mitigating erosion risk. This will minimise potential environmental damage from past, current and impending environmental degradation. Cost of proactive work is far less than repair and rehabilitation following extreme weather events. Supportive of dune ecosystem and provides habitat for coastal fauna, including continuity of threatened ecological communities. Aims to return the dune system to a pre-disturbance state. Revegetation works being implemented concurrently to beach scraping will enable time efficient management and lead improved public safety and foreshore dune stabilisation.	Immediate timing can be inconsistent with use of beach by the public and the environmental constraints (e.g., optimal tidal conditions are required), though these potential impacts can be mitigated through other means. Immediate time/cost input. Susceptible to extreme weather events until site has appropriately stabilised. Vegetation requires a period without disturbance to stabilise. However, a suitable maintenance period following planting will ensure the greatest longevity.

Option	Advantage	Disadvantage
	Can be used to manage and direct public access and limit informal access. Will also mitigate public safety risk from erosion impacts on natural areas and Council assets.	
Alternative Option 1 – Business as usual	No immediate time/cost input.	Does not address impacts of environmental degradation and allows dune condition to go unchecked and unmanaged, with potential degradation of foreshore dune system and increased loss of protective function against future extreme weather events for immediate and surrounding areas, leading to uncontrolled and greater impacts on the environment. Cost for restoration following successive extreme weather event can dwarf cost of proactive maintenance works. Can lead to ecosystem degradation and fragmentation. This may result in loss of critical and/or threatened habitats for flora and fauna.
Alternative Option 2 – Defer decision and monitor situation	Allows opportunity to monitor site for natural regeneration. May allow rescheduling actions to align with lower-use period or more seasonally favourable months with regard to environmental constraints.	Ongoing unmanaged degradation and erosion can lead to catastrophic impact on dune condition. Erosion processes are slow to resolve under natural conditions, risking delayed restoration of dune and ecosystem integrity. Can lead to ecosystem degradation and fragmentation. This may result in loss of critical and/or threatened habitats for flora and fauna. If access tracks are impacted, this may lead to the creation of informal access track around the affected site which may lead to further dune vegetation degradation.
Alternative Option 3 – Hard engineering coastal protection works	Longer term, end-state solution – less ongoing costs.	Significant cost. Not consistent with natural coastal processes. Significant environmental footprint and high likelihood of offsite impacts (i.e., end effects). Lengthier design and approval period. Large visual impact. High risk of limited community support.

3.4 Placement of sandbags

3.4.1 Objectives

The objectives of the **placement of sandbags** works are:

- To provide a temporary measure (for a period no more than 90 days) to mitigate against erosion damage and/or other coastal hazards on Shoalhaven beaches.
- To support emergency coastal protection works under the meaning of section 2.16(3) of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (RH SEPP) with sandbags placed for no longer than 90 days.

3.4.2 Overview and considerations

Under the provisions of the RH SEPP the placement of sandbags can occur in NSW for the purposes of coastal protection works or emergency coastal protection works as development without consent (described in **Section 4.2**) if limited to remaining for a period of not more than 90 days. Hence, this form of coastal minor works is a temporary measure.

Sandbags can be used for various purposes in mitigation of erosion or coastal hazards and may be used to form temporary breakwaters, groynes or revetments.

Table 4 provides an assessment of using sandbags against other potential options for coastal minor works. The lower cost and relatively fast process of installing sandbags makes it the preferred option for Council to provide a rapid response to coastal erosion. The alternatives that involve 'do nothing', and 'defer the decision and monitor situation' are not considered appropriate for immediate mitigation of erosion risks and coastal hazards. If 'hard engineering coastal protection works' eventuate as the preferred option, Council must assess that work in accordance with the relevant development assessment process.

Table 4 Options assessment – placement of sandbags and possible alternatives

Option	Advantage	Disadvantage
Placement of sandbags	Provides immediate risk reduction in emergency erosion or coastal hazard situations. Temporary measure to allow time for alternative solutions to be identified and assessed. Can be used to contain and divert water and wave energy away from public assets and infrastructure where quick response is required.	May only be placed for 90 days. Alternative, longer-term solutions to be sought after this time. Immediate timing can be inconsistent with use of beach by public and environmental constraints, though this can be mitigated through other means. Immediate time/cost input and follow up costs to remove the sandbags before the 90-day mandated period. Susceptible to extreme weather events until site has appropriately stabilised.

Option	Advantage	Disadvantage
Alternative Option 1 – Business as usual	No immediate time/cost input.	Does not support emergency response to hazard. Can lead to greater asset damage. Allows erosion of the site to go unchecked and unmanaged, with potential degradation of foreshore area and increased loss of protective function against future extreme weather events for immediate and surrounding areas, leading to uncontrolled and greater impacts on the environment. Cost for repair and restoration following successive extreme weather event can dwarf cost of proactive maintenance works and immediate response to emergency. Does not address public safety concerns for beach erosion impacts and compromised beach access.
Alternative Option 2 – Defer decision and monitor situation	Allows opportunity to monitor site for natural resolution to erosion issues. May allow rescheduling actions to align with lower-use period or more seasonally favourable months with regard to environmental constraints.	Does not support emergency response to hazard. Extreme weather events can happen successively in single seasons, with catastrophic impact on beach infrastructure and assets. Erosion processes are slow to resolve under natural conditions, risking delayed restoration of dune and ecosystem integrity.
Alternative Option 3 – Hard engineering coastal protection works	Longer term, end-state solution – less ongoing costs.	Difficult to implement as emergency solution. Significant cost. Not consistent with natural coastal processes. Significant environmental footprint and high likelihood of offsite impacts (i.e. end effects). Lengthier design and approval period. Large visual impact. High risk of limited community support.

4. STATUTORY AND PLANNING FRAMEWORK

4.1 *Environmental Planning & Assessment Act 1979*

The EP&A Act is the primary legislation in NSW to support decision making regarding planning and development assessments. The EP&A Act establishes pathways for environmental assessments based on the nature of the proposed development or activity. Part 4 Div 4.1 of the EP&A Act establishes that development may occur with consent, without consent or be prohibited. For proposed activity described in this document, they are considered to be development ‘without consent’.

Section 4.1 (1) of the EP&A Act defines ‘development that does not need consent’. It states that:

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

The relevant environmental planning instruments (EPI) that describe the coastal minor works considered in this document (see **Section 0**) are identified as:

- *State Environmental Planning Policy (Resilience and Hazards) 2021 NSW (RH SEPP).*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021 NSW (TI SEPP).*

Sections 4.2 and 4.3 elaborate on the specific sections of these EPI that qualify the proposed coastal works as development that does not need consent.

As the proposed activity constitute an ‘activity’ for the purposes of Part 5 of the EP&A Act, being carried out by (or on behalf of) a public authority, environmental assessment under Part 5 of the EP&A Act is required. Section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) outlines this assessment process as a REF. Section 171(1) requiring ‘likely impacts’ to be considered based in the factors specified in the environmental factors guidelines. The Department of Planning and the Environment (DPE) published guidelines to support the REF in June 2022 (DPE (2022) *Guidelines for Division 5.1 assessments*). **Section 7** of this document outlines the environmental factors to be considered in the context of coastal minor works.

On this basis, all proposed activities, have been holistically addressed under a single environmental assessment and project scope (Document A) to ensure the highest level of environmental due diligence.

