

Review of Environmental Factors

Reserve Access Upgrade – Maloney's Beach

November 2025

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1. Background

The objectives of the project are to improve vehicle and pedestrian access to Maloneys Beach while remaining compliant with Marine Park regulations by not facilitating unauthorised vehicular access onto the sand within the Batemans Marine Park.

At the Ordinary Meeting of Council on the 19th of November 2024, a motion to remove the sandstone blocks allowing vehicular access to Maloneys Beach was defeated. At this same meeting a motion to receive a report at the earliest convenience with a view to provide access to Maloneys Beach to the immediate west of the existing toilet block, was carried.

At the Ordinary Meeting of Council on the 25th of March 2025 the report was received. Three options were provided, each with differing implications for vehicular and pedestrian access, budget and environmental impact.

These options included: the improvement of accessibility for all pedestrians and vehicles to get closer access to the beach, while not specifically providing vehicle access to the beach; an option to improve pedestrian access only; and the option of maintaining the current access arrangements. At this meeting Council resolved to proceed with the first option, which is presented in this REF.

2. Environmental Safeguards Summary

Table 1: Summary of environmental safeguards to be implemented for more information see relevant sections contained in this document.

Safeguards for the proposed work	
General	<ul style="list-style-type: none">• If the scope of the works changes at any time, review this REF to determine any new measures to take.• An environmental management plan is prepared and implemented prior to the commencement of works.• No new access tracks to be created for the works.

	<ul style="list-style-type: none"> • Parking of vehicles and storage of plant/equipment is to occur on existing paved areas. Where this is not possible, vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees. • All project staff and contractors will be inducted on the environmental sensitivities of the work site and relevant safeguards prior to commencement. • The Project Manager will be notified immediately of any complaints relating to management of environmental issues. • To ensure compliance with Section 148(3) of the Protection of the Environment Operations Act 1997, the Council's Health and Building Manager and Environmental Officer must be notified of any pollution incidents that have caused or threaten material harm to the environment. • The Project Manager will be notified if damage occurs to an area (vegetation, etc.) outside of the nominated work area.
Soil	<ul style="list-style-type: none"> • Site management will incorporate best management erosion and sediment control practices such as those found in the Landcom's "Blue Book (4th Edition) on erosion and sediment control. • Linear silt stop fencing, bunding or coir logs, to be installed down slope of all affected areas and stockpiles. Controls will be installed before any excavation begins. • Sandbags, hay bales wrapped in geotextile fabric etc. will be used to slow water flow and trap sediment. No straw bales are to be used. • All erosion and silt control devices will be visually inspected weekly to ensure effectiveness as well as after each rainfall event. • The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with Landcom's "Blue Book (4th Edition) on sediment and erosion control.

	<ul style="list-style-type: none"> • Construct temporary drainage structures in accordance with the 'Technical Guideline - Temporary Stormwater Drainage for Road Construction' (RMS 2011) • Overburden will be placed in the form of a bund upslope of the site where necessary to reduce surface water entering the site, or downslope to form a bund between dirty water (works) and clean water. • Stockpiles will be designed, established, operated and decommissioned in accordance with the RMS Stockpile Site Management Guidelines 2015.
Waterways and water quality	<ul style="list-style-type: none"> • Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls. • Water quality control measures are to be used to prevent any materials (e.g. concrete, grout, sediment etc) entering drain inlets or waterways. • Wash down should use potable water and excess debris removed using hand tools. Wash down waste must be filtered before release, and away from all waterways. • No dirty water may be released into drainage lines and/or waterways. • Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets. • Reduce water velocity and capture sediment on site. • Contain works to specified areas, minimise the amount of disturbed material transported from site to surrounding pavement surfaces. • Divert clean water around the site. • Store fuels, chemical and hazardous materials in secure, bunded areas within temporary construction ancillary facilities, and at least 50m from all waterways. • Capture and dispose of spill and contaminated materials from temporary construction ancillary facilities at a licensed facility.

	<ul style="list-style-type: none"> Provide spill kits around temporary construction ancillary facilities. Measures to control pollutants from stormwater and spills will be investigated and incorporated in the pavement drainage system at locations where it discharges to the receiving drainage lines. Measures aimed at reducing flow rates during rain events and potential scour will also be incorporated in the design of the pavement drainage system.
Air quality	<ul style="list-style-type: none"> Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust. Works are not to be carried out during strong winds (average wind speed of 15 m/s or 54 km/h) or in weather conditions where high levels of dust or air borne particulates are likely. Vegetation or other materials are not to be burnt on site. Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation. Vehicles and equipment are to be maintained in good working order. Monitor work areas and stockpiles for dust generation and seed/cover/spray to suppress. Do not leave vehicles idling.
Aboriginal Heritage STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! Follow Unexpected Finds Protocol Appendix D	<ul style="list-style-type: none"> Aboriginal Cultural Heritage Assessment and Report to be undertaken by qualified archaeologists detailing actions required. Aboriginal Heritage Impact Permit to be applied for, if applicable. <p><u>SENSITIVE INFORMATION REDACTED</u></p>
Non-Aboriginal Heritage STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! Follow Unexpected Finds Protocol Appendix D	<u>Awareness:</u> <ul style="list-style-type: none"> All personnel working on site will receive training to ensure awareness of location of existing heritage items

	<p>within the Study Area and immediate surrounds, and relevant statutory responsibilities.</p> <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> • There are no known sites within the works footprint. <p><u>Unexpected Finds (Appendix D):</u></p> <ul style="list-style-type: none"> • If heritage items are uncovered during the works, STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! All works in the vicinity of the find must cease and the Project Manager and Environmental Officer contacted immediately. The Standard Management Procedure - Unexpected Heritage Items (TfNSW, 2022) must then be followed.
Biodiversity	<p><u>General:</u></p> <ul style="list-style-type: none"> • Detail restoration, regeneration and rehabilitation of areas of native vegetation that will be removed to accommodate the proposed works. • Detail appropriate management for the potential habitat of threatened flora and fauna species that will be indirectly impacted by the proposal. This may include fencing and signage. • Identify weed management strategies. • As part of the site induction process, provide all site personnel with information on the biodiversity values of the study area, including threatened species, no-go areas and responsibilities under relevant environmental legislation, including but not limited to the EP&A Act, BC Act and EPBC Act and associated management plans for individual species. • Should unexpected, threatened fauna be located at any time during construction, cease work immediately in the area to prevent further harm to the individual. Contact Council's Environmental Officer and a suitably qualified ecologist to determine if further assessment or management plans are required. <p><u>Clearing of vegetation – general safeguards</u></p> <ul style="list-style-type: none"> • Remove minimum required vegetation and minimise disturbance to remaining vegetation. Retain as many trees

as practical by allowing for slight design changes where possible.

- If any damage occurs to vegetation outside of the boundaries of the work site as a result of the implementation of the proposal, the Project Manager will be notified and will establish strategies for mitigation of impacts and site restoration.

Loss of threatened species and their habitats:

- Works are not to harm threatened fauna.
- Works are not to create a barrier to fauna movement.
- Implement exclusion zones to protect threatened ecological communities and threatened species habitat.

Aquatic habitats and Riparian Zones:

- Manage riparian areas in accordance with Roads and Maritime's 'Biodiversity Guidelines Guidance Note 10: Aquatic Habitats and Riparian Zones' (TfNSW 2024).

Invasion of Exotic Species:

- Manage vegetation within the road reserve and adjacent to areas of vegetation clearing in accordance with Guide 6 Weed Management and Guide 10 Aquatic Habitats and Riparian Zones of Roads and Maritime's Biodiversity Guidelines (TfNSW, 2024) to reduce invasion of noxious weed species.
- Use weed-free topsoil in landscaping and revegetate disturbed sites with locally indigenous species.
- Construction machinery should be washed prior to entering and leaving site to ensure weed propagules are not transported.

Stockpiling:

- Only place stockpiles in low value vegetation, where cleared sites are unavailable.
- Stockpiles should be no taller than 2m height.
- Use existing stockpiles before creating new ones.

Site Restoration:

	<ul style="list-style-type: none"> • The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with: <ul style="list-style-type: none"> • Landcom's "Blue Book (4th Edition) on sediment and erosion control; • RMS Landscape Guidelines;
Traffic and transport	<ul style="list-style-type: none"> • Where possible, current traffic movements and property accesses are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays.
Noise and vibration	<p><u>Notification:</u></p> <ul style="list-style-type: none"> • All sensitive receivers (e.g. local residents) likely to be affected will be notified at least five working days prior to the start of any works associated with the activity that may have an adverse noise or vibration impact. <p><u>Standard Hours of Operation:</u></p> <ul style="list-style-type: none"> • Works to be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays may not be permitted and, if permitted, works are to minimise noise impacts. <p><u>Out of hours:</u></p> <ul style="list-style-type: none"> • Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers. Additionally, approval of these activities will be required from the Divisional Manager Works and a notification to the NSW EPA.
Socio-economic	<ul style="list-style-type: none"> • Display public information signs until site restoration is complete. • Carry out community and stakeholder consultation before works start. • Notify the Works Supervisor and Asset Manager immediately of any complaints or any accidental damage to property. • Locate services on DBYD search and peg out no-go areas to avoid service-disruption.

	<ul style="list-style-type: none"> • All Council staff will exercise courtesy in dealing with the community.
Landscape character and visual amenity	<ul style="list-style-type: none"> • Contain all work within the boundaries designated on the site plan. • Restore work sites to as close to their original condition as possible. • Minimise spread of stockpiles, waste, and parking.
Waste	<ul style="list-style-type: none"> • A Waste Management Plan will be prepared as part of the CEMP. • All surplus material, off cuts, and other debris resulting from the work shall be removed from site and disposed of by a licensed contractor to a licensed waste management facility. • Waste material, other than vegetation and tree mulch, is not to be left on site once the works have been completed. • Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.

3. Introduction

The environmental assessment and determination of the proposal has been undertaken in accordance with Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). For this proposal, Eurobodalla Shire Council is both a public authority proponent (EP&A Act s5.3) and the determining authority (EP&A Act s5.1). The REF has been prepared in accordance with Section 171 of the EP&A Regulation (2021). Table 1 below outlines the proponent contact details.

Table 2. Proponent details

Project name	Maloneys Beach Reserve Access Upgrade
Proponent (council) name	Eurobodalla Shire Council
Project manager	

Position	Divisional Manager Major Works
Contact details	

Project description

Scope

The proposed works cover an area of approximately 1426m² and involve the following.

- **Planning and design:**
 - Conducting a detailed site survey and assessment.
 - Developing the project design, considering Council's requirements and user needs (including public consultation process).
 - Performing an environmental impact assessment, focusing on protecting the coastal environment.
 - Gaining necessary permits and approvals (Council and other)
- **Land and environmental management:**
 - Clearing and grubbing the construction area.
 - Controlling erosion and sedimentation throughout construction.
 - Managing and protecting native flora and fauna, and Aboriginal Cultural Heritage especially in sensitive areas.
- **Construction:**
 - Earthworks: Grading and shaping the land per design.
 - Drainage: Installing drains to manage water flow and prevent erosion.
 - Constructing kerbs and paths.
 - Constructing road: Installing road base materials for a flexible pavement and laying the final wearing surface (e.g., asphalt or bituminous).
 - Relocate BBQ.
 - Installing signage.
 - Revegetating disturbed areas.

- **Post-construction:**
 - Landscaping and restoration of the surrounding area.
 - Clean up area.
 - Proofing and conducting any required testing and commissioning.

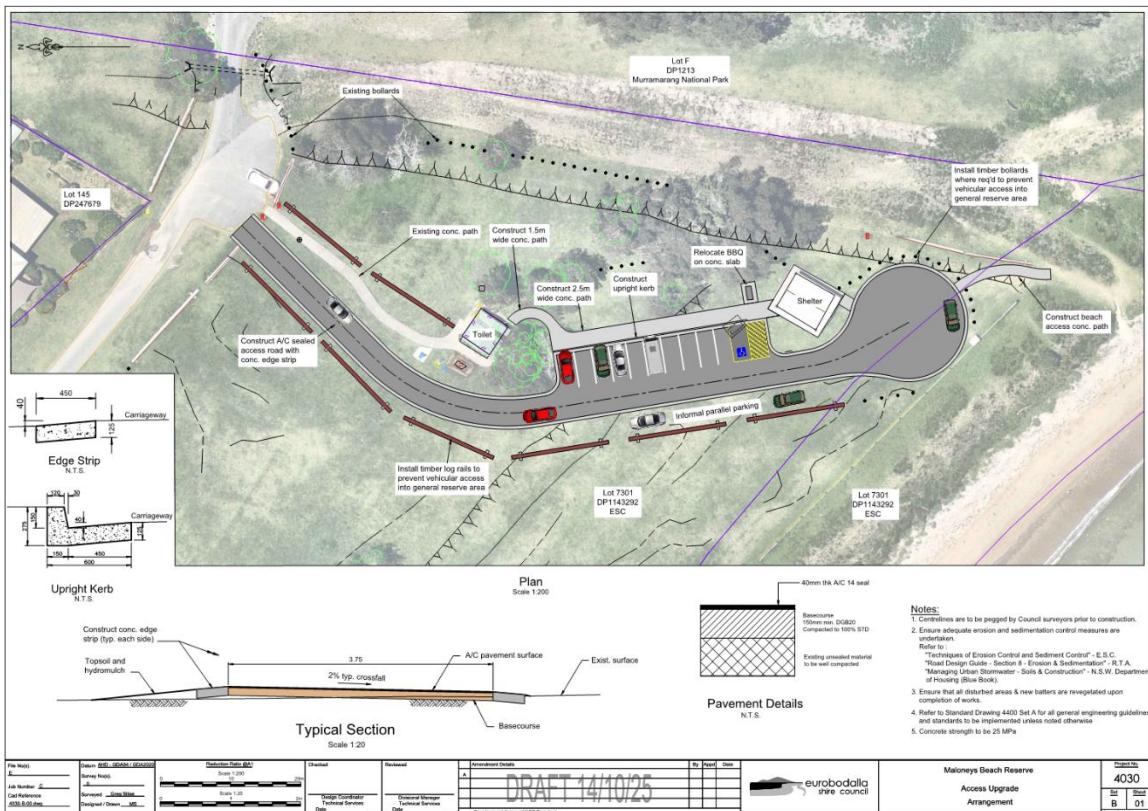


Figure 1: Design Plan Overview.

