

Review of Environmental Factors

Narooma Cemetery Upgrade & Master Plan Development– Narooma

November 2024

Version 1.1



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1. 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	 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.	
	 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(s) 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 must be notified of any pollution incidents that have caused or threaten material harm to the environment 	
	 The Asset Manager will be notified if damage occurs to an area (vegetation, etc) outside of the nominated work area 	
Soil	 Fence the new cemetery stockpile area as soon as practicable to help contain the exposed soil and mineral material, protect the public and screen unsightly fill material. 	
	 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 to be installed down slope of all affected areas and stockpiles. Silt fencing 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</u> and erosion control.
- 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.
- Stockpiles will be designed, established, operated and decommissioned in accordance with the RMS Stockpile Site Management Guidelines 2015.

Waterways and water quality

- Visual monitoring of local water quality (ie 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 (eg. 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.
- Minimise the amount of 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. Air quality Measures to minimise or prevent air pollution or dust are to be used including watering or covering exposed areas. Works are not to be carried out during strong winds 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. Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust Do not leave vehicles idling Aboriginal Heritage STOP, MARK THE **AREA, TAKE A** PHOTO, REPORT!!! **AHIP Excerpt** Appendix C



Follow Unexpected Finds Protocol Appendix D

Unexpected Finds (Appendix D):

Sensitive Information Redacted If Aboriginal 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 (RMS, 2015) must then be followed.

Non-Aboriginal Heritage

• The Narooma Cemetery is listed as a Heritage item (187).

STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! • The proposed works are to continue the aesthetic of the existing cemetery, without changing the visual amenity of the site.

Follow Unexpected Finds Protocol Appendix D

Unexpected Finds (Appendix D):

 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 (RMS, 2015) must then be followed.

Biodiversity

Clearing of Vegetation

Flora and Fauna Report Recommendations Southern Cross Environmental • The extent of clearing/modification of the lot to be clearly delineated during clearing and "no go" flagging should be used as a barrier to protect the vegetation to remain.

Appendix D

- Trees to be retained within the road corridor are to be protected with measures necessary so as to protect the root system, trunk and branches for the period of works including demolition, excavation, and construction on the site.
- If Fencing involves ground disturbance, this should occur well away from the tree root protection zone (RPZ).
- A fauna spotter/catcher or ecologist should walk through the area prior to clearing commencement (c.48 hours prior) to ensure no nesting birds, Ringtail dreys and to assess use of ground burrows. Potentially, Bush Rats could be trapped and moved into other suitable habitat outside works area. Ringtails, if present, will often flee from dreys if disturbed but could also be attempted to be captured before clearing.
- No Hollow Bearing Trees (HBT) were found within the clearing footprint (see Figure 4). If, however, the GPS point is incorrect, any HBT should be marked on site with pink tape or a H. Any HBTs to be removed should be done in a two-stage clearing



process. This is best done between March-May to avoid breeding and torpor cycles of fauna. All surrounding vegetation should be cleared first, with the HBT removed a minimum of 24 hours after this underscrubbing.



Figure 4 (In report). Areas to be cleared with vegetation transects (red), HBTs (green), burrows noted (yellow) and camera site (blue).

- A Fauna Spotter/Catcher or Ecologist should be present for any HBT removal.
- Any hollows to be removed should be replaced at a ratio of 2:1 within surrounding bushland outside of the clearing areas, preferably prior to clearing commencing.
- To ensure that weeds are not spread into the site, machinery should be washed down with high water/air pressure followed by spraying with a 3% Bleach solution or Phytoclean/F10 prior to being floated to the Lots and also post clearing works. See "Keeping It Clean" in references for disinfectant solution rates.
- Any soil stabilisation/landscaping should be done with local native species or sterile/innocuous species, e.g., Sterile Oats (Avena sterilis). Invasive grass species such as Kikuyu or Buffalo Grass should not be used.
- It is unlikely the project will require fencing however netting, that may cause native mammals to become caught, should not be used for any fencing that may need to occur (such as stockpile area).
- The planting of any species listed on the Weeds Australia NSW weeds list (www.weeds.org.au) should be prohibited on the site, and ESC should provide advice as to plantings on graves to



Biodiversity General

lessen the spread of potential environmental weeds. Endemic native shrubs or small trees suitable as foraging for species such as Swift Parrot or Gang-gang would also be better plantings in any landscaping design.

General:

- Identify measures to manage vegetation within the road reserve;
- 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.

Clearing of Vegetation: Pre-clearing:

- Qualified fauna experts are required to conduct pre-clearing surveys and undertake fauna handling if required. This may include:
 - Hollow bearing tree survey;
 - Stag-watching survey (targeted threatened bird species, arboreal mammals and microbats) in order to identify the number and type of nest boxes required and appropriate locations to install them.
- Where clearing is required, establish exclusion zones in accordance with Guide 2 Exclusion Zones of Roads and Maritime Biodiversity Guidelines (RTA 2011) to ensure clearing does not extend beyond the approved area.
- Trees that are to be trimmed (or removed if necessary) will be clearly marked. Any vegetation to be protected adjacent to the work area will be protected with exclusion fencing.



- Exclusion fencing will be placed at or beyond the drip lines of the protected vegetation so as to prevent damage to their root systems.
- Any trees with hollows are to be checked for native fauna prior to being removed. If any fauna is found, works will stop and WIRES will be contacted. Refer to any Council specific policy requirements for hollow bearing trees and amend mitigation measures accordingly.

<u>Clearing of vegetation – general safeguards</u>

 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.

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 (RTA, 2011) 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:

- 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;



	 RMS Landscape Guidelines; RMS Guidelines for Batter Stabilisation Using Vegetation. 	
Traffic and transport	 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. 	
	 If traffic disturbance is unavoidable, a Traffic Management Plan (TMP) will be prepared in accordance with the RMS Traffic Control at Work Sites Manual RTA 2010) and QA Specification G10 Control of Traffic (RTA 2008). 	
	 Comply with Council requirements regarding traffic control, access and road/ pedestrian access. 	
	 Erect signs regarding proposed works, temporary road closures, diversions etc. 	
Noise and	Notification:	
vibration	 Notification of works should be put out to the local community to inform mourners who may want to visit their relatives grave sites. 	
	 All sensitive receivers (eg 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. 	
	Standard Hours of Operation:	
	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.	
	Out of hours:	
	Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers.	
Socio-economic	Contain all work within the boundaries designated on the site plan	
	 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
Waste	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.

2. 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 Clause 228 of the EP&A Regulation (2000). Table 1 below outlines the proponent contact details.

Table 2. Proponent details

Project name	Narooma cemetery master plan development
Proponent (council) name	Eurobodalla Shire Council
Project manager	Aaron Dunne
Position	Temporary Capital Works Manager, Works



Project description and background

Background and scope

The Narooma Cemetery is approaching the point where the existing burial plots and areas are filled to capacity. In planning for the next 20 years, Eurobodalla Shire Council has developed a Master Plan which outlines the potential growth areas within the Narooma Cemetery.

The primary objective for this project is to increase the number of available burial plots for immediate use as the existing burial plots are filled; and for the release of future burial plots to accommodate the need over a 20 year period.

The secondary objectives of this project is to put infrastructure in place which supports the extension of the burial facilities and allows safe access to and use of the facility by the general public.

Stage 1

Initially the carpark in the southern area of the cemetery will be decreased in size and some of the previous carpark area will be allocated for burial plots. This will require excavation of burial plots down to three meters deep, into the future. There will be clearing of trees in this area of the cemetery to make this possible, which may entail clearing of the areas identified in the Clearing Plan figure 3.

A carpark will be constructed at the highest point in the southern section of the cemetery which will require excavation down to one meter below the natural surface. This carpark, including a small section of road leading into it, will have kerb and gutter installed.

A pram ramp and footpath will be constructed to allow access to the memorial walls by disabled people.

The stockpile area will be moved from its current location in the fenced area to the east of the existing carpark, to an area adjacent to the southern boundary where the existing parking area is situated. The new stockpile area will include a fence around it to protect the public and screen unsightly fill material. The establishment of this stockpile area will require clearing of existing vegetation. Due to its nature, the stockpile will contain exposed soil and mineral material and have the potential for runoff with sediment content.

An area of land on the eastern side of the cemetery will be cleared for the provision of a new Lawn Cemetery area. This new area will require excavation of burial plots down to three meters deep, into the future. While Stage 1 is in construction, this area may be used for temporary storage of mobile site office, containers and materials.



An area adjacent to the existing access road to the top part of the cemetery will be cleared to provide informal parking in the time between the completion of stage 1 and the completion of stage 2. This area will be shaped, requiring excavation down to one meter below the natural surface and then vegetated with spray seed or equivalent to prevent ongoing sediment pollution.

Fencing will be constructed to prevent vehicles from entering the burial area and to protect the public from the steep terrain on the easternmost part of the new Lawn Cemetery.

Much of the land adjacent to the works of stage 1 will require fill and topsoil and associated earthworks to blend in with the natural surface. These areas will be revegetated with spray seed or equivalent. New areas of landscaping will be installed within the project area, as required by the project manager and cemetery management over the course of the cemetery extension and improvement works.

As the need becomes apparent, the project manager and cemetery management may require the installation of bollards and gates at as yet undetermined locations within the project area. These will potentially require excavation down to two meters deep.

An option for stage 1 is clearing of the full area of the stage 2 Lawn Cemetery area. The timing of this clearing will be decided by the project manager at the time of the development.

The heavy equipment required for the preparation of the carpark and road surface includes a grader, water cart, rigid tipper truck, vibrating roller and excavator. A semi-truck with float may be used for equipment transport. The heavy equipment required for the kerb works includes an excavator around 5 tonnes, a walk behind roller and a kerb machine. A rigid tipper truck will be used for transport of materials and equipment. A water cart may be used if the base requires water.

Stage 2

The margins of the existing roads have vegetation that may need to be removed to allow the road works to occur. The extent of clearing may entail the entire area identified in the attached Clearing Plan.

The end of Glasshouse Rocks Road and the remainder of the service road that services the top part of the cemetery will be reconstructed to allow safe access to and egress from the cemetery. Portions of these two roads will have kerb and gutter installed. This part of the project will require excavation down to one meter below the natural surface.

Adjacent to the eastern side of Glasshouse rocks road, there will be the provision of a stormwater drainage network to remove surface water and direct it to the existing culvert. This will require excavation down to 2.5m deep.



At the end of Glasshouse Rocks Road, there will be a carpark installed. This will include the provision of kerb and gutter. This carpark will require excavation down to one meter below the existing surface.

In the area adjacent to the service road servicing the southern portion of the cemetery, that was cleared in stage 1, there will be a carpark installed. This will require excavation down to one meter below the natural surface.

The above area will also have the remainder of vegetation, indicated in the attached Clearing Plan, removed to allow the establishment of burial plots. The burial plots will require excavation down to three meters deep, into the future. While Stage 2 is in construction, this area may be used for temporary storage of mobile site office, containers and materials.

