



REVIEW OF ENVIRONMENTAL FACTORS

NOTE: This Review of Environmental Factors (REF) is for projects that have minor and predictable impacts, and require a Division 5.1 assessment under the EP&A Act 1979.

Instruction to users of this template:

Where requested to Click here to enter text **and no response is required, please enter 'NA'.**

Council Document No:

Template Version #7 – November 2022

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APPENDICES

INTRODUCTION

Project name:	Minor Slips Pack	Project number:	PM_1455
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Project budget: \$1,057,726.63

Work order number: 3258, 3259, 3260 & 3261

Project manager: Shaun Halberstater

CONSTRUCTION WORK MUST NOT COMMENCE UNLESS:

- The person completing this REF has signed the completed document, verifying that each of the steps has been satisfied and no further assessment or investigation is required; AND
- The Determining Officer has signed the completed document to verify that the assessment has been adequately completed, the conclusion as to the likely environmental impact of the project is reasonable, and the project can proceed subject to relevant control measures and conditions in any approval, licence or permit; AND
- Prior to the project commencing the required approvals, licences and permits have been obtained as outlined in Section 5; AND
- All relevant construction personnel are aware of:
 - The project details in Section 1
 - The project's environmental impacts in Section 6
 - The project's specific control measures in Section 6
 - The conditions in any approval, licence or permit in Section 5
 - Their responsibilities detailed in this REF.

NOTE: If any environmental issue is identified or if any environmental control measure is required, the following is to occur:

- Where a construction drawing is prepared as part of the construction work pack, the environmental control measures should be listed in the schedule on that drawing and/or the CEMP
- For more complicated projects the environmental control measures should be included in a project-specific construction and environmental management plan.

NOTE: If any approval, licence or permit is required then copies of these **MUST** be included in the construction work pack that is submitted to the Construction Manager for the project.

NOTE: Projects may require a more detailed assessment of particular issues (eg a specialist ecology or heritage report). In these cases, this document should accompany this REF as an appendix, and the findings should be considered in the assessment and identification of control measures.

NOTE: Some minor projects are exempt development. There is a separate checklist to be completed if you think your project is exempt. Where the project meets the exempt criteria and the exempt criteria checklist has been completed, a REF is not required.

NOTE: Projects requiring a Part 4 planning approval require a Statement of Environmental Effects and approval from Council. DO NOT USE this REF template for these matters. For further details of assessing whether a project is exempt development or requires approval under Part 4, refer to relevant flow charts.

Section 1 PROJECT DETAILS

NOTE: Prior to completing this REF a site inspection is to be undertaken by the officer completing the assessment.

1.1 Site inspection

A site inspection was undertaken by the person completing this REF	<input checked="" type="checkbox"/> Yes	24/06/2024	15:00
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1.2 Location of activity

Please attach a locality plan, map, photographs, diagrams and a site plan (as necessary) showing the location and layout of the proposed activity, and provide the following details of the location of the proposed activity site. If Council land, is it Community or Operational land?

Site commonly known as (if applicable)	Byron Shire Minor Slips		
Street address (if applicable)	No:	Enter number.	Street name:
	DM02274: Goonengerry Road 2482 DM02286: Main Arm Road 2482 DM02303: The Pocket Road 2483 DM02360: Main Arm Road 2482		
	Town, village or locality:		DM02274: Goonengerry, 2482 DM02286: Main Arm 2482 DM02303: Billinudgel 2483 DM02360: Upper Main Arm 2482
Title reference	Lot and deposited plan (or strata plan):		DM02274: 1/790201 DM02286: 1/961965 DM02303: 3/1019171 DM02360: 228/755730
Site reference	Easting: (6 digits)	DM02274: 28.6040°S DM02286: 28.5222°S DM02303: 28.4988°S DM02360: 28.4896°S	Northing: (7 digits) DM02274: 153.4389°E DM02286: 153.4419°E DM02303: 153.5211°E DM02360: 153.3852°E
	Nearest cross street or streets:		DM02274: Goonengerry Mill Road, 2482 DM02286: Settlement Road, 2482 DM02303: Brunswick Street, 2483 DM02360: Motts Road, 2482
	Site owner and tenure:		Road Reserve (Byron Shire Council) & Private Property
	Land classification (Community or Operational, if applicable):		Council Road

Site map or aerial image



Figure 1. Aerial imagery – location of minor slip DM02274 on Goonengerry Road, Goonengerry 2482.



Figure 2. Aerial imagery – location of minor slip DM02286 on Main Arm Road, Main Arm 2482.

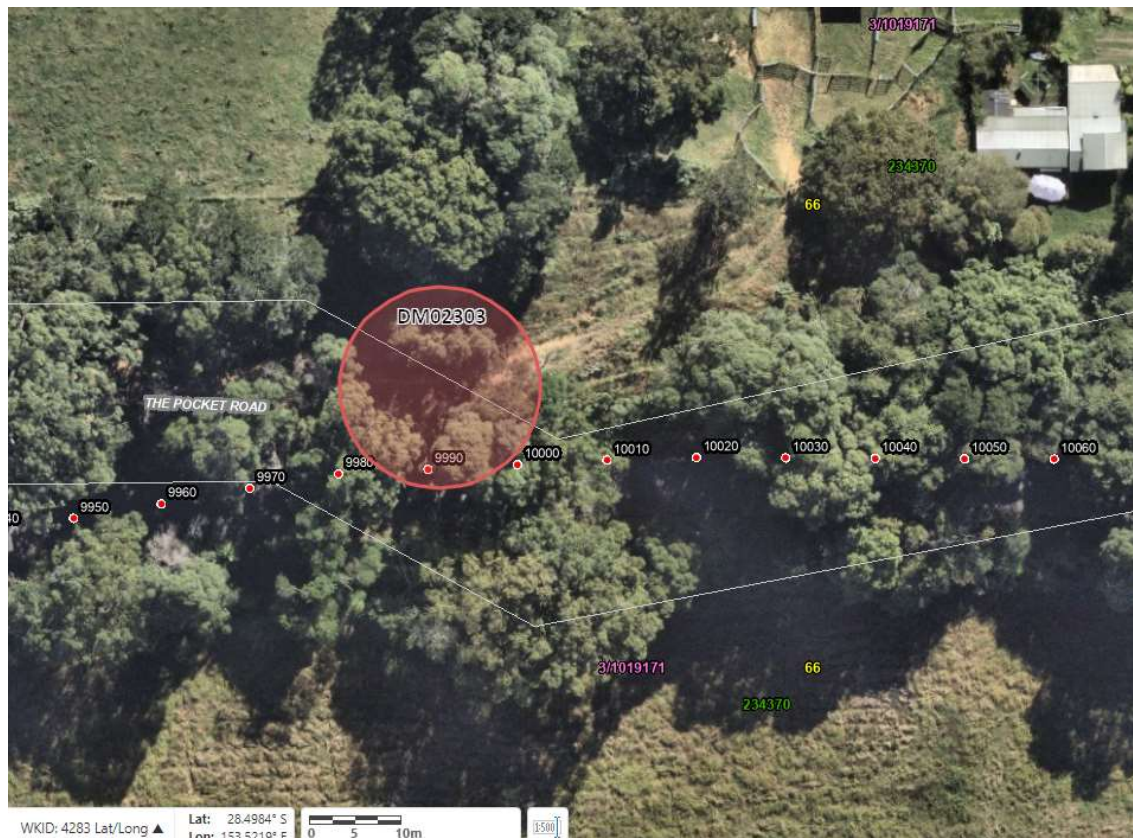


Figure 3. Aerial imagery – location of minor slip DM02303 on The Pocket Road, Billinudgel 2483.



Figure 4. Aerial imagery – location of minor slip DM02360 on Main Arm Road, Upper Main Arm 2482.

1.3 Description of the proposed activity

Description of the proposed activity – include pre-construction, construction, operation and remediation

Following the 2022 natural disaster a number of embankments along road corridors throughout Byron Shire suffered extensive damage leading to slumps/slips. The activity is part of Byron Shire Council's response plan to repair/reinstate essential infrastructure and road safety as required. The damaged embankments at Goonengerry Road, Main Arm Road, and The Pocket Road (as outlined in section 1.2) have received funding from the Australian Government for remediation and reinstatement of flood damaged assets. The proposed activity aligns with objectives for Byron SC to provide safer roads and better environmental outcomes.

Damage Number	Primary Location	EPAR NO	Damage Description
DM02274	GOONENGERRY ROAD	EPAR13	Remove landslide debris, regrade batter and reform table drain. Revegetate Slope
DM02286	MAIN ARM ROAD	EPAR13	Remove landslide debris, regrade batter and reform table drain. Revegetate Slope
DM02360	MAIN ARM ROAD	EPAR13	Remove landslide debris, regrade batter and reform table drain. Revegetate Slope
DM02303	THE POCKET ROAD	EPAR13	Remove landslide debris, regrade batter and reform table drain. Revegetate Slope

Pre-construction:

- Design, survey, and permits
- Establishment of site offices & mobilisation
- Installation of traffic control units
- Establish erosion & sediment controls in accord with Landcom's Blue Book [4th Ed.] (2004)
- Install temporary signage in line with Byron SC CEMP & community consultation procedure
- Vegetation clearing as required

Construction:**DM02274:**

- Excavate landslide debris and remove from Site
- Regrade cut batter
- 1-2 Tree Clearing if required when regrading due to road safety concerns.
- Reform table drain

DM02286:

- Excavate landslide debris and remove from site
- Regrade cut batter
- 1 x tree if required when regrading due to road safety concerns
- Reform table drain

DM02303:

- Excavate landslide debris and remove from site
- Regrade cut batter
- 1 x Tree Clearing if required when regrading due to road safety concerns..
- Reform table drain

DM02360:

- Excavate landslide debris and remove from site
- Temporary stability to be managed using staged 'top down' approach to avoid undermining
- Special care needed to manage boulder roll hazard
- Excavate material from main scarp to reduce angle with existing natural slope
- Reform table drain
- Reconstruct/repair damaged pavement

Post-construction:

- Remove erosion and sediment controls & temporary signages
- Revegetate site, DM02303/02360 must be revegetated with native, regionally endemic trees
- Stabilise & reinstate site
- Reinstate safe traffic access
- Align with the aims and objectives outlined in SEPPTI (2021)
- Align with the aims and objective of other legislation and guidelines listed in this REF

Size of the proposed activity footprint**DM02274:** 15m x 15m = 225m²**DM02286:** 15m x 15m = 225m²**DM02303:** 10m x 10m = 100m²**DM02360:** 30m x 15m = 450m²**Total:** 1000m²

Ancillary activities, such as advertising or other signage (including any temporary sign, banner or structure promoting an event or sponsorship arrangement), roads, infrastructure, bushfire hazard reduction

Signage will be installed in line with Byron SC CEMP and community consultation procedures.

Proposed construction methods, materials and equipment

Methodology:

Excavation/removal of debris/vegetation/damaged infrastructure where required. Regrade batters & reform table drains.

Materials to be used:

All activities will require imported gravels, imported topsoil, signs, line marking paint, endemic native vegetation (where required), coconut logs.

Equipment:

Excavators, rollers, padfoots, graders, spreader trucks, plate vibrators, concrete pourer, work utes, transport trucks, tippers, line marking machines, mulchers.

Receivables, storage and on-site management of materials used in construction (eg stockpiles and lay-down areas)

Imported gravels, imported topsoil, signs, line marking paint and other miscellaneous items. All items used for the works will be carted onto site each day or stored in a laydown within the footprint of the road reserve (in the road reserve).

Earthworks or site clearing, including extent of vegetation to be removed

General earthworks:

Slope regrading, forming table drains, removal of slip debris, removal of damaged pavement where required.

Vegetation assessment:

Vegetation to be cleared primarily exotics/weeds. Clearing at DM02360 is limited to tobacco bush, crofton weed, and bracken fern. An on-site vegetation assessment determined that this vegetation is of low ecological value and not contributing to surrounding TECs. Where native vegetation is to be removed, sites must be revegetated with native trees of equivalent ecological value.