Council will undertake the following appropriate investigations, as required, including:

- Review of the potential impacts on known fauna/flora and archaeological aspects relevant to the site and proposed works.
- Engage external consultants to undertake comprehensive assessment of the potential impacts on Aboriginal cultural and heritage aspects relevant to the site and proposed works.
- Liaison and approval from fisheries and marine parks for works adjacent to the marine reserve.

Machinery and equipment

Machinery and equipment used for the works will include.

- Grader
- Trucks
- Backhoe
- Bobcat
- Roller/compactor
- Water truck

Access and ancillary works

A storage compound will be set up in an already disturbed area or area dominated by exotic vegetation, determined suitable by the Environmental Officer and project manager closer to the construction start date. Excess material is to be tested for contaminants and stockpiled at an approved site.

Duration and working hours

The works are described as long term, as outlined in Table 3.

Table 3. Project timeframes

Start date	To be confirmed
Work duration	12 Weeks
Work hours	<p>Working hours will be Monday-Friday 7am to 6pm</p> <p>Saturday 8am to 1pm</p> <p>Sunday & public holidays – No works other than inspections</p> <p>Any work outside these hours would require appropriate advice to residents, approval of the Divisional Manager Works and notification of the NSW EPA.</p>

Project location and context

Location of the proposed activity

The proposed works are located within Maloneys Beach Reserve, off Hibiscus Close, Maloneys Beach, NSW, 2536 in the Eurobodalla Shire local government area. The extent of work is within ESC owned Lot 245 DP 569875 and Crown Land under ESC control Lot 7301 DP1143292. The works are adjacent to Maloneys Beach and Murramarang National Park and approximately 13km and 37km northeast, by road, from Batemans Bay and Moruya town centres, respectively. The works location approximate coordinates are Easting 251285.6, Northing 6044636.8 in the GDA 2020 coordinate system.



Figure 2: Image showing the location of the proposed access track that will extend alongside the existing footpath (Image from Google Maps, 2025)

Site context

The site is within the coastal community reserve area of Maloneys beach, a suburb of Batemans Bay within the Eurobodalla Shire Council (ESC) local government area. It is adjacent to an urban street with low density residential properties, and an area of environmental conservation which includes a beach and national park. The topography of

the land is gently undulating, with an elevation of approximately 4 metres. The reserve consists of an open grassed area surrounded by areas of vegetation, ranging from spinifex grassland to coastal foredune scrub and nearby wet sclerophyll forests. The proposed work site is located within the Clyde River Catchment, with water draining into the Maloneys Beach foreshore and nearby Maloneys Creek.

The proposed work area is characterised by two types of soils, one that covers most of the site to the south of Hibiscus Close and one further south nearest to Maloneys Beach foreshore. The soils closest to Hibiscus Close are deep, well or excessively drained sands or gravels, with high infiltration rates, low water runoff potential and low soil fertility. The second set of soils, closest the foreshore, have moderate infiltration rates and are deep to moderately deep soils with moderately fine to moderately coarse texture, and low soil fertility. The soils are classified as Siliceous Sands and Lithosols as per the Great Soil Groups and Rudosols as per the Australian Soils Classification Type. Rudosols are shallow soils characterised by having very little development of horizons with no pedological colour changes or texture changes, except for the darkening of the A1 horizon.

Land use and ownership

The project site is within the Council owned community land and Crown reserve under Council control. The surrounding land use is residential, recreation and conservation. The land zoning of the proposed works is RE1 public recreation and C2 Environmental conservation surrounded by areas of R2 low density residential and C1 National Parks and Nature Reserves, according to the Eurobodalla Local Environment Plan (LEP) 2012. None of the works, including access requirements, impinge on any National Park or land owned by National Parks and Wildlife Service (NPWS).

Project justification and consideration of alternatives

The proposed works are a resolution by Council in response to public consultation relating to a petition that was received by Council, in March 2024, requesting beach access be reinstated to Maloneys Beach.

Three options were considered:

Option 1: Provide vehicular and pedestrian access to the west of the existing toilet block. This option includes constructing a 3.0m wide bitumen sealed access track and extending the existing concrete footpath.

Option 2: Provide improved accessible pedestrian access only. This option focuses on extending the concrete footpath to improve pedestrian access.

Option 3: Maintain the current access provisions and restrictions without any further work. This is the alternative to “do nothing” which will mean that no further works will be undertaken and the current access to Maloneys beach will remain. A formal concrete accessible pathway is currently provided to the eastern end of Maloneys Beach from the carpark within the Murramarang National Park. This pathway is owned and maintained by National Parks and Wildlife Service (NPWS).

It was resolved at the Ordinary Meeting of Council held on Tuesday the 25th of March 2025 to proceed with Option One. Option One will provide improved accessibility for pedestrians and vehicles. Vehicular access will be provided through the construction of a sealed access track with parking and turn around area. Pedestrian access will be provided by extending the concrete footpath from the toilet block to connect to the existing picnic shelter, and the provision of a length of concrete footpath from the end of the proposed sealed access road to the beach. The proposed access road and concrete footpath will complement other existing pedestrian accesses to the Maloneys Beach reserve and increase the range and locations of public beach access provided.

3. Statutory and planning framework

Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) and the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) provide the framework for development and environmental assessment in NSW.

As Council is the proponent, the works have been assessed as ‘development permissible without consent’ under Part 5 of the EP&A Act. Therefore, the activity has been assessed in accordance with Sections 5.5, 5.6 and 5.7 of that Act by examining and taking into account to the fullest extent possible all matters which are likely to affect the environment. Environmental Planning Instruments made under the EP&A Act 1979 may also be relevant and are addressed below.

State Environmental Planning Policy (Transport and Infrastructure) 2021

The State Environmental Planning Policy (Transport and Infrastructure) 2021 aims to facilitate the delivery of infrastructure across NSW by identifying whether certain types of infrastructure require consent, can be carried out without consent or are exempt development.

Pursuant to Division 17 Section 2.109 (1) of the Transport and Infrastructure SEPP, development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land. The proposed works are therefore assessed under Part 5 of the EP&A Act.

Not all roadside vegetation management requires assessment under Part 5 of the EP&A Act. Division 17 Section 2.113 (1) of the Transport and Infrastructure SEPP states:

- (1) Development for any of the following purposes is exempt development if it is carried out by or on behalf of a public authority in connection with a road or road infrastructure facilities and complies with general requirements for exempt development Division 4 section 2.20 of the Transport and Infrastructure SEPP:
 - (f) upgrading or maintenance of landscaping, or vegetation management (such as weed spraying, slashing and pruning), and:
 - (i) does not involve construction works, and
 - (ii) involves the replacement (if any) of existing materials with similar materials only.

Clause 4 Section 2.20 in the T&I SEPP limits when ‘exempt development’ applies, including a statement that it must not involve clearing of vegetation that would otherwise require a permit – unless the clearing is undertaken in accordance with the permit.

Other environmental legislation

Table 3 outlines how the project has been considered under other relevant Commonwealth and State environmental legislation.

Table 4: Other environmental legislation

Legislation	Relevance to the proposed activity
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COMMONWEALTH LEGISLATION	
<i>Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i>	<p>The EPBC Act protects matters of National Environmental Significance (NES), such as threatened species and ecological communities, migratory species (protected under international agreements), and National Heritage places (among others).</p> <p>The protected matters search performed on the 01/12/2025 shows the area to have 10 Threatened Ecological Communities (TEC) that are likely to occur:</p> <ul style="list-style-type: none"> • Illawarra and south coast lowland forest and woodland ecological community • Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community • River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria • Littoral Rainforest and Coastal Vine Thickets of Eastern Australia • Lowland Grassy Woodland in the South East Corner Bioregion • Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion • Subtropical and Temperate Coastal Saltmarsh • Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland • Araluen Scarp Grassy Forest • Dry rainforests of south-east New South Wales and eastern Victoria <p>94 possible Threatened Species, with 62 listed migratory species within a 10 kilometre buffer zone, including:</p> <ul style="list-style-type: none"> • Eastern Curlew, Far Eastern Curlew • Swift Parrot • Regent Honeyeater

	<ul style="list-style-type: none"> • Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) • Greater Glider (southern and central) • Yellow-bellied Glider (south-eastern) • Pilotbird • White-throated Needletail • South-eastern Glossy Black-Cockatoo • East Lynne Midge-orchid <p>Matters of NES have been identified on and near the site. Surveys and assessments of the activity have been undertaken in accordance with Significant Impact Criteria in the Significant Impact Guidelines 1.1 (Commonwealth of Australia 2013). A significant impact is not likely to result and therefore a referral to the Commonwealth Department of Environment is not required.</p>
STATE LEGISLATION	
<i>Biodiversity Conservation Act 2016 (BC Act)</i>	<p>Part 7 of the BC Act provides the environmental assessment requirements for activities being assessed under Part 5 of the EP&A Act 1979. If a significant impact is likely, a Species Impact Statement is required. A biodiversity development assessment report may also be required if the proponent elects for this. Section 7.2(1)(a) and 7.3 describe the assessment requirements and thresholds for what is considered a significant impact.</p> <p>Threatened species and communities listed under this Act were identified as potentially being impacted by the works. Surveys and Assessments were undertaken regarding these matters and it was concluded that a significant impact is not likely to result and therefore a Species Impact Statement or Biodiversity Development Assessment Report is not required.</p>
<i>Local Land Services Act 2013 (LLS Act)</i>	<p>The objects of the LLS Act include 'to ensure the proper management of natural resources in the social, economic and environmental interests of the State, consistently with the principles of ecologically sustainable development. The Act regulates the clearing of native vegetation, however section 60(O)(b)(ii) excludes the need for consent under the LLS Act where the clearing is an activity carried out by a determining authority within the meaning of Part 5 of the EP&A Act 1979.</p>

	Not applicable, ESC is the determining authority and therefore consent is not needed under the LLS Act.
<i>Fisheries Management Act 1995 (FM Act)</i>	<p>FM Act provides for the protection, conservation, and recovery of threatened species, populations and ecological communities of fish and marine vegetation and fish habitats, as well as promoting the development and sharing of fishery resources in NSW.</p> <p>The activity does not involve harm to mangroves or other protected marine vegetation, dredging or reclamation, blocking of fish passage and does not involve impact to a Key Fish Habitat waterway. Fisheries will be consulted regarding the activity to determine if a permit in accordance with Part 7 of the FM Act is necessary.</p>
<i>Marine Estate Management Act 2014</i>	<p>The Marine Estate Management Act 2014 provides for the management of the marine estate (coastline, estuaries and marine waters of NSW), marine parks and aquatic reserves. The key objective is to promote biologically diverse, healthy and productive marine estate while facilitating economic, cultural, social and recreational opportunities and allowing for scientific research and education.</p> <p>The works are adjacent to the Marine Park, therefore, Marine Parks will be consulted regarding the activity to determine if a permit is necessary.</p>
<i>Marine Estate Management (Management Rules) Regulation 1999</i>	<p>The Marine Estate Management (Management Rules) Regulation 1999 provides the management rules, regarding Marine Parks, including the particular zones.</p> <p>The works are adjacent to the Marine Park; therefore, Marine Parks will be consulted regarding the activity to determine if a permit is necessary.</p>
<i>National Parks and Wildlife Act 1974 (NPW Act)</i>	<p>The NPW Act regulates the control and management of all national parks, historic sites, nature reserves, and Aboriginal areas.</p> <p>The main aim of the Act is to conserve the natural and cultural heritage of NSW. Where works will disturb Aboriginal objects, an Aboriginal Heritage Impact Permit (AHIP) is required.</p> <p>An external archaeologist is required to be engaged to undertake an Aboriginal Cultural Heritage Assessment and provide recommendations.</p>

