



Review of Environmental Factors

North Head Drive Slip Batter Stabilisation – Moruya

April 2025

Version 1.0

Document Tracking

Version No.	Document Author	Reviewed By	Approved By	Last Saved on
1.0	PM	GA	JH	24/04/2025
1.1	PM sensitive information redacted			28/04/2025

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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	<ul style="list-style-type: none"> • If the scope of the works changes at any time, review this REF to determine any new measures to take. • An environmental management plan is prepared and implemented prior to the commencement of works. • No new access tracks to be created for the works. • 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	<ul style="list-style-type: none"> • A site-specific erosion and sediment control plan will be implemented on site before earthworks commence. • 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. • Either a linear silt stop fencing or an earth mound is to be installed down slope of all affected areas and stockpiles. Sediment controls will be installed before any excavation begins. • All erosion and silt control devices will be visually inspected weekly to ensure effectiveness as well as after each rainfall event.

	<ul style="list-style-type: none"> • The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with Landcom's "Blue Book (4th Edition) on sediment 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.
Fisheries and Marine Parks Permits	<ul style="list-style-type: none"> • INSERT CONDITIONS HERE • Instream Works CAN NOT proceed until the permits have been received.
Waterways and water quality	<ul style="list-style-type: none"> • 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.
Air quality	<ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> • 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!!! Follow Unexpected Finds Protocol Appendix C	<p><u>Awareness:</u></p> <ul style="list-style-type: none"> • All personnel working on site will receive training to ensure awareness of location of existing Aboriginal objects within the Study Area and immediate surrounds, and relevant statutory responsibilities. <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> • There are no known AHIM sites recorded in close proximity to the project site. <p><u>Unexpected Finds (Appendix C):</u></p> <ul style="list-style-type: none"> • 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 STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! Follow Unexpected Finds Protocol Appendix C	<p><u>Awareness:</u></p> <ul style="list-style-type: none"> • All personnel working on site will receive training to ensure awareness of location of existing heritage items within the Study Area and immediate surrounds, and relevant statutory responsibilities. <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> • There are no known Heritage items within the vicinity of the project works. <p><u>Unexpected Finds (Appendix C):</u></p> <ul style="list-style-type: none"> • If heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Project Manager contacted immediately, and the Standard Management Procedure - Unexpected Heritage Items (RMS, 2015) will be followed.
Road Reserve - Retained Vegetation	<ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> • If Fencing involves ground disturbance, this should occur well away from the tree root protection zone (RPZ). • Non-invasive potholing is recommended within the Tree Protection Zone. Where structural woody roots with a diameter of 20mm or greater are to be pruned outside the area of the Tree Protection Zone, they are to be excavated manually first by using hand tools to determine their location. A waterknife or airknife can be used as a mechanised alternative to locate such structural woody roots. Once located those roots to be severed are to be cut cleanly with a final cut to undamaged woody tissue and this will prevent tearing damage to the roots from excavation equipment which can extend beyond the point of excavation back towards the tree. • If primary roots are located an arborist must assess the tree for viability. • If there are any concerns or the scope of works changes near the vicinity of the tree call the Environmental Officer.
Vegetation Removal	<ul style="list-style-type: none"> • There will be approximately 2,850m² of native vegetation effected for batter clearing and reshaping. Of this 2,100m² is considered suitable habitat for fauna species. The vegetation to be removed includes established canopy, scattered understorey, saplings and ground vegetation. • Of the trees to be removed, three are HBTs that contained one large hollow, 1 small hollow and fissures suitable for microbats, and three potential small hollows. Fallen timber occurred within and surrounding the work footprint that could provide ground habitat for fauna, though threatened species likely to use such habitats have been ruled out based on vegetation type, lack of cover or connectivity. Therefore, the habitats within the works site are considered most prime for hollow-dependent microbats, larger parrots and arboreal mammals. • Prior to removal trees are to be marked with an x to clearly identify which ones to fell. • Trees to be removed outside of the Biobanking site must be felled to fall away from trees and other vegetation within the Biobanking site. • Trees should be felled with chainsaws rather than pushed over with machines to reduce impacts to soil and the surrounding vegetation. • Trees show no evidence of being culturally modified. • Trees have been inspected by an external ecologist • A visual inspection indicated they were not providing habitat for larger fauna. • The extent of clearing/modification over the work site to be clearly delineated during clearing and “no go” flagging should be used as a barrier to protect vegetation outside the work footprint.

	<ul style="list-style-type: none"> Any tree that can be retained should be marked with green flagging tape or no-go zone bunting to protect from impacts during clearing/construction. Flag the HBT to ensure it is cleared using a two-stage clearing methodology. Two-stage clearing includes: <ul style="list-style-type: none"> a) HBT removal the day after all underscrubbing of the area/other tree removal has occurred. b) Ecologist or fauna spotter/catcher present on the site for either limb removal or tree felling. c) Any fauna found in hollow will be extracted if possible or, if unable to be safely removed, left within the hollow which should be placed well outside of the works area to vacate overnight. If fauna is left, hollows will be inspected the morning after felling. d) Any extracted fauna is to be checked for injuries/shock and relocated in suitable artificial housing outside of works area when considered appropriate for the species by <u>ecologist or wildlife carer</u>. Any dependent young need to be taken into care by licenced wildlife carer. Fauna that can be released are to be placed minimum of four (4) metres above ground in artificial housing in suitable sized trees. e) If fauna are microbats or reptiles, these will need to be taken into care for overwintering to avoid loss of body fat if clearing is later than 1st May. The trees can be removed under the ROADS ACT 1993 - SECT 88 - Tree felling 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 purpose of carrying out road work or removing a traffic hazard.
<p>Biodiversity</p> <p>Flora and Fauna Assessment</p>	<p><u>General:</u></p> <ul style="list-style-type: none"> Identify measures to manage vegetation within the road reserve; Detail restoration, regeneration and rehabilitation of areas of native vegetation that will be removed to accommodate the proposed works. Detail appropriate management for the potential habitat of threatened flora and fauna species that will be indirectly impacted by the proposal. This may include fencing and signage. Identify weed management strategies. 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.

Recommendations from Flora and Fauna Report

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

1. A CEMP will be prepared prior to construction works commencing. The CEMP should include these mitigation measures/recommendations.
2. Removal of HBTs should only be between mid- March to 1st May to avoid the breeding cycle for birds (July-February and Oct-Jan for Gang-gang) and microbats (September- early March) when brooding or reliant young may be present, and the torpor period for microbats (May- late August).
3. The extent of clearing/modification over the work footprint to be clearly delineated during clearing and “no go” flagging should be used as a barrier to protect vegetation outside the work footprint. Delineation of potential stockpile sites at Quarry Wharf and the small laydown area adjacent to the work footprint should also be delineated.
4. Install silt fencing in all areas where erosion/sedimentation may impact on vegetation or waterways. Erosion/Sedimentation barriers should also be non-invasive (coir logs or natural timber rather than straw bales or plastic fencing where possible).
5. Any tree that can be retained should be marked with green flagging tape or no-go zone bunting to protect from impacts during clearing/construction. Root zone protection needs to be considered for HBTs close to work edge.
6. Flag HBTs with orange tape to ensure those requiring removal are cleared using a two-stage clearing methodology. Two-stage clearing includes:
 - HBT removal c.24hrs after all underscrubbing and other tree removal has occurred. This allows any fauna resident in the hollows to vacate the site prior to felling. Alternative to this procedure, tree climber to assess hollow prior to felling with an inspection camera.
 - Ecologist or fauna spotter/catcher, vaccinated for Australian Bat Lyssavirus, present on the site for tree felling.
 - HBTs may be taken down limb by limb or directional felled. The steep slope will inhibit removal. HBTs should be “knocked” with

	<p>bucket of excavator prior to removal. Methodology- knock 3 times, wait 30-60 seconds, knock 3 times, wait 30-60 seconds, fell tree. Once felled, trees should be inspected with a ESC- North Head Drive Moruya, NSW 2537 –Batter stabilisation_ Flora and fauna Assessment & Test of Significance – February 2025 22 camera if possible before removal from site. Any fauna found in hollow will be extracted if possible or, if unable to be safely removed, left within the hollow which should be placed well outside of the works area to vacate overnight. If fauna is left, hollows will be inspected the morning after felling.</p> <ul style="list-style-type: none"> ○ Any extracted fauna is to be checked for injuries/shock and relocated in suitable artificial housing outside of works area when considered appropriate for the species by ecologist or wildlife carer. Any dependent young need to be taken into care by licenced wildlife carer. Any fauna taken into care will be required to be returned to the area in a suitable alternative habitat at a time deemed suitable by the wildlife carer. This may require an arborist to install habitat. The cost of care & replacement habitat is at the cost of ESC and not the wildlife carer. If fauna are microbats or reptiles, these will need to be taken into care for overwintering to avoid loss of body fat if clearing is later than 1st May. <ol style="list-style-type: none"> 7. All machinery entering the works site should be high-pressure air or water hosed and sprayed with PHYTOCLEAN® prior to transportation to limit spread of Chytrid fungus (<i>Batrachochytrium dendrobatidis</i>), <i>Phytophthora cinnamomic</i>, and weed species to the subject site. 8. Parking of vehicles should only be within non-native dominated vegetation 9. Should unexpected, threatened fauna be found on the site, all works must cease near the find site and ESC environmental officer/ecologist contacted immediately for advice. A Fauna Rescue and Release Protocol should be implemented for all other fauna, refer to the Flora and Fauna Report in the following link - https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf . 10. Hollows to be lost should be replaced in surrounding vegetation with either artificial boxes or natural hollows repurposed at a ratio of 2:1 for defined hollows and 1;1 for potential. This is suggested as follows:
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	<ul style="list-style-type: none"> ○ 4 small- 4x microbat boxes ○ 2 large- 1x Greater Glider, 1x Glossy Black-cockatoo ○ 3 small- 1x Striated Pardalote, 1x Brush-tailed Phascogale, 1x Antechinus ○ An additional artificial Gang-gang tube is recommended to test the suitability of the site for the species. ○ The project manager will work with the ecologist to determine the exact amount of nesting boxes and their location <p>11. Any soil stabilization/landscaping should be done with local native species or sterile/innocuous species, e.g., Sterile Oats (<i>Avena sterilis</i>).</p>
Traffic and transport	<ul style="list-style-type: none"> • The road will be closed for the duration of works, access to George Bass Drive will be via a detour along Broulee Rd. • Where possible, current traffic movements and property access is 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 vibration	<p><u>Notification:</u></p> <ul style="list-style-type: none"> • 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. <p><u>Standard Hours of Operation:</u></p> <ul style="list-style-type: none"> • Works to be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays may not be permitted and, if permitted, works are to minimise noise impacts. <p><u>Out of hours:</u></p>

	<ul style="list-style-type: none"> Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers.
Socio-economic	<ul style="list-style-type: none"> Contain all work within the boundaries designated on the site plan. Restore work sites to as close to their original condition as possible. Display public information signs until site restoration is complete. Carry out community and stakeholder consultation before works start. Notify the Works Supervisor and Coordinator 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.
Landscape character and visual amenity	<ul style="list-style-type: none"> Contain all work within the boundaries designated on the site plan. Restore work sites to as close to their original condition as possible. Minimise spread of stockpiles, waste, and parking
Waste	<ul style="list-style-type: none"> A Waste Management Plan will be prepared as part of the CEMP. All surplus material, off cuts, and other debris resulting from the work shall be removed from site and disposed of by a licensed contractor to a licensed waste management facility. Waste material, other than vegetation and tree mulch, is not to be left on site once the works have been completed. Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.