Waste material to be reused or discarded

Waste type:

Soils, rock material, and vegetation from embankments
Damaged pavement

Volume:

Approx 1000m²

Disposal or reuse location:

Spoil materials generated to be taken to approved flood restoration works spoil reuse site at Manse Road, Myocum 2481 for testing classification and reuse where deemed suitable. All other waste to be removed from the activity zone via truck haulage and either temporarily stockpiled at an approved roadside stockpile site, or disposed of at Byron Recycling centre or other approved waste disposal facility.

Sustainability measures, including choice of materials (such as recycled content) and water and energy efficiency

Where required native plants for revegetation to be sourced locally. Mulched tree trimmings to be reused in landscaping on site. Appropriate spoil materials to be reused in other projects where suitable.

Environmental safeguards and mitigation measures

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Erosion and sediment control	<p>Erosion & Sediment controls to be checked daily and maintained on a regular basis, records kept and provided on request.</p> <p>Work areas to be stabilized progressively during the course of works.</p> <p>Install sediment control measures as early as possible. Management of erosion and sediment at the site should be the subject of a Construction Environmental Management Plan (CEMP) and should be undertaken in accordance with the Landcom, Soil and Construction Guidelines (Blue Book).</p>	Geology, Soil landscapes, and limitations, and potential contamination is outlined in sections 4.4 and 4.5.

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Waterways	<p>Plan works during low-flow periods and when no heavy rain is forecast. If a flood or major rainfall event occurs during the works then site must be secured as quickly as possible.</p> <p>Install a sediment curtain and floating boom in the Brunswick River and Stony Creek downstream of each work site to capture any material that might enter the waterway.</p> <p>Implementation of emergency spill procedures, including provision for and training with an emergency spill-kit.</p> <p>All equipment to be refuelled at least 40 metres away from drainage lines, Brunswick River, and Stony Creek, and all fuel and machinery to be stored above flood height.</p>	<p>Works will not interface with any waterways.</p> <p>The site may experience overland flows during heavy rainfall events. Significant wet weather could damage unfinished infrastructure and degrade sediment erosion controls. The activity will need to be scheduled around seasonal rainfall and weather events.</p> <p>No fisheries permit required.</p>
Noise and vibration	<p>Notify neighbours of project dates and likely noise impacts.</p> <p>Minimise plant and tool noise by providing regular maintenance.</p> <p>Limit machinery use to normal working hours.</p> <p>Use reverse alarms that meet Australian standards on all machinery.</p> <p>Minimise construction noise by turning off machinery when not in use.</p>	N/A
Air quality	<p>Watering of exposed soils will be undertaken to control dust emissions.</p> <p>Machinery, equipment and vehicles to be turned off when not in use to reduce emissions.</p> <p>All plant will be serviced and appropriate controls will be in place to limit plant emissions.</p>	N/A
Non-Aboriginal heritage	N/A	No non-Aboriginal heritage items were identified by the State Heritage Inventory tool.

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Aboriginal heritage	<p>In the event of the identification of objects, items, artefacts, or material during the proposed work, all work in the surrounding area must stop immediately and the following steps taken.</p> <ol style="list-style-type: none"> 1. A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer distance of at least 5m from the known outer extent of the Aboriginal cultural heritage site. 2. The relevant Byron SC project manager, manager, or director must be contacted immediately. 3. The DPIE Enviroline (131 555) and Tweed/Byron LALC or Bundjalung of Byron Bay Aboriginal Corporation (Arakwal). 4. An appropriately qualified archaeological consultant is to be engaged to work with the native title corporation to identify the material. 5. If the material is confirmed as an Aboriginal object or archaeological site, facilitate, in collaboration with the traditional owners and appropriate authorities: 6. the recording and assessment of the finds, 7. compliance with any legal requirements and Heritage NSW directions, 8. the development and implementation of appropriate management strategies based on an assessment of significance of the finds. <p>Recommendation of ground disturbance works can only occur once an aboriginal heritage impact permit has been obtained and legal requirements have been satisfied.</p> <p>In the event that suspected human remains are encountered during the proposed works all activity and work in the area must stop immediately and the following steps taken.</p> <ol style="list-style-type: none"> 1. The location, including a 20m curtilage, should be secured using barrier fencing to avoid further harm. 2. The NSW police must be contacted immediately. 3. The relevant Byron SC project officer, manager, or director must be contacted immediately following the police. 4. No further action is to be undertaken until the NSW Police provide written notification to the property owner. 5. If the skeletal remains are identified as Aboriginal, the property owner must contact the following: The DPIE Enviroline (131 555) and Tweed/Byron LALC or the Arakwal Corporation. <p>No works are to continue until Heritage NSW provides written notification to the proponent.</p>	<p>The activity area has the potential to contain unknown Aboriginal objects; However, the past disturbance of the site reduces the heritage potential. The activity does not pose any potential impacts to known Aboriginal heritage.</p>

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Biodiversity	<p>Under no circumstance is there to be harm to native fauna (including where they inhabit bridges or other structures).</p> <p>Should unexpected, native fauna be located at any time during construction, cease work immediately in the area to prevent harm to the individual. Contact Council's Environmental Officer and a suitably qualified ecologist to determine if further assessment or management plans are required. Do not recommence works until fauna has moved away or can be safely relocated.</p> <p>Should injured fauna be found on the site, local wildlife care groups and/or local veterinarians shall be contacted immediately and arrangements made for the immediate welfare of the animal. The phone number of the local WIRES group (ph: 1800 094 737) or Northern Rivers Wildlife Carers (ph: 6628 1866).</p> <p>All equipment, plant, and personnel to be thoroughly cleaned and free of soil before entering site to prevent spread of weeds or soil-based pathogens.</p> <p>Exclusion zones to be established around sensitive vegetation and habitat areas including vegetation stands, wildlife corridors, koala trees, and riparian zones where possible.</p> <p>Works are not to create an ongoing barrier to movement of wildlife.</p> <p>As part of site induction process, provide all site personnel with information on the biodiversity values of the study area, including potential threatened species, exclusion zones, 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.</p>	<p>Section 4.10 lists several species likely to occur in the vicinity of the activity area. A Threatened Species Test of Significance was deemed necessary to adequately address potential significant impacts posed by the works (7.3 of the Biodiversity Conservation Act 2016).</p> <p>DM02303 must be revegetated with native trees appropriate for PCT North Coast Wet Sclerophyll Forest.</p> <p>DM02360 must be revegetated with native trees appropriate for TEC <i>Lowland Rainforest</i>.</p> <p>Revegetation must prioritise vegetation endemic to the area in which works were carried out.</p>

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Trees and vegetation	<p>Temporary tree protection fences must be installed around mature trees to be retained (near the site) before commencement of construction.</p> <p>Care must be taken to avoid accidental damage to native trees close to the site.</p> <p>Endemic native vegetation will be planted as soon as construction is completed. All native vegetation will be offset with plantings in the vicinity of the site.</p> <p>Vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.</p>	<p>Some trees at various sites require will require clearing due to road safety concerns.</p> <p>Unless stated elsewhere, Compensatory plantings can either be carried out directly on the affected site or equivalent planting can be carried out under a bush regeneration scheme.</p> <p>Replanting ratios will be in accordance with Byron Shire Development Control Plan 2014 – Chapter F1.</p>

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Traffic, transport and parking	<p>Council will install VMS boards prior to works commencing to provide advance warning to community of upcoming works.</p> <p>A traffic management plan will be prepared in accordance with the 'Traffic control at work sites manual' (RTA, 2010a) and Australian Standard 1742.3 Manual of Uniform Control Devices. This TMP must be in place for the duration of the works.</p> <p>Where possible, current traffic movements and property accesses are to be maintained during the works. Any disturbance to be minimised to prevent unnecessary traffic delays.</p> <p>Temporary traffic bypasses will be installed where road is required to be closed for construction.</p> <p>Slow traffic with stop/slow traffic controls, as required, and divert to sidetrack.</p> <p>Safe traffic access to be reinstated once works are completed.</p>	N/A
Socio-economic	<p>Communicate with residents clearly (with signage and website) all information on road impacts and work times.</p> <p>Where access to private property is required, a request to enter or notice to occupy under s175 of the Roads Act must be issued a minimum of seven working days prior to works commencing to allow adequate time for objections and appeals</p> <p>Notification to be given to affected key stakeholders and community prior to works taking place, including: Details of activity, duration and working hours, changed traffic/access, how to lodge a complaint/obtain more information, contact name and details.</p> <p>All complaints are to be recorded on a complaints register and attended to promptly.</p> <p>Existing access to affected property to be maintained at all times during the activity unless otherwise agreed to by affected property owner.</p> <p>Construction timeframe to be coordinated with Council to minimize conflicts with other intended projects and community events within the area and to minimise cumulative impacts on the community.</p>	Access to private property will be required in some locations and has be communicated via s175 form.

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Waste	<p>Spoil materials generated to be taken to approved flood restoration works spoil reuse site at Manse Road, Myocum 2481 for testing classification and reuse where deemed suitable.</p> <p>Non-suitable spoil materials will be removed and disposed of at an approved landfill facility in accordance with approved acceptance criteria.</p> <p>Resource management hierarchy principles to be followed.</p> <p>Working areas are to be maintained, kept free of rubbish, and cleaned up at the end of each working day.</p> <p>A site toilet is to be provided and maintained and disposed of properly.</p>	N/A
Visual amenity	<p>Working areas are to be maintained, kept free of rubbish, and cleaned up at the end of each working day.</p> <p>Replanting of native vegetation will speed up the restoration process and reduce visual impacts quickly.</p>	N/A
Land contamination	N/A	N/A
Soils and geotech	Fill material shall be sourced from appropriate local sources and certified as clean, or virgin excavated natural material (VENM).	N/A
Miscellaneous	<p>Prior to commencement of works, the site area shall be demarcated using markers, temporary barriers, or flagging tape. Public access will be restricted.</p> <p>Works to accord with relevant Australian Standards and Standard Operating Procedures, as well as normal work standards of construction.</p> <p>Environmental safeguards will be communicated to all construction personnel as part of an Environmental Site Induction and repeated, where appropriate, at Toolbox Sessions prior to the commencement of relevant work components.</p> <p>A CEMP is to be prepared in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan), and QA Specification G10 – Traffic Management, and implemented prior to the commencement of works.</p> <p>If the scope of the works changes at any time, review of the project under appropriate guidelines and legislation and complete and further requirements including consultation/approval by landholder prior to undertaking works associated with the changed scope.</p>	N/A

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Weeds	Ensure all plant, equipment and personnel are free of soil and potential weed propagules prior to being brought on site. Clean all plant and equipment again before being used on other sites. Staff and contractors will be educated on weed identification.	N/A
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Construction timetable and staging hours of operation

Hours of work (including delivery of materials to and from the site) shall be restricted as follows:

- 1 Between 7:00 am and 6:00 pm – Monday to Friday, inclusive.
- 2 Saturday 8:00 am to 1:00 pm
- 3 No work on Sundays or public holidays

Any works proposed outside the above standard construction hours are to be as per the *Draft Construction Noise Guideline* (EPA 2020) and subject to Council approval.

Estimated commencement date:

30 November 2024

Estimated completion date:

1 January 2026

NOTE: If the activity involves building or infrastructure works, it may require certification to Building Code of Australia or Australian Standards prior to commencement.

1.4 Reasons/objectives for the activity and consideration of alternatives

Provide details of the reasons/objectives for the activity (need for the activity)

Following the 2022 natural disaster a number of embankments along road corridors throughout Byron Shire suffered extensive damage leading to slumps/slips. The activity is part of Byron Shire Council's response plan to repair/reinstate essential infrastructure and road safety as required. The damaged

embankments at Goonengerry Road, Main Arm Road, and The Pocket Road (as outlined in section 1.2) have received funding from the Australian Government for remediation and reinstatement of flood damaged assets. The proposed activity aligns with objectives for Byron SC to provide safer roads and better environmental outcomes.

Alternatives

- Option 1: Proceed with the activity as outlined in this REF. This will deliver on Byron SC's desired aims, objectives and the requirements of this proposal.
- Option 2: Do nothing.