<p>Heritage Act 1977</p>	<p>The proposed activity does not involve an item or place listed on the NSW State Heritage Inventory or the subject of an interim heritage order or listing and is therefore not a controlled activity. Approval of works on the site is therefore not required under Part 4 of the Heritage Act.</p> <p>The proposed activity does not involve an item or place listed on the NSW State Heritage Register or the subject of an interim heritage order or listing. Approval of works on the site is therefore not required under Part 4 of the Heritage Act.</p>
<p>Protection of the Environment Operations Act 1997 (POEO Act)</p>	<p>The POEO Act is the key environmental protection and pollution statute. The POEO Act is administered by the EPA and establishes a licensing regime for waste, air, water and pollution. Relevant sections of the Act are listed below:</p> <ul style="list-style-type: none"> • Part 5.3 Water Pollution • Part 5.4 Air Pollution • Part 5.5 Noise Pollution • Part 5.6 Land Pollution and Waste <p>Any work potentially resulting in pollution must comply with the POEO Act. Relevant licences must be obtained if required. Check the POEO Public Register for any relevant Environment Protection Licences (EPLs).</p> <p>No licenses have been identified as being required including an Environmental Protection Licence (EPL), dust and noise will be carefully monitored.</p>
<p>Water Management Act 2000 (WM Act)</p>	<p>The WM Act's main objective is to manage NSW water in a sustainable and integrated manner that will benefit today's generations without compromising future generations' ability to meet their needs. Section 91E of the Act establishes an approval regime for controlled activities within waterfront land. However, clause 41 of the Water Management (General) Regulation 2018 provides an exemption for public authorities in relation to all controlled activities on waterfront land. Therefore, approval under the WM Act is not required.</p> <p>Although formal approval under the WM Act is not required, if the proposed activity is within 40m of a waterway, an attempt should</p>

	be made to comply with the requirements of controlled activities in order to reduce risks to waterways.
Roads Act 1993	<p>Section 88 of the <i>Roads Act</i> states that a roads authority may, despite any other Act or law to the contrary, remove or lop any tree or other vegetation that is on or overhanging a public road if, in its opinion it is necessary to do so for the purposes of carrying out road work or removing a traffic hazard.</p> <p>Not applicable.</p>
State Environmental Planning Policy – Resilience and Hazards 2021, Chapter 2 - Coastal Management	<p>Chapter 2 of <i>The State Environmental Planning Policy (Resilience and Hazards) 2021</i> provides controls for undertaking development and activities in coastal management areas. The four coastal management areas are:</p> <ul style="list-style-type: none"> • Coastal wetlands and littoral rainforests area – areas which display the characteristics of coastal wetlands or littoral rainforests that were previously protected by SEPP 14 and SEPP 26 • Coastal vulnerability area – areas subject to coastal hazards such as coastal erosion and tidal inundation • Coastal environment area – areas that are characterised by natural coastal features such as beaches, rock platforms, coastal lakes and lagoons and undeveloped headlands. Marine and estuarine waters are also included • Coastal use area – land adjacent to coastal waters, estuaries and coastal lakes and lagoons. <p>Under Chapter 2 Part 2.2 Division 1 of the Resilience and Hazards SEPP, clearing native vegetation in the mapped '<i>Coastal wetland and littoral rainforest area</i>' is permissible without consent when undertaken by or on behalf of a public authority and in accordance with a certified coastal management program, a plan of management under Clause 2 of Part 2 of Chapter 6 of the <i>Local Government Act</i>, or a plan of management under Division 6 of the <i>Crown Land Management Act 2016</i>. In other cases, the clearing requires consent.</p> <p>The proposed activity is located on land subject to the Coastal Management SEPP and involves the carrying out of earthworks. The land is listed as Coastal Environment and Use Areas, and the following should be considered:</p>

	<p>(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment, No impact</p> <p>(b) coastal environmental values and natural coastal processes, No impact</p> <p>(c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1, No impact</p> <p>(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms, No impact</p> <p>(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, No significant long-term impact</p> <p>(f) Aboriginal cultural heritage, practices and places, To be confirmed following further investigations</p> <p>(g) the use of the surf zone. No impact</p>
State Environmental Planning Policy Biodiversity and Conservation 2021 – Chapter 2 Vegetation in Non-Rural Areas	Chapter 2, part 2.2 of the Biodiversity and Conservation SEPP states that an authority to clear vegetation under this policy is not required if it is a clearing authorised under section 60(O) of the Local Land Services Act 2013. Section 60(O) provides an exemption for clearing under Part 5 of the EP&A Act and therefore consent is not required under the B&C SEPP (Vegetation in Non-Rural Areas). Not applicable.
State Environmental Planning Policy - Biodiversity and Conservation 2021 -Chapter 3 Koala Habitat Protection 2020	Biodiversity and Conservation SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for <i>Phascolarctos cinereus</i> (Koala) to ensure a permanent free-living population over their present range and reverse the current trend of Koala population decline. B&C SEPP applies to development under part 4 of the EP&A Act 1979. As the proposed activity is not 'development', Koala Habitat Protection SEPP doesn't apply. Regardless, consideration of impacts to koala and koala habitat may still be relevant under the BC Act 2016.

	<p>Not applicable, however the proposal is within the South Coast Koala Management Area. There are two Koala species sightings within a 10km radius, one from 2004 to the west of the Princes Highway just south of Batemans Bay, and one from 2024 to the northwest near Cullendulla Drive. PCT 3788, mapped adjacent to the works site, is listed as suitable koala habitat. There will be no tree clearing occurring as part of the works and therefore there will be no impact upon the Koala species or their habitat.</p>
The Rural Fires Act 1997	<p>Section 100C of the <i>Rural Fires Act 1997</i> takes in regard –</p> <p>a. the principles of ecologically sustainable development (as described by section 6 (2) of the <i>Protection of the Environment Administration Act 1991</i>), and</p> <p>b. any matter likely to affect the environment by reason of the carrying out of bush fire hazard reduction works on the land that a determining authority would be required to consider under section 5.5 (1) of the <i>Environmental Planning & Assessment Act 1979</i> if Part 5 of that Act were applicable to the work and the carrying out of the works were and activity within the meaning of that part.</p> <p>Not applicable.</p>

4. Community and agency consultation

Table 5: Community and agency consultation

<p>Community / agency consultation</p>	<p>Have any community stakeholders been identified for the proposed works?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>Residents of Maloneys beach, local community members, National Parks and Wildlife Service (NPWS), Fisheries and Marine Parks are the key identified community stakeholders.</i></p> <p>Is consultation with other authorities required under the requirements of Clause 1, section 2.15 of the Transport and Infrastructure SEPP 2021?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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	<p>Are the works adjacent to a national park, nature reserve or other area reserved under the National Parks and Wildlife Act 1974?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>NPWS will be consulted regarding the proposed works and their feedback will be incorporated into the design and REF document.</i></p> <p>Are the works adjacent to a declared aquatic reserve under the Fisheries Management Act 1994?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Other agency and community consultation:</p> <p><i>This REF will be on display to allow community members the opportunity to voice feedback, concerns or issues will be addressed and feedback received will be included as an appendix in the REF.</i></p>
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5. Environmental assessment

This section describes in detail the potential key environmental impacts associated with the proposal during both construction and operation and includes identifying site-specific safeguards to ameliorate the identified potential impacts.

Table 6: Impacts, environmental safeguards and mitigation measures

Issue	Description
Landform, geology and soils	<p>Does the project involve the disturbance of large areas (e.g. >2ha) for earthworks?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Does the site have constraints for erosion and sedimentation controls such as steep gradients, narrow corridors or is located on private property?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any sensitive receiving environments that are located in or nearby the likely project footprint or that would likely receive stormwater discharge from the project?</p> <p>Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments).</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
Potential impacts	<p>Any disturbance of groundcover presents a potential risk for erosion, compaction and sediment transportation, these risks can be minimised through implementation of the following safeguards.</p>
Safeguards	<ul style="list-style-type: none"> Site management will incorporate best management erosion and sediment control practices such as those found in the Landcom's <u>"Blue Book (4th Edition)"</u> on erosion and sediment control. Linear silt stop fencing, bunding or coir logs, to be installed down slope of all affected areas and stockpiles. Controls will be installed before any excavation begins. Sandbags, hay bales wrapped in geotextile fabric etc. will be used to slow water flow and trap sediment. No straw bales are to be used. All erosion and silt control devices will be visually inspected weekly to ensure effectiveness as well as after each rainfall event. The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with <u>Landcom's "Blue Book (4th Edition)" on sediment and erosion control</u>.

	<ul style="list-style-type: none"> Construct temporary drainage structures in accordance with the 'Technical Guideline - Temporary Stormwater Drainage for Road Construction' (RMS 2011) Overburden will be placed in the form of a bund upslope of the site where necessary to reduce surface water entering the site, or downslope to form a bund between dirty water (works) and clean water. Stockpiles will be designed, established, operated and decommissioned in accordance with the RMS Stockpile Site Management Guidelines 2015.
Contaminated land and acid sulphate soils	<p>Is the project located within an area mapped as Potential Acid Sulphate Soils?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Are there any known occurrences of acid sulphate soils in the area?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>Provide details</i></p> <p>There is a low probability of Acid Sulphate Soils (ASS) being encountered within the proposed work site. The area is mapped as low probability of ASS >3m below the ground surface, indicated by the yellow shading, noting the possible occurrence of Acid Sulphate Soils during construction.</p> 

	<p>Is the project located within an area mapped as Potential Contaminated Land?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Disturbance of acid sulphate soils can generate large amounts of sulphuric acid leachate which can impact on the surrounding environment.</p> <p>Potential impacts include deterioration of water and soil quality as well as adverse effects on flora and fauna, leading to toxicity and disease.</p>
Safeguards	<p>It is anticipated that Potential Acid Sulphate Soils may be disturbed, an Acid Sulphate Management Plan has been prepared.</p>
	<p>If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with relevant government agencies.</p>
Water quality and hydrology	<p>Are the works located within or adjacent to a waterbody or wetland, or within 40m of a waterway?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>The works are located adjacent to Maloneys beach foreshore, which is part of Batemans Marine Park Habitat Protection Zone.</p> <p>If yes, the NSW DPI Water or DPI Fisheries should be notified. Have they been notified?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, is a permit required? Provide details:</i></p> <p>Fisheries and Marine Parks will be consulted regarding the proposed works and any permits required will be applied for.</p> <p>Will the proposed works be undertaken on a bridge?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is the location known to flood or be prone to water logging?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

	<p>The area at the southeastern edge and adjacent to the proposed works site is mapped as land likely to be flood affected in a 1% AEP event.</p>  <p> — FLOOD PLANNING AREA — 5% AEP — 1% AEP ■ PROBABLE MAXIMUM FLOOD </p> <p>Figure 4: ESC GIS showing the flood planning restrictions at the proposed work site.</p>
Potential impacts	<p>Does the project pose any potential risk to the surrounding water quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>Describe the potential impact</i></p> <p>Disturbance of groundcover, use of chemicals and generation of waste all have the potential to impact on the surrounding waterways via runoff. This risk can be minimised through implementation of the following safeguards.</p>

Safeguards	<ul style="list-style-type: none"> Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls. Water quality control measures are to be used to prevent any materials (e.g. concrete, grout, sediment etc) entering drain inlets or waterways. Wash down should use potable water and excess debris removed using hand tools. Wash down waste must be filtered before release, and away from all waterways. No dirty water may be released into drainage lines and/or waterways. Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets. Reduce water velocity and capture sediment on site. Contain works to specified areas, minimise the amount of disturbed material transported from site to surrounding pavement surfaces. Divert clean water around the site. Store fuels, chemical and hazardous materials in secure, bunded areas within temporary construction ancillary facilities, and at least 50m from all waterways. Capture and dispose of spill and contaminated materials from temporary construction ancillary facilities at a licensed facility. Provide spill kits around temporary construction ancillary facilities. Measures to control pollutants from stormwater and spills will be investigated and incorporated in the pavement drainage system at locations where it discharges to the receiving drainage lines. Measures aimed at reducing flow rates during rain events and potential scour will also be incorporated in the design of the pavement drainage system.
Biodiversity	<p>Have relevant database searches been carried out?</p> <ul style="list-style-type: none"> NSW Bionet Threatened species profile search (www.environment.nsw.gov.au/threatenedspeciesapp/) Commonwealth EPBC

- Fisheries?

Yes No

Date searches undertaken: 01/12/2025

Are the proposed works likely to impact on any vegetation including, shrubs, trees?

Yes No

Did the database searches identify any endangered ecological communities, populations, threatened flora and/or threatened or protected fauna, or migratory species within the vicinity of the proposed works? Both Federal and State listed matters must be considered.

Yes No

Threatened Species tables in Appendix E.

Are the works taking place in a roadside area designated as high conservation value vegetation?

Yes No

If yes, provide details:

The vegetation along the foreshore is mapped as High Environmental Value within the ESC GIS. None of the vegetation Plan Community Types (PCTs) within the works footprint are associated with any TECs.