4.2 State Environmental Planning Policy (Resilience and Hazards) 2021

Section 2.16(2)(a) of the *RH SEPP* provides:

(2) Coastal protection works by public authority Development for the purpose of coastal protection works may be carried out on land to which this Chapter [2] applies by or on behalf of a public authority—

(a) *without development consent—if the coastal protection works are—*

(i) *identified in the relevant certified coastal management program, or*

(ii) *beach nourishment, or*

(iii) *the placing of sandbags for a period of not more than 90 days, or*

(iv) *routine maintenance works or repairs to any existing coastal protection works, or*

(b) *with development consent—in any other case.*

The coastal minor works as described in this document fit the definitions provided above under section 2.16(2)(a) and do not require consent when undertaken by Council as a public authority.

Under section 2.16(3) of the *RH SEPP*, works identified in a Coastal Zone Emergency Action Subplan (CZEAS) constitute development for the purpose of emergency coastal protection by public authority, therefore would be categorised as Exempt Development. A CZEAS identifies actions and responsibilities to be carried out for the protection of property affected, or likely to be affected, by beach erosion, coastal inundation or cliff instability. Emergency coastal protection works under section 2.16(4) means works “*comprising the placement of sand, or the placing of sandbags for a period of not more than 90 days, on a beach, or a sand dune adjacent to the beach, to mitigate the effects of coastal hazards on land.*”

The *RH SEPP* includes additional requirements for assessment of coastal works based on particular mapping layers. Part 2.2 provides development controls for coastal management areas.

For development within coastal wetlands and littoral rainforest land as identified on the Coastal Wetlands and Littoral Rainforests Area Map, provisions for development consent, and triggers for designated development (i.e. the preparation of an Environmental Impact Statement) are defined under Division 1. Similarly, works within 100m of coastal wetlands or littoral rainforest are within a ‘proximity zone’, and include additional considerations for development consent. Sites subject to coastal minor works must avoid areas mapped as coastal wetlands and littoral rainforests.

For coastal minor works to be undertaken without development consent, they are required to be undertaken in an area mapped for the purposes of this *SEPP* as “Coastal Use Area” and “Coastal Environment Area”. Division 3 and Division 4 *RH SEPP* provide the environmental factors to be considered when undertaking development in these areas.

Although the approval pathway in this advice does not constitute development requiring consent under Part 4 to the EP&A Act, the matters in the *RH SEPP* in Divisions 1, 3 and 4 are relevant

considerations in assessing the potential environmental impacts of an activity to the fullest extent possible.

The RH SEPP additionally provides approval pathways for works identified in a relevant Coastal Management Program (CMP) under the *Coastal Management Act 2016* (NSW) (CM Act). Upon certification of Council's applicable CMPs, the approval pathway discussed in this document may be superseded.

4.3 *State Environmental Planning Policy (Transport and Infrastructure) 2021*

Division 25 NSW *State Environmental Planning Policy (Transport and Infrastructure) 2021* (NSW) (TI SEPP) provides:

2.164 Definition

In this Division—

waterway or foreshore management activities means—

- (a) *riparian corridor and bank management, including erosion control, bank stabilisation, resnagging, weed management, revegetation and the creation of foreshore access ways, and*
- (b) *instream management or dredging to rehabilitate aquatic habitat or to maintain or restore environmental flows or tidal flows for ecological purposes, and*
- (c) *coastal management and beach nourishment, including erosion control, dune or foreshore stabilisation works, headland management, weed management, revegetation activities and foreshore access ways, and*
- (d) *salt interception schemes to improve water quality in surface freshwater systems, and*
- (e) *installation or upgrade of waterway gauging stations for water accounting purposes.*

2.165 Development permitted without consent

- 1) *Development for the purpose of waterway or foreshore management activities may be carried out by or on behalf of a public authority without consent on any land.*
- 2) *To avoid doubt, subsection (1) does not permit the subdivision of any land.*
- 3) *In this section, a reference to development for the purpose of waterway or foreshore management activities includes a reference to development for any of the following purposes if the development is in connection with waterway or foreshore management activities—*
 - a. *construction works,*
 - b. *routine maintenance works,*
 - c. *emergency works, including works required as a result of flooding, storms or erosion,*
 - d. *environmental management works.*

In consideration of sections 2.164 and 2.165 above, activities undertaken for the purposes of coastal protection works must be consistent with the provisions of RH SEPP (section 2.16) as per

section 2.7(2)(a) of TI SEPP.¹ However, TI SEPP may take precedence over RH SEPP depending on the nature, location and objectives of the proposed activity. This may include particular waterway or foreshore management activities such as bank stabilisation works outside of coastal wetlands or littoral rainforest areas which is not for the purposes of reducing impacts of coastal hazards.

Noting the above, the coastal minor works in this document fit the definitions provided above under section 2.164 of TI SEPP and consequently fit the description of waterway or foreshore management activities. As such, they do not require consent when undertaken by Council as a public authority.

Certain works in parks and other public reserves may be undertaken as Exempt Development under Division 12, section 2.74 of the TI SEPP. With relevance to the proposed activity described in this document, this includes construction and maintenance of walking tracks, stairways, gates and handrail and vehicle barriers (Section 2.74 (1)(i) and (iii)).

This however only applies to the following land, when undertaken by Council:

- Land reserved under the *National Parks and Wildlife Act 1974* (NSW) (NP&W Act), or acquired under Part 11 of that Act (section 2.73 (1)(a)),
- Land declared to be a marine park or aquatic reserve under the *Marine Estate Management Act 2014* (NSW) (MEM Act) (section 2.73 (1)(b)),
- Public reserves other than Crown managed land (section 2.74 (2)(i)), and
- Crown managed land, over which Council has control under section 48 of the *Local Government Act 1993* (NSW) (LG Act) (section 2.74 (2)(d)(iv)).

The applicability of the above categories will need to be determined for the relevant land on a case-by-case basis to assess suitability of the Exempt Development pathway.

In addition to the above, Exempt Development must comply with the following (only relevant items included):

- Must not involve the removal or pruning of a tree or other vegetation that requires a permit or development consent, unless undertaken in accordance with such a permit or consent.
- Must involve no greater disturbance of native vegetation than necessary (section 2.74 (3)(b)), and
- Must not result in an increase in stormwater run-off or erosion (section 2.74 (3)(c)).

¹ Note: Section 2.7(2)(a) of TI SEPP refers to the relevant sections within the now repealed *State Environmental Planning Policy (Coastal Management) 2018*. However, these sections remain in effect via the transferred provisions noted in section 1.4 of RH SEPP (Resilience and Hazards).

- Must involve no more than minimal impact on the heritage significance of the item or area (section 3.16 (3)(c))

As described in **Section 3.2**, above, coastal minor works (i.e. access track maintenance) often involve pruning of overgrowing vegetation and new planting immediately adjacent to a track in order to improve accessibility and protect from erosion or control access. Such minor works would be considered ancillary to the maintenance of access tracks provided it is within and immediately adjacent to an existing track. It does not permit tree removal or pruning that would be more than a *minor impact*. Tree removal or pruning that is more than a minor impact will require separate approval under either Part 4 or Part 5 of the EP&A Act.

For simplicity, it is assumed that works described in this document can only be undertaken as Exempt Development where there is no pruning or removal of trees required, and all other tree pruning works are assessed as normal under the Part 5 EP&A Act pathway requirements.

The TI SEPP additionally describes requirements for consultation arising for particular works. These requirements are discussed in detail in **Section 5.1**, below.

4.4 Additional legislation for consideration

The following provides an overview of the additional key pieces of legislation enacted at both the State and Commonwealth level that are required to be considered in the environmental assessment of the proposed coastal minor works.