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	North Head Drive Slip Batter Stabilisation
Proponent (council) name	Eurobodalla Shire Council
Project manager	Philip Oste
Position	Divisional Manager, Major Projects
Contact details	

Project description and background

Background and scope

Eurobodalla Shire Council proposes the reconstruction and stabilisation of a slipping cut batter along North Head Drive, Moruya. The existing batter is unstable, with several sections already having slipped, posing a risk to road users from potential rockfalls. The proposed works aim to stabilise the slope and significantly reduce the risk of falling debris.

The project will disturb an area of approximately 5,400m² and includes reconstructing the batter with a new slope angle of 1 in 1.25 (approximately 39 degrees). A 3.0m wide bench will be constructed at the top of the batter, along with the installation of new SO-style kerb and guttering at the base, and a widened shoulder along the road. The total length of stabilisation and earthworks spans approximately 160 metres.

To manage stormwater effectively, four new outlets will be installed to capture runoff at low points along the kerb and safely discharge it. These drainage features, along with the kerb and guttering, will be incorporated within the new shoulder of North Head Drive. Once completed, the reconstructed batter will provide increased resilience and safety for the community.

The proposed scope of works are;

- New shoulder on northern side of road
- New SO profile kerb at toe of batter
- Stabilise batter (cut batter back to 1 in 1.25 slope)
- Catch drain bench at top of fist batter slope (3m wide)

- Second batter slope to match into existing surface/formalise surface within councils boundary (also a 1 in 1.25 slope)
- Either a rock fall fence at toe of batter, or rock netting pinned to batter surface (meeting with a Geotech 11th April to discuss and Phil will make the decision)
- Shotcrete catch drain and top of first batter slope, includes reinforcements as mesh and pins
- 3 new stormwater outlets, and upgrade to an existing, all discharge into Moruya river (all 450mm concrete pipes)

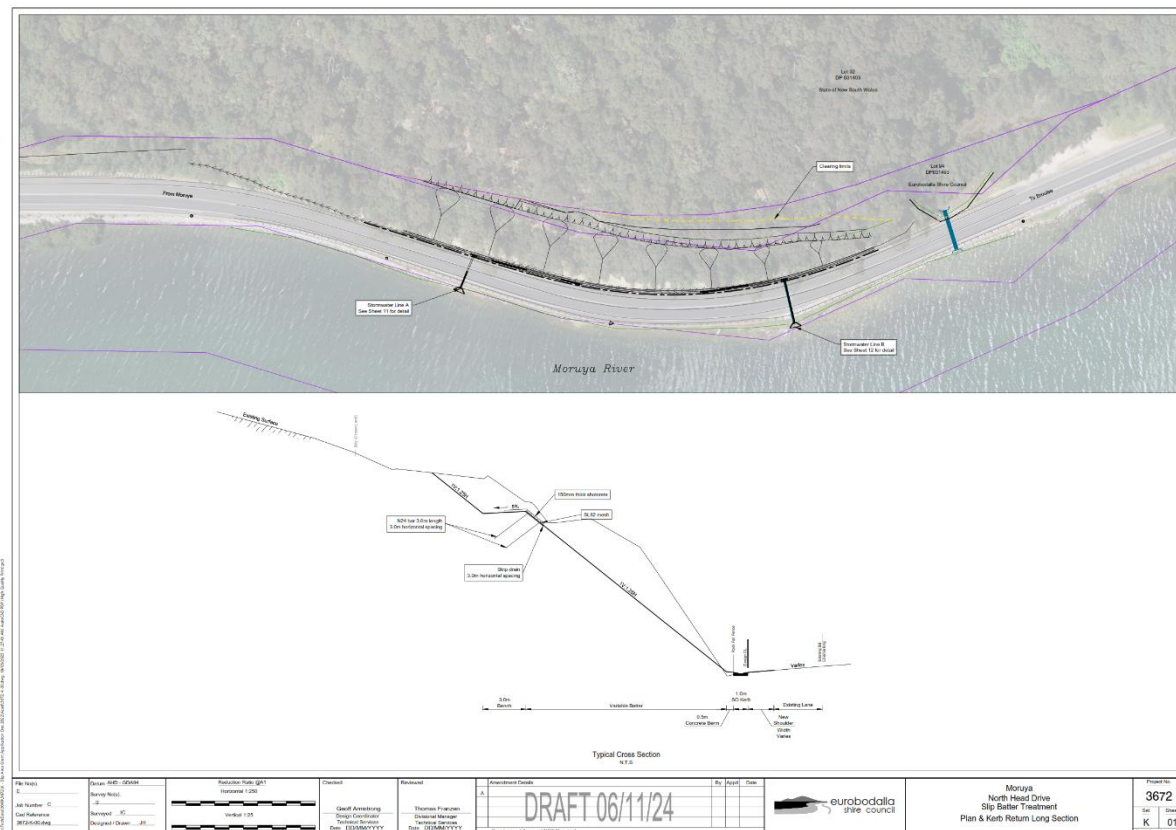


Figure 1. Design plan overview

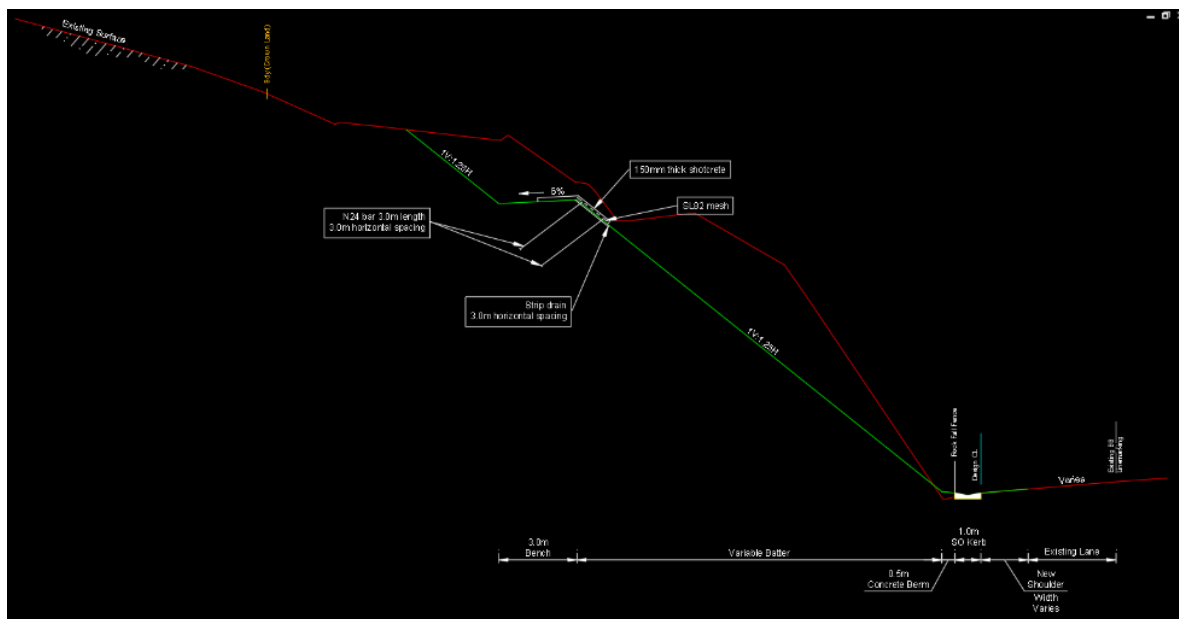


Figure 2. Typical Cross Section of New Batter Slope

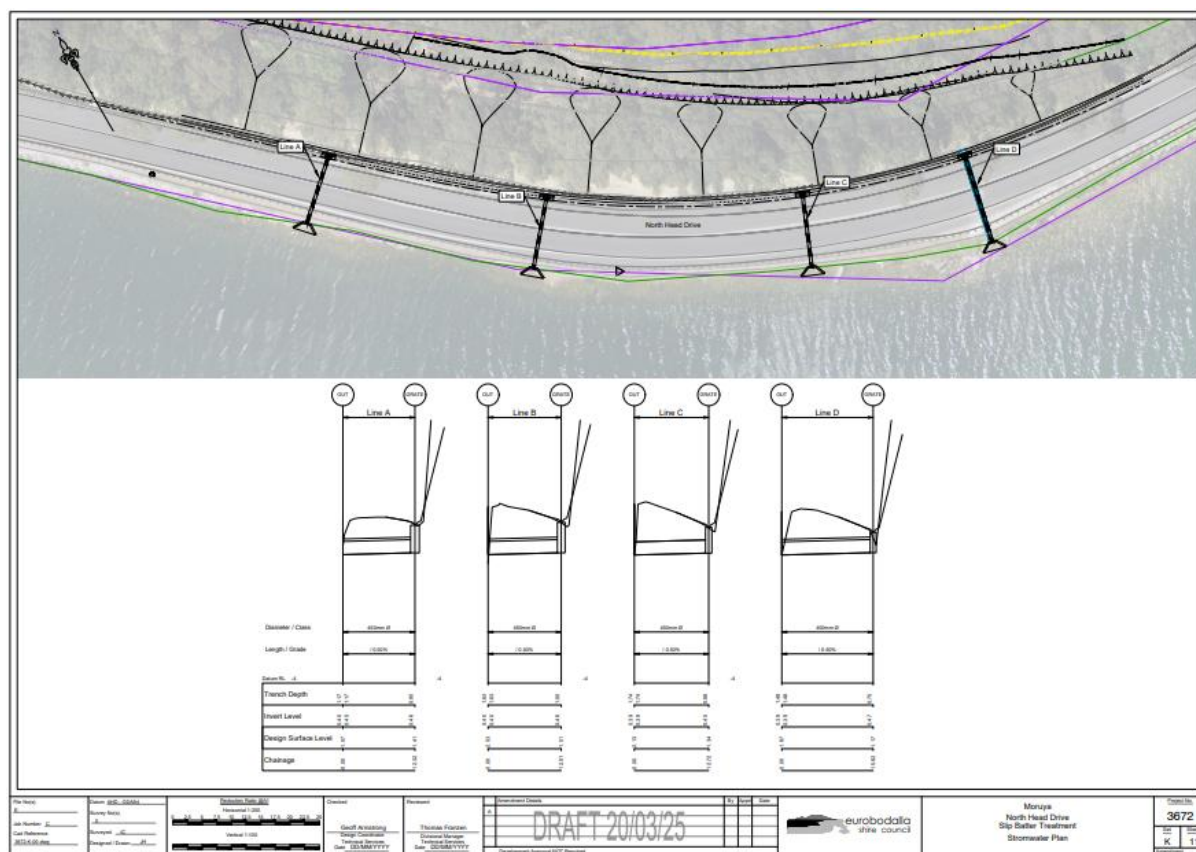


Figure 3. Plan showing the proposed stormwater alignments and positions.