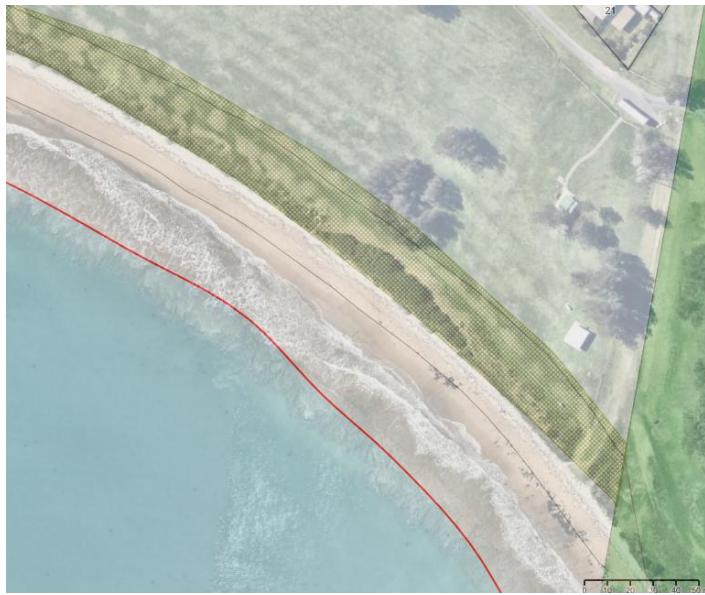


Figure 5: ESC GIS showing the area of High Environmental Value, along the foreshore.

Will the proposed works require the removal of any other vegetation?

Yes **No**

Do the proposed works involve pruning, trimming or removal of any tree/s?

Yes **No**

Will the proposed works affect any tree hollows or hollow logs?

Yes **No**

Will the proposed works disturb any crevices or other locations (such as on bridges and culverts) for potential bat habitat?

Yes **No**

Are there any known areas of Areas of Outstanding Biodiversity Value (formerly known as critical habitat), Directory of Important Wetlands in Australia within the vicinity of the proposed works?

Yes **No**

	<p>Will the proposed works disturb any natural waterways or aquatic habitat?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Do the trees form part of a streetscape, an avenue or roadside planting?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Have the trees been planted by a community group, Landcare group or by council or is the tree a memorial or part of a memorial group e.g. has a plaque?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Do the trees form part of a heritage listing or have other heritage value?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any significant weeds present?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>There are records of Sea Spurge, Blackberry, Variegated thistle, and Japanese honeysuckle mapped in proximity to the project site.</p>
Potential impacts	<p>Does the project pose any potential risk to the biodiversity within the vicinity of the site?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, describe the potential impacts:</i></p> <p>Direct impacts involve the modification of 1426m² of land. Potential indirect impacts include damage to vegetation from machinery during construction. The potential direct and indirect impacts can be mitigated through the implementation of the Environmental Safeguards and Mitigation measures outlined within Table 1 of this document.</p> <p><i>If there are impacts on threatened species, complete Assessment of Significance under Section 7.3 of the BC Act (2016) to determine if there is a significant impact.</i></p>

Safeguards	<p><u>General:</u></p> <ul style="list-style-type: none"> Detail restoration, regeneration and rehabilitation of areas of native vegetation that will be removed to accommodate the proposed works. Detail appropriate management for the potential habitat of threatened flora and fauna species that will be indirectly impacted by the proposal. This may include fencing and signage. Identify weed management strategies. As part of the site induction process, provide all site personnel with information on the biodiversity values of the study area, including threatened species, no-go areas and responsibilities under relevant environmental legislation, including but not limited to the EP&A Act, BC Act and EPBC Act and associated management plans for individual species. Should unexpected, threatened fauna be located at any time during construction, cease work immediately in the area to prevent further harm to the individual. Contact Council's Environmental Officer and a suitably qualified ecologist to determine if further assessment or management plans are required. <p><u>Clearing of vegetation – general safeguards</u></p> <ul style="list-style-type: none"> Remove minimum required vegetation and minimise disturbance to remaining vegetation. Retain as many trees as practical by allowing for slight design changes where possible. If any damage occurs to vegetation outside of the boundaries of the work site as a result of the implementation of the proposal, the Project Manager will be notified and will establish strategies for mitigation of impacts and site restoration. <p><u>Loss of threatened species and their habitats:</u></p> <ul style="list-style-type: none"> Works are not to harm threatened fauna. Works are not to create a barrier to fauna movement. Implement exclusion zones to protect threatened ecological communities and threatened species habitat. <p><u>Aquatic habitats and Riparian Zones:</u></p> <ul style="list-style-type: none"> Manage riparian areas in accordance with Roads and Maritime's 'Biodiversity Guidelines Guidance Note 10: Aquatic Habitats and Riparian Zones' (TfNSW 2024).
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	<p><u>Invasion of Exotic Species:</u></p> <ul style="list-style-type: none"> • Manage vegetation within the road reserve and adjacent to areas of vegetation clearing in accordance with Guide 6 Weed Management and Guide 10 Aquatic Habitats and Riparian Zones of Roads and Maritime's Biodiversity Guidelines (TfNSW, 2024) to reduce invasion of noxious weed species. • Use weed-free topsoil in landscaping and revegetate disturbed sites with locally indigenous species. • Construction machinery should be washed prior to entering and leaving site to ensure weed propagules are not transported. <p><u>Stockpiling:</u></p> <ul style="list-style-type: none"> • Only place stockpiles in low value vegetation, where cleared sites are unavailable. • Stockpiles should be no taller than 2m height. • Use existing stockpiles before creating new ones. <p><u>Site Restoration:</u></p> <ul style="list-style-type: none"> • The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with: <ul style="list-style-type: none"> • Landcom's "Blue Book (4th Edition) on sediment and erosion control; • RMS Landscape Guidelines; • RMS Guidelines for Batter Stabilisation Using Vegetation.
Aboriginal heritage	<p>Are the works likely to disturb previously undisturbed areas of the landscape?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Has an AHIMS register search been conducted?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Reference 4030</p> <p>Has Due Diligence been conducted?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Due Diligence completed by ESC, Appendix C, identifies the need for a detailed investigation and impact assessment, including consultation</p>

	<p>with the local Aboriginal community, is required to be undertaken by a qualified archaeologist to determine whether an Aboriginal Heritage Impact Permit is required.</p> <p>Prior to the commencement to any works, external archaeologists will be engaged to complete an Aboriginal Cultural Heritage Assessment and Report detailing actions required.</p> <p><u>SENSITIVE INFORMATION REDACTED</u></p> <p>Would the proposal involve the removal of mature native trees?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Does the project pose any potential risk to Aboriginal heritage?</p> <div style="background-color: #557788; height: 80px; width: 100%;"></div> <p><u>SENSITIVE INFORMATION REDACTED</u></p>
Safeguards	<ul style="list-style-type: none"> An Aboriginal Cultural Heritage Assessment and Report is to be undertaken by qualified archaeologists detailing actions required regarding the proposed works and any impact they may have on Aboriginal Heritage. An Aboriginal Heritage Impact Permit (AHIP) is to be applied for, if applicable. <p><u>SENSITIVE INFORMATION REDACTED</u></p>
Non-Aboriginal heritage	<p>Complete online heritage database searches</p> <ul style="list-style-type: none"> NSW Heritage database Commonwealth EPBC heritage list Australian Heritage Places Inventory Local Environmental Plan(s) heritage items <p>Are there any items of Non-Aboriginal heritage located within the vicinity of the proposed works?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Does the project pose any potential risk to Non-Aboriginal heritage?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Safeguards	<p><u>Awareness:</u></p>

	<ul style="list-style-type: none"> • All personnel working on site will receive training to ensure awareness of location of existing heritage items within the Study Area and immediate surrounds, and relevant statutory responsibilities. <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> • There are no known sites within the works footprint. <p><u>Unexpected Finds (Appendix D):</u></p> <ul style="list-style-type: none"> • If heritage items are uncovered during the works, STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! All works in the vicinity of the find must cease and the Project Manager and Environmental Officer contacted immediately. The Standard Management Procedure - Unexpected Heritage Items (TfNSW, 2022) must then be followed.
Noise	<p>Are there any noise sensitive areas near the location of the proposed works that may be affected by the works (i.e. church, school, hospital, residences)?</p> <p>During construction?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>During Operation?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details including a map to show proximity to proposed works</i></p> <p>Sensitive receivers are the surrounding residents of Hibiscus Close.</p>



Figure 7: Sensitive receivers, shown as a red x, within proximity to the proposed works site ranging from 15 – 250 metres away from the proposed works site.

Are the proposed works going to be undertaken during standard working hours detailed below?

Yes No

Standard working hours

Monday – Friday 7:00am to 6:00pm

Saturday 8:00am to 1:00pm

Sunday and Public Holidays No work

Would operation of the proposal alter the noise environment for sensitive receivers? This might include, but not be limited to, altering the line or level of an existing carriageway, changing traffic flow, increasing traffic speeds by more than 10km/hr or installing audio-tactile line markings.

Yes No

Potential impacts	<p>Does the project pose any potential risk to the surrounding noise quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>Machinery used to undertake the work poses a risk to the surrounding noise quality, through increasing noise levels throughout the duration of the works.</p>
Safeguards	<p><u>Notification:</u></p> <ul style="list-style-type: none"> • All sensitive receivers (e.g. local residents) likely to be affected will be notified at least five working days prior to the start of any works associated with the activity that may have an adverse noise or vibration impact. <p><u>Standard Hours of Operation:</u></p> <ul style="list-style-type: none"> • Works to be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays may not be permitted and, if permitted, works are to minimise noise impacts. <p><u>Out of hours:</u></p> <ul style="list-style-type: none"> • Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers. Additionally, approval of these activities will be required from the Divisional Manager Works and a notification to the NSW EPA.
Air quality	<p>Are the proposed works likely to result in large areas (>2ha) of exposed soils?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any dust sensitive receivers located within the vicinity of the proposed works during the construction period (i.e. church, school, hospital, residences)?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is there likely to be an emission to air of dust, smoke, steam or vehicle emissions?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

Potential impacts	<p>Does the project pose any potential risk to the surrounding air quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>Machinery used to undertake the work poses a risk to the surrounding air quality, through the generation of dust emissions.</p>
Safeguards	<ul style="list-style-type: none"> • Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust. • Works are not to be carried out during strong winds (average wind speed of 15 m/s or 54 km/h) or in weather conditions where high levels of dust or air borne particulates are likely. • Vegetation or other materials are not to be burnt on site. • Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation. • Vehicles and equipment are to be maintained in good working order. • Monitor work areas and stockpiles for dust generation and seed/cover/spray to suppress. • Do not leave vehicles idling.
Waste and chemical management	<p>Are the proposed works likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the proposed works likely to require a licence from EPA?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is waste being transported off site to another location?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Does the project pose any potential risk to the surrounding environment as a result of waste generated?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

	<p>If YES to any of these items, you need to prepare a Waste Management Plan (May be within CEMP document)</p>
Potential impacts	<p>The proposed construction poses potential risks to the environment from waste generation, as per any infrastructure works. Risks may include accidental release of construction materials and waste, sediment runoff and fuel or chemical spills entering the nearby ocean. Given the site's proximity to Maloneys Beach foreshore, unmanaged waste could negatively impact the aquatic habitat, water quality and surrounding native vegetation. Although, these risks can be mitigated through the implementation of strict waste management, sediment and erosion control measures, spill response procedures and site rehabilitation practices. With site specific controls in place the risk of significant environmental impact from waste generation can be minimized.</p>
Safeguards	<ul style="list-style-type: none"> • A Waste Management Plan will be prepared as part of the CEMP. • All surplus material, off cuts, and other debris resulting from the work shall be removed from site and disposed of by a licensed contractor to a licensed waste management facility. • Waste material, other than vegetation and tree mulch, is not to be left on site once the works have been completed. • Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
Traffic and transport	<p>Are the proposed works likely to result in detours, disruptions or delays to traffic flow (vehicular, cycle and pedestrian) or access to properties or businesses?</p> <p>During construction Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>During Operation Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Are the proposed works likely to affect any other transport nodes or transport infrastructure (e.g. bus stops, bus routes) in the surrounding area? Result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>Describe the potential impacts</i></p> <p>The proposed access road works are not expected to directly affect other transport nodes such as bus stops, bus routes, or public transport</p>

	<p>services, given the works location and limited public transport infrastructure in the immediate area. However, temporary impacts to local traffic flow are anticipated during the construction phase. Short-term traffic control measures may be required to manage vehicular movement safely around the work site. Impacts on pedestrian and cyclist movements are expected, due to the location of the works being in proximity to vehicle and pedestrian access to Maloneys Beach, Murramarang National Park and the Murramarang South Coast Walk. Overall, with appropriate traffic management plans and clear communication with the local community, disruptions are expected to be temporary and manageable, with no long-term effects on transport connectivity at the completion of the project.</p>
Safeguards	<ul style="list-style-type: none"> Where possible, current traffic movements and property accesses are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays.
Visual amenity/landscape	<p>Will the project have any potential impact on visual amenity of the site and surrounding landscape?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p>
Potential impacts	<p>The project will change the visual amenity of the site due to the construction of the access road and the addition of pathway infrastructure. The environment around the reserve is residential houses, environmental conservation areas, and National Park. During construction, temporary impacts to visual amenity will occur due to the presence of machinery, materials, and site works. Once works are complete, and the site is rehabilitated with appropriate native vegetation the long-term visual impacts on the site will be minor. It is not anticipated that there will be any changes to the visual amenity of the surrounding landscape.</p>
Safeguards	<ul style="list-style-type: none"> Contain all work within the boundaries designated on the site plan. Restore work sites to as close to their original condition as possible. Minimise spread of stockpiles, waste, and parking.
Socio-economic	Are the proposed works likely to impact on local business?

Yes No

Are the proposed works likely to require any property acquisition?