Justification for preferred option

Option 1 is the preferred option as it will improve road safety by remediating and stabilising a number of slipped embankments throughout the shire.

1.5 Relationship with other projects, programs and plans

The proposed activity aligns with objectives for Byron SC to provide safer roads and better environmental outcomes.

Section 2 CONSULTATION

Consultation is not compulsory for all REFs but it may be advisable. Specify the details of any consultation, including who was consulted, how, when and the results of the consultation.

Consider whether advice/feedback from any State agencies should be sought/might be beneficial.

If the works are located on land (or water) subject to a determined Native Title claim or an Aboriginal land claim, have you consulted with the Aboriginal traditional owners, eg Bundjalung of Byron Bay Aboriginal Corporation (Arakwal), Jali LALC, Tweed Byron LALC, Ngulingah LALC? Any response to be included as an appendix.

Community engagement, particularly for residents in close proximity to the works. Letter Box drops, Council Comms notifications and social media posts will be prepared. IR Works also has a list of residents email addresses and a generic email will be sent prior, notifying residents of the works.

Works will need to enter private land on Goonengerry Rd (DM02274) & Main Arm Rd (DM02286) Left Bank Rd to undertake the works. The landowners have been consulted and has provided consent via a signed s175 form for Council to enter their property and undertake works. Should works at other sites require notice of entry, notice to occupy (under s175 of the Roads Act [1993]) must be in writing and provided to landowners a minimum of seven working days prior to the commencement of works.

Section 3 STATUTORY FRAMEWORK

3.1 Description of relevant environmental planning instruments

This could include SEPPs or LEPs and, if necessary, the relevant zoning, clause, provision or schedule.

3.1.1 State Environmental Planning Policies (SEPPs)

SEPP (Transport and Infrastructure) 2021

Briefly document the relevant part of this SEPP that places your activity in Part 5 of the EP&A Act 1979.

SEPPTI (2021) aims to facilitate the effective delivery of infrastructure across the state, including for roads and road infrastructure facilities. Clause 2.109 of the SEPPTI permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the works is appropriately characterised as development for the purposes of a road or road infrastructure facilities and is to be carried out by Byron SC Council, it can be assessed under Division 5.1 of the EP&A Act.

Clause 2.20 in the SEPPTI (2021) 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.

Clause 2.109 of SEPPTI identifies the proposed works as 'development permitted without consent', stating:

2.109 Development permitted without consent – general:

1. 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.

Subsection **3 (a)(ii)** lists the creation of embankments as development for the purpose of a road or road infrastructure.

Subsection **1 (v)** lists slope stability works that are required for safety reasons and minor road safety improvements.

The activity is not located on land reserved under the National Parks and Wildlife Act 1974 and does not require development consent or approval under State Environmental Planning Policy (Resilience & Hazards) 2021, State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 or State Environmental Planning Policy (Planning Systems) 2021.

SEPPTI (2021) aims to facilitate the effective delivery of infrastructure across the state, including for roads and road infrastructure facilities. Clause 2.109 of the SEPPTI permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the works is appropriately characterised as development for the purposes of a road or road infrastructure facilities and is to be carried out by Byron SC Council, it can be assessed under Division 5.1 of the EP&A Act.

The activity is not located on land reserved under the National Parks and Wildlife Act 1974 and does not require development consent or approval under State Environmental Planning Policy (Coastal Management) 2018, State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 or State Environmental Planning Policy (Planning Systems) 2021.

Biodiversity Conservation Act 2016 (BC Act) The assessment of potential impacts to threatened species and endangered ecological communities (EECs) listed under the BC Act is required in accordance with Part 7.3(1) of the BC Act and s1.7 of the EP&A Act and is covered by this REF. The result of this assessment and review concluded that no State listed threatened species, populations and/or communities are likely to be significantly impacted by the proposed works, therefore a Species Impact Assessment is not required.

Matters of National Environmental Significance (MNES) have been considered in Section 8 of this REF. Additionally, an ecological assessment and review of relevant databases relating to the possible occurrence of Nationally listed threatened species, populations and/or ecological communities was undertaken for the purposes of this review (refer to Section 4.10). The assessments concluded that no MNES or Commonwealth Land would be likely to be impacted by the activity.

National Parks and Wildlife Act 1974 (NPW Act) There are no Potential Archaeological Deposit (PAD) sites within close proximity to the works site. The project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals (as defined by s5 and s84 of the NPW Act) have been identified near or in the proposed work site. If during the proposed works any Aboriginal heritage is identified, work will cease until further assessment and permits under s90 of the NPW Act.

State Environmental Planning Policy (Koala Habitat Protection) 2020 Koala Habitat Protection SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for *Phascolarctos cinereus* (Koala) to ensure a permanent free-living population over their present range and reverse the current trend of Koala population decline. Koala Habitat Protection SEPP applies to development under part 4 of the EP&A Act 1979. As the proposed activity is not 'development', Koala Habitat Protection SEPP does not apply. Regardless, consideration of impacts to koala and koala habitat may still be relevant under the BC Act 2016.

Local Land Services Act 2013 (LLS Act) 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.

Fisheries Management Act 1994 (FM Act) has been considered throughout this report with particular regard to section 4. The objective of the Act are to conserve, develop and share the fishery resources of the State for the benefit of present and future generations. The primary objective of the FM Act are to conserve fish stocks and key fish habitats, to conserve threatened species, populations and ecological communities of fish and marine vegetation, and to promote ecologically sustainable development, including the conservation of biological diversity. The FM Act regulates proposals which can take place within and adjacent to waterways where impact to water quality and aquatic habitat could occur. These works are not required to be subject to fisheries approvals and/or permits.

SEPP (Resilience and Hazards) 2021

If you intend to clear, fill or drain in a SEPP Coastal Wetland or SEPP Littoral Rainforest you cannot use this REF template. Part 4 of the EP&A Act 1979 applies. If work (other than the above) is proposed in or near (within 100 metres of) a wetland or littoral rainforest, seek professional assistance.

Works will not be occurring in or around Coastal Wetlands or Littoral Rainforests.

3.1.2 Byron Local Environmental Plan 2014 (and/or Byron LEP 1988)

Zoning

Check the defined uses in the LEP Dictionary. Check the zones on e-view, confirm it is a Part 5 matter.

Byron Shire council Local Environmental Plan (Byron SC LEP 2014). The proposed works are permitted under the Byron SC LEP 2014 with the works areas confined primarily within the roadway easement. Consent is not required as the activity is being undertaken through the provision of the State Environmental Planning Policy (Transport and Infrastructure) 2021.

Local provisions

Do clauses 5.1 to 5.13 and clauses 6.1 to 6.11 apply?

Is the site Community or Operational land (LEP Schedule 4)? Check Byron Council Land Register.

Is the site listed in LEP Schedule 5 Environmental Heritage – Part 1 (Heritage items)?

Is the site affected by LEP Schedule 5 Environmental Heritage – Part 2 (Heritage conservation areas)?

The Proposal is located within BSC LGA. The Proposal is located on land that is affected by the Byron Local Environmental Plan (LEP) 2014 and is zoned primarily RU1, RU2, and Deferred Matter (DM) under the Byron LEP 2014. The Proposal would not impact on the objectives of the DM zone and is precluded from requiring development consent under Clause 2.109 of SEPPTI. The proposed works are not in proximity to a heritage item or heritage conservation area under the Byron LEP 2014.

Council's Development Control Plan 2104, Chapter F1.2.1 all native species need a permit for removal. However a tree permit has been provided.

F1.2.1.4 Notes Vegetation affected by works under State Environmental Planning Policy (Transport and Infrastructure) 2021 defined as exempt development. Therefore exempt development can continue to be Exempt Development if removal or pruning on vegetation is proposed

3.2 Description of any relevant plan of management, policy or procedure

All other relevant statutory planning instruments have been examined in relation to the Proposal. As indicated above, development consent is not required for the subject activity by virtue of Clause 2.109 of SEPPTI. However, the Proposal becomes an 'activity' for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment.

NOTE: Many Council activities can be considered under Part 5 of the EP&A Act 1979. There are some exceptions (see flow charts). If in doubt, consult with Council's planners. Where the project cannot be considered under Part 5, this template should not be used.

Section 4 EXISTING ENVIRONMENT

4.1 Description of the existing environment

DM02274 is located on a sealed rural roadway corridor (Goonengerry Road) with steep slopes on either side of the road the upslope exists west of the road, and downslope to the east. The slip itself is located on the upslope side on a slight bend. The vegetation is mixed Camphor Laurel (51-80%).

DM02286 is situated on a sealed two-lane rural roadway corridor (Main Arm Road) with steep slopes to either side. The upslope slip is located on the western side of the road, below the eastern slope is the Brunswick River. Vegetation is mixed Camphor Laurel (51->80%).

DM02303 is located on a sealed two-lane rural roadway corridor (The Pocket Road) through North-Coast Wet Sclerophyll Forest PCT, land beyond dominated by grazing land. Upslope slip exists on steep bank to north of road, residence above.



Figure 5. DM02303 upslope slip on northern embankment of The Pocket Road, Billinudgel 2483

DM02360 is located on a narrow unsealed rural roadway corridor constructed of gravel (Main Arm Road), through dense mixed vegetation. Slip is large and upslope on embankment to North-east of roadway, appears primarily vegetated by regrowth and exotics. Residential driveway in immediate vicinity. Motts Road Intersection & school bus bay <50m east along Main Arm Road.

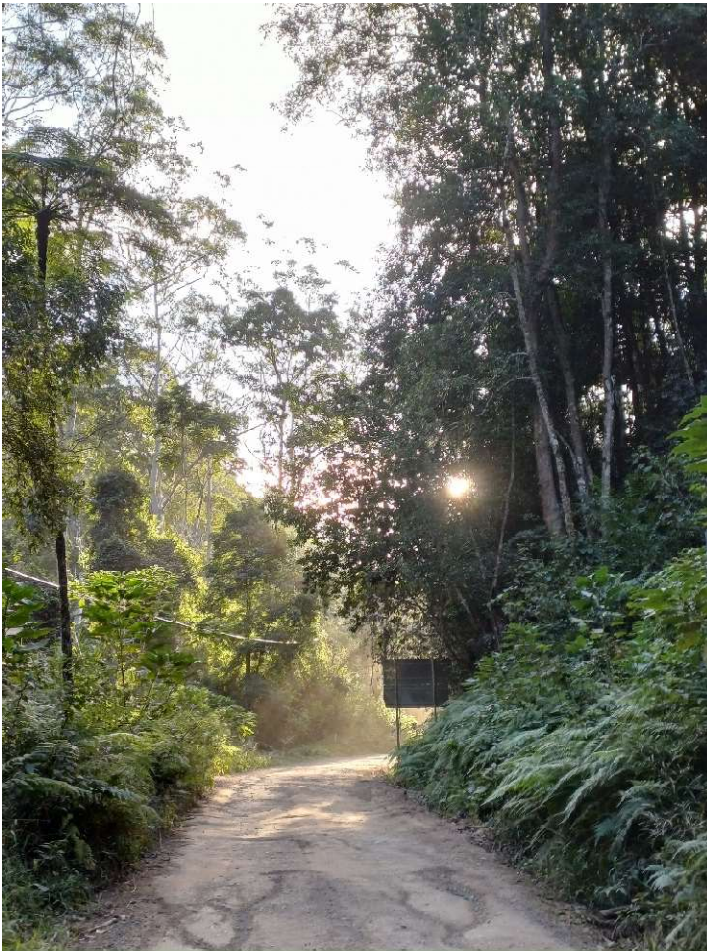


Figure 6. Main Arm Road corridor facing west with DM02360 slip on right.

4.2 Topography

DM02274

Road corridor slopes up gradually running NW - SE (5-15% average). Very steep slopes (>50%) either side of road. Upslope to west at location of slip. Downslope to east.

DM02286

Road corridor slopes downward gently (0-5% average) running north – south. Very steep slopes (>50%) either side of road. Long upslope to West at location of slip. Short downslope to east running down into Brunswick River.