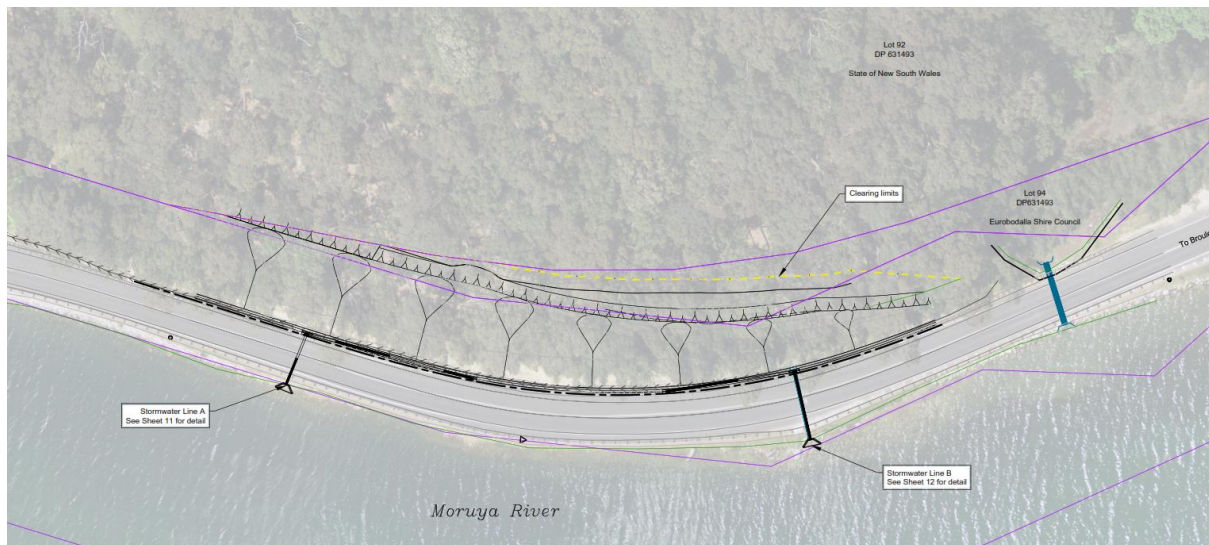


Figure 4. Plan showing vegetation clearing limits in (yellow line)

Machinery and equipment

Machinery and equipment used for the works will include.

- Trucks
- Trailer mounter boom (cherry picker) or mobile crane
- Excavator
- Water Cart
- Roller
- Bobcat
- Scraper
- Chipper
- Hand Tools

Access and ancillary works

The project manager will determine the most appropriate laydown and ancillary sites closer to the project start date. Potential stockpile sites such as Quarry Wharf and the small laydown area adjacent to the work footprint should be delineated and parking of vehicles should only be within non-native dominated vegetation

All machinery entering the works site should be high-pressure air or water hosed and sprayed with PHYTOCLEAN® prior to transportation to limit spread of Chytrid fungus (*Batrachochytrium dendrobatidis*), *Phytophthora cinnamomic*, and weed species to the subject site.



Figure 4. Potential laydowns in relation to works footprint.

Figure 5. Potential ancillary and lay down areas identified in the Flora and Fauna Assessment Report

(https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf)

Duration and working hours

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

Table 3. Project timeframes

Start date	April 2025
Work duration	6 months
Work hours	<p>Working hours will be Monday-Friday 7am to 6pm</p> <p>Saturday 8am to 1pm</p> <p>Sunday & public holidays – No works other than inspections</p> <p>Any work outside these hours would require appropriate advice to residents, approval of the Divisional Manager Works and notification of the NSW EPA.</p>

Project location and context

Location of the proposed activity

The section of slip batter identified for repair is situated along North Head Drive, around 500 metres east of the Moruya Granite Quarry (Lot 94 DP631493), near coordinates -35.905978, 150.120107. Positioned alongside the Moruya River, the site is located approximately 4 kilometres from the Moruya CBD, within a key transport corridor.

Site context

The site is located within a semi-rural setting on the outskirts of Moruya, transitioning between urban fringe and bushland. It is characterised by a mix of native vegetation and cleared areas, with dense bushland dominating the slopes adjacent to North Head Drive. The topography is moderately steep, particularly where the existing batter has slipped, descending towards the Moruya River which closely parallels the road.

The soil profile in the area is typical of granitic terrain, with sandy loams derived from weathered granite, which are prone to erosion and instability, especially on steeper slopes. The site lies within the Moruya River catchment and contributes to local surface water flows. Existing drainage is limited, and during periods of heavy rainfall, water runoff from the slopes above the road can accumulate, increasing the risk of batter failure.

The elevation at the site is relatively low, with the road sitting just above river level. This proximity to the river, combined with the slope and soil conditions, highlights the importance of effective stormwater management and slope stabilisation to protect road infrastructure and maintain safe access.

Land use and ownership

The area along North Head Drive, approximately 500 metres east of the Moruya Granite Quarry, is predominantly semi-rural with a mix of residential properties and natural bushland. The road closely follows the Moruya River, with the surrounding landscape featuring native vegetation and undulating terrain. The proximity to the river and the presence of bushland contribute to the area's scenic and ecological value.

According to the Eurobodalla Local Environmental Plan 2012, the land is zoned as RU1 Primary production, and the road reserve of North Head Drive is zoned as C2 Environmental Conservation. The project footprint is a mixture of ESC operational land and Crown Land operated by ESC. See figure 6 below, the green highlighted area is Lot 82 of DP1211388 and Lot 7001 of DP1215676 which are both Crown Land under Council Care & Control. Lot 82

has an easement for access over it. The area surrounded by brown dashes is Lot 94 of DP631493 and Council owned Operational Land. The area highlighted in yellow, adjacent to the road infrastructure footprint and project area on the northern side is Crown Land and the project will not infringe or disturb this area.



Figure 6. Map showing Land ownership. The yellow area is Crown Land not under ESC control and will not be affected by the project. The green area consists of Crown Land under ESC care and control and the area surrounded by the brown dashed line is Council owned operational land.

The proposed works along North Head Drive do not impinge upon any National Park or land owned by the NSW National Parks and Wildlife Service (NPWS). Therefore, access requirements and construction activities will not affect any National Park or NPWS-managed land.

Project justification and consideration of alternatives

The proposed batter stabilisation works along North Head Drive are necessary to address ongoing slope instability and reduce the risk of rockfall and road failure in a key transport corridor. The existing batter has experienced multiple slips, posing safety hazards to road users and threatening to compromise critical infrastructure. Several alternatives were considered, including minor surface treatments and the installation of retaining structures; however, these were deemed either insufficient for long-term stability or not cost-effective given the site's topography and soil conditions. The preferred solution—reconstructing the batter to a more stable gradient with improved drainage and safety features—offers the most durable and practical outcome. The “do nothing” option would leave the site vulnerable to further batter failure, increasing the risk of road closures, accidents, and emergency repair costs, while also impacting local access and connectivity for residents, emergency services, and recreational users.

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	
<i>Environmental Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)	<p>The EPBC Act protects matters of National Environmental Significance (NES), such as threatened species and ecological communities, migratory species (protected under international agreements), and National Heritage places (among others).</p> <p>Impacts to MNES and migratory species listed under the EPBC Act with the potential to occur in the project area have been assessed in this report, with none identified. See sections 7-9 and Appendix A (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/26390/0/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf).</p> <p>No threatened ecological community (TEC) occur within the work footprint. An area adjacent to the work footprint is considered a small patch of PCT 4027 Estuarine Swamp Oak-Mangrove Forest with the presence of both Swamp Oak (<i>Casuarina glauca</i>) and Grey Mangrove</p>

	<p>(<i>Avicennia marina</i>) (photo 4) This patch would meet the definition of the NSW TEC Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions and the EPBC listed TEC Coastal Swamp Oak Forest of NSW and Southeast Queensland. Whilst this area is not proposed for any impact, recommendations are at section 5 to avoid indirect impacts on the TEC (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/26390/0/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf).</p> <ul style="list-style-type: none"> • Gang-gang Cockatoo (<i>Callocephalon fimbriatum</i>) • Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>) • Greater Glider (<i>Petauroides volans</i>) <p>Based on the information provided for the proposal, on site survey and available mitigation measures, the proposal is considered unlikely to result in a significant impact on any listed entity so long as recommendations at section 5 are followed.</p>
STATE LEGISLATION	
<i>Biodiversity Conservation Act 2016</i> (BC Act)	<p>Part 7 of the BC Act provides the environmental assessment requirements for activities being assessed under Part 5 of the EP&A Act 1979. If a significant impact is likely, a Species Impact Statement is required. A biodiversity development assessment report may also be required if the proponent elects for this. Section 7.2(1)(a) and 7.3 describe the assessment requirements and thresholds for what is considered a significant impact.</p> <p>Thirteen threatened flora species were flagged as possibly occurring on or within 10 kms of the Lot (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/26390/0/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf). No listed threatened flora species were found in surveys of the subject area and assessment indicates that none are likely to occur due to the highly modified nature of the site.</p> <p>The land is mapped for Swift Parrot habitat, and suitable foraging canopy species occur over the works area. However, as the species occurs irregularly along the coast, does not breed in NSW and only a limited area of clearing will occur, no impact is expected on the Swift Parrot.</p>

	<p>Three HBTs will require removal for the works, and this is the major habitat feature determining entity assessment under Section 7.3 of the BC Act 2016 or the Commonwealth EPBC Act 1999. The following species are assessed</p> <p>Hollow-nesting Birds</p> <ul style="list-style-type: none"> • Gang-gang Cockatoo (<i>Callocephalon fimbriatum</i>) • Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>) <p>Hollow-dependent Microbats</p> <ul style="list-style-type: none"> • Eastern False Pipistrelle (<i>Falsistrellus tasmaniensis</i>) • Eastern Coastal Free-tailed Bat (<i>Micronomus norfolkensis</i>) • Southern Myotis (<i>Myotis macropus</i>) • Greater Broad-nosed Bat (<i>Scoteanax rueppellii</i>) <p>Hollow-dependent Arboreal Mammals</p> <ul style="list-style-type: none"> • Greater Glider (<i>Petauroides volans</i>) • Brush-tailed Phascogale (<i>Phascogale tapoatafa</i>) <p>The BC Act established that a person must not, by an act or omission, do anything that causes damage to any threatened species, the habitat of a threatened species, an endangered population, or an endangered ecological community. The BC Act specifies the following thresholds for entry into the Biodiversity Offsets Scheme (BOS) for part 4 developments:</p> <ul style="list-style-type: none"> • Whether the impacts occur on an area mapped on the Biodiversity Values map published by the Minister for the Environment; or • Whether the amount of native vegetation being cleared exceeds the threshold available to the relevant minimum lot size. The work footprint is included in Biodiversity Values Mapping for “Threatened species or communities with potential for serious and irreversible impacts” (Swift Parrot). <p>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. This assessment has found no</p>
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	<p>significant impact to threatened species or EECs from the proposal, so long as the recommendations at Section 5 are adhered to (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/26390/0/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf).</p>
Local Land Services Act 2013 (LLS Act)	<p>The objects of the LLS Act include ‘to ensure the proper management of natural resources in the social, economic and environmental interests of the State, consistently with the principles of ecologically sustainable development. The Act regulates the clearing of native vegetation, however section 60(O)(b)(ii) excludes the need for consent under the LLS Act where the clearing is an activity carried out by a determining authority within the meaning of Part 5 of the EP&A Act 1979.</p> <p>The land to be cleared is a mixture of ESC owned operational land and Crown Land under ESC control, therefore, the vegetation to be cleared will occur under section 60(O)(b)(ii) of the LLS Act as ESC is the determining Authority within the meaning of Part 5 of the EP&A Act 1979.</p>
Fisheries Management Act 1995 (FM Act)	<p>FM Act provides for the protection, conservation, and recovery of threatened species, populations and ecological communities of fish and marine vegetation and fish habitats, as well as promoting the development and sharing of fishery resources in NSW.</p> <p>A fisheries permit is required for the scope of works. Instream Works CAN NOT proceed until the permit has been issued.</p>
National Parks and Wildlife Act 1974 (NPW Act)	<p>The NPW Act regulates the control and management of all national parks, historic sites, nature reserves, and Aboriginal areas.</p> <p>The main aim of the Act is to conserve the natural and cultural heritage of NSW. Where works will disturb Aboriginal objects, an Aboriginal Heritage Impact Permit (AHIP) is required.</p> <p>Please refer to the Due Diligence Assessment Appendix B, there are no known sites within the vicinity of the project area and it has been determined that works can proceed under the Unexpected Finds Protocol Appendix C.</p>
Heritage Act 1977	<p>The proposed activity does not involve an item or place listed on the NSW State Heritage Inventory or the subject of an interim heritage order or listing and is therefore not a controlled activity. Approval of works on the site is therefore not required under Part 4 of the Heritage Act.</p> <p>Not applicable, the proposed activity will not impact an item or place listed on the State Heritage Inventory.</p>