Much of the land adjacent to the works of stage 2 will require fill and topsoil and associated earthworks to blend in with the natural surface. These areas will be revegetated with spray seed or equivalent. New areas of landscaping will be installed within the project area, as and where required by the project manager and cemetery management over the course of the cemetery extension and improvement works.

As the need becomes apparent, the project manager and cemetery management may require the installation of bollards and gates at as yet undetermined locations within the project area. These will potentially require excavation down to two meters deep.

The heavy equipment required for the kerb works includes an excavator around 5 tonnes, a walk behind roller and a kerb machine. A rigid tipper truck will be used for transport of materials and equipment. A water cart may be used if the base requires water. The heavy equipment required for the preparation of the carpark and road surface includes a grader, water cart, rigid tipper truck, vibrating roller and excavator. A semi-truck with float may be used for equipment transport.





Figure 2. Scope of works for expansion of The Narooma Cemetery under the current master plan.



Figure 3. Clearing plan for the expansion of The Narooma Cemetery.



Machinery and equipment

Machinery and equipment used for the works will include.

- Excavator
- Tipper Trucks
- Power tool
 - o Pole Saw
 - Chainsaw
- Skid steer
- Walk behind roller
- Vibrating roller
- Grader
- Water cart
- Kerb Machine
- Backhoe
- Float truck

Access and ancillary works

The project manager will evaluate and determine a site compound and storage location for all projects closer to construction start date. The area must already be disturbed and it is suggested that the proposed new stockpile area should be used until the area of land on the eastern side of the cemetery is cleared for the provision of a new Lawn Cemetery area. While Stage 1 is in construction, this area may be used for temporary storage of mobile site office, containers and materials.

While Stage 2 is in construction, the area to be cleared that runs from the Cemetery memorial area to Glasshouse Rocks Road may be used for temporary storage of mobile site office, containers and materials.



Duration and working hours

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

Table 3. Project timeframes

Start date	November 2024	
Work duration	The expected timeframe for the completion of Stage 1 is two years from the commencement of the project.	
	The expected timeframe for completion of Stage 2 is ten years from the commencement of Stage 1.	
	The Master Plan has been developed for the next 20 years.	
Work hours	Working hours will be Monday-Friday 7am to 6pm	
	Saturday 8am to 1pm	
	Sunday & public holidays – No works other than inspections	
	Any work outside these hours would require appropriate advice to residents, approval of the Divisional Manager Works and notification of the NSW EPA.	



Project location and context

Location of the proposed activity

The works will be undertaken within the cemetery boundary on Cemetery Road, Narooma. Lot 7064 DP1054955, (Latitudes: -36.227570, Longitude:150.141510).

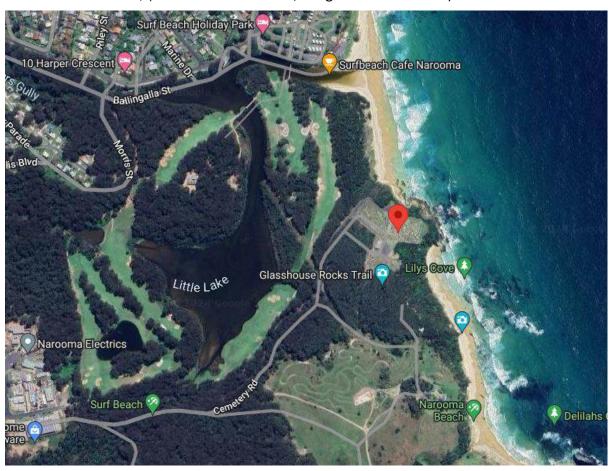


Figure 4. Map showing location of works.

Site context

The proposed scope of works is within the Narooma Cemetery, Cemetery Rd Narooma. The section of earth is predominantly characterised by Soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of water transmission. The vegetation is a mixture of Coastal Lowlands Cycad Dry Shrub Forest and Coastal Dry Shrub Forests.



The site is surrounded by coastal cliff line, forests of outstanding biodiversity value, privately owned estate and a golf course. The landform is gently undulating around 10m above sea level. There is no catchment buffer zone although there is a small drainage catchment that drains the site. The soil is having an 'A' horizon approximately 200mm thick over clay and shale.

Land use and ownership

The project works are to occur in Crown Land under Council control, classified as SP2. The surrounding area of the project site consists of Council owned land leased to Narooma Golf Club and privately owned estate. The works do not impinge on any, private owned estate, National Parks, or land owned by NPWS.

Project justification and consideration of alternatives

Long-term Planning has been considered within the Narooma Cemetery Master Plan to secure additional burial sites. This ensures that future generations will have access to the burial grounds. The expansion of the cemetery is deemed necessary due to existing burial plots nearing being filled to capacity. The proposed project involves clearing a 13,000 square meter area to expand the existing cemetery, aiming to accommodate future burials and alleviate space constraints. Furthermore, the design allows for adequate burial spaces to respect cultural and religious practices within the community. Expanding within the existing Cemetery site minimises disruption to surrounding areas and infrastructure.

Choosing to do nothing would have several repercussions, the current cemetery would reach full capacity, leading to a shortage of burial plots. Failing to meet the demand for burial space could lead to community dissatisfaction and potential conflicts over burial rights. Insufficient burial space may prevent the community from observing cultural and religious burial practices, causing distress among residents.



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 2000 (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	
COMMONWEALTH LEGISLATION		
Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)	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). The protected matters search performed on the 4/7/2023 shows the area to have 5 Threatened Ecological Communities that may occur:	
	 Brogo Vine Forest of the South East Corner Bioregion Illawarra and south coast lowland forest and woodland ecological community Lowland Grassy Woodland in the South East Corner 	
	 Bioregion Coastal Swamp Oak (Casuarina glauca) 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 	
	Threated species: • Swift Parrot • Eastern Curlew, Far Eastern Curlew	



- Regent Honeyeater
- Gang-gang Cockatoo
- Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
- Fairy Prion (southern)
- Red Knot, Knot
- Giant Burrowing Frog
- White-throated Needletail
- Grey-headed Flying-fox

As the proposed works will involve the removal of vegetation, an independent flora and fauna assessment was conducted by an ecologist from Southern Cross Environmental (Report Appendix D). Fauna surveys were undertaken on 14th October, and with the flora survey on 17th September. Fauna surveys were limited to onsite searches for evidence of fauna use, habitat assessment and one camera on site for ten (10) nights. The site and study area were searched for HBTs.

Overall the study concluded that, "Following the application of the five factors from Section 5A of the NSW Environmental Planning and Assessment Act, as required by the NSW Threatened Species Conservation Act 1999, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have significant effect on threatened species populations or ecological communities or their habitats. A species impact statement is not required for the proposal.

Relevant "Significant Impact Criteria" were considered for EPBC listed species while undertaking the TSC Act assessment. No significant impact on any listed EPBC species was determined."

STATE LEGISLATION

Biodiversity Conservation Act 2016 (BC Act)

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.



As the proposed works will involve the removal of vegetation, an independent flora and fauna assessment was conducted by an ecologist from Southern Cross Environmental (Report Appendix D). Fauna surveys were undertaken on 14th October, and with the flora survey on 17th September. Fauna surveys were limited to onsite searches for evidence of fauna use, habitat assessment and one camera on site for ten (10) nights. The site and study area were searched for HBTs. Overall the study concluded that, "Following the application of the five factors from Section 5A of the NSW Environmental Planning and Assessment Act, as required by the NSW Threatened Species Conservation Act 1999, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have significant effect on threatened species populations or ecological communities or their habitats. A species impact statement is not required for the proposal. Relevant "Significant Impact Criteria" were considered for EPBC listed species while undertaking the TSC Act assessment. No significant impact on any listed EPBC species was determined." **Local Land Services** The objects of the LLS Act include 'to ensure the proper management Act 2013 (LLS Act) 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. Not applicable **Fisheries** FM Act provides for the protection, conservation, and recovery of Management Act threatened species, populations and ecological communities of fish 1995 (FM Act) and marine vegetation and fish habitats, as well as promoting the development and sharing of fishery resources in NSW. **Not Applicable** National Parks and The NPW Act regulates the control and management of all national Wildlife Act 1974 parks, historic sites, nature reserves, and Aboriginal areas. (NPW Act) 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.



Works are to be conducted under conditions in AHIP 5300 Heritage Act 1977 The proposed activity is listed on the NSW State Heritage Inventory, however works will not disturb the historical aspect of the cemetery which is still active. Historically this cemetery post-dates those of the Moruya area, like its local contemporaries, it has local historic significance. Socially the cemetery records the social mix of the town at the end of the 19th century and over the century since then and has high-level local significance for the generations of families whose lives are associated with the existing Narooma township. Scientifically the cemetery has local significance for its potential to reveal information about the differences between burial practices of the various denominations represented in the cemetery over the past century. **Protection of the** The POEO Act is the key environmental protection and pollution **Environment** statute. The POEO Act is administered by the EPA and establishes a **Operations Act** licensing regime for waste, air, water and pollution. 1997 (POEO Act) sections of the Act are listed below: Part 5.3 Water Pollution Part 5.4 Air Pollution Part 5.5 Noise Pollution Part 5.6 Land Pollution and Waste 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). Measures to minimise or prevent air pollution or dust are to be used including watering or covering exposed areas. 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. No licenses are required under the POEO Act, mitigation measures and safeguards outlined in table 1 must be followed.



Water Management Act 2000 (WM Act)

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.

Not Applicable

Roads Act 1993

Section 88 of the *Roads Act* 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.

Not Applicable

State Environmental Planning Policy – Resilience and Hazards 2021, Chapter 2 - Coastal Management

Chapter 2 of The *State Environmental Planning Policy (Resilience and Hazards) 2021* provides controls for undertaking development and activities in coastal management areas. The four coastal management areas are:

- 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.

Under Chapter 2 Part 2.2 Division 1 of the Resilience and Hazards SEPP, clearing native vegetation in the mapped 'Coastal wetland and littoral rainforest area' 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 Local Government Act, or a plan of management under Division 6 of the Crown Land Management Act 2016. In other cases, the clearing requires consent. Clearing is being undertaken under a Management Plan by a local authority Eurobodalla Shire Council. Chapter 2, part 2.2 of the Biodiversity and Conservation SEPP states State that an authority to clear vegetation under this policy is not required **Environmental** if it is a clearing authorised under section 60(O) of the Local Land **Planning Policy** Services Act 2013. Section 60(O) provides an exemption for clearing **Biodiversity and** under Part 5 of the EP&A Act and therefore consent is not required **Conservation 2021** under the B&C SEPP (Vegetation in Non-Rural Areas). Chapter 2 Clearing will take place under Part 5 of the EP&A Act. Vegetation in Non-**Rural Areas** Biodiversity and Conservation SEPP aims to encourage the proper State conservation and management of areas of natural vegetation that Environmental provide habitat for *Phascolarctos cinereus* (Koala) to ensure a Planning Policy permanent free-living population over their present range and **Biodiversity and** reverse the current trend of Koala population decline. **Conservation 2021** B&I SEPP applies to development under part 4 of the EP&A Act 1979. -Chapter 3 Koala As the proposed activity is not 'development', Koala Habitat **Habitat Protection** Protection SEPP doesn't apply. Regardless, consideration of impacts 2020 to koala and koala habitat may still be relevant under the BC Act 2016. The area to be cleared has been assessed by an independent ecologist from Southern Cross Environmental, no Koalas were found during fauna surveys (Report Appendix D). Section 100C of the Rural Fires Act 1997 takes in regard – The Rural Fires Act a. the principles of ecologically sustainable development (as 1997 described by section 6 (2) of the Protection of the Environment Administration Act 1991), and 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 Environmental Planning & Assessment Act 1979 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.