4.4.1 Crown Land Management Act 2016

Much of the coastline throughout the Shoalhaven LGA is Crown Land. For Council to implement any works on Crown Land that is not under Council management the following will apply:

- 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.
- Where there is no PoM and works are undertaken on Crown Land, Council must obtain a licence (or other lawful authority) under section 5.21 of the *Crown Land Management Act 2016* (Crown LM Act) from NSW Crown Land prior to the commencement of works.

Otherwise, Council can manage its Crown Land Reserves as if it were community land as set out in the LG Act.

NSW Crown Lands would refer a licence request from Council to NSW Department of Primary Industries – Fisheries (DPI – Fisheries) for comment in accordance with the NSW *Fisheries Management Act 1994* (NSW) (FM Act) with respect to that part of the proposed activity involving dredging or reclamation, the construction of permanent or temporary structures that may obstruct of fish passage, or harm of marine vegetation.

4.4.2 Fisheries Management Act 1994

For the proposed minor coastal works the FM Act provides relevant information regarding the management and licencing of dredging activities, and the protection of marine species (fish, macroinvertebrates) and vegetation.

Part 7 of the FM Act regulates the protection of aquatic habitats. The FM Act requires that proponents working within the waterways and land regulated by the act apply for a permit to undertake the following activities:

- Dredging and/or reclamation (including the removal of sediment, woody debris, boulders or gravel, or placement of fill) of a waterway (Section 200).
- Obstruction of fish passage with temporary or permanent structures (e.g. weirs, causeway dams) (Section 219(5)).
- Harm (cutting, removing, damage, destruction, shading) of marine vegetation that includes damage to, or destruction of, saltmarsh, mangroves or seagrasses growing on public water land or the foreshore of public water land up to Highest Astronomical Tide level (Section 205(2)).

Beach scraping and nourishment in the intertidal zone would be considered “dredging” in “water land” as per the following definitions within Section 198A of the FM Act:

dredging work means—

- (a) any work that involves excavating water land, or
- (b) any work that involves moving material on water land or removing material from water land that is prescribed by the regulations as being dredging work to which this Division applies.

And ‘water land’ is defined as:

water land means land submerged by water—

- (a) whether permanently or intermittently, or
 - (b) whether forming an artificial or natural body of water,
- and includes wetlands and any other land prescribed by the regulations as water land to which this Division applies.

Where dredging and reclamation works require approval from DPI-Fisheries, the following applies to such permits:

- If work is occurring on Crown Land, Crown Lands will seek concurrence from DPI-Fisheries in the place of an individual fisheries permit. A separate permit is not required if the proposed activity requires authorisation by a Crown Land Licence under the Crown LM Act.
- If work is occurring on Council Land, application for DPI fisheries permit under Section 200 of the FM Act from DPI Fisheries is required and must be addressed independently.

Coastal minor works that involve the removal or displacement of timber or woody debris ('snags') is also regulated under dredging or reclamation activities within Part 7 of the FM Act. Under section 3.2.5.2 of the *Fisheries NSW Policy and guidelines for fish habitat conservation and management* (DPI-Fisheries, 2013) for snag management it stipulates:

For the purposes of this policy, a snag is considered to be any piece of woody debris that is both greater than 3m in length and 300 mm in diameter, that is located within a waterway and is, or would be, wholly or partly submerged at a 'bank-full' flow level or highest astronomical tide level.

Where timber meets the criteria of a snag, DPI-Fisheries preference that the snag be retained either by realigning or moving to a location that does not present a health and safety risk to the public. If there are large snags that present a health and safety risk to pedestrian users, and there is no option to realign, move within the waterway or consolidate then Council is required to engage with DPI-Fisheries to assess the need for a permit or alternative solution.

Where timber or woody debris does not meet the criteria for a snag then these works can be carried out without a permit, provided that:

- Notification is made to DPI-Fisheries to inform of works occurring.
- Machinery is to remove flood debris only i.e. not involve the targeted removal of substrate.
- Machinery is to operate from land only – not to work in water.
- Marine vegetation must not be harmed – no access through or clearing of marine vegetation (saltmarsh, mangroves, or their pneumatophores).
- Clearing must be undertaken when the site is exposed by low tide.
- Machinery to be cleaned degreased and serviced before undertaking the works.

Potential impacts to aquatic species from the proposed activities are generally not considered likely due to the nature of coastal minor works, which would not directly disturb any waterways. However, protection of marine vegetation under the FM Act is extended to mangroves and saltmarsh (section 205). Mangroves and Saltmarsh are prevalent along the coastline of the Shoalhaven LGA. Consequently, where coastal minor works take place among mangroves or saltmarsh, and require impacts on vegetation, an additional permit from Fisheries under Section 205(2) of the FM Act will be required.

Additionally, any works which may temporarily or permanently obstruct fish passage (section 219) must only occur if a permit approving these works is provided by DPI-Fisheries.

The *Fisheries NSW Policy and guidelines for fish habitat conservation and management* prepared by DPI-Fisheries (DPI-Fisheries, 2013) should be consulted when assessing coastal minor works.

4.4.3 Coastal Management Act 2016

The CM Act provides requirements and guidance for management of coastal areas by Councils and other authorities. In particular, it requires Councils to develop CMPs to outline management objectives, roles and responsibilities for the coastal environment within their jurisdiction. Council

does not yet have a certified CMP, however, Council manages the coast in accordance with the *Coastal Zone Management Plan for the Shoalhaven Coastline 2018 (CZMP)*, developed under the now superseded *Coastal Protection Act 1979*.

The CZMP will be superseded by the CMPs once certified. The various CMPs will likely contain several items relevant to the proposed activities discussed in this document. This document will need to be reviewed once the CMP is certified and adopted.

As detailed within **Section 4.2**, public authorities can carry out emergency coastal protection works as Exempt Development. This can occur where these works are undertaken in accordance with a CZEAS prepared by the relevant council and included in a certified CMP, or a CZMP containing an emergency action subplan that continues to have effect under Part 2 section 4 of Schedule 3 to the CM Act.

Council has developed a CZEAS and several site-specific emergency action sub-plans to the CZMP. Site-specific emergency plans exist for:

- Shoalhaven Heads
- Culburra Beach
- Warrain Beach
- Currarong
- Callala Beach
- Collingwood Beach
- Bendalong Boat Harbour
- Narrawallee
- Mollymook
- Collers Beach.

4.4.4 Marine Estate Management Act 2014

The MEM Act applies to the marine estate of NSW which comprises all coastal waters (to three nautical miles from territorial sea baselines as per Section 4(2) of the *Commonwealth Coastal Waters (State Powers) Act 1980*, estuaries, lakes, lagoons and ICOLLS, wetlands, adjacent coastal areas and the six marine parks within NSW. It aims to achieve strategic, integrated management of marine waters.

The Marine Estate Management Authority (MEMA) is a NSW government advisory body that seeks to implement the Marine Estate Management Strategy 2018-2028 (MEMS). The strategy contains management initiatives to manage priority threats identified for the marine estate. MEMA are the statutory body responsible for the implementation by the MEM Act and the MEMS. MEMA has the responsibility to undertake threat and risk assessments for the marine estate and the preparation of management plans for marine parks and aquatic reserves.

Shoalhaven LGA contains the Jervis Bay Marine Park, and parts of the Batemans Bay Marine Park. Where works take place within or adjacent to either of these marine parks, consultation with MEMA will be required. For consultation details, see **Section 5.1**, below.

4.4.5 *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*

The *Environment Protection and Biodiversity Conservation Act 1999* (NSW) (EPBC Act) is the relevant Commonwealth environment and heritage legislation.