<p>Protection of the Environment Operations Act 1997 (POEO Act)</p>	<p>The POEO Act is the key environmental protection and pollution statute. The POEO Act is administered by the EPA and establishes a licensing regime for waste, air, water and pollution. Relevant sections of the Act are listed below:</p> <ul style="list-style-type: none"> • Part 5.3 Water Pollution • Part 5.4 Air Pollution • Part 5.5 Noise Pollution • Part 5.6 Land Pollution and Waste <p>Any work potentially resulting in pollution must comply with the POEO Act. Relevant licences must be obtained if required. Check the POEO Public Register for any relevant Environment Protection Licences (EPLs).</p> <p>Licenses are not required, dust and noise will be carefully monitored.</p>
<p>Water Management Act 2000 (WM Act)</p>	<p>The WM Act's main objective is to manage NSW water in a sustainable and integrated manner that will benefit today's generations without compromising future generations' ability to meet their needs. Section 91E of the Act establishes an approval regime for controlled activities within waterfront land. However, clause 41 of the Water Management (General) Regulation 2018 provides an exemption for public authorities in relation to all controlled activities on waterfront land. Therefore, approval under the WM Act is not required.</p> <p>Although formal approval under the WM Act is not required, if the proposed activity is within 40m of a waterway, an attempt should be made to comply with the requirements of controlled activities in order to reduce risks to waterways.</p>
<p>Roads Act 1993</p>	<p>Section 88 of the <i>Roads Act</i> states that a roads authority may, despite any other Act or law to the contrary, remove or lop any tree or other vegetation that is on or overhanging a public road if, in its opinion it is necessary to do so for the purposes of carrying out road work or removing a traffic hazard.</p> <p>Not Applicable.</p>
<p>State Environmental Planning Policy – Resilience and Hazards 2021,</p>	<p>Chapter 2 of The <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> provides controls for undertaking development and activities in coastal management areas. The four coastal management areas are:</p> <ul style="list-style-type: none"> • Coastal wetlands and littoral rainforests area – areas which display the characteristics of coastal wetlands or littoral rainforests that were previously protected by SEPP 14 and SEPP 26

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- 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.

The Site is located within the Coastal Environment and Coastal Use Area.

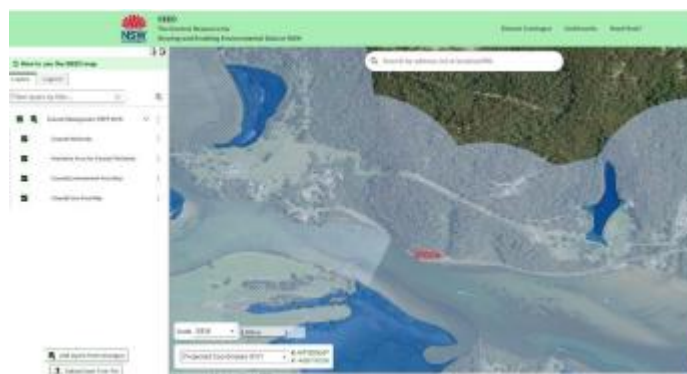


Figure 7. Map showing the site mapped within the Coastal Environment and Coastal Use Area.

Therefore, consideration must be given to whether the proposed development is likely to cause an adverse impact on the following: (a) The integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment No impact (b) Coastal environmental values and natural coastal processes, No impact

(c) The water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1, No impact

	<p>(d) Marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms.</p> <p>This report assesses impact on native vegetation and fauna with none identified. No marine vegetation, headlands or rock platforms will be impacted.</p> <p>(e) Existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, No impact</p> <p>(f) Aboriginal cultural heritage, practices and places, No adverse impact is expected. ESC has undertaken Due Diligence (Appendix B) for the proposal.</p> <p>(g) The use of the surf zone. No impact</p> <p>https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p>
<p>State Environmental Planning Policy Biodiversity and Conservation 2021 – Chapter 2 Vegetation in Non-Rural Areas</p>	<p>Chapter 2, part 2.2 of the Biodiversity and Conservation SEPP states that an authority to clear vegetation under this policy is not required if it is a clearing authorised under section 60(O) of the Local Land Services Act 2013. Section 60(O) provides an exemption for clearing under Part 5 of the EP&A Act and therefore consent is not required under the B&C SEPP (Vegetation in Non-Rural Areas).</p> <p>Not applicable.</p>
<p>State Environmental Planning Policy - Biodiversity and Conservation 2021 - Chapter 3</p>	<p>Biodiversity and Conservation SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for <i>Phascolarctos cinereus</i> (Koala) to ensure a permanent free-living population over their present range and reverse the current trend of Koala population decline.</p> <p>B&I SEPP applies to development under part 4 of the EP&A Act 1979. As the proposed activity is not 'development', Koala Habitat Protection SEPP doesn't apply. Regardless, consideration of impacts to koala and koala habitat may still be relevant under the BC Act 2016.</p>

<p>Koala Habitat Protection 2020</p>	<p>This proposal is within an area to which the Biodiversity and Conservation SEPP applies and requires development consent under Part 4 of the EP&A Act. Chapter 3 (Koala Habitat Protection 2020) alone applies to the proposal. Moruya occurs within the South Coast Koala Management Area. The site contains no suitable feed trees for Koala with neither Spotted Gum or Ironbark noted as preferred foraging, though White Stringybark was also present and is a possible feed species. Forest Red Gum (FRG) does occur in the locality. FRG is considered a primary food source. Two Atlas records occur for Koala in the 10km radius surrounding the Lot. One from 2013, is likely a coordinate error as it refers to a sick Koala being taken into care of a wildlife group from the Riverside Park area in Moruya. Notes refer to Moruya & Candella, 2444. No Candella exists in NSW and postcode 2444 is for the Port Macquarie area, in which there are known Koala populations. The 2019 record is unknown to wildlife carers in the area and is either a spurious record or a species coding mistake. As this site has no Koala records for the last 18 years, and no canopy is required to be removed for this proposal, the proposal is not inconsistent with the aims of this SEPP.</p>
<p>The Rural Fires Act 1997</p>	<p>Section 100C of the <i>Rural Fires Act 1997</i> takes in regard –</p> <p>a. the principles of ecologically sustainable development (as described by section 6 (2) of the <i>Protection of the Environment Administration Act 1991</i>), and</p> <p>b. any matter likely to affect the environment by reason of the carrying out of bush fire hazard reduction works on the land that a determining authority would be required to consider under section 5.5 (1) of the <i>Environmental Planning & Assessment Act 1979</i> if Part 5 of that Act were applicable to the work and the carrying out of the works were and activity within the meaning of that part.</p> <p>Not applicable.</p>

4. Community and agency consultation

Table 5: Community and agency consultation

Community / agency consultation	<p>Have any community stakeholders been identified for the proposed works?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is consultation with other authorities required under the requirements of Clause 1, section 2.15 of the Transport and Infrastructure SEPP 2021?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the works adjacent to a national park, nature reserve or other area reserved under the National Parks and Wildlife Act 1974?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the works adjacent to a declared aquatic reserve under the Fisheries Management Act 1994?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Other agency and community consultation:</p> <p>Fisheries NSW and Marine Parks have been consulted and permits are required before works can commence.</p>
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5. Environmental assessment

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

Table 6: Impacts, environmental safeguards and mitigation measures

Issue	Description
Landform, geology and soils	<p>Does the project involve the disturbance of large areas (eg >2ha) for earthworks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Does the site have constraints for erosion and sedimentation controls such as steep gradients, narrow corridors or is located on private property? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Are there any sensitive receiving environments that are located in or nearby the likely project footprint or that would likely receive stormwater discharge from the project? Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments). Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
Potential impacts	<p>Any disturbance of groundcover presents a potential risk for erosion, this risk can be minimised through implementation of the following safeguards.</p>
Safeguards	<ul style="list-style-type: none"> • Site management will incorporate best management erosion and sediment control practices such as those found in the Landcom's "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 Landcom's "Blue Book (4th Edition) on sediment 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.