4. Community and agency consultation

Table 5: Community and agency consultation

Community / agency	Have any community stakeholders been identified for the proposed works?
consultation	Yes □ No ⊠
	If yes, provide details of consultation undertaken and identify where comments received are considered in the REF. Attach any correspondence sent or received (if relevant such as approval for stockpiles on private land, property access, impact on business, etc).
	Is consultation with other authorities required under the requirements of Clause 1, section 2.15 of the Transport and Infrastructure SEPP 2021?
	Yes □ No ⊠
	Are the works adjacent to a <u>national park, nature reserve or other area</u> reserved under the National Parks and Wildlife Act 1974? Yes \square No \boxtimes
	Are the works adjacent to a declared <u>aquatic reserve</u> under the Fisheries Management Act 1994?
	Yes □ No ⊠
	If yes, provide details of consultation carried out and identify where comments received are considered in the REF. Also include copies of any correspondence in the REF appendices.
	Other agency and community consultation: N/A



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	Does the project involve the disturbance of large areas (eg >2ha) for earthworks? Yes □ No ☒
	Does the site have constraints for erosion and sedimentation controls such as steep gradients, narrow corridors or is located on private property?
	Yes □ No ⊠
	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?
	Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments).
	Yes ⊠ No □
	The cemetery is located on a headland adjacent to the Batemans Marine Park. All due care must be taken and sediment mitigation controls effective at all times.
Potential impacts	Any disturbance of groundcover presents a potential risk for erosion, this risk can be minimised through implementation of the following safeguards.
Safeguards	 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 to be installed down slope of all affected areas and stockpiles. Silt fencing 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</u> and erosion control.
	 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.
	 Stockpiles will be designed, established, operated and decommissioned in accordance with the RMS Stockpile Site Management Guidelines 2015.
Contaminated	Is the project located within an area mapped as Potential Acid Sulfate
land and acid	Soils?
sulfate soils	Yes □ No ⊠
	Are there any known occurrences of acid sulfate soils in the area?
	Yes □ No ⊠
	Provide details
	Is the project located within an area mapped as Potential Contaminated Land?
	Yes □ No ⊠
	Provide details
Potential impacts	Disturbance of acid sulfate soils can generate large amounts of sulfuric acid leachate which can impact on the surrounding environment.
	Potential impacts include water quality impacts and impacts on flora and fauna.



Safeguards	If it is anticipated that Potential Acid Sulfate Soils will be disturbed, an Acid Sulfate Management Plan will be prepared.	
	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.	
Water quality and	within 40m of a waterway?	
hydrology	Yes □ No ⊠	
	If yes, provide details:	
	If yes, the NSW DPI Water or DPI Fisheries should be notified. Have they been notified?	
	Yes □ No ⊠	
	If yes, is a permit required? Provide details:	
	Will the proposed works be undertaken on a bridge?	
	Yes □ No ⊠	
	If yes, name the bridge:	
	Is the location known to flood or be prone to water logging?	
	Yes □ No ⊠	
	If yes, provide details	
Potential impacts	Does the project pose any potential risk to the surrounding water quality?	
iiipacts	Yes □ No ⊠	
	Describe the potential impact	
	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.	



Safeguards

- Visual monitoring of local water quality (ie 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 (eg. 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.
- Minimise the amount of material transported from site to surrounding pavement surfaces.
- 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

Have relevant database searches been carried out?

- NSW Bionet
- Threatened species profile search (www.environment.nsw.gov.au/threatenedspeciesapp/)
- Commonwealth EPBC

Yes ⊠ No □



Date searches undertal	œn:
4/7/2024	
Are the proposed works shrubs, trees?	likely to impact on any vegetation including,
Yes ⊠ No 🗆	
communities, populatio protected fauna, or mig	nes identify any endangered ecological ons, threatened flora and/or threatened or ratory species within the vicinity of the proposed and State listed matters must be considered.
See Threatened Species	s tables in Appendix E for database search results.
Report Appendix D). To mpact on any endange threatened flora and/o	mental have completed a flora & fauna survey hey concluded that there would be no significant ered ecological communities, populations, r threatened or protected fauna, or migratory ity of the proposed works
Are the works taking pla	ace in a roadside area designated as high
conservation value vege	etation?
Yes □ No ⊠	
f yes, provide details:	
• •	s require the removal of any other vegetation?
Yes ⊠ No □	
	he clearing of trees, shrubs, and other vegetation space to provide extra land for burials.
Please see clearing plar	ı figure 3.
Do the proposed works ree/s?	involve pruning, trimming or removal of any
Yes ⊠ No □	
f yes, provide details:	
Will the proposed work	s affect any tree hollows or hollow logs?



Yes □ No ☒
If yes, provide details:
The flora and fauna survey (Report Appendix D) did not find any tree hollows or hollow logs.
Will the proposed works disturb any crevices or other locations (such as on bridges and culverts) for potential bat habitat?
Yes □ No ⊠
If yes, provide details:
The flora and fauna survey (Report Appendix D) found no evidence of potential bat habitat in the areas marked for removal.
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 □
If yes, provide details:
The area to be cleared is mapped in SEED as outstanding biodiversity, however when surveyed the ecologist concluded that "Following the application of the five factors from Section 5A of the NSW Environmental Planning and Assessment Act, as required by the NSW Threatened Species Conservation Act 1999, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have significant effect on threatened species populations or ecological communities or their habitats. A species impact statement is not required for the proposal.
Relevant "Significant Impact Criteria" were considered for EPBC listed species while undertaking the TSC Act assessment. No significant impact on any listed EPBC species was determined."
Will the proposed works disturb any natural waterways or aquatic habitat?
Yes □ No ⊠
If yes, provide details:
Do the trees form part of a streetscape, an avenue or roadside planting? Yes \square No \boxtimes



If yes, provide details:
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 eg. has a plaque?
Yes □ No ⊠
If yes, provide details:
Do the trees form part of a heritage listing or have other heritage value?
Yes □ No ⊠
If yes, provide details:
Are there any significant weeds present?
Yes ⊠ No □
If yes, provide details:
• Lantana
Wash down equipment and machinery before transporting to a different site.
Treat area for Lantana on a scheduled regular basis to stop it spreading to nearby high biodiversity value bushland.
The ecologist's flora and fauna report made the following recommendations in regards to weeds on the work site:
 To ensure that weeds are not spread into the site, machinery should be washed down with high water/air pressure followed by spraying with a 3% Bleach solution or Phytoclean/F10 prior to being floated to the Lots and also post clearing works. See "Keeping It Clean" in references for disinfectant solution rates.
2. The planting of any species listed on the Weeds Australia NSW weeds list (www.weeds.org.au) should be prohibited on the site, and ESC should provide advice as to plantings on graves to lessen the spread of potential environmental weeds. Endemic native shrubs or small trees suitable as foraging for species such as Swift



	Parrot or Gang-gang would also be better plantings in any landscaping design.	
Potential impacts	Does the project pose any potential risk to the biodiversity within the vicinity of the site?	
	Yes □ No ⊠	
	If yes, describe the potential impacts:	
	See Flora and Fauna report Appendix D.	
	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.	
Safeguards	General:	
	 Identify measures to manage vegetation within the road reserve; 	
	 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. 	
	Clearing of Vegetation: Pre-clearing:	
	 Qualified fauna experts are required to conduct pre-clearing surveys and undertake fauna handling if required. This may include: 	
	 Hollow bearing tree survey; 	



- Stag-watching survey (targeted threatened bird species, arboreal mammals and microbats) in order to identify the number and type of nest boxes required and appropriate locations to install them.
- Where clearing is required, establish exclusion zones in accordance with Guide 2 Exclusion Zones of Roads and Maritime Biodiversity Guidelines (RTA 2011) to ensure clearing does not extend beyond the approved area.
- Trees that are to be trimmed (or removed if necessary) will be clearly marked. Any vegetation to be protected adjacent to the work area will be protected with exclusion fencing.
- Exclusion fencing will be placed at or beyond the drip lines of the protected vegetation so as to prevent damage to their root systems.
- Any trees with hollows are to be checked for native fauna prior to being removed. If any fauna is found, works will stop and WIRES will be contacted. Refer to any Council specific policy requirements for hollow bearing trees and amend mitigation measures accordingly.

Clearing of vegetation – general safeguards

 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.

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 (RTA, 2011) 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:
	 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;
	RMS Landscape Guidelines;
	 RMS Guidelines for Batter Stabilisation Using Vegetation.
Aboriginal heritage	Are the works likely to disturb previously undisturbed areas of the landscape?
	Yes ⊠ No □
Sensitive	
Information Redacted	Has an AHIMS register search been conducted?
	Yes ⊠ No □
	Has Due Diligence been conducted?
	Yes ⊠ No □
	AHIP 5300 (Appendix B) has been issued by Heritage NSW, all conditions must be followed.