Yes No

Are the proposed works likely to alter any access for properties (either temporarily or permanently)?

Yes No

If yes, provide details

Residents along Hibiscus Close may be temporarily affected by machinery movements at times throughout construction.

Are the proposed works likely to alter any on-street parking arrangements (either temporarily or permanently)?

Yes No

Are the proposed works likely to change pedestrian movements or pedestrian access (either temporarily or permanently)?

Yes No

If yes, provide details

Pedestrian access arrangements, in sections between Hibiscus Close and Maloneys beach foreshore, may temporarily be affected during construction.

Are the proposed works likely to impact on any items or places of social value to the community (either temporarily or permanently)?

Yes No

If yes, provide details

There may be minor temporary impacts to some access points of the existing toilet block and picnic area within the reserve, however access to the foreshore will still be available through alternative points to the east and west of the construction.

	<p>Are the proposed works likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>There may be minor temporary impacts to the visibility of the Murramarang South Coast Walk, as the works will be located directly adjacent to the National Park and start of the walking track. However, the impacts will only be during construction and once the works are completed they will promote safe access to the Maloneys beach foreshore by the community, commuters and tourists visiting the area.</p>
Potential impacts	<p>Does the project pose any potential risk to the socio-economic factors?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>During construction there will be minor temporary impacts to socio-economic factors including disruption to access points of the foreshore and picnic facilities within the reserve. However, upon the completion of the project there will be improved vehicle and pedestrian access to the foreshore and facilities within the reserve.</p>
Safeguards	<ul style="list-style-type: none"> • Display public information signs until site restoration is complete. • Carry out community and stakeholder consultation before works start. • Notify the Works Supervisor and Asset Manager immediately of any complaints or any accidental damage to property. • Locate services on DBYD search and peg out no-go areas to avoid service-disruption. • All Council staff will exercise courtesy in dealing with the community.

Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

In accordance with the Environmental Planning and Assessment Act, the following factors have been considered in assessing the likely impact of this activity on the environment.

Does the work proposed:

a) Have any environmental impact on a community?

During construction, the main impact on the people within the community will be from dust, noise and machinery. Works will be undertaken between 7am to 6pm Mondays to Fridays or 8am to 1pm Saturdays. This will be a living document which will be regularly refined or updated as needed to address emerging or new environmental management issues as they arise.

b) Cause any transformation of a locality?

The proposed scope of works occurs within the community reserve and crown reserve of Maloneys Beach, involving the provision of an access track and pedestrian path. Clearing of some ground vegetation will change the visual amenity of the area, however the infrastructure will improve public amenities and accessibility.

c) Have any environmental impact on the ecosystems of the locality?

If all mitigation measures within Table 1 of this REF are followed, then there is a low likelihood of there being an environmental impact to the local ecosystem.

d) Have a reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?

No, the project involves provision of complementary infrastructure to the existing, facilities available within the reserve. If all mitigation measures within Table 1 of this REF are followed then there is a low likelihood of the project causing a reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality.

e) Have any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or other social significance or other special value for present or future generations?

The proposed works will not have a significant impact on the aesthetic, anthropological, archaeological, cultural, historical, scientific, or social significance of the surrounding environment for present or future generations. **SENSITIVE INFORMATION REDACTED**

f) Have any impact on the habitat of protected animals (as per Biodiversity Conservation Act 2016)?

The project involves the construction of a sealed access track and pedestrian footpath and will not have any impact on habitat of protected or endangered fauna as the works do not involve clearing of any key habitat vegetation. The proposed works area has in some areas been previously modified, and the works are contained to the recreational area and adjacent crown reserve, with no extensive clearing to occur.

g) Endanger any species of animal, plant or other form of life, whether living on land, in the water or in the air?

The works will involve the disturbance of groundcover vegetation and are not expected to endanger any species of animal, plant or other form of life, whether living on land, in the water or in the air. There may be some noise during works which may frighten fauna away temporarily, however no species will be endangered.

h) Cause any long-term effects on the environment?

The footprint of works is within community land and crown reserve, and the project involves the construction of a sealed access track and pedestrian footpath. There will be no significant long-term effects on the environment. Potential short-term impacts will be mitigated with effective erosion and sediment controls and site restoration.

i) Cause any degradation of the quality of the environment?

No further degradation to the quality of the environment will occur because of the works, the area is partially disturbed, and works will be contained to the public and crown reserves. To minimise degradation of the environment Council shall implement best practice erosion and sediment controls and all recommendations in Table 1 of this REF, to ensure that no dirty water or waste materials escape the site.

j) Cause any risk to the safety of the environment?

No, the project will improve safe access to the foreshore in the area. A desktop assessment determined that there is a low probability of acid sulphate soils (ASS) within the works area. Provided the works do not disturb the earth to a depth of more than 3m there should be no risk to the safety of the environment from ASS.

k) Cause any reduction in the range of beneficial uses of the environment?

No, the works will be within the footprint of the public recreation and crown reserve area. The construction of a sealed access track and pedestrian footpath will improve the safety and accessibility of the recreational area for the community. The footprint of works is already functioning as a public recreation area.

l) Cause any pollution of the environment?

There are minor temporary risks of pollution during construction, including water, noise and air pollution. There is the potential for dirty water runoff from bare areas,

therefore Council will prepare and implement an Erosion and Sediment Control Plan which will include measures such as the installation of sediment fences, silt traps, protection of stockpiles and revegetation of bare areas immediately following works. These measures will be detailed in line with recommendations in the “Blue Book”. Machinery used for works will be kept in top working order and vehicle idling times are to be kept to a minimum, to ensure the least amount of emissions are released into the atmosphere. The works site will be kept clean, tidy and free of rubbish. If all mitigation measures outlined in Table 1 of this REF are followed then the works are not expected to cause any long-term pollution to the environment.

m) Have any environment problems associated with the disposal of waste?

No problems are expected with regards to the disposal of waste; all excess waste is to be transported to local landfill for disposal.

n) Increase demands on resources (natural or otherwise) which are, or are likely to become, in short supply?

The project will require the use of typical construction resources (e.g. concrete, steel), there are currently no supply issues with the proposed materials to be used for the scope of works. Therefore, the demands on natural and other resources will be temporary and minimal.

o) Have any cumulative environmental effect with other existing or likely future activities?

The project area is functioning as a public recreation area, there is not expected to be any cumulative environmental effect with other existing or likely future activities. The implementation of best work practices, sediment control plans and site restoration will minimise any potential impacts on the environment because of the works. Therefore, the upgrades and construction of new infrastructure are unlikely to impact existing or likely future activities.

p) Have any impact on coastal processes and coastal hazards, including those under projected climate change conditions?

The works will not impact the coastal process or coastal hazards; the works are upgrading existing and constructing new infrastructure and located in the public recreation area and crown reserve. There will be no impact to the water quality of the marine estate, natural coastal processes or any of the other uses and natural attributes pertaining to the coastal environment area. The only minor temporary impact will be to the public access to the foreshore; however, this will apply only to a small section of the foreshore area, the public will still have access to the foreshore from adjacent areas.

q) Align with applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1?

The project works adhere to the South East and Tablelands Regional Plan and the Eurobodalla Local Strategic Planning Statement, through promoting strong communities and desirable lifestyles and responsible and balanced development, through integrated infrastructure projects and aligning local infrastructure.

r) Other relevant environmental factors?

All relevant environmental factors have been considered in each of the above points.

Matters of national environmental significance

In accordance with the Environment Protection and Biodiversity Act 1999, the following factors have been considered in assessing the environmental impact of this activity.

Table 7. Matters of natural significance factors and possible impacts

Factor	Impact
(a) Any impact on a World Heritage property?	Nil
(b) Any impact on a National Heritage place?	Nil
(c) Any impact on a wetland of international significance?	Nil
(d) Any impact on nationally threatened species, ecological communities or migratory species?	Nil
(e) Any impact on a Commonwealth marine area?	Nil
(f) Does the proposal involve a nuclear action?	Nil
Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

6. Certification, review and decision

This Review of Environmental Factors provides a true and fair review of the proposal in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal. It identifies the likely impacts of the proposal on the environment and details the environmental safeguards and mitigation measures to be implemented to minimise the potential impact to the environment. In light of the above assessment of the proposed activity, it is considered that the overall impact on the environment is likely to be minimal and therefore acceptable. The long-term benefits of the activity will have a cumulative positive impact on the safety of road users and the activity should proceed accordingly.

REF Author: [REDACTED]

Signature: [REDACTED]

Position: Engineering Environmental Support Officer

Date: 03/12/2025

Reviewed and endorsed by: [REDACTED]

Signature: [REDACTED]

Position: Divisional Manager Technical Services

Date: 11/12/2025

Accepted by Project Manager: [REDACTED]

Signature: [REDACTED]

Position: Divisional Manager Major Projects

Appendix A – Works Location



Figure 8: Proposed works location shown by the red circle.

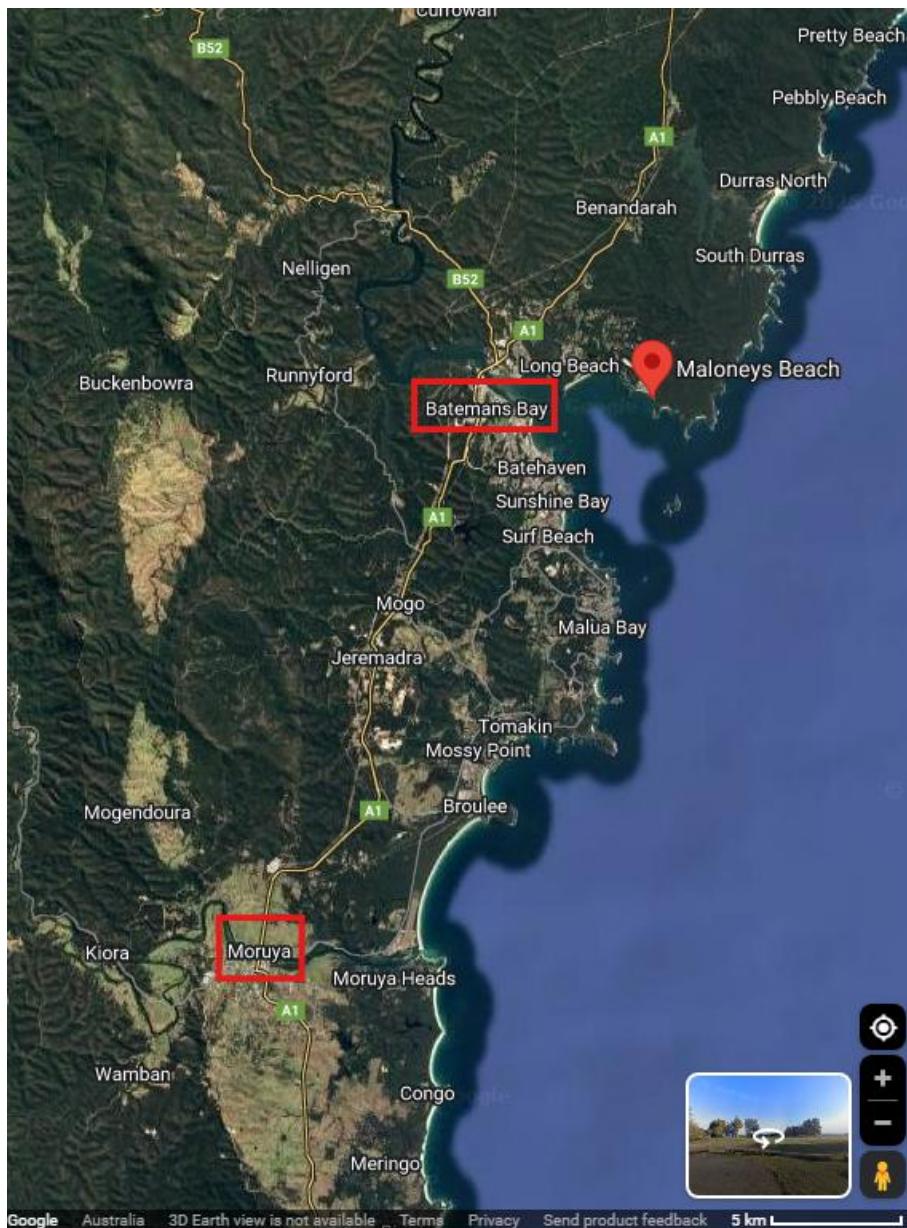


Figure 9: Works location in proximity to larger regional centres.

Appendix B

GUIDELINES FOR TREATMENT OF POTENTIAL ACID SULPHATE SOILS (PASS) DURING CONSTRUCTION

Field observations suggest that some areas contained within the proposed worksite have some likelihood to be areas where potential acid sulphate soils (PASS) may occur as they are located in a generally low lying, estuarine area. Also, as acid sulphate soil risk maps have identified this zone as an area of risk of acid sulphate soil (ASS), Council should adopt a conservative approach and assume that any/all soils encountered during any excavation within the work zone have the potential for ASS and be managed accordingly.