	<ul style="list-style-type: none"> Stockpiles will be designed, established, operated and decommissioned in accordance with the RMS Stockpile Site Management Guidelines 2015.
Contaminated land and acid sulfate soils	<p>Is the project located within an area mapped as Potential Acid Sulfate Soils? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any known occurrences of acid sulfate soils in the area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>Provide details</i></p> <p>Is the project located within an area mapped as Potential Contaminated Land? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>Provide details</i></p>
Potential impacts	<p>Disturbance of acid sulfate soils can generate large amounts of sulfuric acid leachate which can impact on the surrounding environment.</p> <p>Potential impacts include water quality impacts and impacts on flora and fauna.</p>
Safeguards	<p>If it is anticipated that Potential Acid Sulfate Soils will be disturbed, an Acid Sulfate Management Plan will be prepared.</p>
	<p>If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with relevant government agencies.</p>
Water quality and hydrology	<p>Are the works located within or adjacent to a waterbody or wetland, or within 40m of a waterway? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>The project area is adjacent to the Moruya River.</p> <p>If yes, the NSW DPI Water or DPI Fisheries should be notified. Have they been notified? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, is a permit required? Provide details:</i></p>

	<p>Fisheries and Marine Parks have been consulted and permits are required before works commence.</p> <hr/> <p>Will the proposed works be undertaken on a bridge?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is the location known to flood or be prone to water logging?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Does the project pose any potential risk to the surrounding water quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>Describe the potential impact</i></p> <p>Disturbance of groundcover, use of chemicals and generation of waste all have the potential to impact on the surrounding waterways via runoff. This risk can be minimised through implementation of the following safeguards.</p>

Safeguards	<ul style="list-style-type: none"> • Visual monitoring of local water quality (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.
Biodiversity	<p>Have relevant database searches been carried out?</p> <ul style="list-style-type: none"> • NSW Bionet • Threatened species profile search (www.environment.nsw.gov.au/threatenedspeciesapp/) • Commonwealth EPBC • Fisheries? <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Date searches undertaken:</p>

	<p>Please see Flora and Fauna Assessment and Test of Significance https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Are the proposed works likely to impact on any vegetation including, shrubs, trees?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Please see Flora and Fauna Assessment and Test of Significance https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Did the database searches identify any endangered ecological communities, populations, threatened flora and/or threatened or protected fauna, or migratory species within the vicinity of the proposed works? Both Federal and State listed matters must be considered.</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Please see Flora and Fauna Assessment and Test of Significance https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Are the works taking place in a roadside area designated as high conservation value vegetation?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>Please see Flora and Fauna Assessment and Test of Significance https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Will the proposed works require the removal of any other vegetation?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p>
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	<p>A detailed flora survey was conducted across the work footprint and surrounding land on 17th February 2025. Vegetation occurs in patches suggesting past clearing activity- one section dominated by Black She-oak (<i>Allocasuarina littoralis</i>) was searched for Glossy Black-cockatoo feed trees with none seen. Another patch of Grey Myrtle (<i>Backhousia myrtifolia</i>) occurs lower on the eastern slope and is indicative of dry rainforest however, the species is known in wet sclerophyll forest (WSF) as well and is not extensive and the gully system nearby remains WSF. All the vegetation within the work footprint identified for clearing was searched for threatened flora species with none seen. Flora surveys took a total of 1.5 person-hours. Please see Flora and Fauna Assessment and Test of Significance https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Do the proposed works involve pruning, trimming or removal of any tree/s?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>The scope of works includes clearing of all vegetation along a c. 160 (upper slope)-185 (lower roadside) length of the existing batter and banked area on the northern (eastbound) side to a width of c.20m. Total clearing area is a maximum of 3700m², with impact to native vegetation is calculated at c.2850m². Of this c.2100m² is c considered suitable habitat for threatened species. The slope would then be excavated to create a 1 in 1.25 (39-degree angle) batter with a 3m wide bench at the top. Road works would entail kerb and guttering at the toe of the new batter and a widened shoulder area. Please see Flora and Fauna Assessment and Test of Significance for further information https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Will the proposed works affect any tree hollows or hollow logs?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>The work footprint is a steep slope, with a previous access track forming a benched area. Extent of clearing works is just beyond the benched area, and it is this patch that provides more substantial fauna habitat in the form of ground</p>
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	<p>denning and foraging for terrestrial fauna and foraging and HBTs for arboreal mammals and birds. Most of the batter provides no fauna habitats with the steep slope, less vegetation, no canopy (bar sapling regrowth) or HBTs and the proximity of the busy North Head Drive. The amount of suitable fauna habitat to be cleared is calculated at c.2100m² (Figure 3). The vegetation to be removed includes established canopy, scattered understorey, saplings and ground vegetation. Of the trees to be removed, three are HBTs that contained one large hollow, 1 small hollow and fissures suitable for microbats, and three potential small hollows. Fallen timber occurred within and surrounding the work footprint that could provide ground habitat for fauna, though threatened species likely to use such habitats have been ruled out based on vegetation type, lack of cover or connectivity. Therefore, the habitats within the works site are considered most prime for hollow-dependent microbats, larger parrots and arboreal mammals</p> <p>Please see Flora and Fauna Assessment and Test of Significance for further information https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p> <p>Will the proposed works disturb any crevices or other locations (such as on bridges and culverts) for potential bat habitat?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>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?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>Will the proposed works disturb any natural waterways or aquatic habitat?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details:</i></p>
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	<p>Stormwater infrastructure and discharge points will be within the Moruya River High Tide Mark and both a Fisheries and Marine Park permit are required before works can commence.</p> <p>Do the trees form part of a streetscape, an avenue or roadside planting?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>Have the trees been planted by a community group, Landcare group or by council or is the tree a memorial or part of a memorial group eg. has a plaque?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>Do the trees form part of a heritage listing or have other heritage value?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p> <p>Are there any significant weeds present?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details:</i></p>
<p>Potential impacts</p>	<p>Does the project pose any potential risk to the biodiversity within the vicinity of the site?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, describe the potential impacts:</i></p> <p>The risks and impacts to biodiversity through proposed works are described within the Flora and Fauna Assessment and Test of Significance for further information</p> <p>https://www.esc.nsw.gov.au/ data/assets/pdf file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf</p>

Safeguards	<p><u>General:</u></p> <ul style="list-style-type: none"> • Prepare a Vegetation Management Plan (VMP) to: <ul style="list-style-type: none"> ➤ Identify measures to manage vegetation within the road reserve; ➤ Detail restoration, regeneration and rehabilitation of areas of native vegetation that will be removed to accommodate the proposed works. ➤ Detail appropriate management for the potential habitat of threatened flora and fauna species that will be indirectly impacted by the proposal. This may include fencing and signage. ➤ Identify weed management strategies. • As part of the site induction process, provide all site personnel with information on the biodiversity values of the study area, including threatened species, no-go areas and responsibilities under relevant environmental legislation, including but not limited to the EP&A Act, BC Act and EPBC Act and associated management plans for individual species. • Should unexpected, threatened fauna be located at any time during construction, cease work immediately in the area to prevent further harm to the individual. Contact Council's Environmental Officer and a suitably qualified ecologist to determine if further assessment or management plans are required. <p><u>Clearing of Vegetation: Pre-clearing:</u></p> <ul style="list-style-type: none"> • Qualified fauna experts are required to conduct pre-clearing surveys and undertake fauna handling if required. This may include: <ul style="list-style-type: none"> • 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.
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	<p><u>Clearing of vegetation – general safeguards</u></p> <ul style="list-style-type: none"> • Remove minimum required vegetation and minimise disturbance to remaining vegetation • If any damage occurs to vegetation outside of the boundaries of the work site as a result of the implementation of the proposal, the Project Manager will be notified and will establish strategies for mitigation of impacts and site restoration. <p><u>Loss of threatened species and their habitats:</u></p> <ul style="list-style-type: none"> • Minimise removal of native vegetation and fauna habitat. • Implement exclusion zones to protect threatened ecological communities and threatened species habitat. • Remove trees in accordance with Guide 4: Clearing of Vegetation and Removal of Bushrock of Roads and Maritimes Biodiversity Guidelines (RTA, 2011) and in the presence of a qualified ecologist or wildlife expert experienced in the rescue of fauna. • Where reasonable and feasible, retain mature and hollow bearing habitat trees, including dead stags. • If hollow bearing trees are being removed, provide nest boxes to mitigate impacts, as determined by the pre-clearing survey. • Works are not to harm threatened fauna. • Works are not to create a barrier to fauna movement. <p><u>Aquatic habitats and Riparian Zones:</u></p> <ul style="list-style-type: none"> • Manage riparian areas in accordance with Roads and Maritime's 'Biodiversity Guidelines Guidance Note 10: Aquatic Habitats and Riparian Zones' (RTA 2011). • Should alteration of fish passage occur during construction consult with NSW Department of Primary Industries to determine if a permit under Section 219 of the FM Act is required. <p><u>Invasion of Exotic Species:</u></p> <ul style="list-style-type: none"> • Manage vegetation within the road reserve and adjacent to areas of vegetation clearing in accordance with Guide 6 Weed Management and Guide 10 Aquatic Habitats and Riparian Zones of Roads and Maritime's Biodiversity Guidelines (RTA, 2011) to reduce invasion of noxious weed species. • Use weed-free topsoil in landscaping and revegetate disturbed sites with locally indigenous species.
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	<ul style="list-style-type: none"> Construction machinery should be washed prior to entering and leaving site to ensure weed propagules are not transported. <p><u>Stockpiling:</u></p> <ul style="list-style-type: none"> Only place stockpiles in low value vegetation, where cleared sites are unavailable. Stockpiles should be no taller than 2m height. Use existing stockpiles before creating new ones. <p><u>Site Restoration:</u></p> <ul style="list-style-type: none"> The rehabilitation of disturbed areas will be carried out progressively as construction stages are completed, and in accordance with: <ul style="list-style-type: none"> Landcom's "Blue Book (4th Edition) on sediment and erosion control; RMS Landscape Guidelines; RMS Guidelines for Batter Stabilisation Using Vegetation.
Aboriginal heritage	<p>Are the works likely to disturb previously undisturbed areas of the landscape?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Majority of the project is on highly disturbed land.</p> <p>Has an AHIMS register search been conducted?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>AHIMS reference number 994935</p> <p>Has Due Diligence been conducted?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>See Due Diligence Assessment Appendix B.</p> <p>Are there any known Aboriginal artefacts/sites within the vicinity of the work site?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Would the proposal involve the removal of mature native trees?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details of whether the trees have been checked to see if they are scarred or are of Aboriginal cultural significance.</i></p> <p>The trees have been assessed for Aboriginal Cultural significance and no evidence was found.</p>

Potential impacts	<p>Does the project pose any potential risk to Aboriginal heritage?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details.</i></p> <p>There is no significant risk to Aboriginal Heritage, works can proceed under the Unexpected Finds Protocol Appendix C.</p>
Safeguards	<p><u>Awareness:</u></p> <ul style="list-style-type: none"> All personnel working on site will receive training to ensure awareness of the location of existing Aboriginal objects within the Study Area and immediate surrounds, and relevant statutory responsibilities. <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> There are no known sites within the vicinity of the works. <p><u>Unexpected Finds (Appendix C):</u></p> <ul style="list-style-type: none"> 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	<p>Complete online heritage database searches</p> <ul style="list-style-type: none"> NSW Heritage database Commonwealth EPBC heritage list Australian Heritage Places Inventory Local Environmental Plan(s) heritage items <p>Are there any items of Non-Aboriginal heritage located within the vicinity of the proposed works?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>There are no Heritage items within the footprint of the works.</p>
Potential impacts	<p>Does the project pose any potential risk to Non-Aboriginal heritage?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Safeguards	<p><u>Awareness:</u></p>