The EPBC Act identifies Matters of National Environmental Significance (MNES). The EPBC Act requires approval from the Department of the Environment and Energy (DEE) for any action that has, will have or is likely to have a significant impact on the listed matters of MNES, which are:

- World Heritage properties
- National Heritage places
- Wetlands of international importance (listed under the Ramsar Convention)
- Great Barrier Reef Marine Park
- Commonwealth Marine Park
- Listed threatened species and ecological communities
- Migratory species protected under international agreements. These include the Japan-Australia Migratory Bird Agreement (JAMBA) and the China-Australia Migratory Bird Agreement (CAMBA), and native migratory species identified in a list, such as the Republic of Korea-Australia Migratory Bird Agreement (RoKAMBA).
- Nuclear actions (including uranium mining)
- A water resource, in relation to coal seam gas development and large coal mining development.

The two MNES which are likely to be relevant to proposed activity are threatened species and ecological communities and protected migratory species. The Commonwealth Department of Climate Change, Energy, Environment and Water (DCCEEW) hosts the Protected Matters Search Tool (PMST) which can be used to determine whether MNES may be impacted.

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 on a matter protected under the EPBC Act 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 this section. The following terminology is used throughout the Significant Impact Criteria (SIC) assessment which is detailed in **Document A**:

- 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.

Potential impacts on these and mitigation measures are discussed in **Section 6.2**, below.

4.4.6 *Native Title Act 1993*

The *Native Title Act 1993* (Cth) (NT Act) recognises traditional interests in land of Aboriginal and Torres Strait Islander people and provides an avenue for land title claims against Crown Land.

A Native Title Claim was filed in 2017 and registered on 31/12/2018 for land extending from the Hacking River in southern Sydney to Eden under NC2017/003 South Coast People. This claim area encompasses the Shoalhaven LGA. No determinations regarding this claim have been made to date.

Council will follow internal procedures for Native Title Future assessment through consultation with relevant internal Property Officers to demonstrate compliance with the NT Act.

4.4.7 *National Parks and Wildlife Act 1974*

The DPE – Environment and Heritage administers the NP&W Act, which manages:

- Conservation of nature
- Conservation of objects, places and features of cultural value
- Public appreciation, understanding and enjoyment of nature and cultural heritage
- Land reserved under this Act.

The NP&W Act binds all activities and responsibilities of the Crown. DPE – Environment and Heritage must consider the objectives listed above, the public interest and appropriate management of the subject land. The protection of items under this Act applies to community land as well as National Park or Crown Land. The NP&W Act also requires consideration of impacts on all native birds, reptiles, amphibians and mammals protected under the Act. Additional consideration is required for potential impacts on Aboriginal cultural heritage. Such impacts are considered in detail in **Section 6.2**, and **6.3**, below.

Under Section 86 of the NP&W Act it is an offence to disturb, damage, or destroy any Aboriginal object without an Aboriginal Heritage Impact Permit (AHIP). The Act, however, provides that if a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an AHIP (Section 87(2) of the Act). To effect this, the NSW Department of Environment, Climate Change and Water have prepared the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (the 'Due Diligence Guidelines') 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.

According to the Due Diligence Guidelines, the following site characteristics are considered high risk factors for presence of Aboriginal cultural heritage:

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

The Due Diligence Guidelines do however provide provisions of the *National Parks and Wildlife Regulation (2019)* NSW (NPW Regulation) that removes the need to follow the due diligence process for the protection of Aboriginal Objects if carrying out a specifically defined low impact activity.

There are elements of coastal minor works which are considered low impact activities under the provisions of Section 58 of the NPW Regulation, including:

- Maintenance of existing tracks on land that has been disturbed
- Construction of fences on land that has been disturbed.
- Construction of erosion control or soil conservation works on land that has been disturbed
- An exempt development on land that has been disturbed.
- Land management involving maintenance of fences (undisturbed land).
- Land management involving maintenance of erosion control or soil conservation works (undisturbed land).

Areas where coastal minor works are to occur encompass both sand dune systems and where located within 200 m of waters. While these areas are known to have a high potential for containing culturally significant sites, such as middens and burial sites, they are also highly dynamic under natural conditions.

Considering the above, due diligence for the protection of Aboriginal objects provided in **Document A** been enacted as a precautionary approach ensure an appropriate level of assessment for determination of potential impacts on Aboriginal Heritage and to assist in avoiding unintended harm to Aboriginal objects protected under this Act.

4.4.8 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (NSW) (BC Act) outlines protection of threatened species, populations or ecological communities, or their habitats, and delivers a strategic approach to biodiversity conservation in NSW whilst supporting improved farm productivity and sustainable development.

Section 7.2 of the BC Act provides that development under the EP&A Act is likely to significantly affect threatened species if:

- (a) it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or*
- (b) the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or*
- (c) it is carried out in a declared area of outstanding biodiversity value.*

However, for an activity under Part 5 of the EP&A Act subsection (b) does not apply. Activities under Part 5 that are assessed to be likely to significantly affect a threatened species must be accompanied by a species impact statement. Parts (a), (b) and (c) of the test of significance are applied to species and ecological communities listed in Schedules 1 (Threatened Species) and 2 (Threatened Ecological Communities) to the BC Act.

Section 7.3 of the BC Act describes the requirements for determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities or their habitats. It establishes that development activities must determine the potential and likelihood for proposed developments to have adverse impacts that may:

- Effect the viability of a local species population and place it at risk of extinction
- Effect the extent or, substantially or adversely modify the composition of a locally occurring ecological community so that it is likely to be placed at risk of extinction.

The NSW State Government has developed the *Threatened Species Test of Significance Guidelines* to support the assessment of significant impacts in the development process (OEH, 2018b). These guidelines are used in supporting the biodiversity impact assessment that is prepared in **Document A**. Consideration of the species included in the Test of Significance is supported by a likelihood of occurrence assessment, which provides reasoning to why threatened species predicted or recorded have been included or omitted from further assessment.

Further information on how threatened species and ecological communities are considered is provided in **Section 6.2**.

4.4.9 *Heritage Act 1977*

The *Heritage Act 1977* 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 1977* provides protection for non-Aboriginal historic artefacts and/or sites (older than 50 years). A review of potential impacts on non-Aboriginal heritage is given in **Section 0**, below.

4.4.10 *Protection of Environment Operations Act 1997*

The *Protection of Environment Operations Act 1997* (POEO Act) is a key component of the NSW Government's legislation to protect the environment. This Act regulates and controls pollution of land, air, water, and the emission of noise and provides for environment protection licenses, notices and offences.

The NSW Environment Protection Authority (EPA) is the primary environmental regulator for New South Wales established under this act.

Potential impacts associated with contamination and pollution, and waste management are discussed in **Sections 6.5, 6.6, 6.9 and 6.10**, below.

4.4.11 *Contaminated Land Management Act 1997*

The *Contaminated Land Management Act 1997* (NSW) (Contaminated LM Act) establishes a process for investigating, managing and remediating contaminated land. EPA uses its powers under the Contaminated LM Act to regulate any site contamination that poses a significant risk of harm to human health and the environment by requiring remediation with changes in land uses. The EPA maintains a register of contaminated sites. Where contamination is known to be present but does not pose an unacceptable risk to human health and the environment under the current or proposed land use, management of the contamination and identification of remediation requirements may be dealt with by the local council under the planning and development framework of the EP&A Act.

5. CONSULTATION AND PERMISSIBILITY

5.1 Government agencies

Consultation with government agencies may be required for coastal minor works, particularly where permission is required to undertake works. The relevant government agencies and the requirements for consultation and the submission of permits have been summarised in **Table 5**. Any permit that is provided to approve the coastal minor works being undertaken must be appended to **Document A** and a summary of the consultation included. Each agency has specific requirements associated with the issue of permits (i.e., notification of the commencement of works, carrying of permits for the duration of works). Council must ensure they comply with these requirements when undertaking coastal minor works and any specific requirements imposed by the approving agency.