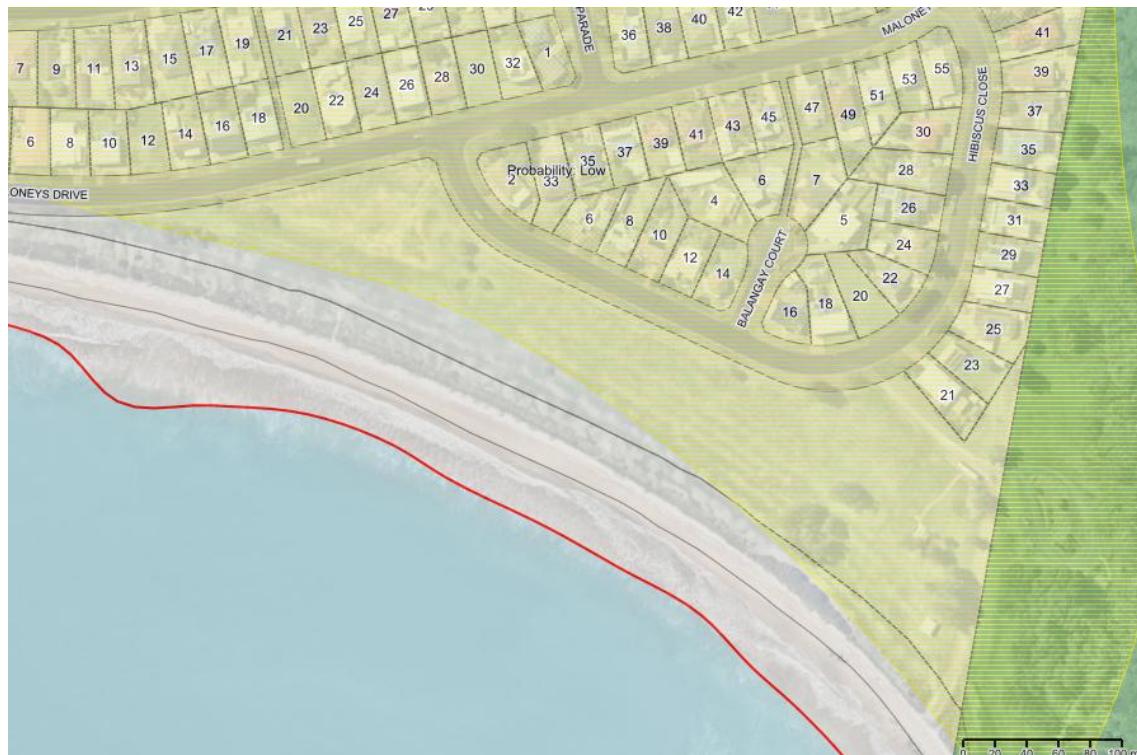
Common methods of management as detailed in ASSMAC manual for acid sulphate soils include:

- Avoidance.
- Burial below a permanent water table.
- Neutralisation.

As it is inevitable that some excavation will take place during construction neutralisation of any disturbed/excavated soils will need to be performed.

BACKGROUND

Desktop observations suggest that areas within the proposed worksite have some likelihood to be areas where potential acid sulphate soils (PASS) may occur >3 metres below the ground surface.



- █ < 1m BELOW THE GROUND SURFACE
- █ > 1m < 3m BELOW THE GROUND SURFACE
- █ > 3m BELOW THE GROUND SURFACE
- █ AT OR NEAR THE GROUND SURFACE
- █ BOTTOM SEDIMENT
- █ UNKNOWN

NEUTRALISATION PROCESS

- Any excavated soils should be stockpiled on level graded firmly compacted area away from the worksite. Appropriate sediment and erosion controls should be adopted around stockpiles.
- Stockpiled soils should be mixed with fine powdered **agricultural** lime at a minimum rate of 20kg of lime to 1 tonne of soil. Mixing can be achieved by turning several times with a backhoe or excavator.
- Neutralised soil (target pH between 6.5 and 8.5) can then be disposed of to landfill or buried below a permanent water table.

OTHER PASS MANAGEMENT ISSUES

Any disturbed /excavated soils should be maintained in a moist state to prevent oxidation prior to neutralisation or other management process.

Faces of excavated areas should be dusted with lime prior to placement of geotextile and/or bedding material for construction to establish a “lime buffer” which any potential acid water must pass through.

Council should appoint an appropriately experienced person to manage potential ASS issues at the site during earthwork activities and monitor the effectiveness of neutralisation processes.

Appendix C – Completed Due Diligence Aboriginal Heritage.

SENSITIVE INFORMATION REDACTED

Appendix D – Unexpected Finds Protocol

STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!!



UNEXPECTED FINDS PROTOCOL

Eurobodalla Shire Council

Version 1.0

Purpose and scope

Review of Environmental Factors – Maloneys Beach Reserve Access Upgrade
Page 56 of 82

This protocol has been developed to provide a consistent method for Eurobodalla Shire Council (ESC) to manage unexpected heritage items (both Aboriginal and non-Aboriginal) that may be discovered during construction works. This protocol will apply to all construction activities undertaken by ESC.

Unexpected heritage items procedure

Step	Action
1	STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!!
1.1	Stop all work in the immediate area of the item and notify the Project Manager and Environmental Officer.
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. Avoid digging posts in the area.
1.3	Inform all site personnel about the no-go zone.
1.4	Inspect, document and photograph the item.
1.5	Is the item likely to be bone? Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. Where human remains are likely to be aboriginal ancestral remains, also contact the OEH.
1.6	Confirm with the site environment representative that the site is unexpected and if a permit is in place.
2	Contact Environmental Officer and Divisional Manager to engage an Aboriginal or Historical archaeologist and/or an Aboriginal heritage consultant
2.1	Contact a qualified Aboriginal or Historical archaeologist to discuss the location and extent of the item and arrange a site inspection, if required. If requested, provide photographs.
3	Preliminary assessment and recording of the find
3.1	In a minority of cases, the Aboriginal or Historical archaeologist or LALC Rep may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (e.g., the item is not a 'relic', a

	'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g. via email) and confirmed by the Project Manager.
3.2	Arrange site access for the Aboriginal or Historical archaeologist/Aboriginal heritage consultant to inspect the item as soon as practicable
3.3	Subject to the Aboriginal or Historical archaeologist/Aboriginal heritage consultant's assessment, work may recommence at a set distance from the item. Existing protective fencing established in Step 1 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.
3.4	The Aboriginal or Historical archaeologist/Aboriginal heritage consultant may provide advice after the site inspection and preliminary assessment that no heritage constraint exists for the project (e.g. the item is not a 'relic' or a 'heritage item' or an 'Aboriginal item'). Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Project Manager.
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). The Aboriginal or Historical archaeologist consultant can provide contacts for such specialist consultants.
3.6	Where the item has been identified as a 'relic' or 'heritage item' or an 'Aboriginal object' the Aboriginal or Historical archaeologist should formally record the item. Where an Aboriginal object is recorded it must be registered on the Aboriginal heritage information management system (AHIMS) in accordance with section 89A of the NPW Act.
3.7	<p>OEH (Heritage Division for non-Aboriginal relics and Planning and Aboriginal Heritage Section for Aboriginal objects) can be notified informally by telephone at this stage by the Environment and Cultural Heritage Manager. Any verbal conversations with regulators must be noted on the project file for future reference.</p> <ul style="list-style-type: none"> • Heritage NSW ph.: 131 555 • Email: info@environment.nsw.gov.au <p>Registered aboriginal parties (RAPs) will be notified at this point to inform them of unexpected find.</p>

4	Aboriginal or Historical Archaeologist to prepare management requirements for site.
4.1	An archaeological or heritage management plan is developed outlining management actions to ensure damage to the site is minimised and work can recommence. This plan will be developed by the Aboriginal or Historical archaeologist in consultation with the RAP's, OEH and DPE as required.
5	Notify the regulator, if required.
5.1	If notification is required, complete the template notification letter, including the archaeological/heritage management plan and other relevant supporting information. For historical relics a s146 notification form will be required to be submitted to the Heritage Division.
5.2	Forward the signed notification letter to OEH.
5.3	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form is to be kept on file and a copy sent to the Project Manager.
6	Resume Work
6.1	The management plan is implemented and the project construction environmental management plan (CEMP) is updated to reflect any additional controls and requirements
6.2	Seek written clearance to resume project work from the Environment and Planning Manager and the Aboriginal or Historical Archaeologist/Aboriginal heritage consultant. Clearance would only be given once all archaeological excavation and/or heritage recommendations and approvals (where required) are complete. Resumption of project work must be in accordance with all relevant project/heritage approvals/determinations.
6.3	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies

Responsibilities

Role	Responsibility
Project Manager	<p>Ensure the process for unexpected finds is included as part of all site inductions.</p> <p>Ensure that this protocol is implemented, and all personnel are aware of their responsibilities.</p>
Construction Supervisor	<p>Ensure this protocol is understood and implemented on site.</p> <p>Stops works immediately adjacent to any unexpected archaeological finds until they have been assessed in accordance with this protocol.</p> <p>Report any unexpected finds to the Project Manager.</p>
Aboriginal or Historical archaeologist	On call to provide professional assistance should there be an unexpected find.
LALC	On call to provide professional assistance should there be an unexpected find.
Environmental Officer	On call to provide professional assistance should there be an unexpected find.
All personnel	Be familiar with this protocol and report any unexpected finds to their construction supervisor or project manager.

Contact details

Position	Name	Phone Number
Project Manager		
Environmental Officer		
Consultant Archaeologist	TBC	TBC

Types of unexpected heritage items and their legal protection

An ‘unexpected heritage item’ means any unanticipated discovery of an actual or potential heritage item, for which Eurobodalla Shire Council does not have approval to disturb or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

Aboriginal objects

The National Park and Wildlife Act 1974 protects Aboriginal objects which are defined as:

“Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains”

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burial sites, and scarred trees.

Historic heritage

The Heritage Act 1977 protects relics which are defined as:

“Any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”.

Historic (non-Aboriginal) heritage items may include: Archaeological ‘relics’; Other historic items (i.e. works, structures, buildings or movable objects).

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

Appendix E – Threatened Species Search (Batemans region)

Scientific name	Common name	Conservation project	Type of species	NSW status	Occurrence	Vegetation class
<i>Aldrovanda vesiculosa</i>	Waterwheel Plant	Aldrovanda vesiculosa conservation project	Plant > Aquatic Plants	Endangered	Known	Show 4 linked vegetation classes
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Botaurus poiciloptilus conservation project	Animal > Birds	Endangered	Known	Show 25 linked vegetation classes
<i>Epacris gnidioides</i>	Budawangs Cliff-heath	Epacris gnidioides conservation project	Plant > Shrubs	Vulnerable	Known	Show 8 linked vegetation classes
<i>Burhinus grallarius</i>	Bush Stone-curlew	Burhinus grallarius conservation project	Animal > Birds	Endangered	Known	Show 74 linked vegetation classes
<i>Caladenia tessellata</i>	Thick Lip Spider Orchid	Caladenia tessellata conservation project	Plant > Orchids	Vulnerable	Predicted	Show 10 linked vegetation classes
<i>Calamanthus fuliginosus</i>	Striated Fieldwren	Calamanthus fuliginosus conservation project	Animal > Birds	Endangered	Known	Show 8 linked vegetation classes
<i>Calidris alba</i>	Sanderling	Calidris alba conservation project	Animal > Birds	Vulnerable	Known	Show 17 linked vegetation classes
<i>Calidris tenuirostris</i>	Great Knot	Calidris tenuirostris conservation project	Animal > Birds	Vulnerable	Known	Show 17 linked vegetation classes
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	Calyptorhynchus lathami lathami	Animal > Birds	Vulnerable	Known	Show 79 linked vegetation classes

		conservation project				
<i>Cercartetus nanus</i>	Eastern Pygmy-possum	<i>Cercartetus nanus</i> conservation project	Animal > Marsupials	Vulnerable	Known	Show 66 linked vegetation classes
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	<i>Chalinolobus dwyeri</i> conservation project	Animal > Bats	Endangered	Known	Show 59 linked vegetation classes
<i>Charadrius leschenaultii</i>	Greater Sand-plover	<i>Charadrius leschenaultii</i> conservation project	Animal > Birds	Vulnerable	Known	Show 15 linked vegetation classes
<i>Charadrius mongolus</i>	Lesser Sand-plover	<i>Charadrius mongolus</i> conservation project	Animal > Birds	Vulnerable	Known	Show 17 linked vegetation classes
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	<i>Climacteris picumnus victoriae</i> conservation project	Animal > Birds	Vulnerable	Known	Show 65 linked vegetation classes
<i>Correa baeyerlenii</i>	Chef's Cap Correa	<i>Correa baeyerlenii</i> conservation project	Plant > Shrubs	Vulnerable	Known	Show 15 linked vegetation classes
<i>Cryptostylis hunteriana</i>	Leafless Tongue Orchid	<i>Cryptostylis hunteriana</i> conservation project	Plant > Orchids	Vulnerable	Known	Show 25 linked vegetation classes
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	<i>Dasyurus maculatus</i> conservation project	Animal > Marsupials	Vulnerable	Known	Show 73 linked vegetation classes
<i>Distichlis distichophylla</i>	Australian Saltgrass	<i>Distichlis distichophylla</i> conservation project	Plant > Herbs and Forbs	Endangered	Known	Show 5 linked vegetation classes
Dry Rainforest of the South East Forests in	Dry Rainforest of the South East Forests in	Dry Rainforest of the South East Forests in	Community > Threatened	Endangered	Known	Show 2 linked

the South East Corner Bioregion	the South East Corner Bioregion	the South East Corner Bioregion conservation project	d Ecological Communities	I Community		vegetation classes
<i>Esacus magnirostris</i>	Beach Stone-curlew	Esacus magnirostris conservation project 	Animal > Birds	Critically Endangered	Known	Show 16 linked vegetation classes
<i>Eucalyptus sturgissiana</i>	Ettrema Mallee	Eucalyptus sturgissiana conservation project 	Plant > Mallees	Vulnerable	Known	Show 5 linked vegetation classes
<i>Falco hypoleucus</i>	Grey Falcon	Falco hypoleucus conservation project	Animal > Birds	Vulnerable	Known	Show 39 linked vegetation classes
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Falsistrellus tasmaniensis conservation project	Animal > Bats	Vulnerable	Known	Show 57 linked vegetation classes
<i>Galium australe</i>	Tangled Bedstraw	Galium australe conservation project	Plant > Herbs and Forbs	Endangered	Known	Show 6 linked vegetation classes
<i>Genoplesium vernale</i>	East Lynne Midge Orchid	Genoplesium vernale conservation project	Plant > Orchids	Vulnerable	Known	Show 6 linked vegetation classes
<i>Grammitis stenophylla</i>	Narrow-leaf Finger Fern	Grammitis stenophylla conservation project	Plant > Ferns and Cycads	Endangered	Predicted	Show 16 linked vegetation classes
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher	Haematopus fuliginosus conservation project	Animal > Birds	Vulnerable	Known	Show 4 linked vegetation classes
<i>Haematopus longirostris</i>	Pied Oystercatcher	Haematopus longirostris conservation project 	Animal > Birds	Endangered	Known	Show 9 linked vegetation classes