	<ul style="list-style-type: none"> All personnel working on site will receive training to ensure awareness of location of existing heritage items within the Study Area and immediate surrounds, and relevant statutory responsibilities. <p><u>Management of existing (known) items:</u></p> <ul style="list-style-type: none"> There are no known Heritage items within the footprint of the project. <p><u>Unexpected Finds (Appendix C):</u></p> <ul style="list-style-type: none"> If heritage items are uncovered during the works, STOP, MARK THE AREA, TAKE A PHOTO, REPORT!!! All works in the vicinity of the find must cease and the Project Manager and Environmental Officer contacted immediately. The Standard Management Procedure - Unexpected Heritage Items (RMS, 2015) must then be followed. 						
<p>Noise</p>	<p>Are there any noise sensitive areas near the location of the proposed works that may be affected by the works (i.e. church, school, hospital, residences)?</p> <p>During construction?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>During Operation?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details including a map to show proximity to proposed works</i></p> <p>There are no sensitive receivers within close proximity to the work.</p> <p>Are the proposed works going to be undertaken during standard working hours detailed below?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><u>Standard working hours</u></p> <table border="0"> <tr> <td>Monday – Friday</td><td>7:00am to 6:00pm</td></tr> <tr> <td>Saturday</td><td>8:00am to 1:00pm</td></tr> <tr> <td>Sunday and Public Holidays</td><td>No work</td></tr> </table> <p>Would operation of the proposal alter the noise environment for sensitive receivers? This might include, but not be limited to, altering the line or level of an existing carriageway, changing traffic flow, increasing traffic speeds by more than 10km/hr or installing audio-tactile line markings.</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	Monday – Friday	7:00am to 6:00pm	Saturday	8:00am to 1:00pm	Sunday and Public Holidays	No work
Monday – Friday	7:00am to 6:00pm						
Saturday	8:00am to 1:00pm						
Sunday and Public Holidays	No work						

Potential impacts	<p>Does the project pose any potential risk to the surrounding noise quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>Heavy machinery will cause noise disturbance during construction.</p>
Safeguards	<p><u>Notification:</u></p> <ul style="list-style-type: none"> 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. <p><u>Standard Hours of Operation:</u></p> <ul style="list-style-type: none"> Works to be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays may not be permitted and, if permitted, works are to minimise noise impacts. <p><u>Out of hours:</u></p> <ul style="list-style-type: none"> Where out-of-hours activities are required, a Noise and Vibration Management Plan will be prepared and implemented in consultation with sensitive receivers.
Air quality	<p>Are the proposed works likely to result in large areas (>2ha) of exposed soils?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are there any dust sensitive receivers located within the vicinity of the proposed works during the construction period (i.e. church, school, hospital, residences)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is there likely to be an emission to air of dust, smoke, steam or vehicle emissions?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
Potential impacts	<p>Does the project pose any potential risk to the surrounding air quality?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>There may be some dust and vehicle emissions during construction.</p>

Safeguards	<ul style="list-style-type: none"> • 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	<p>Are the proposed works likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the proposed works likely to require a licence from EPA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is waste being transported off site to another location? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Does the project pose any potential risk to the surrounding environment as a result of waste generated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If YES to any of these items, you need to prepare a Waste Management Plan (May be within CEMP document)</i></p>
Potential impacts	<p>If waste is not managed properly and taken to fill sites or licensed waste facilities then there is the potential for waste to degrade the surrounding environment and sensitive receivers such as Moruya River.</p>

Safeguards	<ul style="list-style-type: none"> • A Waste Management Plan will be prepared as part of the CEMP • All surplus material, off cuts, and other debris resulting from the work shall be removed from site and disposed of by a licensed contractor to a licensed waste management facility. • Waste material, other than vegetation and tree mulch, is not to be left on site once the works have been completed. <p>Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.</p>
Traffic and transport	<p>Are the proposed works likely to result in detours, disruptions or delays to traffic flow (vehicular, cycle and pedestrian) or access to properties or businesses?</p> <p>During construction Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>During Operation Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Are the proposed works likely to affect any other transport nodes or transport infrastructure (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?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>Describe the potential impacts</i></p> <p>The road will be closed during construction, an alternative route via Broulee Road will allow access either side of the construction site. School bus companies must be notified prior to construction starting.</p>
Safeguards	<ul style="list-style-type: none"> • Where possible, current traffic movements and property accesses are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays. • 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/ landscape	<p>Will the project have any potential impact on visual amenity of the site and surrounding landscape?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>The project will change the visual amenity of the site due to vegetation clearing.</p>
Potential impacts	<p>The area outside of the road reserve is mainly native bushland, changing the visual amenity of this area may change the scenic value of North Head Dive in the project area.</p>
Safeguards	<ul style="list-style-type: none"> • Contain all work within the boundaries designated on the site plan • Restore work sites to as close to their original condition as possible • Minimise spread of stockpiles, waste, and parking
Socio-economic	<p>Are the proposed works likely to impact on local business?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>An alternate route to either side of the project will be provided through Broulee Road.</p> <p>Are the proposed works likely to require any property acquisition?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the proposed works likely to alter any access for properties (either temporarily or permanently)?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>An alternate route to either side of the project will be provided through Broulee Road.</p> <p>Are the proposed works likely to alter any on-street parking arrangements (either temporarily or permanently)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Are the proposed works likely to change pedestrian movements or pedestrian access (either temporarily or permanently)?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>If yes, provide details</i></p>

	<p>The road will be closed during construction, there will be no pedestrian movement.</p> <p>Are the proposed works likely to impact on any items or places of social value to the community (either temporarily or permanently)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>An alternate route to either side of the project will be provided through Broulee Road.</p> <p>Are the proposed works likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
Potential impacts	<p>Does the project pose any potential risk to the socio-economic factors?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p><i>If yes, provide details</i></p> <p>The road is a key transport corridor, the project will provide greater resilience and safety to this infrastructure.</p>
Safeguards	<ul style="list-style-type: none"> • Contain all work within the boundaries designated on the site plan • Restore work sites to as close to their original condition as possible • Display public information signs until site restoration is complete • Carry out community and stakeholder consultation before works start • Notify the Works Supervisor and Asset Manager immediately of any complaints or any accidental damage to property • Locate services on DBYD search and peg out no-go areas to avoid service-disruption • All Council staff will exercise courtesy in dealing with the community

Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

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

Does the work proposed:

a) Have any environmental impact on a community?

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

b) Cause any transformation of a locality?

The proposed scope of works occurs mainly within the heavily disturbed area of the existing road infrastructure footprint. Clearing of vegetation from the area above the failing batter will change the visual amenity of the area, however the vegetation within the Crown owned and operated land will be retained and the area will not be largely altered over the long term. Reconstructing this section of the road batter will improve road safety and accessibility.

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

The Flora and Fauna Assessment by a qualified external ecologist (Report https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf) found that there will not be an overall negative environmental impact on the local ecosystems if mitigation measures in the report and Table 1 of this REF are followed.

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

No, the proposed scope of works occurs mainly within the heavily disturbed area of the existing road infrastructure footprint. The Flora and Fauna Assessment (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf) found there would be no significant threat to the environmental values of the area. Reconstructing this section of the road batter will improve safety and accessibility.

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?

The removal of minimal vegetation from the reserve beside the road infrastructure will not have a significant impact on the aesthetic, cultural, historical, scientific, or social values of the surrounding environment for present or future generations. A qualified external ecologist has assessed the area, with the full report available via the link https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf. Stabilising the road's batter and increasing the resilience of that area will improve safety and accessibility.

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

The removal of minimal vegetation from the reserve beside the road infrastructure will not significantly impact on the habitat of protected or endangered fauna (as per Biodiversity Conservation Act 2016), a qualified external ecologist assessed the area and the full report can be found at https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf. Reconstructing the road and increasing its resilience will improve road safety and accessibility.

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

The removal of minimal vegetation from the reserve beside the road infrastructure was assessed by a qualified external ecologist and it was determined that there would be no long-term effects on the environment caused by the project. The full report can be found at https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf

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

No, majority of the project area is heavily disturbed. A qualified external ecologist assessed the area and determined that there would be no degradation on the quality of the environment caused by the project. The full report can be found in the link https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf. The high value environmental assets of the area outside of the project footprint will be fenced and remain undisturbed.

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

No, the project will improve road safety in the area through improved accessibility and safer road conditions which will reduce the likelihood of accidents.

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

No, majority of the project area is heavily disturbed, reconstructing the road batter and upgrading the infrastructure will improve road safety and accessibility. The footprint of works is already functioning as public road infrastructure.

k) Cause any pollution of the environment?

Table 1 of this REF outlines mitigation measures to ensure the surrounding environment will not be significantly impacted by the construction of this project.

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

No, there will not be large amounts of waste generated through the scope of works.

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

No, there is no supply issues with the proposed materials to be used in this project.

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

No, the majority of the footprint of works is already functioning as public road infrastructure and the project will improve the safety of the area.

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

The Flora and Fauna Assessment performed by an external ecologist found there would be no impact on coastal processes and coastal hazards, including those under projected climate change conditions (https://www.esc.nsw.gov.au/data/assets/pdf_file/0020/263900/North-Head-Dr-batter-stabilisation-flora-and-fauna-assessment-and-test-of-significance.pdf).

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: Prue McGuffie

Signature



Position: Environmental Engineering Support Officer

Date: 24/04/2025

Reviewed and endorsed by: Jack Harding

Signature



Position: Design Officer

Date: 24/04/2025

Appendix A – Works Location

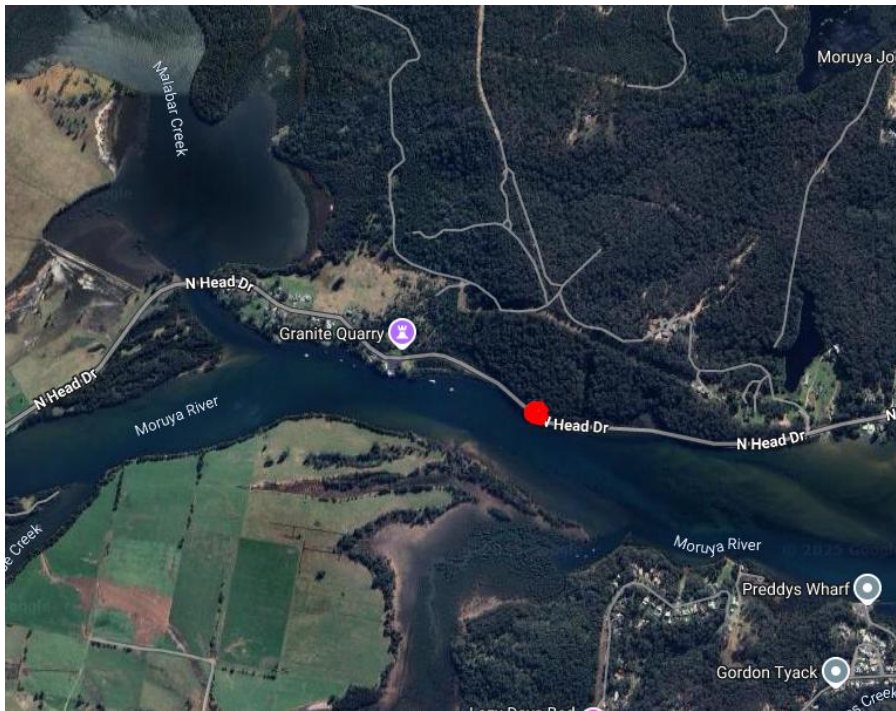


Figure 8. Works location Shown by the red dot.