Potential impacts	
	Works will proceed under AHIP 5300 (Appendix B)
Safeguards	 AHIP 5300 Conditions to be followed Follow all conditions in the AHIP as outlined in Table 1 of this REF and Appendix B. Unexpected Finds (Appendix D): If Aboriginal 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 (RMS, 2015) must then be followed.
Non- Aboriginal heritage	 NSW Heritage database Commonwealth EPBC heritage list Australian Heritage Places Inventory Local Environmental Plan(s) heritage items Are there any items of Non-Aboriginal heritage located within the vicinity of the proposed works? Yes ⋈ No □ If yes, list the item(s) and their heritage significance. Include details of any approvals that may be required. The cemetery is listed as an item of Heritage significance. The scope of works will not disturb the original cemetery and will allow future generations to be part of the heritage value.
Potential impacts	Does the project pose any potential risk to Non-Aboriginal heritage? Yes □ No ☒ If yes, provide details



works will not disturb the original	•
generations to be part of the herit	age value.
Unexpected Finds (Appendix D):	
THE AREA, TAKE A PHOTO, the find must cease and the Officer contacted immediat	REPORT!!! All works, STOP, MARK REPORT!!! All works in the vicinity of Project Manager and Environmental ely. The Standard Management ritage Items (RMS, 2015) must then be
Are there any noise sensitive areas works that may be affected by the residences)?	
During construction?	
Yes □ No ⊠	
During Operation?	
Yes □ No ⊠	
Are the proposed works going to be hours detailed below?	e undertaken during standard working
Yes ⊠ No □	
Standard working hours	
Monday – Friday	7:00am to 6:00pm
Saturday	8:00am to 1:00pm
Sunday and Public Holidays	No work
receivers? This might include, but n level of an existing carriageway, cha speeds by more than 10km/hr or in	ter the noise environment for sensitive not be limited to, altering the line or anging traffic flow, increasing traffic estalling audio-tactile line markings.
Yes □ No ⊠	
If yes, provide details	
	works will not disturb the original generations to be part of the herit Unexpected Finds (Appendix D): If heritage items are uncovered the followed, the find must cease and the Officer contacted immediate Procedure - Unexpected Herical followed. Are there any noise sensitive areas works that may be affected by the residences)? During construction? Yes No During Operation? Yes No Are the proposed works going to be hours detailed below? Yes No Standard working hours Monday - Friday Saturday Sunday and Public Holidays Would operation of the proposal all receivers? This might include, but relevel of an existing carriageway, chaspeeds by more than 10km/hr or in Yes No No No No No No No No No No



Potential	Does the project pose any potential risk to the surrounding noise quality?
impacts	Yes ⊠ No □
	If yes, provide details:
	Machinery will be on site clearing trees and shrubs next to the Narooma cemetery, where mourners may be present.
Safeguards	Notification:
	 Notification of works should be put out to the local community to inform mourners who may want to visit their relatives grave sites. Works may also impede access to different graves at different times.
	 All sensitive receivers (eg 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.
	Standard Hours of Operation:
	 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.
	Out of hours:
	 Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers.
Air quality	Are the proposed works likely to result in large areas (>2ha) of exposed soils?
	Yes □ No ⊠
	Are there any dust sensitive receivers located within the vicinity of the proposed works during the construction period (i.e. church, school, hospital, residences)? Yes □ No ⊠



	Is there likely to be an emission to air of dust, smoke, steam or vehicle emissions?
	Yes ⊠ No □
Potential impacts	Does the project pose any potential risk to the surrounding air quality? Yes □ No ☒ If yes, provide details
Safeguards	 Measures to minimise or prevent air pollution or dust are to be used including watering or covering exposed areas.
	 Works are not to be carried out during strong winds 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.
	 Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust
	Do not leave vehicles idling
Waste and chemical management	Are the proposed works likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)? Yes □ No ☒
	Are the proposed works likely to require a licence from EPA? Yes □ No ☒
	Is waste being transported off site to another location? Yes □ No ☒



	Does the project pose any potential risk to the surrounding environment as a result of waste generated? Yes □ No ☒
Potential impacts	Weeds may be transported during vegetation removal. Mitigation measures in Table 1 of this REF must be followed.
Safeguards	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	Are the proposed works likely to result in detours, disruptions or delays to
transport	traffic flow (vehicular, cycle and pedestrian) or access to properties or businesses?
	During construction Yes ⊠ No □
	During Operation Yes □ No ⊠
Potential impacts	Are the proposed works likely to affect any other transport nodes or transport infrastructure (eg bus stops, bus routes) in the surrounding area? Result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation? Yes No
	Describe the potential impacts



Safeguards	
	 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.
	 If traffic disturbance is unavoidable, a Traffic Management Plan (TMP) will be prepared in accordance with the RMS Traffic Control at Work Sites Manual RTA 2010) and QA Specification G10 Control of Traffic (RTA 2008).
	 Comply with Council requirements regarding traffic control, access and road/ pedestrian access.
	 Erect signs regarding proposed works, temporary road closures, diversions etc.
Visual amenity/	Will the project have any potential impact on visual amenity of the site and surrounding landscape?
landscape	Yes ⊠ No □
	If yes, provide details:
	Machinery will be on site clearing trees and shrubs next to the Narooma cemetery, where people may be visiting deceased relatives.
Potential	The works will provide better access to the cemetery and parking facilities
impacts	as well as provide more grave sites.
	Visual amenity will be decreased during construction.
Safeguards	 Notify the local community when works are occurring, disturbing the peace of an environment they come to mourn in.
	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-	Are the proposed works likely to impact on local business?
economic	Yes □ No ⊠
	If yes, provide details
	Are the proposed works likely to require any property acquisition?



Yes □ No ⊠
If yes, provide details
Are the proposed works likely to alter any access for properties (either
temporarily or permanently)?
Yes □ No ⊠
If yes, provide details
Are the proposed works likely to alter any on-street parking arrangements (either temporarily or permanently)?
Yes □ No ⊠
If yes, provide details
Are the proposed works likely to change pedestrian movements or
pedestrian access (either temporarily or permanently)? Yes ⊠ No □
If yes, provide details
Clearing of vegetation and earthworks may impede access to some
gravesites. Pedestrian control will be needed during all stages of works.
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
The Narooma Cemetery is a place of high social value. Clearing of vegetation and earthworks may impede access to some gravesites temporarily.
Are the proposed works likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?
Yes □ No ⊠
If yes, provide details



Potential	Does the project pose any potential risk to the socio-economic factors?	
impacts	Yes □ No ⊠	
	If yes, provide details	
Safeguards	Contain all work within the boundaries designated on the site plan	
	 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?

The ecologists report (Appendix D) on flora and fauna in the works area concluded that there would be no significant environmental impact.

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 will ensure that the project will enhance the community by increasing the amount of burial locations in Narooma. The scope of works will also ensure the area has safe adequate parking and pedestrian thoroughfares to visit grave sites.

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

The ecologists report (Appendix D) on flora and fauna in the works area concluded that there would be no significant impact on local ecosystems. Sediment controls will be required when working in area within the vicinity of waterways and retained vegetation.

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

The proposed works will not affect the aesthetic or scientific values of the area. However, the removal of vegetation will decrease the environmental quality of the area.



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

This project is aimed at improving parking areas and pedestrian safety as well as providing more burial spaces for future generations.

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

The protected matters search performed on the 4/7/2023 shows the area to have 5 Threatened Ecological Communities that may occur:

- o Brogo Vine Forest of the South East Corner Bioregion
- o Illawarra and south coast lowland forest and woodland ecological community
- o Lowland Grassy Woodland in the South East Corner Bioregion
- Coastal Swamp Oak (Casuarina glauca) 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

Threated species:

- Swift Parrot
- o Eastern Curlew, Far Eastern Curlew
- Regent Honeyeater
- Gang-gang Cockatoo
- Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
- Fairy Prion (southern)
- White-capped Albatross
- o Red Knot. Knot
- Giant Burrowing Frog
- White-throated Needletail
- Grey-headed Flying-fox

The ecologists report on Flora and Fauna (Appendix D) in the works area concluded that there would be no significant impact on the habitat of protected or endangered fauna.



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

The scope of works will have no long term effect on the environment of the area, the adjacent bushland which has similar flora species is being retained providing habitat for displaced fauna.

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

The ecologists report on Flora and Fauna (Appendix D) in the works area concluded that there would be no significant impact on the habitat and environmental quality of the area.

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

The improvements to the road, carpark and footpaths will provide safer access for the community to the Cemetery.

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

The beneficial uses of the environment within the cemetery will remain unchanged

k) Cause any pollution of the environment?

No, all mitigation measures in Table 1 of this REF must be followed.

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

No, the cleared vegetation and earthworks will be utalised or disposed of in an appropriate manner that will not cause environmental problems.

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

No, there are no resources in short supply to be used on this project.



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

This project will have no cumulative effect with other existing or likely future activities. If further areas are needed to be cleared in the future then the environmental assessments must be reassessed at that time.

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

The scope of works for this project will not impact on coastal processes and coastal hazards. Vegetation around the edge of the headland is to be retained.



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

Sensitive Information Redacted

Prue McGuffie

Signature



Position

Environmental Engineer Support Officer

Date

27/11/2024

Reviewed and endorsed by:

Geoff Armstrong

Signature



Position

Design Coordinator

Date

27/11/2024



Appendix A – Location of Site



Figure 5. Works location

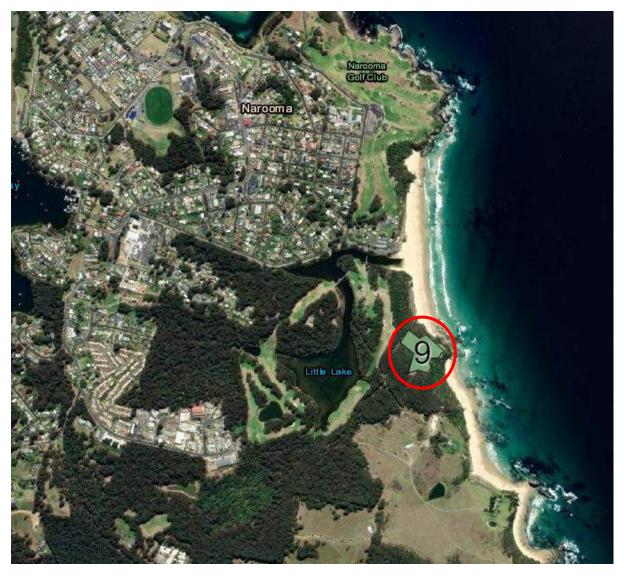


Figure 6. Works location in proximity to larger regional centres

Appendix B – Aboriginal Heritage AHIP Permit 5300 – Excerpt – Sensitive Information Redacted



Appendix C - Unexpected Finds Protocol -

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



UNEXPECTED FINDS PROTOCOL

Eurobodalla Shire Council

Version 1.0



Purpose and scope

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	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.
	 Heritage NSW ph.: 131 555 Email: info@environment.nsw.gov.au
	Registered aboriginal parties (RAPs) will be notified at this point to inform them of unexpected find.
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	Ensure the process for unexpected finds is included as part of all site inductions.
	Ensure that this protocol is implemented, and all personnel are aware of their responsibilities.
Construction Supervisor	Ensure this protocol is understood and implemented on site.
	Stops works immediately adjacent to any unexpected archaeological finds until they have been assessed in accordance with this protocol.
	Report any unexpected finds to the Project Manager.
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	
Project Manager	
Environmental Officer	
Consultant Archaeologist	

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 D - Narooma Cemetery Extension – Biodiversity Conservation Act 2016 Assessment of Significance (Excerpt)

Narooma Cemetery Extension – Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153

Glasshouse Rocks Road, Narooma, NSW 2546
Biodiversity Conservation Act 2016 Assessment of Significance







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1. INTRODUCTION

1.1 Objectives

This report has been prepared at the request of Eurobodalla Shire Council (ESC) to accompany a development application for an extension of the Narooma Cemetery at Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153, Glasshouse Rocks Road, Narooma, NSW 2546 (Figure 1).