<i>Haloragis exalata subsp. exalata</i>	Square Raspwort	Haloragis exalata subsp. exalata conservation project	Plant > Shrubs	Vulnerable	Known	Show 12 linked vegetation classes
<i>Hamirostra melanosternon</i>	Black-breasted Buzzard	Hamirostra melanosternon conservation project	Animal > Birds	Vulnerable	Known	Show 44 linked vegetation classes
<i>Heleioporus australiacus</i>	Giant Burrowing Frog	Heleioporus australiacus conservation project	Animal > Amphibians	Vulnerable	Known	Show 46 linked vegetation classes
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake	Hoplocephalus bungaroides conservation project	Animal > Reptiles	Endangered	Known	Show 24 linked vegetation classes
<i>Isoodon obesulus obesulus</i>	Southern Brown Bandicoot (eastern)	Isoodon obesulus obesulus conservation project	Animal > Marsupials	Endangered	Known	Show 42 linked vegetation classes
<i>Ixobrychus flavicollis</i>	Black Bittern	Ixobrychus flavicollis conservation project	Animal > Birds	Vulnerable	Known	Show 60 linked vegetation classes
<i>Phoniscus papuensis</i>	Golden-tipped Bat	Phoniscus papuensis conservation project	Animal > Bats	Vulnerable	Known	Show 46 linked vegetation classes
<i>Lathamus discolor</i>	Swift Parrot	Lathamus discolor conservation project	Animal > Birds	Endangered	Known	Show 76 linked vegetation classes
<i>Limosa limosa</i>	Black-tailed Godwit	Limosa limosa conservation project	Animal > Birds	Endangered	Known	Show 15 linked vegetation classes
<i>Litoria aurea</i>	Green and Golden Bell Frog	Litoria aurea conservation project	Animal > Amphibians	Endangered	Known	Show 41 linked vegetation classes

<i>Lophoictinia isura</i>	Square-tailed Kite	Lophoictinia isura conservation project	Animal > Birds	Vulnerable	Known	Show 87 linked vegetation classes
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	Melanodryas cucullata cucullata conservation project	Animal > Birds	Endangered	Known	Show 82 linked vegetation classes
<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Miniopterus orianae oceanensis conservation project	Animal > Bats	Vulnerable	Known	Show 75 linked vegetation classes
<i>Mixophyes balbus</i>	Stuttering Frog	Mixophyes balbus conservation project	Animal > Amphibians	Endangered	Predicted	Show 47 linked vegetation classes
<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	Micronomus norfolkensis conservation project	Animal > Bats	Vulnerable	Known	Show 45 linked vegetation classes
<i>Myotis macropus</i>	Southern Myotis	Myotis macropus conservation project	Animal > Bats	Vulnerable	Known	Show 71 linked vegetation classes
<i>Neophema chrysogaster</i>	Orange-bellied Parrot	Neophema chrysogaster conservation project	Animal > Birds	Critically Endangered	Predicted	Show 13 linked vegetation classes
<i>Ninox connivens</i>	Barking Owl	Ninox connivens conservation project	Animal > Birds	Vulnerable	Known	Show 72 linked vegetation classes
<i>Ninox strenua</i>	Powerful Owl	Ninox strenua conservation project	Animal > Birds	Vulnerable	Known	Show 54 linked vegetation classes
<i>Pachycephala olivacea</i>	Olive Whistler	Pachycephala olivacea conservation project	Animal > Birds	Vulnerable	Known	Show 50 linked vegetation classes

<i>Pandion cristatus</i>	Eastern Osprey	Pandion cristatus conservation project	Animal > Birds	Vulnerable	Known	Show 48 linked vegetation classes
<i>Persicaria elatior</i>	Tall Knotweed	Persicaria elatior conservation project	Plant > Herbs and Forbs	Vulnerable	Known	Show 10 linked vegetation classes
<i>Petaurus australis</i>	Yellow-bellied Glider	Petaurus australis conservation project	Animal > Marsupials	Vulnerable	Known	Show 45 linked vegetation classes
<i>Petaurus norfolkensis</i>	Squirrel Glider	Petaurus norfolkensis conservation project ↗	Animal > Marsupials	Vulnerable	Known	Show 62 linked vegetation classes
<i>Petroica rodinogaster</i>	Pink Robin	Petroica rodinogaster conservation project	Animal > Birds	Vulnerable	Known	Show 19 linked vegetation classes
<i>Pezoporus wallicus wallicus</i>	Eastern Ground Parrot	Pezoporus wallicus wallicus conservation project ↗	Animal > Birds	Vulnerable	Known	Show 13 linked vegetation classes
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	Phascogale tapoatafa conservation project	Animal > Marsupials	Vulnerable	Known	Show 58 linked vegetation classes
<i>Phascolarctos cinereus</i>	Koala	Phascolarctos cinereus conservation project ↗	Animal > Marsupials	Endangered	Known	Show 89 linked vegetation classes
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Pteropus poliocephalus conservation project ↗	Animal > Bats	Vulnerable	Known	Show 72 linked vegetation classes
<i>Ptilinopus superbus</i>	Superb Fruit-Dove	Ptilinopus superbus conservation project	Animal > Birds	Vulnerable	Known	Show 24 linked vegetation classes

<i>Pyrrholaemus sagittatus</i>	Speckled Warbler	<i>Pyrrholaemus sagittatus</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 57 linked vegetation classes
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheathtail-bat	<i>Saccolaimus flaviventris</i> conservation project	Animal > Bats	Vulnerable	Known	Show 81 linked vegetation classes
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	<i>Scoteanax rueppellii</i> conservation project	Animal > Bats	Vulnerable	Known	Show 52 linked vegetation classes
<i>Senecio spathulatus</i>	Coast Groundsel	<i>Senecio spathulatus</i> conservation project	Plant > Herbs and Forbs	Endangered	Predicted	Show 14 linked vegetation classes
<i>Sminthopsis leucopus</i>	White-footed Dunnart	<i>Sminthopsis leucopus</i> conservation project	Animal > Marsupials	Vulnerable	Known	Show 20 linked vegetation classes
<i>Stagonopleura guttata</i>	Diamond Firetail	<i>Stagonopleura guttata</i> conservation project	Animal > Birds	Vulnerable	Known	Show 61 linked vegetation classes
<i>Sternula albifrons</i>	Little Tern	<i>Sternula albifrons</i> conservation project 	Animal > Birds	Endangered	Known	Show 9 linked vegetation classes
<i>Onychoprion fuscatus</i>	Sooty Tern	<i>Onychoprion fuscatus</i> conservation project	Animal > Birds	Vulnerable	Known	Show 8 linked vegetation classes
<i>Stictonetta naevosa</i>	Freckled Duck	<i>Stictonetta naevosa</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 12 linked vegetation classes
Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 4 linked vegetation classes

and South East Corner Bioregions		South East Corner Bioregions conservation project 				
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 5 linked vegetation classes
<i>Thesium australis</i>	Austral Toadflax	<i>Thesium australis</i> conservation project	Plant > Herbs and Forbs	Vulnerable	Known	Show 27 linked vegetation classes
<i>Thinornis cucullatus cucullatus</i>	Hooded Plover	<i>Thinornis cucullatus cucullatus</i> conservation project 	Animal > Birds	Critically Endangered	Known	Show 15 linked vegetation classes
<i>Tyto novaehollandiae</i>	Masked Owl	<i>Tyto novaehollandiae</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 76 linked vegetation classes
<i>Tyto tenebricosa</i>	Sooty Owl	<i>Tyto tenebricosa</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 39 linked vegetation classes
<i>Wilsonia backhousei</i>	Narrow-leaved Wilsonia	<i>Wilsonia backhousei</i> conservation project	Plant > Shrubs	Vulnerable	Known	Show 5 linked vegetation classes
<i>Wilsonia rotundifolia</i>	Round-leaved Wilsonia	<i>Wilsonia rotundifolia</i> conservation project	Plant > Shrubs	Endangered	Known	Show 7 linked vegetation classes

<i>Anthochaera phrygia</i>	Regent Honeyeater	Anthochaera phrygia conservation project	Animal > Birds	Critically Endangered	Known	Show 43 linked vegetation classes
<i>Xenus cinereus</i>	Terek Sandpiper	Xenus cinereus conservation project	Animal > Birds	Vulnerable	Known	Show 16 linked vegetation classes
<i>Zieria tuberculata</i>	Warty Zieria	Zieria tuberculata conservation project	Plant > Shrubs	Vulnerable	Known	Show 8 linked vegetation classes
Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Saltmarshes
Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 4 linked vegetation classes
<i>Puffinus assimilis</i>	Little Shearwater	Puffinus assimilis conservation project	Animal > Birds	Vulnerable	Known	Show 2 linked vegetation classes
<i>Ardenna carneipes</i>	Flesh-footed Shearwater	Ardenna carneipes conservation project	Animal > Birds	Vulnerable	Known	Show 2 linked vegetation classes
<i>Chelonia mydas</i>	Green Turtle	Chelonia mydas conservation project	Animal > Reptiles	Vulnerable	Known	Show 5 linked vegetation classes

<i>Arctocephalus forsteri</i>	New Zealand Fur-seal	Arctocephalus forsteri conservation project	Animal > Marine Mammals	Vulnerable	Known	Show 2 linked vegetation classes
<i>Arctocephalus pusillus doriferus</i>	Australian Fur-seal	Arctocephalus pusillus doriferus conservation project	Animal > Marine Mammals	Vulnerable	Known	Show 2 linked vegetation classes
<i>Diomedea exulans</i>	Wandering Albatross	Diomedea exulans conservation project	Animal > Birds	Endangered	Known	Marine environments
<i>Eubalaena australis</i>	Southern Right Whale	Eubalaena australis conservation project	Animal > Marine Mammals	Endangered	Known	Marine environments
<i>Physeter macrocephalus</i>	Sperm Whale	Physeter macrocephalus conservation project	Animal > Marine Mammals	Vulnerable	Known	Marine environments
<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel	Pterodroma leucoptera leucoptera conservation project	Animal > Birds	Vulnerable	Known	Show 8 linked vegetation classes
<i>Thalassarche cauta</i>	Shy Albatross	Thalassarche cauta conservation project	Animal > Birds	Endangered	Known	Marine environments
<i>Thalassarche melanophris</i>	Black-browed Albatross	Thalassarche melanophris conservation project	Animal > Birds	Vulnerable	Known	Marine environments
Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Coastal Freshwater Lagoons

Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions conservation project 	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 4 linked vegetation classes
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	Callocephalon fimbriatum conservation project	Animal > Birds	Endangered	Known	Show 65 linked vegetation classes
Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands	Alteration to the natural flow regimes of rivers, streams, floodplains & wetlands.	Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Infection by Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species and populations	Infection by Psittacine circoviral (beak and feather) disease affecting endangered psittacine species	Infection by Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species and populations conservation project	Threat > Disease	Key Threatening Process	Predicted	
Competition from feral honey bees, <i>Apis mellifera</i> L.	Competition from feral honeybees	Competition from feral honey bees, <i>Apis mellifera</i> L. conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Introduction of the Large Earth Bumblebee <i>Bombus terrestris</i> (L.)	Introduction of the large earth bumblebee (<i>Bombus terrestris</i>)	Introduction of the Large Earth Bumblebee <i>Bombus terrestris</i> (L.) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	