In addition, the TI SEPP specifies circumstances in which consultation with government agencies is required. Note that, in accordance with section 2.17 (1) (c), notification to Council is not required as Council is also the proponent of the proposed activity. Relevant requirements are listed below.

2.15 Consultation with public authorities other than councils

1. *A public authority, or a person acting on behalf of a public authority, must not carry out specified development that this Chapter provides may be carried out without consent unless the authority or person has—*
 - a. *given written notice of the intention to carry out the development (together with a scope of works) to the specified authority in relation to the development, and*
 - b. *taken into consideration any response to the notice that is received from that authority within 21 days after the notice is given.*

In consideration of the consultation requirements specified under section 2.15 (2) of TI SEPP, the proposed activity may require consultation with specified authorities. Based on the nature of the coastal minor works described in this document it is not considered that the proposed development would require consultation with the agencies identified in section 2.15(2) subsections (d) to (h) of TI SEPP.

Table 5 Agencies for consultation

Agency	Requirement for consultation/permit	Statutory requirement	Permit
DPE – Environment and Heritage	Development adjacent to land reserved under the NP&W Act or to land acquired under Part 11 of that Act	TI SEPP S2.15(2)(a)	
DPE – Environment and Heritage	Development on land in Zone C1 National Parks and Nature Reserves or in a land use zone that is equivalent to that zone, other than land reserved under the NP&W1974.	TI SEPP S2.15(2)(b)	

Agency	Requirement for consultation/permit	Statutory requirement	Permit
NSW Crown Lands	Where a 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. Where there is no PoM and works are undertaken on Crown Land, Council must obtain a licence (or other lawful authority) from NSW Crown Lands prior to the commencement of works.	Crown LM Act	Required under Division 5.6, Section 5.21
DPI – Fisheries	A permit is required for activities that involve: - Dredging and/or reclamation (including the removal of sediment, woody debris, boulders or gravel, or placement of fill) of a waterway (Section 200). - Obstruction of fish passage with temporary or permanent structures (e.g. weirs, causeway dams) (Section 219(5)). - Harm of marine vegetation that includes damage to, or destruction of, saltmarsh, mangroves or seagrasses growing on public water land or the foreshore of public water land up to Highest Astronomical Tide level (Section 205(2)). If approval has been provided for dredging or reclamation work by another State public authority, secondary approval is not required from DPI – Fisheries.	FM Act Refer also to Chapter 2 of <i>Fisheries NSW Policy and guidelines for fish habitat conservation and management</i> (DPI-Fisheries, 2013).	Required under Part 7
MEMA	Development on land adjacent to or within a marine park declared under the <i>Marine Parks Act 1997</i>. Works involving the interference, damage or destruction of animals, plants or habitats, including works involving marine infrastructure, beach scraping or the installation of navigational aids require approval.	MEM Act <i>Marine Estate Management (Management Rules) Regulation 1999</i> <i>Aquatic Reserve Notification 2015</i>	For activities within the Jervis Bay Marine Park.

5.2 Community engagement

While not explicitly required as part of the approvals process, community engagement should be considered where there is potential for impacts on use of the site, including visual impacts, noise, amenity and access.

Community consultation items relevant to the site are to be listed in **Section 4** of the assessment document (**Document A**).

5.3 Publication of review of environmental factors

Under section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) the REF, as described in section 7 may be required to be published on Council's website (determining authority). In accordance with the requirements set out in section 171(4) of the EP&A Regulation 2021:

(4) The review of environmental factors must be published on the determining authority's website or the NSW planning portal if—

(a) the activity has a capital investment value of more than \$5 million, or

(b) the activity requires an approval or permit as referred to in any of the following provisions before it may be carried out—

(i) Fisheries Management Act 1994, sections 144, 200, 205 or 219,

(ii) Heritage Act 1977, section 57,

(iii) National Parks and Wildlife Act 1974, section 90,

(iv) Protection of the Environment Operations Act 1997, sections 47–49 or 122, or

(c) the determining authority considers that it is in the public interest to publish the review.

As a consequence of the above, the need to publish the final REF to Council's website will be determined through the preparation of **Document A**.

6. EXISTING ENVIRONMENT AND GENERAL IMPACT ASSESSMENT

This part of the document provides an overview of the existing environment and a general assessment of **possible impacts** from the coastal minor works described in this document. General controls for each aspect of the environment have been included in the sub-sections below.

Refer to **Document A, Section 7** for a site-specific assessment of possible impacts. The EMP within Document A outlines the proposed mitigation measures based on the site-specific assessment.

6.1 Coastal landform

The Shoalhaven coastline, and in particular its beaches are highly dynamic, as they are comprised largely of loose sand sediments, which are subjected to ongoing regular disturbance through natural coastal processes (e.g. shoaling and scouring). The beach dunes, however, are progressively stabilised with increasing distance from the ocean, as more significant vegetation is able to establish.

While naturally dynamic, extreme weather and tidal events can disturb coastal dune systems beyond equilibrium and can compromise their multiple environmental and social functions. The protective role which vegetated foredunes play against environmental and infrastructure damage from storm events, for example, can be compromised when they are scarped following major erosion events. Mitigating against this naturally occurring impact on coastal landform is a major objective of beach scraping and nourishment works as described in this document. Beach scraping can therefore be considered to have a positive impact upon the coastal landform.

Areas of dune resulting from nourishment, and areas of raised dunes otherwise exposed due to lack of vegetation may be at risk of heightened rates of erosion. Potential impacts on landform may be mitigated through revegetation, as described in **Section 2.4**, above. To improve success of revegetation works, these should be undertaken in seasonally appropriate periods where possible, species selection and growth stages to also be considered. The revegetated area will require ongoing monitoring and maintenance to ensure longevity and survival of plants.

Coastal minor works should be undertaken in a manner that allows the natural hydrogeomorphic regimes to be maintained. This can be achieved by:

- Undertaking revegetation works to stabilise dunes. Planting of mature stock to be conjunction with installation of seedling stock in areas of high pedestrian traffic can enable quick colonisation and succession as part of the revegetation program.
- The use of fencing, matting and mesh can be used to control erosion potential, particularly in areas of significant sand exposure prior to vegetation establishment.

- Adopting an adequate maintenance period for revegetated areas to ensure longevity and establishment of plants that have been installed.
- Developing and undertaking works in accordance with an erosion and sediment control plan (ESCP).

6.2 Biodiversity

The following provides an information on the biodiversity within the Shoalhaven, identifying key flora, fauna and marine species and ecosystems that should be considered as part of the location and activity specific environmental assessment prepared in **Document A**.

Threatened fauna and flora listed under the BC Act and/or EPBC Act that were considered to have potential to occur within the locality (within 10 km of the proposed work site) were identified from the database searches and site visit. The likelihood of occurrence was assessed for each of these species as high, medium or low based on species records and assessment of habitat features, this information is presented in **Document A, Attachment 6**.

Coastal minor works should be undertaken in a manner that is protective of biodiversity and identified threatened species and ecological communities. An assessment of impacts to biodiversity should be undertaken in consultation with the *Threatened Species Test of Significance Guidelines* (OEH, 2018b). If the proposed activity is '*likely to significantly affect threatened species or ecological communities, or their habitats*' in accordance with section 7.3 of the BC Act (see **Section 4.4.8**), a species impact statement is required. A relevant Council Officer should be consulted to determine the appropriate pathway to complete a species impact statement if required.