The objectives of this study were:

- a) To describe the flora and fauna species and vegetation communities present in the study area and their conservation significance.
- b) To identify the threatened flora and fauna species which are present or likely to occur in the study area and their conservation significance.
- c) To assess the impacts of the proposal on vegetation, fauna, habitats and other environmental features as necessary.
- d) To determine that the project was in alignment with the requirements of the NSW Environmental Planning and Assessment Act 1979 in regard to threatened flora and fauna and requirements of the proposal under the Biodiversity Offset Scheme (BOS).
- e) To determine whether there is likely to be a significant effect on threatened species, endangered populations or endangered/threatened ecological communities (EEC/TEC), or their habitats, listed under Schedules 1 and 2 of the NSW Biodiversity Conservation Act 2016 (BC Act).
- f) To determine whether the proposal involves an action that has, will have, or is likely to have, a significant impact on a matter of national environmental significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

1.2 The site and proposal.

'Site' for the purposes of this report refers to the areas of proposed development on Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153, Glasshouse Rocks Rd, Narooma NSW. The study area incorporates the remaining land of the Lots and the surrounding area (locality). The Lot is zoned SP2 (Infrastructure). No minimum Lot



size under the *Eurobodalla Local Environment Plan 2012* (ESC LEP 2012) is recorded. The land is categorised as Vegetation buffer and vegetation category 1 Bushfire Prone Land.



Figure 1. Aerial view of Lot 7064 DP 1054955 and Lot 7305-7306 DP 1132153 (SIXmaps)



Figure 2. Proposed area for development on Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153 (Eurobodalla Shire Council).



1.3 Legislation.

The proposed development meets relevant Commonwealth and NSW legislation in relation to threatened flora and fauna as outlined in Table 1.

Table 1. Relevant legislation to the proposal

Legislation	Relevant Objectives	How it applies to the proposed development				
Commonwealth Acts						
Environment Protection and Biodiversity Act 1999	To provide for protection of the environment, particularly Matters of National Environmental Significance (MNES) which include nationally listed threatened species and ecological communities, and migratory species.	Impacts to MNES and migratory species listed under the EPBC Act with the potential to occur in the project area have been assessed with none identified.				
State Acts						
Environmental Planning and Assessment Act 1979	To encourage the proper management, development and conservation of natural and artificial resources for the purpose of promoting the social and economic welfare of the community and a better environment.	This Act is the principal planning instrument in NSW and as such dictates the assessment approach for the proposed development, including ecological impact assessment and consideration of other Acts and planning policies. The proposed development is being undertaken under Part 5 of the EP&A Act. This report provides an assessment of the environmental impact of the proposed activities to meet ESC's obligations as the proponent and consent authority under Division 5.1, Subdivision 2 of the EP&A Act and a Clause 228 of the EP&A Regulation 2000.				



Biodiversity
Conservation Act
2016

Provides for the conservation of threatened species, populations and ecological communities and sets out a number of specific objectives relating to the conservation of biological diversity and the promotion of ecologically sustainable development.

The vegetation required to be removed at Narooma Cemetery is mapped under Biodiversity Values Mapping for "Threatened species or communities



with potential for serious and irreversible impacts".

Part 5 developments do not immediately require entry into the Biodiversity Offset Scheme (BOS), undertaking a Test of Significance (ToS) as part of the Review of Environmental Factors (REF), to determine significance. Should significant impact be identified, the proponent may either opt into the BOS or undertake a Species Impact Statement, or decrease the impact of the proposal.

The value at Narooma is Swift Parrot and, whilst habitat for the species occurs at the clearing sites, a significant amount that would impact on the species' foraging in the intermittent times it moves along the coast is note expected.

Assessment of this proposal found no significant impact to threatened species so long as the recommendations at Section 6 are adhered to.



State Environmental
Planning Policy
(Biodiversity &
Conservation) –
includes Vegetation
in Non-rural Areas
and Koala Habitat
Protection 2020

This Act aims to protect the biodiversity values, and preserve the amenity of, trees and other vegetation in non-rural areas of NSW. It also aims to conserve and manage natural vegetation in areas of koala habitat "to support a permanent free-living population over their present range and reverse the current trend of koala population decline."

This proposal is within an area to which the Biodiversity and Conservation SEPP applies, however as the works are being assessed under part 5 of the EP&A Act and are not "development", the requirements of the SEPP do not apply. However, the site does not contain core or potential koala habitat with no preferred feed tree species in the works area, and no Koala records for the last 18 years. Therefore, the proposal is not inconsistent with chapter 4 of this SEPP.

SEPP (Resilience and Hazards) 2021

The Resilience and Hazards
SEPP promotes an integrated
and co-ordinated approach to
land use planning in the coastal
zone in a manner consistent with
the objects of the Coastal
Management Act 2016, including
the management objectives for
each coastal management area.

The proposal will be situated on land mapped under the Coastal Environment Area. Again, as the proposal is being assessed under Part 5 of the EP&A Act, and is not considered "development", the requirements of the SEPP do not apply. However, native vegetation, fauna and their habitats have been assessed under this report with no impact found and no impact to the coastal environment is likely. ESC will undertake due diligence in regard to Aboriginal Heritage and other coastal processes in line with the Resilience and Hazards SEPP for the site.

Local: Eurobodalla Shire Council

Eurobodalla Tree
Preservation Code

The purpose of this Code is to protect and enhance the environmental amenity, special landscape characteristics, unique vegetation qualities and ecological values within the Eurobodalla Shire.

As the canopy required to be cleared would be done under consent, this modification is not inconsistent with this proposal. No trees on the lot are listed on the significant trees register.



Conservation of the Yellow-bellied Glider in the Broulee area This Policy was developed by ESC and OEH to better protect the Yellow-bellied Glider and its habitats within the Broulee area, with a "Code of Practice" aimed at providing "a platform for a similar approach to the entire Coastal Plains of Eurobodalla Shire."

This proposal occurs outside the area outlined within the policy. Whilst suitable feed trees occur within the vegetation to be cleared, no hollows suitable for denning of Yellow-bellied Glider (YBG) and no sap feed trees were seen. The locality is not known to contain the species with no Atlas records east of the Princes Highway in the Narooma township locality. Connectivity is not considered further reduced from the removal of this vegetation being on the edge of the Pacific Ocean.



Yellow bellied Glider records in red. Site purple star.

2 Methodology

2.1 Desktop Assessment.

A literature review was carried out to identify records of species of conservation significance. This background information informed the field survey and impact assessment. The following databases and reports were relied upon regarding local conservation and planning issues for this study:

Eurobodalla Local Environment Plan 2012
 (http://www.esc.nsw.gov.au/development-and-planning/tools/local-environmental-plans)



- 2. A search of the EPBC Act (1999) database using the Protected Matters Search Tool on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) website (www.environment.gov.au/erin/ert/epbc/index.html) was completed. The search area was confined to a 10 km radius of Lot 7064 DP 1054955 and Lot 7305-7306 DP 1132153. This identified species and ecological communities of conservation significance under the EPBC Act (1999) that may require habitat assessment or targeted survey.
- 3. The online database of collections held by the Australian Museum, National Parks and Wildlife Service and State Forests (BioNet Atlas-http://www.bionet.nsw.gov.au/) was analyzed for Lot 7064 DP 1054955 and Lot 7305-7306 DP 1132153 using a 10km radius. This search provided records of species of threatened flora and fauna within the locality.
- 4. NSW Flora Online (http://plantnet.rbgsyd.nsw.gov.au/) and the Centre for Plant Biodiversity Research (http://www.anbg.gov.au/cpbr/) websites were also utilized to identify flora species.
- 5. The NSW Office of Environment and Heritage (OEH) Threatened Species and Ecological Communities Profiles were utilised for listed ecological communities of the Bateman CMA sub-region and threatened flora and fauna information.

2.2 Onsite Assessment

2.2.1 Survey limitations

Surveys for flora and fauna can be limited by the season, disturbance history and weather conditions in which they are undertaken. Many grasses can only be identified when they are flowering or fruiting, and many orchids can only be detected when they are flowering.

Not all fauna species that use a site will be recorded during ecological survey due to their mobility, cryptic nature and unpredictable movement throughout their habitat. Migratory species may be present on a site sometimes through the year and absent at others.



In addition to ecological reasons, environmental factors (such as weather, drought and bushfire) may impact on the type and number of species recorded within a site at any one time.

To address these issues, potential habitat was used as a tool to measure if threatened species were likely to utilise the site or not. Any threatened species (flora or fauna) considered to have potential habitat within the site was considered in this assessment of environmental significance. This process ensured that all threatened species with potential to use the site were considered in the impact assessment, rather than only those that were recorded during survey, as per the Office of the Environment and Heritage draft Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities (OEH, 2004) and in line with the NSW government's Threatened Species Test of Significance Guidelines (OEH 2018).

2.2.2 Flora

A detailed flora survey was conducted across the site and study area on 17th September 2024. The study area was assessed at the same time to assess habitat suitability across the site. Two transects (60m and 40m by 4m wide) were carried out within or close to the clearing areas west and central of the site, and random meanders through all the clearing areas to search for threatened species, and catalogue vegetation species in the upper, mid and lower strata to identify PCT. Flora surveys took a total of 3 person-hours.

2.2.3 Fauna

Fauna surveys were limited to onsite searches for evidence of fauna use, habitat assessment and one camera on site for ten (10) nights. The site and study area were searched for HBTs. Fauna surveys were undertaken on 14th October, and with the flora survey on 17th September.

Figure 4 shows survey transects, habitat identified and and camera placement.





Figure 4. Areas to be cleared with vegetation transects (red), HBTs (green), burrows noted (yellow) and camera site (blue).

3. Results

3.1 Plant Community Type & Connectivity

The areas of clearing and locality is mapped as State Vegetation Type Mapping Plant Community Type (PCT) 3639- South Coast Sands Bangalay Littoral Forest, PCT 3273- South Coast Lowland Shrub-Grass Forest and PCT 3788- Coastal Foredune Wattle Scrub (Figure 5).





Figure 5. SVTM PCT mapping for the site, with Lot 7064 outlined. Source: SEED.

Onsite assessment found neither PCT 3639 or 3273 is representative of the vegetation within the footprint of clearing or surrounding. Whilst many of the plant species known for SVTM 3639 were found in vegetation survey, such as Scentless Rosewood (Synoum glandulosum subsp. glandulosum), Blueberry Ash (Elaeocarpus reticulatus) and Bangalay (Eucalyptus botryoides), the position of the site and soil type (conglomerates and clay) do not represent South Coast Sands Bangalay Littoral Forest. Further, Spotted Gum (Corymbia maculata) dominated the canopy, with Burrawang (Macrozamia communis), White Stringybark (Eucalyptus globoidea) and a large number of vine species also noted in transects.

SVTM 3274- South Coast Spotted Gum Moist Forest is considered the most defining PCT for the majority of the site. The PCT is well represented within the locality and is therefore not considered threatened. Vegetation within the site shows signs of previous clearing or disturbance, with a heavy understorey in patches of Sweet Pittosporum (Pittosporum undulatum). The study area also shows evidence of the environmental impact of the exposed headland, with many dead or stunted trees from the effects of wind.