DM02303

Road corridor generally flat (0-5% slope), runs east to west. Short, moderately steep (15-30%) to very steep (>50%) slopes either side of road. Approximately 15m long upslope to North of road at location of slip. <10m long downslope to south.

DM02360

Road corridor gently slopes upward (0-5%) from SE – NW. Moderately steep (15-30% average) upslope to north/northeast at location of slip. Moderately steep (15-30%) to steep (30-50%) downslope to south/southwest.

4.3 Surrounding land uses

How far away are the nearest dwellings, school, bus stops, etc?

DM02274 occurred on land zoned R5 (large lot residential). The road and land to the east is zoned RU2 (Rural landscape). The nearest dwelling is located approximately 50m west of the slip, on Lot 1/790201. Other dwellings are >100m westward.

DM02286 is located on land zoned RU2 (Rural landscape). West of the road the Brunswick River is zoned DM (Deferred Matter) – *1(a) General Rural Zone* under 1988 Byron Shire LEP. The river is mapped as a crown waterway. The nearest dwelling is located approximately 150m North.

DM02303 is located along a deferred matter (DM) road – zoned *1(b1) Agricultural Protection Zone* under 1988 Byron Shire LEP. The slip occurred on land zoned RU1 (Primary Production). South of the road the land is zoned C3 (Environmental Management). The nearest dwelling is located approximately 60m North West of the site.

DM02360 is located primarily on land zoned C2 (Environmental conservation) [Refer to **Figure 7**]. Where the land is zoned DM (Deferred Matter) the 1988 Byron Shire LEP has the land as *1(a) General Rural Zone*. The Brunswick River is a crown waterway. The nearest dwelling is located approximately 60m North of the slip. A bus shelter is located on Main Arm Road approximately 85m east of the site.

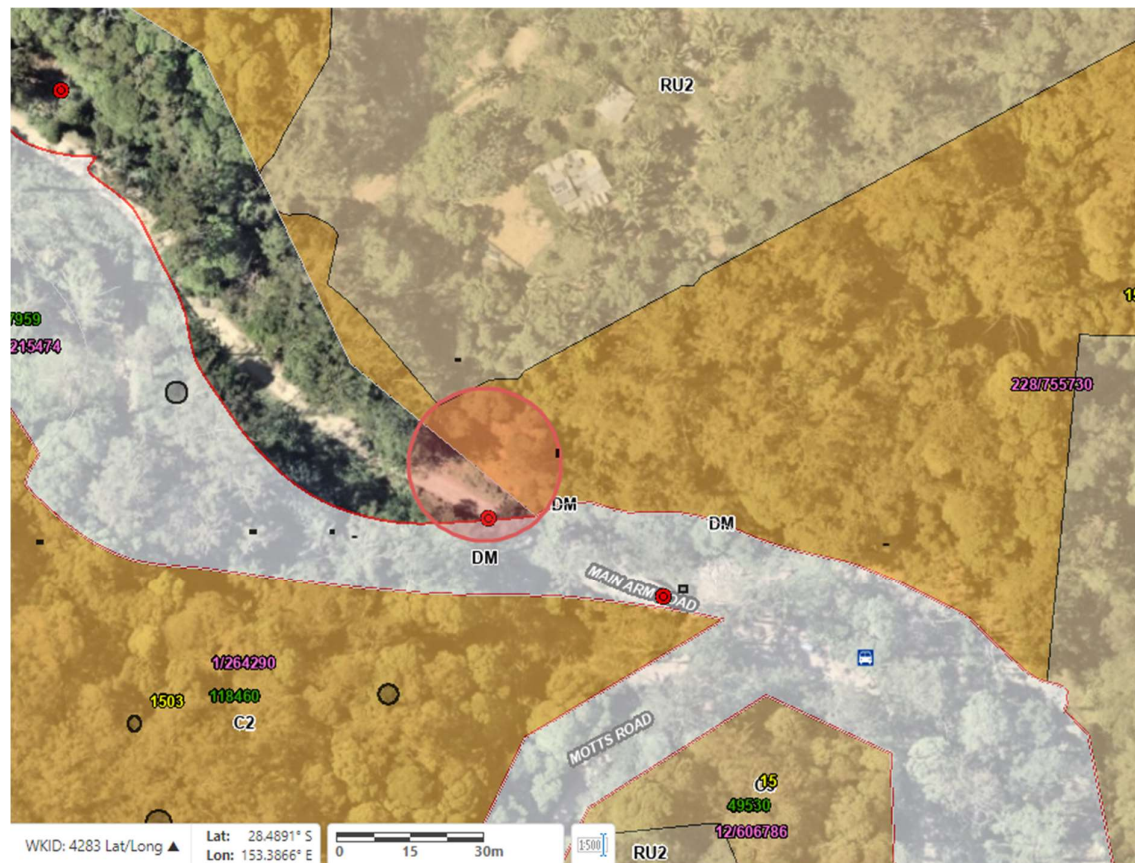


Figure 7. Land zoning on Main Arm Road with DM02360 circled in red.

4.4 Geology/Geomorphology

Is the site slip-prone or unstable?

DM02274: *Rosebank* (9540ro) soil landscape – Lamington Volcanics. Lismore Basalts – Tertiary basalt with bole and minor agglomerate. Limitations include very acid soils with high aluminium toxicity potentials, steep slopes with mass movement hazard, and localised rock outcrop.

DM02286: *Burringbar* (9540bu) soil landscape – Neranleigh-Fernvale Group. Predominantly phyllitic siltstones and shales. Quartzites, siliceous sandstones/siltstones, Greywacke and argillite also occurring. Sometimes overlain/capped with basalt. Limitations include hardsetting, erodible, shallow, stony, sodic soils of low fertility with high erosion hazard. Steep slopes and high mass movement hazard.

DM02303: *Burringbar* (9540bu) soil landscape – Neranleigh-Fernvale Group. Predominantly phyllitic siltstones and shales. Quartzites, siliceous sandstones/siltstones, Greywacke and argillite also occurring. Sometimes overlain/capped with basalt. Limitations include hardsetting, erodible, shallow, stony, sodic soils of low fertility with high erosion hazard. Steep slopes and high mass movement hazard.

DM02360: *Frogs Hollow* (9541fh) soil landscape – Chillingham Volcanics (Triassic). Rhyolite, rhyolitic tuff, claystone. Neranleigh-Fernvale group rocks. Limitations include very steep slopes and mass movement hazard with localised rock outcrop and shallow soils. Strongly acid, highly erodible soils with high aluminium toxicity potential.

The sites are not mapped slip-prone but should be considered unstable due to works being undertaken to remediate land that slipped/slumped during the 2022 Natural Disaster Event.

4.5 Soil types and properties

Is the site affected by acid sulfate soils and at what depth?

DM02274:

Self-mulching dark reddish clay loam (topsoil – Ap horizon)
Dark red strongly structured clay (subsoil – B horizon, occasionally topsoil – Ap horizon)

DM02286:

Hardsetting sandy clay loam (topsoil – A₁ horizon)
Crumbly silty clay loam (topsoil /deep topsoil – A₁/A₂ horizons)
Slightly mottled light clay (subsoil – B horizon)

DM02303:

Hardsetting sandy clay loam (topsoil – A₁ horizon)
Crumbly silty clay loam (topsoil /deep topsoil – A₁/A₂ horizons)
Slightly mottled light clay (subsoil – B horizon)

DM02360:

Dark sandy clay loam (topsoil/deep topsoil – A₁/A₂ horizons)
Dark clay loam (topsoil – A₁ horizon)
Dark reddish brown structured clay (deep topsoil – A₂ horizon)
Yellowish brown massive clay (subsoil – B horizon)
Reddish brown moderately structured clay (subsoil – B horizon)

The sites are not affected by acid sulfate soils.

4.6 Waterways

How close are the works to the waterway, and is it a drinking water catchment?

The work sites on Main Arm Road are located above Brunswick River which does not form part of the Byron Shire drinking water catchment. Work sites on Goonengerry Road and The Pocket Road are not located near a waterway. The Goonengerry site is however located within the Byron Shire drinking water catchment LEP 2014.

4.7 Flora (including flora of conservation significance)

Check Council's GIS.

Complete a search of the threatened species database in cases where vegetation is to be impacted/removed.

DM02274

Highly disturbed – Disturbed footprint colonised by minor bracken, pastural grasses, and noted weed species *Hedychium gardnerianum* (Ginger Lily). Surrounding land dominated by *Cinnamomum camphora* (Camphor Laurel).

Plant Community Types (PCT) Present:

Rainforest derived Camphor Laurel 51-80%.

BioNet Threatened Flora (1km buffer):

Syzygium hodgkinsoniae (Red Lilly Pilly) [V]
Hicksbeachia pinnatifolia (Red Boppel Nut) [V]
Macadamia tetraphylla (Rough-shelled bush nut) [V]

DM02286

Highly disturbed – Disturbed soil within slip recolonised by minor bracken and grassy weeds. Surrounding land dominated by *Cinnamomum camphora* (Camphor Laurel).

PCT Present:

Camphor Laurel >80% on slip side of road, Camphor Laurel 51-80% opposite.

BioNet Threatened Flora (1km buffer):

Syzygium moorei (Durobby) [V]
Macadamia tetraphylla (Rough-shelled bush nut) [V]
Phyllanthus microcladus (Brush sauropus) [V]

DM02303

Disturbed – footprint colonised by minor bracken, and regrowth of *Lophostemon confertus* (Brush Box). Regraded slope must be hydroseeded with native seed mix suitable for present PCT. Removal of brush box individual will require compensatory plantings in accordance with Byron Shire Development Control Plan 2014 – Section B2.3.1 at 5:1 ratio.

PCT Present:

North Coast Wet Sclerophyll Forest made up of Bloodwood and Tallowwood.

BioNet Threatened Flora (1km buffer):

Hicksbeachia pinnatifolia (Red Boppel Nut) [V]
Arthraxon hispidus (Hairy jointgrass) [V]

DM02303 must be revegetated with native trees appropriate for PCT North Coast Wet Sclerophyll Forest.

DM02360

Highly disturbed – colonised by weeds and minor rainforest regrowth. Works will have minimal negative impact on surrounding area's environmental value. Site must be revegetated with a mix of native hydroseed appropriate for TEC *Lowland Rainforest*, and supplemental rainforest plantings with trees endemic to the Main Arm area. Revegetation of site will improve disturbed footprint's contribution to local ecological community.

The disturbed footprint has been primarily re-colonised by *Solanum mauritianum* (Wild Tobacco Bush) [weed], *Ageratina adenophora* (Crofton Weed) [weed], and *Pteridium esculentum* (Bracken Fern). On site assessment of vegetation determined that the disturbed footprint does not contribute to wider TECs and is of low ecological value. The removal of Tobacco Bush (a species listed on Byron Shire Council's Undesirable trees list), Crofton Weed, and Bracken Fern is not considered to be of significant environmental impact. All significant and/or native trees within the vicinity are located beyond the disturbed footprint.

Mapped PCT within the works vicinity:

Endangered Ecological Community *Lowland Rainforest*
North Coast Wet Sclerophyll Forest.

BioNet Threatened Flora (1km buffer):

Syzygium moorei (Durobby) [V]
Phyllanthus microcladus (Brush Sauropus) [V]

Other species with minor contribution to disturbed footprint:

Homalanthus populifolius (Bleeding Heart)
Lophostemon confertus (Brush Box)
Rubus rosifolius (Rose-leaf Bramble)
Trema tomentosa (Poison Peach)
Acacia melanoxylon (Blackwood)

No species present are covered under any conservation legislation at state or Commonwealth level.



Figure 8. Vegetation at slipped embankment DM02360. Made up Tobacco Bush, Crofton Weed, and Bracken Fern – to be revegetated with native seed mix hydroseed, supplemented with plantings of vegetation endemic to Main Arm area to offset potential impacts on TEC *Lowland Rainforest*.



Figure 9. Proposed vegetation clearing footprint at DM02360.

Due to current disturbance levels from slipped land, works will not fragment or isolate any intact areas of native vegetation. Native vegetation loss is considered low impact due to regrowth state, weed presence, and availability of similar habitats in the vicinity of works. No endangered or critically endangered species have been identified on site or in the vicinity.