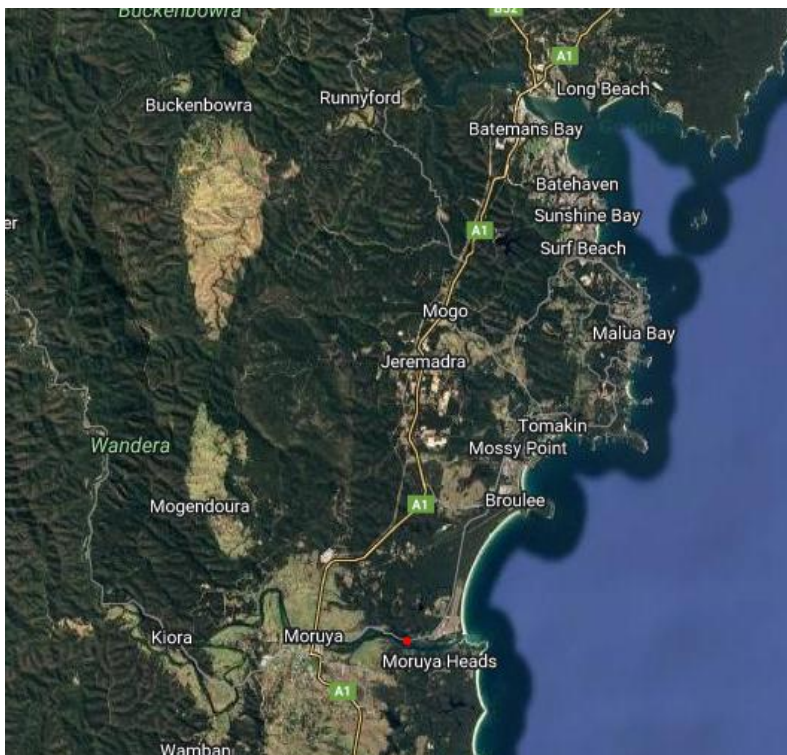


Figure 9. Works location in proximity to larger regional centres shown by the red dot.

Appendix B – Completed Due Diligence Aboriginal Heritage.

Aboriginal Cultural Heritage - Due Diligence Checklist

This checklist is intended to act as a guide in carrying out due diligence under the *National Parks and Wildlife Act 1974 (NSW) (Act)*. This checklist should be used in conjunction with the [*Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*](#) published by the Department of Environment, Climate Change and Water and dated 13 September 2010 (**Code**).

It is an offence under s 86(2) the *National Parks and Wildlife Act 1974 (NSW)* to harm an Aboriginal object. It is a defence to a prosecution for this offence if the Defendant shows that they exercised due diligence to determine whether the act or omission constituting the offence would harm an Aboriginal object and reasonably determined that no Aboriginal object would be harmed. Compliance with the Code is taken to constitute due diligence for the purposes of this defence, under cl 57 of the *National Parks and Wildlife Regulation 2019 (Regulations)*.¹ However, the defence can only be relied upon if the outcome of the due diligence reasonably determines that no Aboriginal object would be harmed.

Compliance with the Code does **not** provide a defence to the offences of harming or desecrating an object that the person knows to be an Aboriginal object (under s 86(1) of the Act) or an Aboriginal place (under s 86(4) of the Act). However, use of this checklist can assist in identifying whether a site is an Aboriginal place or contains an Aboriginal object, to avoid committing these offences.

Due diligence can be carried out as part of an environmental impact assessment (**EIA**) under the *Environmental Planning and Assessment Act 1979 (NSW)*. While this does not need to follow the same process as in the Code, it should consider, at a minimum the issues set out in this checklist.

¹ There are also a number of industry specific due diligence guidelines, which can be used under cl 57 of the Regulations, instead of the Code. These industry specific guidelines are not considered in this checklist.

Additional records should be kept recording the searches conducted, and evidencing the matters considered in completing this checklist. These records should be kept together with a completed copy of this checklist, and any EIA, and maintained on Council's file.

1. Project details	
Project name	North Head Drive Batter Stabilisation
Address	North Head Drive Moruya, -35.905978 150.120107
Lot and DP	Lot 94 DP631493
Description of the project site	<p>The site is within the heavily disturbed North Head Drive road reserve, a coastal main road. North Head Drive connects Moruya to the George Bass Drive and Moruya Airport, one of the most daily trafficked road in the shire. The existing batter slope is failing and unstable, with rocks and sediment frequently falling. There are several trees that will need to be removed as they are in the footprint of the stabilisation and earth works.</p> <p>The scope of works includes clearing of all vegetation along a c. 160 (upper slope)-185 (lower roadside) length of the existing batter and banked area on the northern (eastbound) side to a width of c.20m. Total clearing area is a maximum of 3700m² , The site is approximately 3.8kms from the township of Moruya along North Head Drive. The road is the main access for traffic from Moruya south to the Moruya Airport, 2.6kms to the east of the proposed works.</p>
Description of the works	<p>The slope would then be excavated to create a 1 in 1.25 (39-degree angle) batter with a 3m wide bench at the top. Road works would entail kerb and guttering at the toe of the new batter and a widened shoulder area. The site is approximately 3.8kms from the township of Moruya along North Head Drive. The road is the main access for traffic from Moruya south to the Moruya Airport, 2.6kms to the east of the proposed works.</p> <ul style="list-style-type: none"> - New shoulder on northern side of road - New SO profile kerb at toe of batter - Stabilise batter (cut batter back to 1 in 1.25 slope) - Catch drain bench at top of fist batter slope (3m wide) - Second batter slope to match into existing surface/formalise surface within councils boundary (also a 1 in 1.25 slope)

	<ul style="list-style-type: none"> - Either a rock fall fence at toe of batter, or rock netting pinned to batter surface (meeting with a Geotech 11th April to discuss and Phil will make the decision) - Shotcrete catch drain and top of first batter slope, includes reinforcements as mesh and pins - 3 new stormwater outlets, and upgrade to an existing, all discharge into Moruya river (all 450mm concrete pipes)
Type of works	<input type="checkbox"/> New development <input checked="" type="checkbox"/> Upgrade <input type="checkbox"/> Major maintenance <input type="checkbox"/> Minor maintenance
Disturbance footprint (including ancillary or laydown areas)	5400m²
Located on disturbed land (including ancillary or laydown areas)	<input type="checkbox"/> Located on disturbed land <input type="checkbox"/> Not located on disturbed land <input checked="" type="checkbox"/> Located both on and off disturbed land <small>(Note: See the definition of 'disturbed land' in cl 58(4) of the Regulations)</small>
Plant and equipment required	<ul style="list-style-type: none"> • Trucks • Trailer mounter boom (cherry picker) or mobile crane • Excavator • Water Cart • Roller • Bobcat • Scraper • Chipper • Hand Tools
2. Exemptions from the offences in s 86(1)-(4) (see ss 87A-87B of the Act)	
Is the activity subject to one of the following exemptions: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no work for the conservation or protection of an Aboriginal object or place carried out by or at the direction of the National Parks and Wildlife Service <input type="checkbox"/> yes <input checked="" type="checkbox"/> no any emergency fire fighting or emergency bush fire hazard reduction work authorised under the <i>Rural Fires Act 1997</i>	

- ☐ yes ☒ no authorised under the *State Emergency and Rescue Management Act 1989* in relation to an emergency and being reasonably necessary in order to avoid an actual or imminent threat to life or property
- ☐ yes ☒ no specifically required or permitted under a conservation agreement entered into or modified under the Act after 1 October 2010
- ☐ yes ☒ no traditional cultural activities (except commercial activities) carried out by Aboriginal people

Note: If 'yes' to any of the above, the activity is exempt from the offences in s 86(1)-(4) of the Act and can proceed without carrying out further due diligence.

3. Trivial or negligible acts *(see definition of 'harm' in s 5 of the Act)*

- ☐ yes ☒ no Is the act or omission trivial or negligible. Examples include:
- ☐ gardening (resulting in a small Aboriginal object below the surface being broken)
 - ☐ walking, picnicking, camping or similar recreational activities (resulting in a small Aboriginal object being crushed)

*Note: this requires consideration of the act or omission, as well as the extent of harm caused. Acts that are trivial or negligible are not 'harm' for the purposes of the Act. If 'yes' to the above, provided that the act does not otherwise desecrate a known Aboriginal object or place, the act can proceed without carrying out further due diligence. If you are unsure as to whether the act would desecrate an Aboriginal object or place, you should carry out the searches in **section 5** below, to confirm that there is no known Aboriginal object or place in the vicinity of the project.*

4. Low impact act or omission (excluding known Aboriginal objects and places) *(see cl 58 of the Regulations)*

4.A. Is the activity one of the following low impact acts or omissions:

- ☒ yes ☐ no on land that has been disturbed, maintenance of:
- ☒ existing roads, fire and other trails and tracks
 - ☒ existing utilities and similar services
- ☐ yes ☒ no on land that has been disturbed, the following kinds of farming and land management work:
- ☐ cropping and leaving paddocks fallow
 - ☐ the construction of water storage works
 - ☐ the construction of fences
 - ☐ the construction of irrigation infrastructure, ground water bores or flood mitigation works

	<input type="checkbox"/>	the construction of erosion control or soil conservation works
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		farming and land management work that involves the maintenance of:
	<input type="checkbox"/>	grain, fibre or fertiliser storage areas
	<input type="checkbox"/>	water storage works (such as farm dams or water tanks)
	<input type="checkbox"/>	irrigation infrastructure, ground water bores or flood mitigation works
	<input type="checkbox"/>	fences
	<input type="checkbox"/>	erosion control or soil conservation works (such as contour banks)
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		grazing of animals
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		on land that has been disturbed, exempt development or complying development
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		on land that has been disturbed, mining exploration work of the following kind:
	<input type="checkbox"/>	costeaming
	<input type="checkbox"/>	bulk sampling
	<input type="checkbox"/>	drilling
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		work of the following kind:
	<input type="checkbox"/>	geological mapping
	<input type="checkbox"/>	surface geophysical surveys (excluding seismic surveys)
	<input type="checkbox"/>	sub-surface geophysical surveys that involve downhole logging
	<input type="checkbox"/>	sampling and coring using hand-held equipment (excluding archaeological investigations)
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		the removal of isolated, dead or dying vegetation with minimal disturbance to the surrounding ground surface
<input type="checkbox"/> yes <input checked="" type="checkbox"/> no		on land that has been disturbed, work of the following kind:
	<input type="checkbox"/>	seismic surveying
	<input type="checkbox"/>	the construction and maintenance of groundwater monitoring bores

☐ yes ☒ no environmental rehabilitation work, including temporary silt fencing, tree planting, bush regeneration and weed removal (but excluding erosion control or soil conservation works).

4.B. If 'yes' to any of the above, carry out the searches in **section 5** below to confirm:

☐ yes ☒ no is there any known Aboriginal object or place in the vicinity of the project

☐ yes ☒ no will any harm will be caused to an Aboriginal culturally modified tree.

Note: See clause 58 for full details of the above exemptions, including the definitions of 'disturbed land', 'harm' and a 'culturally modified tree'.