A small area within the north-eastern edge of the cemetery site also to be cleared is a dense stand of Swamp Oak (*Casuarina glauca*). The vegetation would not meet the requirements to be the Endangered Ecological Community (EEC) *Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions* again due to geology of the site and the raised position out of inundation. It is mapped as the PCT 3788- *Coastal Foredune Wattle Scrub*. Whilst this PCT does occur in the vicinity, Swamp Oak is not a known component of PCT 3788 but is a small component of PCT 3274. Swamp Oak is a known clonal coloniser in areas where it has been subject to clearing or slashing which may be the case at this site. The adjacent PCT 4028- *Estuarine Swamp Oak Twig-rush Forest*, which is part of the EEC *Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions*, has also likely influenced the vegetation assemblage on the slopes.

Connectivity over the majority of the lots is poor with lack of mid and canopy storey strata due to the existing cemetery, however within the areas to be cleared connectivity occurs at ground, mid and canopy levels. Grassed areas provide grazing for common native mammals as well who would shelter in bushland during the day. The locality is relatively quiet of suburban impacts, though is a popular dog walking area. The canopy vegetated areas of the lots have strong connectivity to other tracts of bushland, particularly around Little Lake and patches further south. West and south of the lots connectivity is disjointed due to the Narooma industrial area and open grazing lands. The Princes Highway and the rural residential areas of Narooma would also impact on extended connectivity for this patch of bushland. The loss of the c. 5,574m² of vegetation for the proposal would not impact connectivity significantly in the locality due to the position on the edge of already cleared lands.

3.2 Threatened Ecological Communities

Neither Lot 7064 DP 1054955 nor Lots 7305-7306 DP 1132153 contain any threatened ecological community.

3.3 Flora of conservation significance



Thirteen threatened species were flagged as possibly occurring on or within 10 kms of the Lot (Appendix A). No listed threatened flora species were found in surveys of the subject area, and none were considered likely to occur on the lot due to geology, landform or vegetation constraints. An assessment of impact is at Appendix A with recommendations to help avoid/mitigate impacts on the area at section 6. A conclusion as to impact on threatened flora is at section 8.

3.4 Fauna of conservation significance

The Lots provide some habitat for native fauna with canopy and mid storey cover providing refuge and possible foraging areas for arboreal, volante and smaller ground species. Open areas are well grassed, and some species would move through this landscape to neighbouring bushland, though it is likely this is confined to more common species such as Eastern Grey Kangaroo (Macropus giganteus) and Swamp Wallaby (Wallabia bicolor). Evidence of Rabbit (Oryctolagus cuniculus) was also seen in both bush and open areas. Connectivity with larger tracts of bushland to the southwest means that fauna may move through this landscape, though the situation of the cemetery close to the ocean and Little Lake, as well as open grazing land to the south means connectivity is limited. Additionally, there were limited HBTs within the lots, with those noted not be suitable for larger arboreal species. Whilst the lots are considered to provide very limited habitat for threatened species, it does provide appropriate nesting areas for multiple bird species, with Eastern Whip birds, Lyrebirds, Fairy-wrens and Silver Eyes noted during surveys. Several possible Ring-tail Possum dreys were located through the site, and multiple burrows were located under Burrawang plants indicative of native Bush Rat habitat. A baited camera trap at the location over ten (10) nights (14/10/24-23/10/24) captured 148 images but revealed only Bush Rat (Rattus fuscipes) and potentially Swamp Wallaby (image was large but blurred due to standing right in front of the camera). Whilst no significant impact on threatened fauna is considered likely, management of impacts on other fauna from the proposal is outlined in section 6.





Photos 1 & 2- Bush Rat on 15/10 and 22/10 at Narooma Cemetery site.

4. DIRECT IMPACTS OF DEVELOPMENT.

The direct impact of the proposal is the loss or modification of approximately 5,574m² of native vegetation on Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153. The area to be cleared is not considered to provide significant habitat for any threatened flora or fauna, nor to limit connectivity due to the position of the site close to the ocean and already open lands.

5. INDIRECT IMPACTS OF DEVELOPMENT.

Increase of weed species may occur if any landscaping that occurs within the cemetery grounds was to contain exotic species. The current weed burden on the site is moderate so recommendations for landscaping are at section 6.

Pedestrian access will be required to be managed during works, as will the impact of any excavation works (trenches etc) on native fauna and domestic pets.

The loss of individuals of threatened species or populations through direct or indirect impacts is considered in the 5-part test of significance, however loss is not considered likely.



RECOMMENDATIONS

The following recommendations may assist in minimizing impacts on flora and fauna during and post the works:

- The extent of clearing/modification of the lot to be clearly delineated during clearing and "no go" flagging should be used as a barrier to protect the vegetation to remain.
- 2. A fauna spotter/catcher or ecologist should walk through the area prior to clearing commencement (c.48 hours prior) to ensure no nesting birds, Ringtail dreys and to assess use of ground burrows. Potentially, Bush Rats could be trapped and moved into other suitable habitat outside works area. Ringtails, if present, will often flee from dreys if disturbed but could also be attempted to be captured before clearing.
- 3. No HBT was GPS'd within the clearing footprint (see Figure 4). If, however, the GPS point is incorrect, any HBT should be marked on site with pink tape or a H. Any HBTs to be removed should be done in a two-stage clearing process. This is best done between March-May to avoid breeding and torpor cycles of fauna. All surrounding vegetation should be cleared first, with the HBT removed a minimum of 24 hours after this underscrubbing.
- 4. A Fauna Spotter/Catcher or Ecologist should be present for any HBT removal.
- Any hollows to be removed should be replaced at a ratio of 2:1 within surrounding bushland outside of the clearing areas, preferably prior to clearing commencing.
- 6. To ensure that weeds are not spread into the site, machinery should be washed down with high water/air pressure followed by spraying with a 3% Bleach solution or Phytoclean/F10 prior to being floated to the Lots and also post clearing works. See "Keeping It Clean" in references for disinfectant solution rates.



- 7. Any soil stabilization/landscaping should be done with local native species or sterile/innocuous species, e.g., Sterile Oats (*Avena sterilis*). Invasive grass species such as Kikuyu or Buffalo Grass should not be used.
- 8. It is unlikely the project will require fencing however netting, that may cause native mammals to become caught, should not be used for any fencing that may need to occur (such as stockpile area).
- 9. The planting of any species listed on the Weeds Australia NSW weeds list (www.weeds.org.au) should be prohibited on the site, and ESC should provide advice as to plantings on graves to lessen the spread of potential environmental weeds. Endemic native shrubs or small trees suitable as foraging for species such as Swift Parrot or Gang-gang would also be better plantings in any landscaping design.

7. ASSESSMENT OF SIGNIFICANCE (FIVE PART TEST)

Matters pursuant to Section 7.3 of the *Biodiversity Conservation Act 2016* – Significant effect on threatened species, populations or ecological communities, or their habitats.

No threatened species or threatened ecological community were identified as potentially or likely to be impacted from this proposal to build a dwelling and removal of the existing dwelling.

a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The proposed development is not likely to have an adverse impact on the life cycle of any threatened species such that a viable local population of the species is likely to be placed at risk of extinction so long as the recommendations in section 6 are followed.



b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

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

Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153 do not contain any endangered ecological community. Therefore, the proposal will not have an adverse effect on the extent of any EEC such that its local occurrence is likely to be placed at risk of extinction.

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

Lot 7064 DP 1054955 and Lots 7305-7306 DP 1132153 do not contain any endangered ecological community. Therefore, no EEC is likely to be substantially and adversely modified such that its local occurrence is likely to be placed at risk of extinction.

- c) in relation to the habitat of a threatened species, population or ecological community:
 - (i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity

The proposal will require the removal of approximately 5,574m² of native vegetation. This vegetation is not considered to provide significant habitat for any threatened species, population or ecological community.



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

This area of habitat is not likely to become more fragmented or isolated from other areas of habitat from this proposal. The areas of habitat to be cleared are on the edge of already existing cleared land for the current cemetery, and open farmland to the south. The ocean lies to the east.

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

The habitat on site does not provide critical resources for threatened fauna species, therefore is not considered important to the long-term survival of any species, population or ecological community in the locality.

d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),

There are areas of outstanding biodiversity value on the proposed development site or in the greater study area. Therefore, this proposal will have an impact, either directly or indirectly, on an area of outstanding biodiversity value.

e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

The action proposed will result in the clearing of an area of native vegetation which could contribute to the key threatening process- *Clearing of native vegetation*. The vegetation type on the lot is well represented in the locality, and the shire. Within the



greater locality, large extents of native vegetation occur that are connected and provide ample foraging and breeding/roosting potential for threatened species.

8. CONCLUSIONS

Following the application of the five factors from Section 5A of the *NSW Environmental Planning and Assessment Act*, as required by the *NSW Threatened Species Conservation Act 1999*, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have significant effect on threatened species populations or ecological communities or their habitats. A species impact statement is not required for the proposal.

Relevant "Significant Impact Criteria" were considered for EPBC listed species while undertaking the TSC Act assessment. No significant impact on any listed EPBC species was determined.



9.References

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Appendix E – Threatened Species Search (Batemans region)

Scientific name	Common name	Conservation project	Type of species	NSW status	Occurre nce	Vegetatio n class
Aldrovanda vesiculosa	Waterwheel Plant	Aldrovanda vesiculosa conservation project	Plant > Aquatic Plants	Endange red	Known	Show 4 linked vegetation classes
Botaurus poiciloptilus	Australasian Bittern	Botaurus poiciloptilus conservation project	Animal > Birds	Endange red	Known	Show 25 linked vegetation classes
Epacris gnidioides	Budawangs Cliff- heath	Epacris gnidioides conservation project	Plant > Shrubs	Vulnerab le	Known	Show 8 linked vegetation classes
Burhinus grallarius	Bush Stone-curlew	Burhinus grallarius conservation project	Animal > Birds	Endange red	Known	Show 73 linked vegetation classes
Caladenia tessellata	Thick Lip Spider Orchid	Caladenia tessellata conservation project	Plant > Orchids	Endange red	Predicted	Show 10 linked vegetation classes
Calamanthus fuliginosus	Striated Fieldwren	Calamanthus fuliginosus conservation project	Animal > Birds	Endange red	Known	Show 8 linked vegetation classes
Calidris alba	Sanderling	Calidris alba conservation project	Animal > Birds	Vulnerab le	Known	Show 17 linked vegetation classes
Calidris tenuirostris	Great Knot	Calidris tenuirostris	Animal > Birds	Vulnerab le	Known	Show 17 linked



		conservation project				vegetation classes
Calyptorhync hus lathami	Glossy Black- Cockatoo	Calyptorhync hus lathami conservation project	Animal > Birds	Vulnerab le	Known	Show 75 linked vegetation classes
Cercartetus nanus	Eastern Pygmy- possum	Cercartetus nanus conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 68 linked vegetation classes
Chalinolobus dwyeri	Large-eared Pied Bat	Chalinolobus dwyeri conservation project	Animal > Bats	Vulnerab le	Known	Show 58 linked vegetation classes
Charadrius leschenaultii	Greater Sand-plover	Charadrius leschenaultii conservation project	Animal > Birds	Vulnerab le	Known	Show 15 linked vegetation classes
Charadrius mongolus	Lesser Sand-plover	Charadrius mongolus conservation project	Animal > Birds	Vulnerab le	Known	Show 17 linked vegetation classes
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Climacteris picumnus victoriae conservation project	Animal > Birds	Vulnerab le	Known	Show 64 linked vegetation classes
Correa baeuerlenii	Chef's Cap Correa	Correa baeuerlenii conservation project	Plant > Shrubs	Vulnerab le	Known	Show 15 linked vegetation classes
Cryptostylis hunteriana	Leafless Tongue Orchid	Cryptostylis hunteriana conservation project	Plant > Orchids	Vulnerab le	Known	Show 32 linked vegetation classes
Dasyurus maculatus	Spotted-tailed Quoll	Dasyurus maculatus conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 73 linked vegetation classes