Additionally, the commonwealth EPBC Act is to be considered when assessing whether the proposed activity will result in significant impacts to MNES (see **Section 4.4.5**). An assessment should be undertaken in accordance with the guidelines to support the assessment of MNES (DOE, 2013) to determine whether a referral is required for actions that generate significant impacts to threatened species and ecological communities and protected migratory species.

A likelihood of occurrence assessment providing reasoning to the determination of appropriate assessment of any threatened species predicted or recorded provided in **Document A** is subject to the following associations:

- 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's 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 on.

Flora

The coastal dune environment of the Shoalhaven is characterised by several ecological gradients which determine the distribution and composition of flora and fauna.

In particular, the dune environment features salinity, erosion, nutrient scarcity, and wind pressures, among others, which decrease with increasing distance from the surf. As displayed in **Figure 1** (see **Section 2**), the frontmost vegetated section of the dune is known as the incipient dune, which features a scattering of small, hardy pioneer vegetation species under constant threat by storm events. On most beaches along the NSW south coast, including throughout the Shoalhaven, the incipient dune is primarily colonised by pioneer species, including several invasive weed species, which are adapted to the constant physical disturbance of the site by environmental forces.

A desktop review was undertaken of State and Commonwealth records, data and literature to confirm the potential presence of terrestrial threatened flora, fauna and endangered communities as detailed in **Document A, Section 1.2**. This included search of the following:

- Council's GIS Enquiry. This contains GIS layers with data sourced under licence, including sensitive data locations and records of threatened species.
- NSW BioNet databases for records in NSW: <http://www.bionet.nsw.gov.au>
- DPE Threatened Biodiversity Data Collection: <http://www.environment.nsw.gov.au/threatenedspecies>
- Commonwealth Department of Climate Change, Energy, Environment and Water (DCCEEW) Protected Matters Search Tool (PMST): <http://www.environment.gov.au/epbc/protected-matters-search-tool>
- Records of threatened species in the Atlas of Living Australia (ALA): <http://www.ala.org.au/>
- Aboriginal Heritage Information Management System (AHIMS)

The incipient dune ecosystem in the Shoalhaven region has the Plant Community Type (PCT) identification of Spinifex Strandline Grassland (**PCT 3410**). This assessment is based on desktop research using searches for compatible PCTs within Shoalhaven LGA in the BioNet Vegetation Classification tool listed above. This PCT is not recognised as Threatened Ecological Communities (TECs) under the EPBC Act, or the BC Act.

Document A examines the likelihood of occurrence of threatened flora for a specific proposed activity and associated specific location. For species dually listed, and where identified as having a medium or high likelihood of occurrence (**Document A**), assessments must be performed under both pieces of legislation.

Behind the incipient dune (i.e., further from the intertidal zone) is the foredune, which is characterised as the area in which larger woody vegetation is able to colonise and stabilise the dune, due to the reduced environmental pressures.

The foredune can be comprised of a wide range of ecosystems with potential for presence of threatened species and ecological communities. In the Shoalhaven LGA, this includes several TECs, including:

- Bangalay Sand Forest
- Coastal Saltmarsh
- Swamp sclerophyll forest on coastal floodplains
- Corner bioregions
- Swamp oak floodplain forest, and
- Littoral Rainforest

Database searches provide a contemporaneous snapshot the TECs that are likely to occur in the proposed work site and study area.

In addition to the above, the foredune may also contain mangroves, which are protected as marine vegetation under Section 205 of the FM Act.

Beach scraping as described in this document are limited to the dynamic zone, and so do not risk damage to foredune ecosystems and vegetation, including the TECs above. Access for vehicles and machinery, and access track works will be limited to existing assets and unvegetated areas, in order to prevent further damage to vegetation.

The purpose of beach scraping and nourishment works is generally to mitigate against erosion and scarping of the foredune during and following extreme weather and tidal events. This means that beach scraping will have a positive effect upon the stability of the foredune ecosystem, and those behind it. Consolidation and formalising of access tracks may also work to preserve the integrity of the dune ecosystems, by deterring damage during informal access.

Coastal minor works should be undertaken in a manner that is protective of biodiversity and identified threatened and endangered flora species. This can be achieved by:

- Engaging staff or contractors who are trained in the identification of threatened plant species, individuals, or populations.
- Using a spotter ahead of machinery to identify potential threatened or endangered species and direct machinery operators to cease and/or adapt works to avoid damage. An exclusion zone of >20m must be maintained from any identified Sand Spurge.
- Where vegetation pruning is required along access tracks, it will be only the minimum extent required for maintaining access. Pruning will be undertaken using hand tools only, and will not include branches or limbs with a diameter of more than 100mm.

- Pruning will otherwise follow *Australian Standard (AS) 4373–20–7 - Pruning of amenity trees*. Pruned vegetation will be left in situ as brush matting (though not on the path itself), to preserve organic matter onsite and provide additional protection against erosion.
- Foredune stability may be further improved where revegetation works are undertaken. Revegetation works should consist of vegetation corresponding to the nearest relevant ecological community selected in consultation with applicable Council Officer.
- Thoroughly cleaning all plant and equipment prior to accessing the site, in order to limit potential transmission of weeds and pathogens to the site's ecosystems.

Fauna

Document A examines the likelihood of occurrence of threatened fauna for specific proposed activities as associated specific location. For species dually listed, and where identified as having a medium or high likelihood of occurrence (**Document A**), assessments must be performed under both pieces of legislation.

The incipient dune is often inhabited by threatened and migratory shorebirds, which may use these areas for seasonal habitat, nesting and feeding grounds.

August to April covers the breeding period for locally nesting threatened shorebirds in addition to the main foraging period for migratory shorebirds.

Marine species and ecosystems

The proposed activity would take place adjacent to the ocean, and therefore have the potential to have an impact on threatened marine species listed under the FM Act. The assessment of significance is the first step in considering potential impacts. When a significant effect is likely, further consideration is required and is more appropriately carried out when preparing a species impact statement.

Potential direct or indirect impacts on threatened marine species, or their habitats by coastal minor works described in this document are assessed within **Document A**.

The FM Act also requires the consideration of key threatening processes (KTPs) which are recognised to cause considerable harm to marine species and ecosystems. The coastal minor works described in this document are not considered to constitute, contribute to, or otherwise increase the impact of any KTP listed under the FM Act.

Coastal minor works should be undertaken in a manner that is protective of biodiversity and identified threatened and endangered fauna species. This can be achieved by:

- Avoiding more heavily vegetated areas of the incipient dune, as well as potential habitat features such as large logs.
- Using established access points for personnel and machinery.
- Retaining at least a 200-metre buffer of native vegetation around known nesting sites (powerful owl).

- Undertake works outside of shorebird nesting and breeding season (August – April, inclusive). If the proposed activity is emergency works required during this period, a suitably qualified person must inspect the entire site of works and occupation for the presence of threatened and migratory shorebirds. Specific mitigation measures and buffers for shorebirds are identified below:
 - April - September: A minimum buffer of **50 metre** (as adopted standard of the National Parks and Wildlife Service (NPWS)) must be maintained from individual threatened shorebirds using habitat. All plant, personnel and equipment will be excluded at least 50 metre from the shorebird(s). If threatened shorebirds are detected within 50 metres of the works or ancillary sites or activities, works and/or machinery movement will stop immediately and not resume until the bird(s) has/have vacated the site autonomously.
 - October - March: A minimum buffer of **255 metre** from nesting shorebirds (Industry guidelines for avoiding, assessing, and mitigating impacts on EPBC Act listed migratory shorebird species Commonwealth of Australia, 2017). If nesting threatened shorebirds are detected within 255 metre of the works or ancillary sites or activities, work will immediately stop and the local NPWS office will be contacted for instruction and assistance and/or clearance.
- In the case whereby earth works surface disturbance is attracting bird activity an assessment is to be made onsite for the likelihood of impact on fauna. In the case of cause-and-effect conditions that may arise works may proceed if impacts on bird species are deemed low risk by relevant Council officer.
- Limiting machine movement to 20 km/hr to minimise risk of injury to fauna.