*If 'yes' to any of the questions in 4.A. **and** 'no' to **both** of the questions in 4.B, the act can proceed without carrying out further due diligence. However, while these activities are exempt from the offence in s 86(2) of the Act, in many circumstances, it may still prudent to complete the due diligence process to prevent any unintended harm to Aboriginal objects.*

5. Known Aboriginal objects and places

Conduct the following searches:

- ☒ search AHIMS *(Note: do not rely on a previous search)*
- ☒ search Council records relevant to the site
- ☒ consult with relevant Council staff with knowledge of Aboriginal objects

Are any of the following identified:

- ☐ yes ☒ no Aboriginal objects in the vicinity of the project
- ☐ yes ☒ no Aboriginal places in the vicinity of the project

*Note: If a known Aboriginal object or Aboriginal place is identified, obtain copies of the relevant records from AHIMS and go to **section 6.3** below.*

AHIMS Ref
Number:

994935

Other sites known
to Council:

6. Due diligence process under Part 8 of the Code

6.1. Will the activity cause disturbance? *(Step 1 of Code)*

Will the activity disturb:

- ☐ yes ☐ no the surface of the ground *(Note: this includes the use of machinery to dig into the ground or removing vegetation)*
- ☐ yes ☐ no any Aboriginal culturally modified tree *(Note: this is also known as a scar tree)*

Note: If 'yes' to either of the above, continue onto the next question.

If 'no' to both, the activity can proceed, although you should stop work if any Aboriginal objects are found.

6.2. Is there a low likelihood of encountering Aboriginal objects? *(Step 2 of Code)*

Conduct the following searches:

- ☐ consult with relevant Council staff with knowledge of the site
- ☒ visually inspect the site

and determine the following:

- ☐ yes ☐ no is the project on land that is not disturbed
- ☐ yes ☐ no are any of the associated landscape features present:
 - ☐ within 200m of waters *(including a river, stream, lake, lagoon, swamp, wetlands, natural watercourse or the high water mark of tidal waters)*
 - ☐ located on a sand dune system *(i.e. sand ridges and hills, usually occurring near deserts, lakes, rivers or coastal areas)*
 - ☐ located on a ridge top, ridge line or headland
 - ☐ located within 200m below or above a cliff face
 - ☐ within 20m of or in a cave, rock shelter or a cave mouth

(Note: these landscape features indicate a likelihood of Aboriginal objects, although see also [DECCW the Fact Sheet 'What is an Aboriginal cultural landscape' \(April 2010\)](#) in relation to the significance of the landscape as a whole)

*Note: If 'yes' to **both** of the above, continue onto the next question.*

If 'no' to either (i.e. the project is on disturbed land or no associated landscape features are present), the activity can proceed, although you should stop work if any Aboriginal objects are found.

6.3. Can harm be avoided? *(Step 3 of Code)*

- ☐ yes ☐ no ☐ n/a If an Aboriginal place is identified, can the activity be re-located to be carried out outside of the place?
- ☐ yes ☒ no ☐ n/a If an Aboriginal object is identified, can the activity be carried out without harming the Aboriginal object?
(Note that the definition of 'harm' is very broad and could include any potential disturbance of the object)
- ☐ yes ☐ no ☐ n/a If there is a high likelihood of Aboriginal objects being encountered, can the activity be carried out away from the associated landscape features or on disturbed land?

Note: If 'no' to any of the above, continue onto the next question.

If harm can be avoided, the activity can proceed, although you should stop work if any Aboriginal objects are found.

6.4. Desktop assessment and visual inspection *(Step 4 of Code)*

If the due diligence has reached this stage, Council is required to conduct a desktop analysis and visual inspection of the site to confirm whether Aboriginal objects can be identified or are likely to be present below the surface of the ground.

The desktop analysis is an assessment of any existing records or documents relating to an aboriginal object, place or previous surveys. The analysis should consider the entire area in the vicinity of the project, and include consideration of previous heritage and archaeological studies.

A visual (in person) inspection of the site is also required. In order to comply with the Code, the visual inspection of the site must be carried out by a person with expertise (like an archaeologist) in identifying Aboriginal objects.

We recommend that Council engage a qualified archaeologist to conduct **both** the desktop analysis and the site inspection, and who will also be able to advise Council in relation to next steps. While the Code indicates that it is acceptable for an Aboriginal person or landholder to carry out the visual inspection, if they have experience in locating and identifying Aboriginal objects, there are risks involved in engaging someone without formal qualifications, and this is not recommended.

While consultation is not a requirement of the Code, it is required prior to applying for an Aboriginal Heritage Impact Permit, so may also be useful to undertake at this stage.

Note: If the desktop assessment and inspection indicate that there are unlikely to be any Aboriginal objects, the activity can proceed, although you should stop work if any Aboriginal objects are found.

6.5. Further investigations and impact assessment *(Step 5 of the Code)*

If uncertainty remains as to whether the proposed activity could potentially harm any Aboriginal objects or places, a detailed investigation and impact assessment, including consultation with the local Aboriginal community, will be required to determine whether an Aboriginal Heritage Impact Permit is required.

Council will need to engage a qualified archaeologist to carry out this investigation.

See: [*Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales, published by OEH and dated 1 April 2011*](#) and related guidelines on [Heritage NSW's Website](#).

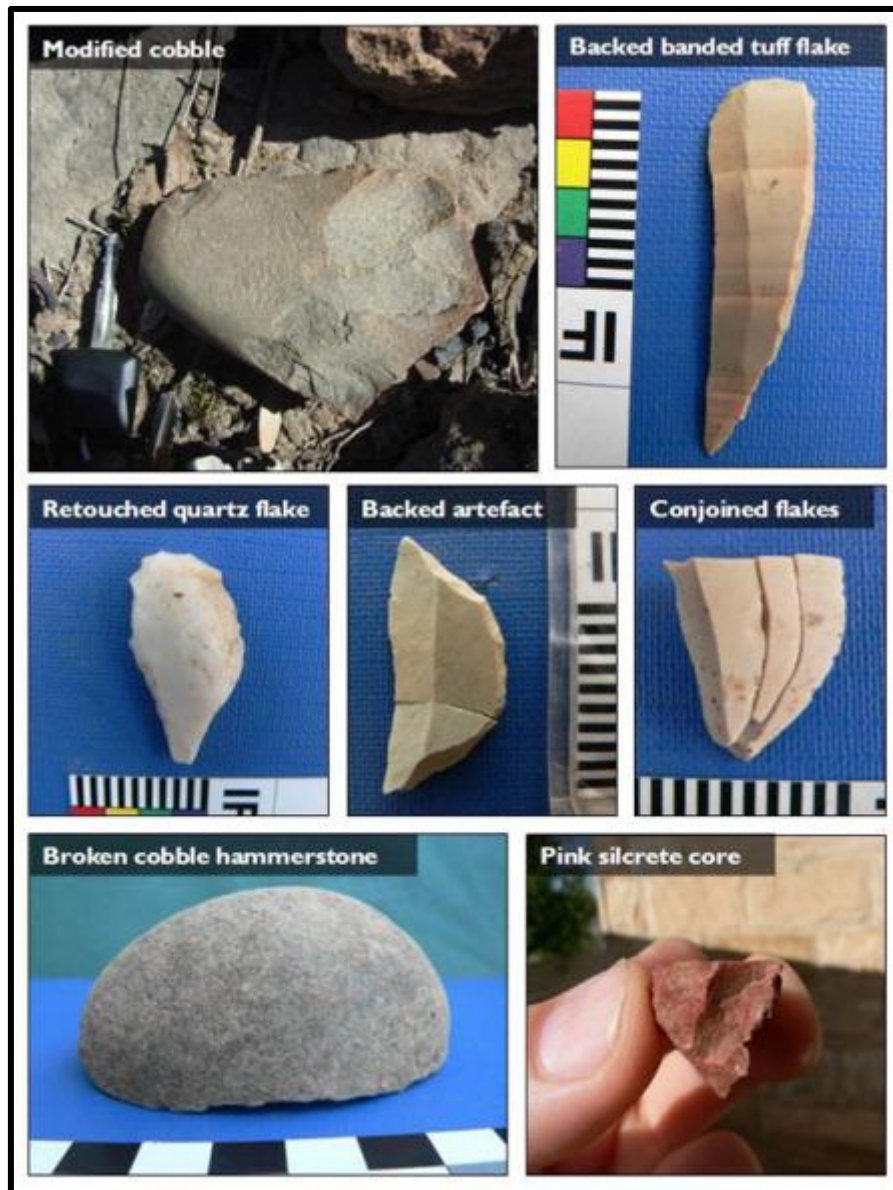
Definitions

Term	Meaning	Reference
Aboriginal object	<p><i>Means 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</i></p> <p>See Appendix 1 of the Code for examples of Aboriginal objects</p>	Act, s 5
Aboriginal place	<i>Any place declared to be an Aboriginal place under section 84 of the Act</i>	Act, s 5
Act	<i>National Parks and Wildlife Act 1974 (NSW)</i>	
Code	<i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW published by the Department of Environment, Climate Change and Water and dated 13 September 2010</i>	
Culturally modified tree	<p><i>A tree that, before or concurrent with (or both) the occupation of the area in which the tree is located by a person who is not an Aboriginal person, has been scarred, carved or modified by an Aboriginal person by—</i></p> <p>(a) <i>the deliberate removal, by traditional methods, of bark or wood from the tree, or</i></p> <p>(b) <i>the deliberate modification, by traditional methods, of the wood of the tree</i></p>	Regulations, cl 58(3)
Disturbed land	<p><i>Land that has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable.</i></p> <p><i>Note—</i></p> <p><i>Examples of activities that may have disturbed land include the following—</i></p> <p>(a) <i>soil ploughing,</i></p> <p>(b) <i>construction of rural infrastructure (such as dams and fences),</i></p> <p>(c) <i>construction of roads, trails and tracks (including fire trails and walking tracks),</i></p> <p>(d) <i>clearing of vegetation,</i></p> <p>(e) <i>construction of buildings and the erection of other structures,</i></p> <p>(f) <i>construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure),</i></p> <p>(g) <i>substantial grazing involving the construction of rural infrastructure,</i></p>	Regulations, cl 58(4)

	<i>(h) construction of earthworks associated with any thing referred to in paragraphs (a)–(g).</i>	
Harm	<p><i>Includes any act or omission that—</i></p> <p><i>(a) destroys, defaces or damages the object or place, or</i></p> <p><i>(b) in relation to an object—moves the object from the land on which it had been situated, or</i></p> <p><i>(c) is specified by the regulations, or</i></p> <p><i>(d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c),</i></p> <p><i>but does not include any act or omission that—</i></p> <p><i>(e) desecrates the object or place, or</i></p> <p><i>(f) is trivial or negligible, or</i></p> <p><i>(g) is excluded from this definition by the regulations</i></p> <p>The Regulations do not prescribe any acts for the purposes of paragraph (c).</p> <p>For the purposes of paragraph (g), the Regulations state as follows:</p> <p><i>An act carried out in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales as published by the Department of Environment, Climate Change and Water in the Gazette on 24 September 2010 is excluded from the definition of harm an object or place in section 5(1) of the Act.</i></p>	<p>Act, s 5</p> <p>Regulations, cl 5</p>
Regulations	<i>National Parks and Wildlife Regulation 2019 (NSW)</i>	

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

Review of Environmental Factors - North Head Drive Slip Batter Stabilisation

Page 63 of 69

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

Unexpected heritage items procedure

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

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

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

Responsibilities

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

Contact details

Position	Name	Phone Number
Project Manager	Philip Oste	
Environmental Officer	C/O Geoff Armstrong	
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.