4.8 Fauna (including fauna of conservation significance)

Check Council's GIS.

Complete a search of the threatened species database in cases where habitat is to be impacted/removed.

Searches of NSW BioNet data on SEED Portal identified a number of NSW Protected Fauna species within a 1km buffer zone of the worksites, species listed under state legislation are outlined below. Detailed lists of identified species can be found in Appendix D.

DM02274

Phascolarctos cinereus (Koala) [E, P] – 35 records
Ptilinopus magnificus (Wompoo Fruit-dove) [V, P] – 1 record
Ptilinopus regina (Rose-crowned Fruit-dove) [V, P] – 1 record
Tyto tenebricosa (Sooty Owl) [V, P, 3] – 1 record

DM02286

Phascolarctos cinereus (Koala) [E, P] – 3 records

DM02303

Phascolarctos cinereus (Koala) [E, P] – 2 records

DM02360

Phascolarctos cinereus (Koala) [E, P] – 4 records
Carterornis leucotis (White-eared Monarch) [V, P] – 3 records
Assa darlingtoni (Pouched Frog) [V, P] -1 record
Dasyurus maculatus (Spotted-tailed Quoll) [V, P] – 1 record
Thylogale stigmatica (Red-legged Pademelon) [V, P] – 1 record

The loss of a small number of young regrowth natives and exotic species will not pose a substantial impact on fauna species directly, or to associated habitats within the works areas. The proposed activity sites represent a small proportion of overall widespread habitat. Species are not considered to have significant reliance on disturbed areas or minor vegetation to be removed.

4.9 Biodiversity values mapping

Check State Government mapping online.

Brunswick River, below Main Arm Road, is mapped as Biodiverse Riparian Land. There is no Biodiversity data present at the work sites on Goonengerry Road or The Pocket Road.

Searches of EPBC Protected Matters tool (1km buffer) identified the following:

DM02274

14 Migratory Species
 4 TECs

79 Threatened Species
1 Commonwealth Land

DM02286

15 Migratory Species
5 TECs
81 Threatened Species

DM02303

21 Migratory Species
3 TECs
72 Threatened Species
3 Commonwealth Lands

DM02360

14 Migratory Species
4 TECs
81 Threatened Species

*EPBC Tool reports can be found in **Appendix D**.*

4.10 Test of significance – threatened species and endangered ecological communities

Consider the following for the purposes of determining if the proposed activity is likely to significantly affect threatened species, endangered ecological communities or their habitats. If there is potential impact on threatened species (eg vegetation clearing, substantial changes in hydrology, new night

lighting) specialist assistance from an ecologist or environmental scientist is necessary to address this section and may require more detailed assessment.

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

There are five (5) threatened species with a moderate to high likelihood of occurrence at the activity sites based on spatial data available from NSW BioNet and habitat type.

Koala
Durobby
Red Boppel Nut
Brush Sauropus
Rough-shelled Bush-nut

Koala (*Phascolarctos cinereus*) is an endangered arboreal marsupial species not sighted during the site assessment. Based on data available on NSW BioNet, koala have been recorded at all activity sites. Of the 44 total records, 35 occurred at DM02274. Safeguards outlined in section 6 of this REF will ensure no significant impacts should occur and no key threatening processes should be exacerbated. As such the proposed activity does not represent a significant impact to the populations or life cycles of koala in the area. The State Environmental Planning Policy (Koala Habitat Protection) 2019 Koala Habitat Protection SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koala to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline. Koala Habitat Protection SEPP applies to development under part 4 of the EP&A Act 1979. As the proposed activity is not 'development', Koala Habitat Protection SEPP does not apply. Regardless, consideration of impacts to koala and koala habitat may still be relevant under the BC Act 2016.

Durobby (*Syzygium moorei*) is a vulnerable rainforest tree species that has been recorded in the vicinity of DMs 02286 & 02360. There is a moderate chance of individuals occurring near other activity sites based on habitat type. Durobby is found in subtropical and riverine rainforest at low altitudes, and often occurs as isolated remnant paddock trees. Clearing and fragmentation of habitat for rural and residential development and roadworks is considered a key threat for this species. Unmitigated activity impacts could cause these habitats to become unviable for durobby. Recommendations and safeguards outlined in this REF in section 6 will ensure no significant impacts on the viability of known durobby individuals and additional populations in proximity to the activity. The activity will not pose any significant impacts to the lifecycle of the species such that a potential viable local population is likely to be placed at risk of extinction. No go zones should be clearly established to avoid accidental damage to any individuals identified in the activity areas.

Red Boppel Nut (*Hicksbeachia pinnatifolia*) is a small tree of the *Proteaceae* family that has been recorded in the vicinity of DMs 02274 and 02303. It is listed as vulnerable under NSW & Commonwealth Legislations. The species occurs in, and on the margins of, subtropical rainforest from near sea level to 700m altitude, and sometimes extends into wet sclerophyll forest. The main threats to this species include: clearing of habitat for development or agriculture, weed invasion, fire & inappropriate fire regime, livestock disturbance, alteration of habitat structure, lack of long-term protection. Unmitigated

Matter	Comment
	<p>activity impacts could cause these habitats to become unviable for Red Boppel Nut. Recommendations and safeguards outlined in this REF in section 6 will ensure no significant impacts on the viability of known durobby individuals and additional populations in proximity to the activity. The activity will not pose any significant impacts to the lifecycle of the species such that a potential viable local population is likely to be placed at risk of extinction. No go zones should be clearly established to avoid accidental damage to any individuals identified in the activity areas.</p> <p>Brush Sauropus (<i>Phyllanthus microcladus</i>) is a small shrub to 35cm tall that has been identified in proximity to DMs 02286 & 02360. It is listed as vulnerable under NSW Legislation. Brush sauropus is usually found on the banks of creeks and rivers, in streamside rainforest or dry rainforest. Key threats include clearing/fragmentation of habitat for agriculture/development, weed invasion, livestock disturbance/grazing, creek bank erosion, inappropriate fire regimes, and small population numbers. Unmitigated activity impacts could cause these habitats to become unviable for Brush sauropus. Recommendations and safeguards outlined in this REF in section 6 will ensure no significant impacts on the viability of known durobby individuals and additional populations in proximity to the activity. The activity will not pose any significant impacts to the lifecycle of the species such that a potential viable local population is likely to be placed at risk of extinction. No go zones should be clearly established to avoid accidental damage to any individuals identified in the activity areas.</p> <p>Rough-shelled Bush-nut (<i>Macadamia tetraphylla</i>) is a small to medium size tree that has been identified in proximity to DMs 02274 & 02286. It is listed as vulnerable under NSW & Commonwealth legislation. The species occurs in subtropical rainforest. Threatening processes include clearing/fragmentation of habitat, weed invasion, and inappropriate fire regime. Unmitigated activity impacts could cause these habitats to become unviable for <i>Macadamia tetraphylla</i>. Recommendations and safeguards outlined in this REF in section 6 will ensure no significant impacts on the viability of known durobby individuals and additional populations in proximity to the activity. The activity will not pose any significant impacts to the lifecycle of the species such that a potential viable local population is likely to be placed at risk of extinction. No go zones should be clearly established to avoid accidental damage to any individuals identified in the activity areas.</p>

Matter	Comment
<p>(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity—</p> <p>(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or</p> <p>(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction</p>	<p>DM02360 is within mapped Endangered Ecological Community <i>Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions</i>. The proposed activity site has been assessed and determined to not be contributing to the wider Ecological Community identified on Council's GIS. Refer to notes on Flora in section 4.7. The slip will be revegetated with native species appropriate for the community. It is unlikely that the activity will have a lasting adverse effect, or place the community at risk of extinction due to several factors:</p> <ul style="list-style-type: none"> • Community extent – activity taking place within small section of overall community • Weed colonisation post slip • Revegetation with appropriate native species once site is remediated <p>Due to revegetation replacing weeds with native species the overall ecological value the site provides to the community will be improved.</p>
<p>(c) in relation to the habitat of a threatened species or ecological community—</p> <p>(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and</p> <p>(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and</p> <p>(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality</p>	N/A
<p>(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)</p>	N/A
<p>(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process</p>	<p>Works may contribute to the following key threatening processes (KTPs)</p> <ul style="list-style-type: none"> • Anthropogenic climate change • Clearing of native vegetation • Invasion and establishment of weed species • Loss of hollow-bearing trees <p>Safeguard measures outlined in this REF will mitigate much of the activity's contribution to these KTPs.</p>

4.11 Aboriginal cultural heritage

Undertake an AHIMS search and check Council's GIS.

Check Native Title claim maps and NSW Aboriginal land claim data, and identify traditional owners.

An AHIMS search was carried out for each activity site using the nearest DP with a 1km buffer. 6 Aboriginal sites are recorded within the buffer zone at DM02303. AHIMS searches at other sites identified no Aboriginal heritage items. Refer to Appendix C for AHIMS search results.

Due diligence process step		Comment
1	Will the activity disturb the ground surface or any culturally modified trees?	All activities will disturb ground surface. These works will be occurring within areas of previous disturbance, making significant impact on cultural heritage items unlikely.
2(a)	Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?	DM02274: No DM02286: No DM02303: Yes, 6 confirmed sites (1km buffer) DM02360: No
2(b)	Are there any other sources of information of which a person is already aware?	No
2(c)	Are there any landscape features that are likely to indicate the presence of Aboriginal objects?	Yes. Riparian areas are a location often used by traditional owners in gathering food and fresh water.
<p>If after completing steps above and no information indicates site importance, it is reasonable to conclude that there are no known Aboriginal objects or a low probability of objects occurring in the area of the proposed activity, you can proceed with caution.</p> <p>If the answer to any of the above questions is yes then the following three questions must be answered.</p>		
3	Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	Yes, all identified cultural heritage items are located >500m from the proposed activity sites. Ground surface at DM02303 is on previously disturbed land within the road corridor. No Aboriginal objects were identified during site inspections.
4	Does a desktop assessment and visual inspection confirm that there are Aboriginal objects on the site or that they are likely to be there?	No
5	Is further investigation and impact assessment warranted?	For DM02303 The Pocket, an extensive AHIMS search was conducted. This search did not produce any further information. TBLALC were contacted to provide site specific advice, TBLALC and BSC staff have conducted a site inspection and it was deemed the works will have low potential for encounter traditional artefacts to the minor nature of the works and previously disturbed road footprint. TBLALC provided a report on the inspection and instructions when undertaking the works.

4.12 Native Title and Crown land management

If Crown land, confirm reserve purpose and address Native Title through Council's Native Title Manager.

Works will not be taking place on Crown land. Brunswick River, below Main Arm Road, is a crown water way. Works at DM02286 & DM02360 will not interact with Brunswick River.

4.13 Non-Aboriginal heritage item or place or heritage conservation area

Check LEP, State Government Heritage Register and National Heritage List.

NSW State Heritage Inventory search tool identified no non-Aboriginal heritage items or places in the vicinity of the proposed work sites.

4.14 Interests of external stakeholders (eg adjoining land owners, lease holders)

See section 2.

4.15 Hazards mapping

Is the site affected by bushfire hazard?

Is the land subject to contamination?

Is the site flood prone?

Other?