Coastal minor works, as described in this document do not fundamentally change the nature of the dune ecosystem, and only consist of a temporary intervention into a natural process already characterised by high levels of natural disturbance. As such, it is not considered that coastal minor works will involve or contribute to habitat loss or habitat degradation for threatened or migratory shorebird species, which have necessarily adapted to the ephemeral environment. A detailed assessment and specific determination of potential impacts on threatened and migratory species associated with a specific proposed activity is provided in **Document A**.

6.3 Aboriginal cultural heritage

As outlined in **Section 4.4.7**, an AHIP issued under the NP&W Act is required to prevent an offence being carried out from the disturbance, damage and/or destruction of Aboriginal objects. Coastal dunes are considered as having a high risk for the presence of Aboriginal cultural heritage (as per the Due Diligence Guidelines, DECCW, 2010).

Coastal dunes, and particularly the incipient dunes where beach scraping is to take place, are highly dynamic, and have been subject to ongoing, regular disturbance through natural coastal processes of shoaling and scouring. The frequently disturbed nature of the front of the dune system makes it unlikely to contain historic material with cultural heritage value. In particular, the

nature of coastal minor works, which may consist of removing sand from areas of recent deposition, and placing it on sites with a deficit, make disturbance of intact cultural heritage sites from beach scraping and nourishment works unlikely.

For beach access track maintenance works covered by this document, which take place behind the incipient dune, the soil is not to be disturbed, and only nourishment is undertaken. For this reason, disturbance of subsurface items of Aboriginal heritage is not considered likely.

Revegetation works require some disturbance of the soil in order to undertake planting. This has some risk of disturbing subsurface items of cultural heritage value. For this reason, revegetation works covered by this document should only take place in the following situations:

- for areas known to be constituted of recently deposited sediments, either through beach nourishment works undertaken concurrently, or through similar works or natural events in recent times,
- for areas where it can be conclusively demonstrated that the site in question has experienced substantial historical disturbance since European settlement. This may be confirmed through the following means:
 - review of historical aerial photography to show landform change,
 - review of historical sand mining leases which apply to the site, or
 - any other relevant historical material.

Potential impacts on Aboriginal cultural heritage should be minimised through undertaking searches for known cultural heritage sites, through review of the following sources:

- NSW Government Aboriginal Heritage Information Management System (AHIMS).
- Any relevant Council Aboriginal heritage studies.
- Any other relevant information known to Council.

Where sites are identified near to the intended works, an exclusion area for all works should be established in consultation with relevant Council Officer.

In order to mitigate against impacts on unknown Aboriginal cultural heritage sites and items, works within the dunes should be subject to conditions of an unexpected finds protocol, and where applicable align to a low impact activity as per the NPW Regulation (**Section 4.4.7**).

6.4 Non-Aboriginal heritage

Where the proposed work site contains or is in close proximity to an item of local heritage significance, or any items on the State Heritage Register, impacts on non-Aboriginal heritage values must also be considered.

Generally, coastal minor works as described in this document do not include any changes to physical assets besides transient intertidal dune systems, and therefore non-Aboriginal heritage

values are considered unlikely to be impacted directly. There may however be indirect impacts which must be considered, such as impacts on viewsheds to and from heritage items.

Where there are potential impacts on heritage items, on a case-by-case basis, appropriate mitigation measures will need to be implemented.

6.5 Soils and contamination

Shoalhaven coastal dunes are highly dynamic areas, consisting predominantly of marine sands. Acid sulfate soils (ASS) and potential acid sulfate soils (PASS) are unlikely to occur in the incipient dune and areas forward toward the surf. The majority of coastal minor works, particularly beach scraping, are limited to marine sands only. Prior to works, the ASS potential and probability should be assessed, and the soils associated with the site identified. Excavation is to cease where other sediment and soil types are encountered. Furthermore, excavation depths will be surficial and within the levels created by relatively recent sand deposition.

ASS or PASS are to be managed according to Council's *Chapter G26 – Acid Sulphate Soils and Geotechnical Guidelines* (Shoalhaven City Council, 2021). Additionally, the presence of ASS or PASS may require that an ASS management plan is developed prior to works commencing. This should be prepared in accordance with the NSW ASS Assessment Guidelines (Ahern et al, 1998).

For similar reasons to the above, sites under consideration for coastal minor works are considered to be unlikely to contain contaminants from historic uses. Historic contamination should still be assessed prior to works using the NSW EPA Contaminated Site Register. Potential contamination impacts can arise from refuelling and hydraulic spills. Therefore, it is necessary that mitigation measures are outlined for machinery refuelling and contractors are required to carry and emergency marine spill kit.

Refer to Shoalhaven City Council [Contaminated Land Management Policy](#) for protocols in relation to the unforeseen detection of asbestos and other contaminated waste that may be detected within illegally dumped material. Works are to shut down and a proper assessment protocol developed in consultation with the relevant Council Officer. The Unexpected Finds Protocol prepared for proposed activity should also be consulted to manage any unexpected waste materials encountered. This document will be attached to **Document A**.

6.6 Waterways and water quality

Coastal minor works are generally undertaken adjacent to ocean surfs and creek and river mouths and estuaries. These waterways experience constant turbulence due to natural tidal forces, and exchange of sandy substrate. The potential for impacts on waterways and water quality from beach scraping is therefore limited by the nature of coastal minor works, which broadly imitate natural coastal processes to a degree consistent with that experienced in the natural dune environment.

The proposed works, as described in this document explicitly avoid areas with established woody vegetation which provide structure to the dune system and prevent further loss of sand into the waterways.

There may be some increase in turbulence due to sediment release during operation of machinery. This is however within the levels typically experienced in the highly dynamic intertidal and swash zones. Potential sediment releases will nonetheless be mitigated by conducting work within the intertidal zone only during the spring tidal phase, and only when low wave energy is expected to occur. Machinery is to avoid traversing water as much as possible. Where crossing of water, e.g., creek outlets, is unavoidable, contact may be reduced through creation of sand bridges.

Contamination risks as described in **Section 6.5** are also associated to water quality.

6.7 Traffic and transport

Shoalhaven beaches and coastline are used by the local community and visitors for various cultural and recreational purposes, and this creates requirements for accessibility through various means of transportation. Depending on the site being considered, access may be provided through a combination of vehicle facilities such as roads and parking spaces, and paths for pedestrian use.

Beach scraping relies upon large machinery, which can impact access in various ways, particularly through physically taking up space in the carparks, access tracks and on the beach when in transit, operation, and when idle. While beach scraping will likely cause some impact on access to the beach, it is temporary – being limited to the physical undertaking of works.

Traffic impacts can be mitigated through restricting works to low-use months where possible (e.g., between March – July), working in standard working hours only, and compounding machinery away from parking spaces and access tracks where possible.

Outcome of the beach scraping will generally have a positive impact on access for pedestrians.

6.8 Socio-economic

Beaches have important social and sometimes commercial functions for members of the local community and visitors. Coastal minor works can temporarily disrupt normal use of a site and therefore cause impacts on these functions.