Bushrock removal	Bushrock Removal	Bushrock removal conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Loss or degradation (or both) of sites used for hill-topping by butterflies	Loss and/or degradation of sites used for hill-topping by butterflies	Loss or degradation (or both) of sites used for hill-topping by butterflies conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Predation by the Feral Cat <i>Felis catus</i> (Linnaeus, 1758)	Predation by feral cats	Predation by the Feral Cat <i>Felis catus</i> (Linnaeus, 1758) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Infection of frogs by amphibian chytrid causing the disease chytridiomycosis	Infection of frogs by amphibian chytrid causing the disease chytridiomycosis	Infection of frogs by amphibian chytrid causing the disease chytridiomycosis conservation project	Threat > Disease	Key Threatening Process	Predicted	
Invasion of the Yellow Crazy Ant, <i>Anoplolepis gracilipes</i> (Fr. Smith) into NSW	Invasion of the yellow crazy ant (<i>Anoplolepis gracilipes</i>) into NSW	Invasion of the Yellow Crazy Ant, <i>Anoplolepis gracilipes</i> (Fr. Smith) into NSW conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Removal of dead wood and dead trees	Removal of dead wood and dead trees	Removal of dead wood and dead trees conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Herbivory and environmental degradation caused by feral deer	Herbivory and environmental degradation caused by feral deer	Herbivory and environmental degradation caused by feral deer conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	

High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition	Ecological consequences of high frequency fires	High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Predation by the European Red Fox <i>Vulpes Vulpes</i> (Linnaeus, 1758)	Predation by the European Red Fox	Predation by the European Red Fox <i>Vulpes Vulpes</i> (Linnaeus, 1758) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Predation by <i>Gambusia holbrooki</i> Girard, 1859 (Plague Minnow or Mosquito Fish)	Predation by the Plague Minnow (<i>Gambusia holbrooki</i>)	Predation by <i>Gambusia holbrooki</i> Girard, 1859 (Plague Minnow or Mosquito Fish) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Competition and habitat degradation by Feral Goats, <i>Capra hircus</i> Linnaeus 1758	Competition and habitat degradation by Feral Goats, <i>Capra hircus</i> Linnaeus 1758	Competition and habitat degradation by Feral Goats, <i>Capra hircus</i> Linnaeus 1758 conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Invasion of native plant communities by exotic perennial grasses	Invasion of native plant communities by exotic perennial grasses	Invasion of native plant communities by exotic perennial grasses conservation project	Threat > Weed	Key Threatening Process	Predicted	
Predation, habitat degradation, competition and disease transmission by Feral Pigs,	Predation, habitat degradation, competition and disease transmission by Feral Pigs (<i>Sus scrofa</i>)	Predation, habitat degradation, competition and disease transmission by Feral Pigs,	Threat > Pest Animal	Key Threatening Process	Predicted	

<i>Sus scrofa</i> Linnaeus 1758		Sus scrofa Linnaeus 1758 conservation project				
<i>/importation of Red Imported Fire Ants <i>Solenopsis invicta</i> Buren 1972</i>	Importation of red imported fire ants into NSW	Importation of Red Imported Fire Ants <i>Solenopsis invicta</i> Buren 1972 conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Clearing of native vegetation	Clearing of native vegetation	Clearing of native vegetation conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Competition and grazing by the feral European Rabbit, <i>Oryctolagus cuniculus</i> (L.)	Competition and grazing by the feral European rabbit	Competition and grazing by the feral European Rabbit, <i>Oryctolagus cuniculus</i> (L.) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Anthropogenic Climate Change	Human-caused Climate Change	Anthropogenic Climate Change conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Infection of native plants by <i>Phytophthora cinnamomi</i>	Infection of native plants by <i>Phytophthora cinnamomi</i>	Infection of native plants by <i>Phytophthora cinnamomi</i> conservation project	Threat > Disease	Key Threatening Process	Predicted	
Invasion of native plant communities by <i>Chrysanthemoides monilifera</i>	Invasion of native plant communities by bitou bush & boneseed	Invasion of native plant communities by <i>Chrysanthemoides monilifera</i> conservation project	Threat > Weed	Key Threatening Process	Predicted	
<i>Pomaderris bodalla</i>	Bodalla Pomaderris	Pomaderris bodalla	Plant > Shrubs	Vulnerable	Known	Show 8 linked

		conservation project				vegetation classes
Bangalay Sand Forest of the Sydney Basin and South East Corner bioregions	Bangalay Sand Forest of the Sydney Basin and South East Corner bioregions	Bangalay Sand Forest of the Sydney Basin and South East Corner bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 2 linked vegetation classes
Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions	Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner bioregions	Themeda grassland on seacliffs and coastal headlands in the NSW North Coast, Sydney Basin and South East Corner Bioregions conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Maritime Grasslands
Invasion and establishment of the Cane Toad (<i>Bufo marinus</i>)	Invasion and establishment of the Cane Toad	Invasion and establishment of the Cane Toad (<i>Bufo marinus</i>) conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
Invasion, establishment and spread of Lantana (<i>Lantana camara L. sens. lat</i>)	Invasion, establishment and spread of Lantana (<i>Lantana camara L. sens. lat</i>)	Invasion, establishment and spread of Lantana (<i>Lantana camara L. sens. lat</i>) conservation project	Threat > Weed	Key Threatening Process	Predicted	
Invasion and establishment of exotic vines and scramblers	Invasion and establishment of exotic vines and scramblers	Invasion and establishment of exotic vines and scramblers conservation project	Threat > Weed	Key Threatening Process	Predicted	
Invasion and establishment of Scotch Broom	Invasion and establishment of Scotch Broom (<i>Cytisus scoparius</i>)	Invasion and establishment of Scotch Broom (<i>Cytisus</i>)	Threat > Weed	Key Threatening Process	Predicted	

<i>(Cytisus scoparius)</i>		scoparius) conservation project 				
Lowland Grassy Woodland in the South East Corner Bioregion	Lowland Grassy Woodland in the South East Corner Bioregion	Lowland Grassy Woodland in the South East Corner Bioregion conservation project 	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Show 3 linked vegetation classes
Loss of Hollow-bearing Trees	Loss of Hollow-bearing Trees	Loss of Hollow-bearing Trees conservation project	Threat > Habitat Loss/Change	Key Threatening Process	Predicted	
Forest eucalypt dieback associated with over-abundant psyllids and Bell Miners	Forest eucalypt dieback associated with over-abundant psyllids and Bell Miners	Forest eucalypt dieback associated with over-abundant psyllids and Bell Miners conservation project	Threat > Other Threat	Key Threatening Process	Predicted	
<i>Parvipsitta pusilla</i>	Little Lory	<i>Parvipsitta pusilla</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 63 linked vegetation classes
Predation and hybridisation by Feral Dogs, <i>Canis lupus familiaris</i>	Predation and hybridisation by Feral Dogs, <i>Canis lupus familiaris</i>	Predation and hybridisation by Feral Dogs, <i>Canis lupus familiaris</i> conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
<i>Eucalyptus aggregata</i>	Black Gum	<i>Eucalyptus aggregata</i> conservation project	Plant > Trees	Vulnerable	Predicted	Show 12 linked vegetation classes
<i>Petroica phoenicea</i>	Flame Robin	<i>Petroica phoenicea</i> conservation project 	Animal > Birds	Vulnerable	Known	Show 61 linked vegetation classes
<i>Hieraetus morphnoides</i>	Little Eagle	<i>Hieraetus morphnoides</i>	Animal > Birds	Vulnerable	Known	Show 94 linked

		conservation project				vegetation classes
<i>Petroica boodang</i>	Scarlet Robin	Petroica boodang conservation project ↗	Animal > Birds	Vulnerable	Known	Show 75 linked vegetation classes
<i>Circus assimilis</i>	Spotted Harrier	Circus assimilis conservation project	Animal > Birds	Vulnerable	Known	Show 76 linked vegetation classes
<i>Daphoenositta chrysoptera</i>	Varied Sittella	Daphoenositta chrysoptera conservation project	Animal > Birds	Vulnerable	Known	Show 88 linked vegetation classes
<i>Epthianura albifrons</i>	White-fronted Chat	Epthianura albifrons conservation project	Animal > Birds	Vulnerable	Known	Show 34 linked vegetation classes
Araluen Scarp Grassy Forest in the South East Corner Bioregion	Araluen Scarp Grassy Forest in the South East Corner Bioregion	Araluen Scarp Grassy Forest in the South East Corner Bioregion conservation project	Community > Threatened Ecological Communities	Endangered Ecological Community	Known	Coastal Valley Grassy Woodlands
Invasion of native plant communities by African Olive <i>Olea europaea</i> subsp. <i>cuspidata</i> (Wall. ex G. Don) Cif.	Invasion of native plant communities by African Olive <i>Olea europaea</i> subsp. <i>cuspidata</i> (Wall. ex G. Don) Cif.	Invasion of native plant communities by African Olive <i>Olea europaea</i> subsp. <i>cuspidata</i> (Wall. ex G. Don) Cif. conservation project	Threat > Weed	Key Threatening Process	Predicted	
<i>Calidris ferruginea</i>	Curlew Sandpiper	Calidris ferruginea conservation project ↗	Animal > Birds	Critically Endangered	Known	Show 23 linked vegetation classes
Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants	Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants	Introduction and establishment of Exotic Rust Fungi of the order	Threat > Disease	Key Threatening Process	Predicted	

<i>Pucciniales</i> pathogenic on plants of the family <i>Myrtaceae</i>	of the family <i>Myrtaceae</i>	<i>Pucciniales</i> pathogenic on plants of the family <i>Myrtaceae</i> conservation project				
Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants	Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants	Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants conservation project	Threat > Weed	Key Threateni ng Process	Predicte d	
<i>Falco subniger</i>	Black Falcon	<i>Falco subniger</i> conservation project	Animal > Birds	Vulnerabl e	Known	Show 53 linked vegetation classes
Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners, <i>Manorina melanocephala</i> <i>a</i> (Latham, 1802)	Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners <i>Manorina melanocephala</i> (Latham, 1802)	Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners, <i>Manorina melanocephala</i> (Latham, 1802) conservation project	Threat > Pest Animal	Key Threateni ng Process	Predicte d	
<i>Numenius madagascarie nsis</i>	Eastern Curlew	<i>Numenius madagascarie nsis</i> conservation project	Animal > Birds	Critically Endanger ed	Known	Show 15 linked vegetation classes
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	<i>Artamus cyanopterus cyanopterus</i> conservation project	Animal > Birds	Vulnerabl e	Known	Show 103 linked vegetation classes
<i>Petauroides volans</i>	Southern Greater Glider	<i>Petauroides volans</i> conservation project	Animal > Marsupial s	Endanger ed	Known	Show 55 linked vegetation classes

<i>Calidris canutus</i>	Red Knot	Calidris canutus conservation project	Animal > Birds	Vulnerable	Known	Show 15 linked vegetation classes
<i>Limosa lapponica baueri</i>	Alaskan Bar-tailed Godwit	Limosa lapponica baueri conservation project	Animal > Birds	Endangered	Known	Show 15 linked vegetation classes
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	Haliaeetus leucogaster conservation project	Animal > Birds	Vulnerable	Known	Show 92 linked vegetation classes
Habitat degradation and loss by Feral Horses (brumbies, wild horses), <i>Equus caballus</i> Linnaeus 1758	Habitat degradation and loss by Feral Horses (brumbies, wild horses), <i>Equus caballus</i> Linnaeus 1758	Habitat degradation and loss by Feral Horses (brumbies, wild horses), <i>Equus caballus</i> Linnaeus 1758 conservation project	Threat > Pest Animal	Key Threatening Process	Predicted	
<i>Rhodamnia rubescens</i>	Scrub Turpentine	Rhodamnia rubescens conservation project	Plant > Shrubs	Critically Endangered	Known	Show 31 linked vegetation classes
<i>Hirundapus caudacutus</i>	White-throated Needletail	<i>Hirundapus caudacutus</i> conservation project	Animal > Birds	Vulnerable	Known	Show 83 linked vegetation classes
<i>Pycnoptilus floccosus</i>	Pilotbird	<i>Pycnoptilus floccosus</i> conservation project	Animal > Birds	Vulnerable	Known	Show 40 linked vegetation classes
<i>Litoria watsoni</i>	Watson's Tree Frog	<i>Litoria watsoni</i> conservation project	Animal > Amphibians	Endangered	Known	Show 18 linked vegetation classes
<i>Neophema chrysostoma</i>	Blue-winged Parrot	<i>Neophema chrysostoma</i> conservation project	Animal > Birds	Vulnerable	Known	Show 24 linked vegetation classes
<i>Gallinago hardwickii</i>	Latham's Snipe	<i>Gallinago hardwickii</i>	Animal > Birds	Vulnerable	Known	

		conservation project				
<i>Potorous tridactylus trisulcatus</i>	Southern long-nosed potoroo	Potorous tridactylus trisulcatus conservation project	Animal > Marsupials	Vulnerable	Known	
<i>Tringa nebularia</i>	Common Greenshank	Tringa nebularia conservation project	Animal > Birds	Endangered	Known	
<i>Arenaria interpres</i>	Ruddy Turnstone	Arenaria interpres conservation project	Animal > Birds	Vulnerable	Known	
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Calidris acuminata conservation project	Animal > Birds	Vulnerable	Known	
<i>Pluvialis squatarola</i>	Grey Plover	Pluvialis squatarola conservation project	Animal > Birds	Vulnerable	Known	