DM02274:

Bushfire Hazard	-	Yes, refer to Figure 9 .
Contaminated land	-	No
Flood Prone	-	No

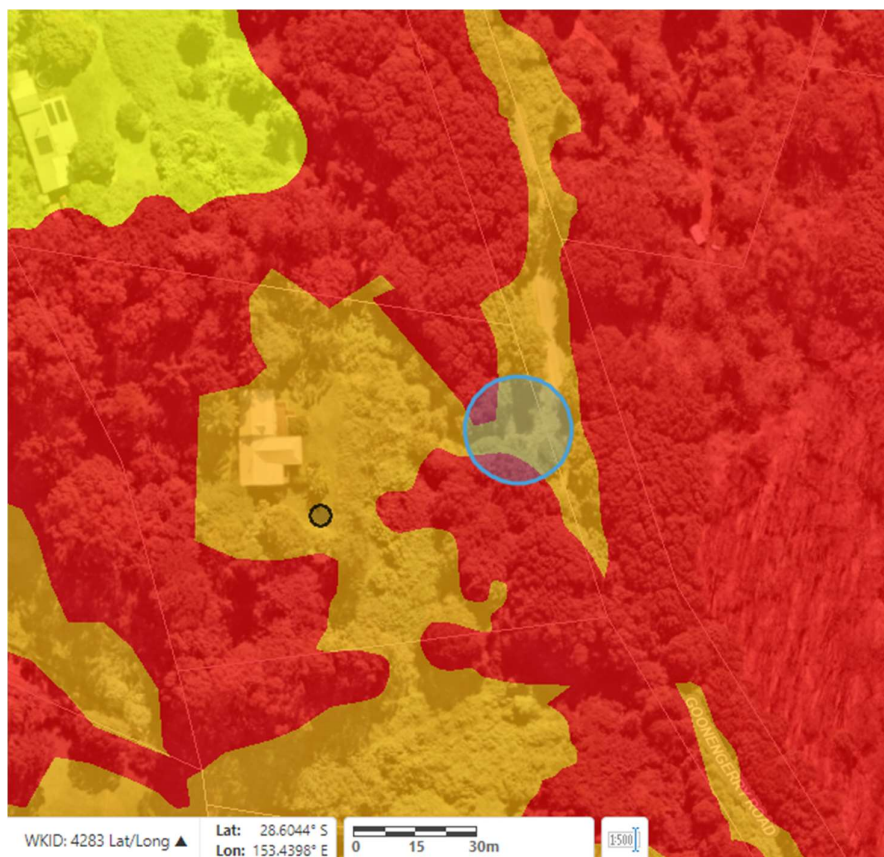


Figure 10. Location of DM02274 (blue) with Bushfire Vegetation data overlay. Orange = Category 3 (medium risk), Red = Category 1 (high risk).

DM02286:

Bushfire Hazard	-	Yes, worksite is in Category 1 high risk vegetation
Contaminated land	-	No
Flood Prone	-	No

DM02303:

Bushfire Hazard	-	Yes, refer to Figure 10 .
Contaminated land	-	No
Flood Prone	-	No

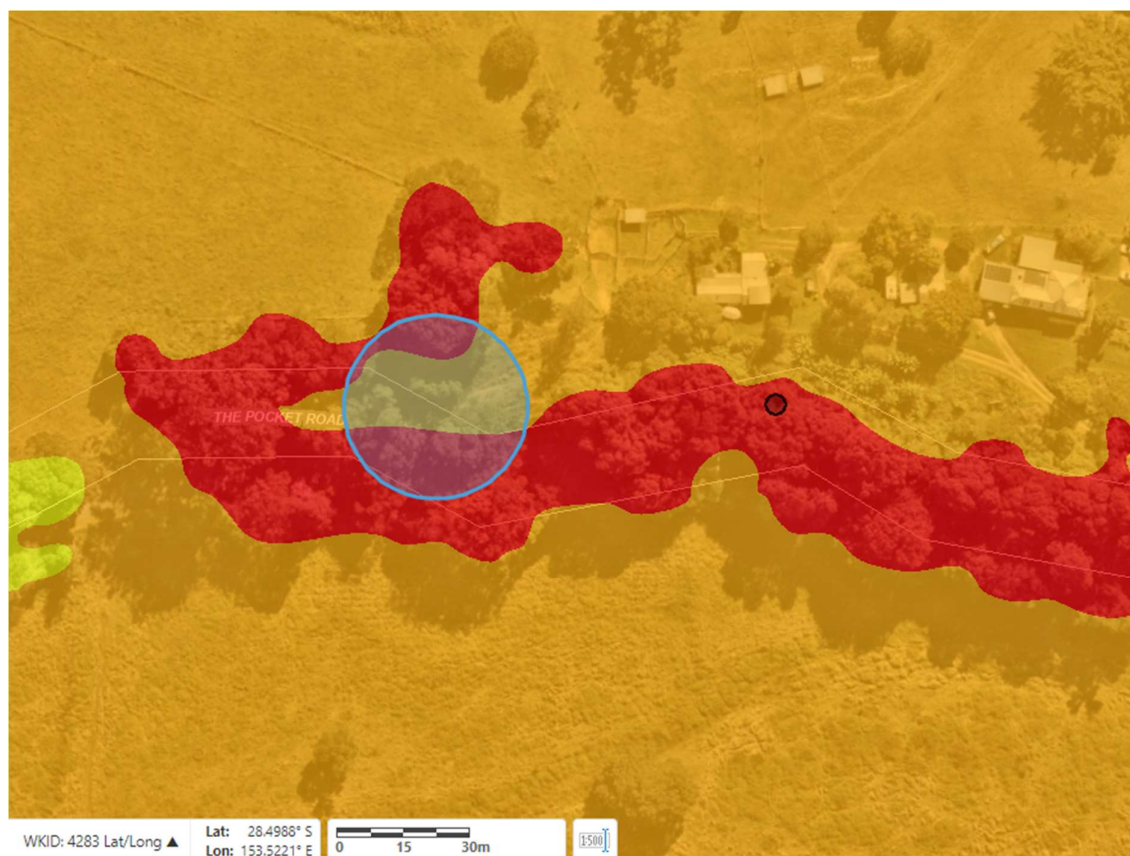


Figure 11. Location of DM02303 (blue) with Bushfire Vegetation data overlay. Orange = Category 3 (medium risk), Red = Category 1 (high risk).

DM02360:

Bushfire Hazard	-	Yes, worksite is in Category 1 high risk vegetation
Contaminated land	-	No
Flood Prone	-	No

Section 5 APPROVALS, LICENCES and PERMITS

Item	Locations that may trigger an external approval, licence or permit	Check one	
5.1	Working in an area containing endangered, threatened, vulnerable or protected species, populations, ecological communities or critical habitat (flora and fauna) – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i> – <i>Department of Primary Industries—Fishing (DPI–Fishing)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.2	Working on land reserved under the National Parks and Wildlife Act (eg National Park, Nature Reserve, Aboriginal area, wilderness area, conservation area or wild river) – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.3	Working in an area of national environmental significance (Ramsar wetlands, threatened species, migratory birds, World Heritage, National Heritage, nature reserve, etc) or on Commonwealth land or marine area – <i>Department of Agriculture, Water and the Environment (Commonwealth)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.4	Working within an area that is subject to any conservation agreement entered into under the <i>National Parks and Wildlife Act 1974</i> – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i> – <i>Relevant LALC</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.5	Working within an area that is subject to any plan of management under the <i>National Parks and Wildlife Act 1974</i> – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i> – <i>Relevant LALC</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.6	Working within an area that is subject to any joint management agreement under the <i>National Parks and Wildlife Act 1974</i> – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i> – <i>Relevant LALC</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.7	Working in an area subject to a joint management agreement entered into under the <i>Threatened Species Conservation Act 1995</i> – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.8	Working in an area subject to a biobanking agreement entered into under Part 7A of the <i>Threatened Species Conservation Act 1995</i> that applies to the whole or part of the land to which the activity relates – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.9	Working in an aquatic reserve or in marine vegetation such as seagrass, mangroves, saltmarsh, etc – <i>Department of Primary Industries—Fishing (DPI–Fishing)</i> – <i>Department of Primary Industries—Marine Parks (DPI–Marine Parks)</i> – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE–EES Group)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Item	Locations that may trigger an external approval, licence or permit	Check one	
5.10	Working in a Marine Park declared under the Marine Parks Act – <i>Department of Primary Industries—Marine Parks (DPI—Marine Parks)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.11	Dredging or reclamation of water. (Note that councils do not need approval for a controlled activity under the <i>Water Management Act 2000</i>) – <i>Department of Primary Industries—Fishing (DPI—Fishing); and/or</i> – <i>NSW Water</i> – <i>Transport for NSW</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.12	Enlarge, deepen or sink a new water bore – <i>NSW Water</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.13	An activity that will pollute water (eg dewatering) – <i>Department of Planning and Environment—Environment, Energy and Science Group (DPE—EPA Group)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.14	Working within the curtilage of a 'Heritage Place' or 'Heritage Item' identified on the Byron LEP Heritage Schedule, the State Heritage Register or the National Heritage List – <i>Australian Heritage Council</i> – <i>Heritage NSW</i> – <i>Heritage Council of NSW</i> – <i>Byron Shire Council</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.15	Working within a 'heritage conservation area' identified in Byron LEP Schedule 5 Environmental Heritage – Part 2 – <i>Byron Shire Council</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.16	Working where a 'Relic' is likely to be discovered (eg Archaeological Zoning Plans) – <i>Heritage Council of NSW; or</i> – <i>Heritage NSW</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.17	Working near Aboriginal relics or places where an Aboriginal Heritage Impact Permit (AHIP) may be required; working on land or water successfully claimed by traditional owners – <i>BoBBAC (Arakwal), Jali LALC, Tweed Byron LALC, Ngulingah LALC</i> – <i>Heritage NSW</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.18	An activity comprising a fixed or floating structure in or over a navigable waterway – <i>Transport for NSW</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.19	An activity comprising work on Crown land not subject to a plan of management – <i>Department of Planning and Environment—Crown Lands (DPE—Crown Lands)</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.20	Working at sites at which asbestos or asbestos-containing materials exist. (Determine if a licence or exemption will be required) – <i>SafeWork NSW</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Are any permit(s) required?

☐ Yes ☒ No

If **Yes**, please indicate what permit(s) are required:

Check box if required

- | | | |
|---|---------------------------|--------------------------|
| A | Fisheries Permit | <input type="checkbox"/> |
| B | Marine Park Permit | <input type="checkbox"/> |
| C | Other: Enter permit name. | <input type="checkbox"/> |

If **Yes**, but no permits are required, please indicate why not:

Click here to enter text.

NOTE: If you have checked any ☒ **Yes** in the table above then you must do one of the following:

- 1 Attach a copy of the approval, licence or permit to the final REF, OR
- 2 Detail who is responsible for obtaining the approval, licence or permit, OR
- 3 Explain why the project is exempt.

NOTE: If you have checked ☒ **Yes** at any item in the table above, a referral to the relevant authority may still be required under the Transport and Infrastructure SEPP, even if a permit or approval is not required. A period of 21 days is allowed for response. All responses are to be considered and included in this assessment.

Section 6 ENVIRONMENTAL IMPACT ASSESSMENT

If an impact is predicted, place a 1, 2 or 3 in columns 7, 8 and 9. Multiply these three scores to obtain the environmental score in column 10.

For each of columns 7, 8 and 9:

1 = Minor

2 = Moderate

3 = Major

Projects with any HIGH environmental score (greater than or equal to 10) will require specialist advice to assess environmental issues or re-evaluation of the project options or mitigation measures. It is recommended that there is consultation with your supervisor to determine the most appropriate course of action. Where the project is modified, a revised REF will be required.

In relation to impacts, consider type, extent, size, duration, severity and geographic area, importance and level of community concern/interest.