To mitigate against these impacts, similar measures should be undertaken as to those for traffic and transportation impacts – i.e., working in the low-use months where possible, and conducting works in standard working hours.

In addition, where specific stakeholders are identified, such as businesses or community groups which operate in close proximity, notification may be considered (see **Section 5**, above for consultation requirements).

Community complaints regarding the works may occur and are to be directed to the Council Coastal Management Team to provide an appropriate and timely response.

6.9 Noise and air quality

The coastal environment is characterised by constant ambient noise emanating from breaking waves and other dynamic coastal processes. While there are often sensitive receivers in proximity to beaches within the Shoalhaven in the form of residences, some level of natural noise is considered appropriate for this environment.

Beach scraping, despite using heavy machinery will have minimal noise impacts due to their temporary nature, and the fact that it is only marine sands being moved.

Noise impacts are considered minor but should be mitigated by conducting works during standard working hours only.

Air quality at the coastline is generally good due to presence of coastal winds. Air quality impacts from moving of material is not considered likely due to the characteristics of the sand substrate which is not easily airborne. Impacts from this can nonetheless be reduced by limiting works during high wind conditions, limiting stockpiling to the minimum necessary, compacting materials when placing, and preventing access to the public within 50m of works.

There may be some emissions from machinery used, but these will be easily dissipated in the coastal weather.

6.10 Waste

The coastal environment generally contains low amounts of waste, except for small amounts of general waste and litter transmitted by water and wind to the site. Waste may be present on site including, dumped general waste, remnant building material (timber fencing and wire), discarded fishing gear etc. A general site clean-up may be required to be conducted prior to works commencing. All waste will be disposed of appropriately in accordance with the Resource Management Hierarchy (Avoidance, Recovery, Disposal) to a NSW EPA licenced facility and in accordance with the NSW EPA Waste Classification Guidelines (NSW EPA, 2014).

Beach scraping and nourishment works as described in this document do not involve bringing in additional sand or sediment, and generally do not require disposal offsite. There are only negligible other opportunities for waste generation as a result of the proposed activity.

A post-work survey of the site should be undertaken before demobilising to ensure waste and litter is not left behind. For works involving revegetation this may include plastic pots and other planting materials.

Refer to **Section 6.10** for consideration of unexpected finds and provisions of contaminated land management.

7. REVIEW OF ENVIRONMENTAL FACTORS (s171 EP&A Regulation)

Section 171 of the EP&A Regulation outlines this assessment process as a REF. Section 171(1) states:

“When considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the environmental factors guidelines that apply to the activity.”

The DPE published guidelines to support the REF in June 2022 (DPE (2022) *Guidelines for Division 5.1 assessments*). Table 1 of these guidelines provides the environmental factors which are consistent with those published in Section 171(2) of the EP&A Regulation. These are to be considered in undertaking an environmental assessment as per Part 5 of the EP&A Act

The following tables summarises each of the factors to be considered in the environmental assessment. An assessment against each of these factors is provided in **Document A**.

The following terminology will be used to determine the potential impact of the proposed activity against each of the environmental factors for both long- and short-term-time frames:

- Positive
- Neutral
- Negative

Commentary will be provided to justify the assessment and the relevant mitigation and management measures will be established in the environmental management plan (EMP) produced for the specific sites (see **Document A**).

Table 6 Relevant Environmental Factors (as per s 171(2) of the EP&A Regulation) to be assessed for coastal minor works.

Environmental factor	Aspects to be considered
a) Any environmental impact on a community	Social, economic and cultural impacts
b) Any transformation of a locality	Human and non-human environment
c) Any environmental impact on the ecosystems of the locality	Flora, fauna, ecological integrity, biological diversity, connectivity/fragmentation, air, water including hydrology, soil
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	Visual, recreational, scientific and other
e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations	Aboriginal heritage (including intangible cultural significance), architectural heritage, social/community values and identity, scenic values and other
f) Any impact on the habitat of protected animals (within the meaning of the BC Act)	Listed species and habitat requirements/critical habitat
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	Listed species, non-listed species and key threatening processes
h) Any long-term effects on the environment	Ecological, social and economic
i) Any degradation of the quality of the environment	Ecological, social and economic
j) Any risk to the safety of the environment	Public health, contamination, bushfire, sea level rise, flood, storm surge, wind speeds, extreme heat, urban heat and climate change adaptation
k) Any reduction in the range of beneficial uses of the environment	Natural resources, community resources and existing uses

Environmental factor	Aspects to be considered
l) Any pollution of the environment	Air (including odours and greenhouse gases); water (including runoff patterns, flooding/tidal regimes, water quality health); soil (including contamination, erosion, instability risks); noise and vibration (including consideration of sensitive receptors); or light pollution
m) Any environmental problems associated with the disposal of waste	Transportation, disposal and contamination
n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	Land, soil, water, air, minerals and energy
o) Any cumulative environmental effect with other existing or likely future activities	Existing activities and future activities
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	Coastal processes and hazards (impacts arising from the proposed activity on coastal processes and hazards and impacts on the proposed activity from coastal processes and hazards), climate scenarios
q) Any applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act	Issues, objectives, policies and actions identified in local, district and regional plans
r) Any other relevant environmental factors	Any other factors relevant in assessing impacts on the environment to the fullest extent.

8. REVIEW OF THIS DOCUMENT

This Document is to be reviewed every 6 months to ensure that references to legislation and the approvals pathway remain current and are appropriate for exercising appropriate due diligence in the assessment and execution of minor coastal works.

The following Council positions have been identified as the responsible persons for this review:

- Coast and Estuaries Officer; and
- Lead - Coastal Management
- Manager - Environmental Services.

The review and any resultant updates to the document and assessment process within this Document or Document A are required to be approved by the Manager – Environmental Services prior to their implementation.

The table below provides a summary of the revision and approvals history for this document and is to be updated as reviews are completed.

As discussed in **Section 4.4.3**, following the certification of the CMPs being prepared by Council, this document is also required to be reviewed to ensure consistency across the management of Councils coastal land.

Doc. Revision	Date of publication	Author	Nature of changes	Approved
Rev2	September 2023	Braiya White, Luke Moroney, Ryan Cope (Shoalhaven City Council)	Revision of original template prepared by Cardno (now Stantec) to enhance usability while providing update for legislation currency.	Michael Roberts (Shoalhaven City Council)

9. CONCLUSION

This document is approved for its purpose of describing general objectives, works processes, and possible impacts for coastal minor works undertaken by Council, in support of a Part 5 assessment pathway under the EP&A Act.

Refer to **Document A** for site specific environmental assessment and proposed risk mitigation measures applicable to the specific location and scope of works.

This approval shall expire after five (5) years from the date below and shall require revision and amendment as appropriate with changes to relevant legislation and policy.

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Legislation

Commonwealth

Coastal Waters (State Powers) Act 1980

Environment Protection and Biodiversity Conservation Act 1999

Native Title Act 1993

State

Biodiversity Conservation Act 2016 (NSW)

Coastal Management Act 2016 (NSW)

Contaminated Land Management Act 1997 (NSW)

Environmental Planning and Assessment Act 1979 (NSW)

Environmental Planning and Assessment Regulation 2021 (NSW)

Fisheries Management Act 1994 (NSW)

Heritage Act 1977 (NSW)

Local Government Act 1993 (NSW)

Marine Estate Management Act 2014 (NSW)

National Parks and Wildlife Act 1974 (NSW)

Protection of Environment Operations Act 1997 (NSW)

State Policy

State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

State Environmental Planning Policy (Transport and Infrastructure) 2021 (NSW)

State Environmental Planning Policy (Planning Systems) 2021 (NSW)