Distichlis distichophylla	Australian Saltgrass	Distichlis distichophylla conservation project	Plant > Herbs and Forbs	Endange red	Known	Show 5 linked vegetation classes
Dry Rainforest of the South East Forests in the South East Corner Bioregion	Dry Rainforest of the South East Forests in the South East Corner Bioregion	Dry Rainforest of the South East Forests in the South East Corner Bioregion conservation project	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Show 2 linked vegetation classes
Esacus magnirostris	Beach Stone-curlew	Esacus magnirostris conservation project	Animal > Birds	Critically Endange red	Predicted	Show 16 linked vegetation classes
Eucalyptus sturgissiana	Ettrema Mallee	Eucalyptus sturgissiana conservation project	Plant > Mallees	Vulnerab le	Known	Show 5 linked vegetation classes
Falco hypoleucos	Grey Falcon	Falco hypoleucos conservation project	Animal > Birds	Vulnerab le	Known	Show 39 linked vegetation classes
Falsistrellus tasmaniensis	Eastern False Pipistrelle	Falsistrellus tasmaniensis conservation project	Animal > Bats	Vulnerab le	Known	Show 56 linked vegetation classes
Galium australe	Tangled Bedstraw	Galium australe conservation project	Plant > Herbs and Forbs	Endange red	Known	Show 6 linked vegetation classes
Genoplesium vernale	East Lynne Midge Orchid	Genoplesium vernale conservation project	Plant > Orchids	Vulnerab le	Known	Show 6 linked vegetation classes
Grammitis stenophylla	Narrow-leaf Finger Fern	Grammitis stenophylla conservation project	Plant > Ferns and Cycads	Endange red	Predicted	Show 16 linked vegetation classes



Haematopus fuliginosus	Sooty Oystercatcher	Haematopus fuliginosus conservation project	Animal > Birds	Vulnerab le	Known	Show 4 linked vegetation classes
Haematopus longirostris	Pied Oystercatcher	Haematopus longirostris conservation project	Animal > Birds	Endange red	Known	Show 9 linked vegetation classes
Haloragis exalata subsp. exalata	Square Raspwort	Haloragis exalata subsp. exalata conservation project	Plant > Shrubs	Vulnerab le	Known	Show 12 linked vegetation classes
Hamirostra melanosterno n	Black-breasted Buzzard	Hamirostra melanosterno n conservation project	Animal > Birds	Vulnerab le	Known	Show 44 linked vegetation classes
Heleioporus australiacus	Giant Burrowing Frog	Heleioporus australiacus conservation project	Animal > Amphibia ns	Vulnerab le	Known	Show 45 linked vegetation classes
Hoplocephalu s bungaroides	Broad-headed Snake	Hoplocephalu s bungaroides conservation project	Animal > Reptiles	Endange red	Known	Show 24 linked vegetation classes
Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	Isoodon obesulus obesulus conservation project	Animal > Marsupial s	Endange red	Known	Show 42 linked vegetation classes
Ixobrychus flavicollis	Black Bittern	Ixobrychus flavicollis conservation project	Animal > Birds	Vulnerab le	Known	Show 59 linked vegetation classes
Phoniscus papuensis	Golden-tipped Bat	Phoniscus papuensis conservation project	Animal > Bats	Vulnerab le	Known	Show 45 linked vegetation classes
Lathamus discolor	Swift Parrot	Lathamus discolor	Animal > Birds	Endange red	Known	Show 77 linked



		conservation project				vegetation classes
Limosa limosa	Black-tailed Godwit	Limosa limosa conservation project	Animal > Birds	Vulnerab le	Known	Show 15 linked vegetation classes
Litoria aurea	Green and Golden Bell Frog	Litoria aurea conservation project	Animal > Amphibia ns	Endange red	Known	Show 41 linked vegetation classes
Lophoictinia isura	Square-tailed Kite	Lophoictinia isura conservation project	Animal > Birds	Vulnerab le	Known	Show 87 linked vegetation classes
Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Melanodryas cucullata cucullata conservation project	Animal > Birds	Vulnerab le	Known	Show 82 linked vegetation classes
Miniopterus orianae oceanensis	Large Bent-winged Bat	Miniopterus orianae oceanensis conservation project	Animal > Bats	Vulnerab le	Known	Show 76 linked vegetation classes
Mixophyes balbus	Stuttering Frog	Mixophyes balbus conservation project	Animal > Amphibia ns	Endange red	Predicted	Show 46 linked vegetation classes
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Micronomus norfolkensis conservation project	Animal > Bats	Vulnerab le	Known	Show 45 linked vegetation classes
Myotis macropus	Southern Myotis	Myotis macropus conservation project	Animal > Bats	Vulnerab le	Known	Show 58 linked vegetation classes
Neophema chrysogaster	Orange-bellied Parrot	Neophema chrysogaster conservation project	Animal > Birds	Critically Endange red	Predicted	Show 19 linked vegetation classes



Ninox connivens	Barking Owl	Ninox connivens conservation project	Animal > Birds	Vulnerab le	Known	Show 71 linked vegetation classes
Ninox strenua	Powerful Owl	Ninox strenua conservation project	Animal > Birds	Vulnerab le	Known	Show 53 linked vegetation classes
Pachycephala olivacea	Olive Whistler	Pachycephala olivacea conservation project	Animal > Birds	Vulnerab le	Known	Show 50 linked vegetation classes
Pandion cristatus	Eastern Osprey	Pandion cristatus conservation project	Animal > Birds	Vulnerab le	Known	Show 48 linked vegetation classes
Persicaria elatior	Tall Knotweed	Persicaria elatior conservation project	Plant > Herbs and Forbs	Vulnerab le	Known	Show 10 linked vegetation classes
Petaurus australis	Yellow-bellied Glider	Petaurus australis conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 38 linked vegetation classes
Petaurus norfolcensis	Squirrel Glider	Petaurus norfolcensis conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 61 linked vegetation classes
Petroica rodinogaster	Pink Robin	Petroica rodinogaster conservation project	Animal > Birds	Vulnerab le	Known	Show 19 linked vegetation classes
Pezoporus wallicus wallicus	Eastern Ground Parrot	Pezoporus wallicus wallicus conservation project	Animal > Birds	Vulnerab le	Known	Show 13 linked vegetation classes
Phascogale tapoatafa	Brush-tailed Phascogale	Phascogale tapoatafa conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 57 linked vegetation classes



Phascolarctos cinereus	Koala	Phascolarctos cinereus conservation project	Animal > Marsupial s	Endange red	Known	Show 87 linked vegetation classes
Potorous tridactylus	Long-nosed Potoroo	Potorous tridactylus conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 44 linked vegetation classes
Pteropus poliocephalus	Grey-headed Flying- fox	Pteropus poliocephalus conservation project	Animal > Bats	Vulnerab le	Known	Show 71 linked vegetation classes
Ptilinopus superbus	Superb Fruit-Dove	Ptilinopus superbus conservation project	Animal > Birds	Vulnerab le	Known	Show 24 linked vegetation classes
Chthonicola sagittata	Speckled Warbler	Chthonicola sagittata conservation project	Animal > Birds	Vulnerab le	Known	Show 57 linked vegetation classes
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Saccolaimus flaviventris conservation project	Animal > Bats	Vulnerab le	Known	Show 81 linked vegetation classes
Scoteanax rueppellii	Greater Broad- nosed Bat	Scoteanax rueppellii conservation project	Animal > Bats	Vulnerab le	Known	Show 51 linked vegetation classes
Senecio spathulatus	Coast Groundsel	Senecio spathulatus conservation project	Plant > Herbs and Forbs	Endange red	Predicted	Show 14 linked vegetation classes
Sminthopsis leucopus	White-footed Dunnart	Sminthopsis leucopus conservation project	Animal > Marsupial s	Vulnerab le	Known	Show 20 linked vegetation classes
Stagonopleura guttata	Diamond Firetail	Stagonopleura guttata conservation project	Animal > Birds	Vulnerab le	Known	Show 62 linked vegetation classes



Sternula albifrons	Little Tern	Sternula albifrons conservation project	Animal > Birds	Endange red	Known	Show 9 linked vegetation classes
Onychoprion fuscata	Sooty Tern	Onychoprion fuscata conservation project	Animal > Birds	Vulnerab le	Known	Show 3 linked vegetation classes
Stictonetta naevosa	Freckled Duck	Stictonetta naevosa conservation project	Animal > Birds	Vulnerab le	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 South East Corner Bioregions conservation project	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Show 4 linked vegetation classes
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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Show 5 linked vegetation classes
Thesium australe	Austral Toadflax	Thesium australe conservation project	Plant > Herbs and Forbs	Vulnerab le	Known	Show 26 linked vegetation classes
Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Thinornis cucullatus cucullatus conservation project	Animal > Birds	Critically Endange red	Known	Show 15 linked vegetation classes



Tyto novaehollandi ae	Masked Owl	Tyto novaehollandi ae conservation project	Animal > Birds	Vulnerab le	Known	Show 75 linked vegetation classes
Tyto tenebricosa	Sooty Owl	Tyto tenebricosa conservation project	Animal > Birds	Vulnerab le	Known	Show 39 linked vegetation classes
Wilsonia backhousei	Narrow-leafed Wilsonia	Wilsonia backhousei conservation project	Plant > Shrubs	Vulnerab le	Known	Show 5 linked vegetation classes
Wilsonia rotundifolia	Round-leafed Wilsonia	Wilsonia rotundifolia conservation project	Plant > Shrubs	Endange red	Known	Show 7 linked vegetation classes
Anthochaera phrygia	Regent Honeyeater	Anthochaera phrygia conservation project	Animal > Birds	Critically Endange red	Known	Show 43 linked vegetation classes
Xenus cinereus	Terek Sandpiper	Xenus cinereus conservation project	Animal > Birds	Vulnerab le	Known	Show 16 linked vegetation classes
Zieria tuberculata	Warty Zieria	Zieria tuberculata conservation project	Plant > Shrubs	Vulnerab le	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	Communi ty > Threatene d Ecologica 1 Communi ties	Endange red Ecologic al Commun ity	Known	Saltmarsh es
Littoral Rainforest in the New South Wales North	Littoral Rainforest in the New South Wales North Coast, Sydney Basin and	Littoral Rainforest in the New South Wales North	Communi ty > Threatene d	Endange red Ecologic al	Known	Show 4 linked vegetation classes