Columns:	4	5	6	7	8	9	10
Multiply the three scores:				1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.1	AIR	Construction: Dust generation (excavating, disturbing soil, stockpiling, trenching, erosion-prone sites, clearing of vegetation, transporting soil, etc). Fumes, odours and other air pollution from vehicles, equipment, machinery or other activities.	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	Air quality impacts include emissions of CO, NO2 and SO2 associated with combustion of diesel fuel and petrol from construction vehicles, plant and equipment and dust emissions associated with the activity.	Watering of exposed soils will be undertaken to control dust emissions. All plant serviced and appropriate controls in place to limit plant emissions. Vehicles and equipment turned off when not in use.	2	1	1	2
6.2		Operation: Fumes, odours and other air pollution from vehicles, equipment, machinery or other activities.	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

6.3	WATER	<p>Construction: Polluting waterways, wetlands, stormwater drains or groundwater (eg storing, transporting, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids).</p> <p>Machinery related spills (eg fuel, oil, hydraulic fluid).</p> <p>Sedimentation of waterways, wetlands, stormwater drains or groundwater (eg excavating, disturbing soil, stockpiling, trenching, concrete cutting, access tracks, erosion-prone sites, etc).</p>	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	<p>Pollution if appropriate sedimentation and erosion controls are not established early or adequately maintained.</p> <p>Sediment runoff during large rain events.</p> <p>Spill with machinery working adjacent to waterway.</p>	<p>Prepare and implement sediment control plan.</p> <p>Restore site promptly.</p> <p>Visual monitoring of water quality to be undertaken regularly to</p> <p>Plan works during low-flow periods and when no heavy rain is forecast. If a flood or major rainfall event occurs site must be secured as quickly as possible.</p> <p>Sediment curtains and floating boom to be installed downstream from all activity sites.</p> <p>All fuels, chemicals and liquids and refueling activities are to be in an impervious bunded area a minimum of 50 metres away from:</p> <ul style="list-style-type: none"> •Rivers, creeks, or any areas of concentrated water flow. •Flooded or poorly drained areas. •Slopes above 10%. <p>An emergency spill kit is to be kept on site at all times and maintained throughout the construction work. The spill kit must be appropriately sized for</p>	1	1	2	2
6.4		<p>Operation: Polluting waterways, wetlands, stormwater drains or groundwater (eg storing, transporting, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids).</p>	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.5	NOISE & VIBRATION	Construction: Noise/vibration (eg rock breakers, concrete cutters, jackhammers, chainsaws, compressors, excavators, backhoes, trucks, vehicles, cranes, steel plate movements, generators, etc).	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	Short-term impacts during construction involving operation of equipment and tools including heavy trucks, excavators, cranes, dump trucks, etc, in proximity to private dwellings.	Notify neighbours of project dates and likely noise impacts. Noise impacts to be minimised in accordance with Byron SC guidelines. Minimise plant and tool noise by providing regular maintenance. Minimise construction noise by turning machinery off when not in use. All works to be carried out during normal working hours. Use reverse alarms that meet Australian standards on all machinery. A management procedure will be in place for noise and vibration complaints.	3	1	1	3
6.6		Operation: Noise/vibration (eg pumps, generators).	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.7	CONTAMINATION & WASTE	Construction: Disturbing contaminated soil (eg known contamination, ASS, old industrial site, previous landfill, etc). Disturbing old sand mining area or stockpile (radioactivity). Contaminating or polluting land (eg storing, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids). Excavating public road material for reuse in the road reserve. Environmental problems caused by generating, storing, handling, transporting or disposing of waste (eg soils, building materials, oils, solvents, toilets, etc). Restricting current and potential activities associated with the land (eg amenity, buildings, parking).	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	Waste will be generated in the form of vegetation, rocks, gravels, soils, reclaimed pavement, and miscellaneous debris. Risk that a spill could occur related to machinery. Site workers will generate day-to-day waste and effluent.	Waste to be stored in bunded areas and disposed of daily. Liquids to be stored in bunded area. Under no circumstances are waste materials to be burned or buried on site. Spoil materials generated to be taken to approved flood restoration works spoil reuse site at Manse Road, Myocum for testing classification and reuse where deemed suitable. Unsuitable spoil materials to be removed and disposed of at an approved landfill facility in accordance with approved acceptance criteria.	1	1	1	1
6.8		Operation: Contaminating or polluting land (eg storing, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids). Environmental problems caused by generating, storing, handling, transporting or disposing of waste (eg soils, building materials, oils, solvents, etc). Restricting current and potential activities associated with the land (eg amenity, buildings, parking).	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.9	TRANSPORT	Construction: Restricting or affecting transport (eg pedestrian, car, bus, train, airports, boats, river crossings, bus stops, public transport corridors and infrastructure, construction-related disturbances, property access, parking restrictions, etc).	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	Traffic will be impacted during works on roads directly affected, other roads within vicinity, and private access.	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. Temporary bypasses will be installed where this is not possible. A traffic control plan will be prepared in accordance with the 'Traffic control at work sites manual' (RTA, 2010a) and Australian Standard 1742.3 Manual of uniform control devices. Access across the waterways where full width reconstruction is occurring will be via temporary traffic bypasses. Safe traffic access to be reinstated upon completion of works.	3	1	1	3
6.10		Operation: Restricting or affecting transport (eg pedestrian, car, bus, train, airports, boats, river crossings, bus stops, public transport corridors and infrastructure, construction-related disturbances, property access, parking restrictions, etc).	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

Columns:

4	5	6	7	8	9	10
<i>Multiply the three scores:</i>			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>	Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.11	FLORA & FAUNA	<p>Construction: Clearing or modifying native vegetation (including trees, shrubs, grasses, roots, herbs or aquatic species).</p> <p>Clearing or modifying critical habitat.</p> <p>Clearing in a Biodiversity Value mapped area.</p> <p>In the case of threatened species, populations and ecological communities and their habitats, whether there is likely to be a significant effect on those species, populations or ecological communities, or those habitats.</p> <p>Introducing or spreading weeds (including noxious) or vermin.</p> <p>Introducing bushfire risk factors.</p> <p>Endangering any species of animal, plant or other form of life, whether living on land, in water or in the air (eg any danger to birds in the locality).</p> <p>Displacing, disturbing or damaging terrestrial or aquatic fauna (eg creating a barrier to fauna movement, clearing remnant vegetation or wildlife corridors, collisions, etc).</p> <p>Any other environmental impact on the ecosystems of the locality.</p>	<p><input type="checkbox"/> No impact</p> <p><i>If checked, go to next issue</i></p> <p>Vegetation will need to be cleared for the reinstatement and stabilisation of slipped embankments.</p> <p>Majority of sites currently occupied by invasive species.</p>	<p>Where native vegetation is removed, sites must be revegetated with like-for-like plants.</p> <p>DM02303 must be hydroseeded with seeds suitable for PCT North Coast Wet Sclerophyll Forest.</p> <p>DM02360 must be hydroseeded with seeds suitable for TEC <i>Lowland Rainforest</i>.</p> <p>Hydroseeding associated with DM02303 & DM02360 must be supplemented by plantings that prioritise vegetation endemic to the area in which works were carried out.</p> <p>Compensatory plantings must be carried out in accordance with Byron Shire Development Control Plan 2014 – Section B2.3.1.</p>	3	1	3	9

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.12		<p>Operation: Introducing or spreading weeds (including noxious) or vermin.</p> <p>Introducing bushfire risk factors.</p> <p>In the case of threatened species, populations and ecological communities and their habitats, whether there is likely to be a significant effect on those species, populations or ecological communities, or those habitats.</p> <p>Endangering any species of animal, plant or other form of life, whether living on land, in water or in the air (eg any danger to birds in the locality).</p> <p>Displacing, disturbing or damaging terrestrial or aquatic fauna (eg creating a barrier to fauna movement, clearing remnant vegetation or wildlife corridors, collisions, etc).</p> <p>Any other environmental impact on the ecosystems of the locality.</p>	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

6.13	SOCIAL	<p>Construction: Creating a nuisance to the community (eg impact on amenity through noise, perceived risk of fires, explosions, property value devaluation, etc).</p> <p>Creating financial loss to members of the community (eg restricting access to commercial premises, changing land use, etc).</p>	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	<p>Works will create short-term nuisance in terms of machinery noise and traffic movements for all nearby dwellings.</p>	<p>Notification is to be given to affected key stakeholders and the community prior to the works taking place. The notification is to include:</p> <p>Details of the activity</p> <p>The duration of works and working hours</p> <p>Any changed traffic or access arrangements</p> <p>How to lodge a complaint or obtain more information</p> <p>Contact name and details.</p> <p>All complaints are to be recorded on a complaints register and attended to promptly.</p> <p>Existing access to dwelling located on property is to be maintained at all times during the activity unless otherwise agreed to by the affected property owner.</p> <p>Access to property during scheduled events by community is to be maintained as required.</p> <p>The construction timeframes must be co-ordinated with Council to minimise conflicts with other intended projects and community events within the area and to minimise cumulative impacts on the community.</p> <p>Notification should be a minimum of five calendar days prior to the start of works.</p>	3	1	1	3
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Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.14		Operation: Creating a nuisance to the community (eg impact on amenity through noise, perceived risk of fires, explosions, property value devaluation, etc). Creating quantifiable financial loss to members of the community (eg restricting access to commercial premises, changing land use, etc).	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

6.15	HERITAGE	<p>Construction: Affecting a locality, item, place or building having aesthetic, anthropological, archaeological, architectural, historical, scientific, cultural or social significance or other special value (eg visual effect on adjoining heritage buildings or items; disturb, move, excavate Aboriginal object) or working where heritage items could be found.</p> <p>Affecting any Aboriginal heritage (eg engravings, middens, carved trees, grinding grooves, paintings, burial sites, etc).</p>	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	<p>AHIMS searches were carried out for the work sites. DM02303 returned known Aboriginal objects, however these are all located over 500m from the proposed worksite and will not be impacted.</p> <p>It is possible that unknown objects will be found during the works however past site disturbance makes this unlikely.</p> <p>If any objects are discovered during the works, works must cease immediately, and mitigation methods followed.</p>	<p>In the event of the identification of objects, items, artefacts, or material during the proposed work, all work in the surrounding area must stop immediately. A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer distance of at least 5m from the known outer extent of the Aboriginal cultural heritage site. The relevant Byron SC project manager, manager, or director must be contacted immediately. The DPIE Enviroline (131 555) and Tweed/Byron LALC or Bundjalung of Byron Bay Aboriginal Corporation (Arakwal). An appropriately qualified archaeological consultant is to be engaged to work with the native title corporation to identify the material and if the material is confirmed as an Aboriginal object or archaeological site, facilitate, in collaboration with the traditional owners and appropriate authorities: the recording and assessment of the finds, compliance with any legal requirements and Heritage NSW directions, the development and implementation of appropriate management strategies based on an assessment of significance of the finds. Recommencement of ground disturbance works can only occur once an aboriginal heritage impact permit has been obtained and legal requirements have been satisfied.</p> <p>In the event that suspected human remains are encountered during the proposed works all activity and work in the area must stop immediately. The location, including a 20m curtilage, should be secured using barrier fencing to avoid further harm. The NSW police must be contacted immediately. The relevant Byron SC project officer, manager, or director must be contacted immediately following the police. No further action is to be undertaken until the NSW Police provide written notification to the property owner. If the skeletal remains</p>	1	1	3	3
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Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>	Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score	
					are identified as Aboriginal, the property owner must contact the following: The DPIE Enviroline (131 555) and Tweed/Byron LALC or the Arakwal Corporation. No works are to continue until Heritage NSW provides written notification to the proponent.				
6.16		Operation: Affecting a locality, item, place or building having aesthetic, anthropological, archaeological, architectural, historical, scientific, cultural or social significance or other special value (eg visual effect on adjoining heritage buildings or items; disturb, move, excavate Aboriginal object) or working where heritage items could be found. Affecting any Aboriginal heritage (eg engravings, middens, carved trees, grinding grooves, paintings, burial sites, etc). Affecting land claimed by traditional owners.	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9
6.17	VISUAL & OTHER ENVIRONMENTAL ISSUES	Construction: The effect of an activity on any wilderness area (within the meaning of the <i>Wilderness Act 1987</i>) in the locality in which the activity is intended to be carried on. Changing the visual or scenic landscape (eg impacting or restricting views). Transforming a locality (eg significant earthworks).	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	There will be some minor short term visual impacts as the activity takes place including but not limited to: machinery at the site and traffic control for the duration of the activity.	Contain all work within the boundaries designated on the site plan. Restore work sites to as close to their original condition as possible followed by revegetation. Keep site clean and remove rubbish and waste daily. Revegetation to improve visual amenity of disturbed ground.	2	1	1	2

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.18		Operation: Any other risk to the safety of the environment (eg long-term effects on the environment as a result of waste emissions). Increasing demands on resources (natural or otherwise) that are or are likely to become in short supply (eg demand on water use). Changing the visual or scenic landscape (eg impacting or restricting views). Transforming a locality (eg significant earthworks). Any cumulative environmental effect with other existing or likely future activities. Reducing the range of beneficial uses of the environment (eg effect on surrounding land uses and considering response of affected land owners).	<input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

Columns:

4	5	6	7	8	9	10
Multiply the three scores:			1–3	1–3	1–3	=

Item	Issue	Examples of impacts	Description of impacts AND causes <i>NOTE: Either check 'No impact' OR provide details</i>		Project-specific control measures	Likelihood	Extent	Sensitivity	Environmental score
6.19	OTHER	General: Any changes to the scope or approvals and documentation required for the activity.	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	Any general impacts outside of the activity and safeguards, controls and reporting protocols.	If the scope of the works changes at any time, review of the project under appropriate guidelines and legislation and complete any further requirements including consultation/approval by landholder prior to undertaking works associated with the changed scope. A Construction Environmental Management Plan is to be prepared in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan) and QA Specification G10 - Traffic Management and implemented prior to the commencement of works. Vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.	1	1	1	1
TOTAL ENVIRONMENTAL SCORE:									29

NOTE 1: For the purpose of attaining the objects of this Act relating to the protection and enhancement of the environment, a determining authority in its consideration of an activity shall, notwithstanding any other provisions of this Act or the provisions of any other Act or of any instrument made under this or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity.