Coast, Sydney Basin and South East Corner Bioregions	South East Corner Bioregions	Coast, Sydney Basin and South East Corner Bioregions conservation project	Ecologica l Communi ties	Commun		
Puffinus assimilis	Little Shearwater	Puffinus assimilis conservation project	Animal > Birds	Vulnerab le	Known	Show 2 linked vegetation classes
Ardenna carneipes	Flesh-footed Shearwater	Ardenna carneipes conservation project	Animal > Birds	Vulnerab le	Known	Show 2 linked vegetation classes
Chelonia mydas	Green Turtle	Chelonia mydas conservation project	Animal > Reptiles	Vulnerab le	Known	Show 5 linked vegetation classes
Arctocephalus forsteri	New Zealand Fur- seal	Arctocephalus forsteri conservation project	Animal > Marine Mammals	Vulnerab le	Known	Show 2 linked vegetation classes
Arctocephalus pusillus doriferus	Australian Fur-seal	Arctocephalus pusillus doriferus conservation project	Animal > Marine Mammals	Vulnerab le	Known	Show 2 linked vegetation classes
Diomedea exulans	Wandering Albatross	Diomedea exulans conservation project	Animal > Birds	Endange red	Known	Marine environme nts
Diomedea gibsoni	Gibson's Albatross	Diomedea gibsoni conservation project	Animal > Birds	Vulnerab le	Known	Marine environme nts
Eubalaena australis	Southern Right Whale	Eubalaena australis conservation project	Animal > Marine Mammals	Endange red	Known	Marine environme nts



Macronectes giganteus	Southern Giant Petrel	Macronectes giganteus conservation project	Animal > Birds	Endange red	Known	Marine environme nts
Macronectes halli	Northern Giant- Petrel	Macronectes halli conservation project	Animal > Birds	Vulnerab le	Known	Marine environme nts
Physeter macrocephalu s	Sperm Whale	Physeter macrocephalu s conservation project	Animal > Marine Mammals	Vulnerab le	Known	Marine environme nts
Pterodroma leucoptera leucoptera	Gould's Petrel	Pterodroma leucoptera leucoptera conservation project	Animal > Birds	Vulnerab le	Known	Show 8 linked vegetation classes
Thalassarche cauta	Shy Albatross	Thalassarche cauta conservation project	Animal > Birds	Endange red	Known	Marine environme nts
Thalassarche melanophris	Black-browed Albatross	Thalassarche melanophris conservation project	Animal > Birds	Vulnerab le	Known	Marine environme nts
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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Coastal Freshwate r Lagoons
Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East	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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Show 4 linked vegetation classes



Corner Bioregions		Bioregions conservation project				
Callocephalon fimbriatum	Gang-gang Cockatoo	Callocephalon fimbriatum conservation project	Animal > Birds	Vulnerab le	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/Cha nge	Key Threaten ing 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 Threaten ing Process	Predicted	
Competition from feral honey bees, Apis mellifera L.	Competition from feral honeybees	Competition from feral honey bees, Apis mellifera L. conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Introduction of the Large Earth Bumblebee Bombus terrestris (L.)	Introduction of the large earth bumblebee (Bombus terrestris)	Introduction of the Large Earth Bumblebee Bombus terrestris (L.) conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Bushrock removal	Bushrock Removal	Bushrock removal conservation project	Threat > Habitat Loss/Cha nge	Key Threaten ing 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/Cha nge	Key Threaten ing Process	Predicted	
Predation by the Feral Cat Felis catus (Linnaeus, 1758)	Predation by feral cats	Predation by the Feral Cat Felis catus (Linnaeus, 1758) conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Infection of frogs by amphibian chytrid causing the disease chytridiomyco sis	Infection of frogs by amphibian chytrid causing the disease chytridiomycosis	Infection of frogs by amphibian chytrid causing the disease chytridiomyco sis conservation project	Threat > Disease	Key Threaten ing Process	Predicted	
Invasion of the Yellow Crazy Ant, Anoplolepis gracilipes (Fr. Smith) into NSW	Invasion of the yellow crazy ant (Anoplolepis gracilipes) into NSW	Invasion of the Yellow Crazy Ant, Anoplolepis gracilipes (Fr. Smith) into NSW conservation project	Threat > Pest Animal	Key Threaten ing 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/Cha nge	Key Threaten ing 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 Threaten ing Process	Predicted	
High frequency fire resulting in	Ecological consequences	High frequency fire resulting in	Threat > Habitat	Key Threaten	Predicted	



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



Sus scrofa Linnaeus 1758		Linnaeus 1758 conservation project				
Importation of Red Imported Fire Ants Solenopsis invicta Buren 1972	Importation of red imported fire ants into NSW	Importation of Red Imported Fire Ants Solenopsis invicta Buren 1972 conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Clearing of native vegetation	Clearing of native vegetation	Clearing of native vegetation conservation project	Threat > Habitat Loss/Cha nge	Key Threaten ing Process	Predicted	
Competition and grazing by the feral European Rabbit, Oryctolagus cuniculus (L.)	Competition and grazing by the feral European rabbit	Competition and grazing by the feral European Rabbit, Oryctolagus cuniculus (L.) conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Anthropogeni c Climate Change	Human- caused Climate Change	Anthropogeni c Climate Change conservation project	Threat > Habitat Loss/Cha nge	Key Threaten ing Process	Predicted	
Infection of native plants by Phytophthora cinnamomi	Infection of native plants by Phytophthora cinnamomi	Infection of native plants by Phytophthora cinnamomi conservation project	Threat > Disease	Key Threaten ing Process	Predicted	
Invasion of native plant communities by Chrysanthem oides monilifera	Invasion of native plant communities by bitou bush & boneseed	Invasion of native plant communities by Chrysanthem oides monilifera conservation project	Threat > Weed	Key Threaten ing Process	Predicted	



Pomaderris bodalla	Bodalla Pomaderris	Pomaderris bodalla conservation project	Plant > Shrubs	Vulnerab le	Known	Show 8 linked 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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Maritime Grassland s
Invasion and establishment of the Cane Toad (Bufo marinus)	Invasion and establishment of the Cane Toad	Invasion and establishment of the Cane Toad (Bufo marinus) conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Invasion, establishment and spread of Lantana (Lantana camara L. sens. Lat)	Invasion, establishment and spread of Lantana (<i>Lantana</i> camara L. sens. lat)	Invasion, establishment and spread of Lantana (Lantana camara L. sens. Lat) conservation project	Threat > Weed	Key Threaten ing 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 Threaten ing Process	Predicted	



Invasion and establishment of Scotch Broom (Cytisus scoparius)	Invasion and establishment of Scotch Broom (Cytisus scoparius)	Invasion and establishment of Scotch Broom (Cytisus scoparius) conservation project	Threat > Weed	Key Threaten ing Process	Predicted	
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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	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/Cha nge	Key Threaten ing 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 Threaten ing Process	Predicted	
Glossopsitta pusilla	Little Lorikeet	Glossopsitta pusilla conservation project	Animal > Birds	Vulnerab le	Known	Show 63 linked vegetation classes
Predation and hybridisation by Feral Dogs, Canis lupus familiaris	Predation and hybridisation by Feral Dogs, Canis lupus familiaris	Predation and hybridisation by Feral Dogs, Canis lupus familiaris conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Eucalyptus aggregata	Black Gum	Eucalyptus aggregata conservation project	Plant > Trees	Vulnerab le	Predicted	Show 12 linked vegetation classes



Petroica phoenicea	Flame Robin	Petroica phoenicea conservation project	Animal > Birds	Vulnerab le	Known	Show 62 linked vegetation classes
Hieraaetus morphnoides	Little Eagle	Hieraaetus morphnoides conservation project	Animal > Birds	Vulnerab le	Known	Show 94 linked vegetation classes
Petroica boodang	Scarlet Robin	Petroica boodang conservation project	Animal > Birds	Vulnerab le	Known	Show 75 linked vegetation classes
Circus assimilis	Spotted Harrier	Circus assimilis conservation project	Animal > Birds	Vulnerab le	Known	Show 75 linked vegetation classes
Daphoenositta chrysoptera	Varied Sittella	Daphoenositta chrysoptera conservation project	Animal > Birds	Vulnerab le	Known	Show 88 linked vegetation classes
Epthianura albifrons	White-fronted Chat	Epthianura albifrons conservation project	Animal > Birds	Vulnerab le	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	Communi ty > Threatene d Ecologica l Communi ties	Endange red Ecologic al Commun ity	Known	Coastal Valley Grassy Woodland s
Invasion of native plant communities by African Olive Olea europaea subsp. cuspidata (Wall. ex G. Don) Cif.	Invasion of native plant communities by African Olive Olea europaea subsp. cuspidata (Wall. ex G. Don) Cif.	Invasion of native plant communities by African Olive Olea europaea subsp. cuspidata (Wall. ex G. Don) Cif. conservation project	Threat > Weed	Key Threaten ing Process	Predicted	



Calidris ferruginea	Curlew Sandpiper	Calidris ferruginea conservation project	Animal > Birds	Endange red	Known	Show 23 linked vegetation classes
Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae	Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae	Introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae conservation project	Threat > Disease	Key Threaten ing Process	Predicted	
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 Threaten ing Process	Predicted	
Falco subniger	Black Falcon	Falco subniger conservation project	Animal > Birds	Vulnerab le	Known	Show 53 linked vegetation classes
Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners, Manorina melanocephal a (Latham, 1802)	Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners Manorina melanocephala.	Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners, Manorina melanocephal a (Latham, 1802) conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Artamus cyanopterus cyanopterus conservation project	Animal > Birds	Vulnerab le	Known	Show 103 linked vegetation classes



Petauroides volans	Southern Greater Glider	Petauroides volans conservation project	Animal > Marsupial s	Endange red	Known	Show 56 linked vegetation classes
Haliaeetus leucogaster	White-bellied Sea- Eagle	Haliaeetus leucogaster conservation project	Animal > Birds	Vulnerab le	Known	Show 92 linked vegetation classes
Habitat degradation and loss by Feral Horses (brumbies, wild horses), Equus caballus Linnaeus 1758	Habitat degradation and loss by Feral Horses (brumbies, wild horses), Equus caballus Linnaeus 1758	Habitat degradation and loss by Feral Horses (brumbies, wild horses), Equus caballus Linnaeus 1758 conservation project	Threat > Pest Animal	Key Threaten ing Process	Predicted	
Rhodamnia rubescens	Scrub Turpentine	Rhodamnia rubescens conservation project	Plant > Shrubs	Critically Endange red	Known	Show 30 linked vegetation classes
Litoria watsoni	Watson's Tree Frog or Southern Heath Frog	Litoria watsoni conservation project	Animal > Amphibia ns	Endange red	Known	Show 9 linked vegetation classes