NOTE 2: In assessing the impacts on flora and fauna, Council must show that it has taken into account:

- (a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,
- (b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:
 - (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or
 - (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,
- (c) in relation to the habitat of a threatened species or ecological community:
 - (i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and
 - (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and
 - (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,
- (d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),
- (e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

Section 7 ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2021, SECTION 171(2) CHECKLIST

In addition to the requirements of the “Guidelines for Division 5.1 Assessments”, the following factors listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021 must be considered to assess the likely impacts of the proposal on the environment.

Compliance with section 171(2) of the EP&A Regulation 2021

Environmental factor	IMPACTS:				
			Minor	Medium	Major
<p>(a) Any environmental impact on the community?</p> <p>The activity may cause short-term environmental impacts on the community, such as restrictions on public access to council owned road reserve. Increased traffic in proximity to proposal and on local roads. Temporary noise impacts during activity. All potential impacts would be minimised with the implementation of the safeguards as detailed in this REF.</p> <p>The activity would have a positive environmental impact on the community in the long-term as the safety, accessibility and functionality of the damaged road infrastructure in the LGA will be restored and improved.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(b) Any transformation of the locality?</p> <p>The proposed work would temporarily transform the locality temporarily during construction and demolition of the activity. Impacts would be minimised with the implementation of the safeguards as detailed in this REF.</p> <p>The activity would result in long-term, positive impacts by enhancing the safety for commuters and roadway users</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:				
			Minor	Medium	Major
<p>(c) Any environmental impact on the ecosystems of the locality?</p> <p>The activity would have potential environmental impacts on the ecosystems of the locality; However, the potential impacts would be minimised with the implementation of the safeguards given in Section 6 of this REF.</p> <p>The remediated slope infrastructure will improve roadway safety, integrity of roadway, stabilise banks from further erosion. These impacts will be positive for the surrounding ecosystems.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive <input checked="" type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality?</p> <p>The current infrastructure are dilapidated causing damage to the surrounds with a low aesthetic, recreational, scientific or any other environmental quality to the immediate surrounds. The activity will reinstate the infrastructure and stabilise and revegetate the site. This will allow for improvements in environmental values across the site. Any potential impacts would be minimised with the implementation of the safeguards given in Section 6 of this REF.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive <input checked="" type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(e) The effect on any locality, place or building that has—</p> <p>(i) aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or</p> <p>(ii) other special value for present or future generations.</p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:				
			Minor	Medium	Major
<p>(f) Any impact on the habitat of protected animals, within the meaning of the <i>Biodiversity Conservation Act 2016</i>?</p> <p>Removal of vegetation may present temporary minor impact to the protected animals however stabilising embankments by revegetation with native species will provide a long-term benefit to the local ecosystem, where possible feed trees for relevant identified protected animals should be prioritised.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(g) Any endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air?</p> <p>Plants will be required to be removed for the works to take place. Revegetation of like-for-like plants to offset impacts must be followed.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input checked="" type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(h) Any long-term effects on the environment?</p> <p>Long-term benefit from native revegetation and stabilisation of embankment.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:	Minor	Medium	Major
(i) Any degradation of the quality of the environment? Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
(j) Any risk to the safety of the environment? Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
(k) Any reduction in the range of beneficial uses of the environment? Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:				
			Minor	Medium	Major
(l) Any pollution of the environment? There is potential for the works to cause water, air, soil, light, or visual pollution of the environment during construction however any potential impacts of these types of pollution would be minimised with the implementation of the safeguards given in Section 6 of this REF.	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative	<input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
(m) Any environmental problems associated with the disposal of waste? The waste generated during the works would be contained and removed for disposal to approved recycling facilities or to licensed landfill in accordance with the safeguards in Section 6 of this REF. No environmental problems are anticipated for the disposal of waste.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
(n) Any increased demand on natural or other resources that are, or are likely to become, in short supply? Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:	Minor	Medium	Major
<p>(o) Any cumulative environmental effect with other existing or likely future activities?</p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(q) Any applicable local strategic planning statements, regional strategic plans or district strategic plans?</p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Environmental factor	IMPACTS:		Minor	Medium	Major
(r) Other relevant environmental factors? Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Section 8 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

Under the environmental assessment provisions of the Environment Protection and Biodiversity Conservation Act 1999, the following Matters of National Environmental Significance are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment.

Factor	IMPACTS:	Minor	Medium	Major
(a) Any impact on a World Heritage property? <i>State whether the proposal would impact on a World Heritage property. If yes, describe the extent of the impact. If impacts are likely, describe the nature and extent of the impacts.</i> Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
(b) Any impact on a National Heritage place? <i>State whether or not the proposal would impact on a National Heritage place. If impacts are likely, describe the nature and extent of the impacts.</i> Click here to enter text.	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Factor	IMPACTS:	Minor	Medium	Major
<p>(c) Any impact on a wetland of international importance?</p> <p><i>State whether the proposal would impact on a Commonwealth-listed wetland of international importance. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(d) Any impact on a listed threatened species or community?</p> <p><i>State whether the proposal would impact on a Commonwealth-listed threatened species or community. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Sensitive habitats adjacent to the activity footprint include waterways, mature trees, vegetation stands, and habitat corridors that occur in close proximity to the activity. Care will be taken during construction of the activity to ensure that biodiversity values including known or potential fauna inhabiting are not directly impacted as part of the activity.</p> <p>Revegetation with native plants after the activity will support increased recruitment and improve habitat connectivity.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative <input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(e) Any impact on listed migratory species?</p> <p><i>State whether the proposal would impact on a Commonwealth-listed migratory species. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Listed migratory species are known to use the areas around the activity sites (1km buffer zone). Sensitive habitats adjacent to the activity footprint include waterways, mature trees, vegetation stands, and habitat corridors that occur in close proximity to the activity. Care will be taken during construction and demolition phases of the activity to ensure that biodiversity values including known or potential migratory species inhabiting are not directly impacted as part of the activity.</p> <p>Where possible revegetation will include relevant feed trees for migratory species.</p>	<input type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input checked="" type="checkbox"/> Negative <input checked="" type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term

Factor	IMPACTS:	Minor	Medium	Major
<p>(f) Any impact on a Commonwealth marine area?</p> <p><i>State whether the proposal would impact on a Commonwealth marine area. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(g) Does the proposal involve a nuclear action (including uranium mining)?</p> <p><i>State whether the proposal would involve a nuclear action. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
<p>(h) Additionally, any impact (direct or indirect) on Commonwealth land?</p> <p><i>State whether the proposal would impact (either directly or indirectly) on Commonwealth land. If impacts are likely, describe the nature and extent of the impacts.</i></p> <p>Click here to enter text.</p>	<input checked="" type="checkbox"/> Nil <i>If checked, go to next factor</i>	<input type="checkbox"/> Positive <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term
		<input type="checkbox"/> Negative <input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input type="checkbox"/> Long-term


Section 9 CONCLUSION

9.1 Publishing the REF

	Check one	
Does the activity have a capital investment value of more than \$5 million?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does the activity require an approval or permit in relation to:		
• Fisheries Management Act 1994 (sections 144, 201, 205, 219)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
• Heritage Act 1977 (section 57)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
• National Parks and Wildlife Act 1974 (section 90)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
• Protection of the Environment Operations Act 1997 (sections 47–49 or 122)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is it in the public interest to publish the REF?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No


If the answer to any of the above questions is **Yes** then the REF must be published on the Council website OR the NSW Planning Portal.

9.2 Person who prepares this REF

I certify to the best of my knowledge that:			
<ul style="list-style-type: none"> I have completed this REF, and The assessment meets the requirements of sections 1.7, 5.5 and 5.7 of the EP&A Act, section 171(2) of the EP&A Regulation and other relevant legislation and guidelines, and The information contained in this REF is not materially misleading, and My assessment has been adequately completed, and My conclusion as to the likely environmental and community impact of the project is reasonable, and is likely to be <input checked="" type="checkbox"/> LOW <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH (check one), and I am satisfied that, subject to the inclusion of the mitigation measures included in this REF, the project will not have a significant impact on the environment or significantly affect threatened species, populations, ecological communities or their habitats during the construction or operation phases, and An Environmental Impact Statement is not required, and A Species Impact Statement is not required, and A Biodiversity Assessment Report is not required, and The REF is not required to be published on the Council website or NSW Planning Portal. 			
Signature:		Date:	6/09/2024
Name (print):	Konrad Elford		
Position:	Environmental Consultant		

Section 10 QUALITY ASSURANCE


10.1 Person who reviews this REF

I have reviewed this REF and agree with the conclusion in section 9.			
Signature:		Date:	6/09/2024
Name <i>(print)</i> :	Lucy Kowalewski		
Position:	Environmental Consultant (Collins Williams Consulting)		

Section 11 DETERMINATION AND DECISION STATEMENT

11.1 Determining officer – person who determines this REF

- I certify that on behalf of Byron Shire Council I have reviewed the completed REF.
- I certify that I have reviewed and endorsed the contents of this REF document and, to the best of my knowledge, it is in accordance with the EP&A Regulation and the Guidelines approved under section 170 of the EP&A Regulation, and the information it contains is neither false nor misleading.
- The proposed activity is not likely to have a significant impact on the environment and therefore an EIS is not required.
- The proposed activity will be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning an SIS and/or a BDAR is not required.
- Mitigation measures are required to eliminate, minimise or manage environmental impacts.
- The proposed activity does not require referral to the Commonwealth Minister for the Environment to determine if the activity is a controlled action under the EPBC Act.
- I conclude that the assessment has been adequately completed and the conclusion as to the likely environmental impact of the project is reasonable.
- The project may proceed subject to the mitigation measures in this REF, as well as any relevant referral approval, licence or permit.
- I determine that the REF is not required to be published on the Council website or NSW Planning Portal.

Signature:		Date:	Click here to enter date. 4/6/25
Name (print):	Phillip Holloway		
Position:	Director – Infrastructure Services		
Site inspected:	Click here to enter text.	Date:	Click here to enter date.

APPENDIX A

Design Plans

APPENDIX B

Community/Agency Consultation Responses

APPENDIX C

Aboriginal Heritage Information Management System Search and any Response from Traditional Owners

APPENDIX D

Specialist Reports

APPENDIX E

Reference Documents

Acid Sulfate Soils Assessment Guidelines 1998, published by the Acid Sulfate Soils Management Advisory Committee

<https://www.environment.nsw.gov.au/resources/soils/ASS-Manual-2-Assessment-Guidelines.pdf>

Erosion and Sediment Control info and Blue Book

<https://www.environment.nsw.gov.au/research-and-publications/publications-search/resource-guide-for-local-councils-erosion-and-sediment-control>

RMS Code of Practice – Minor Works in NSW Waterways

<https://www.rms.nsw.gov.au/documents/about/environment/code-practice-minor-work-nsw-waterways.pdf>

Office of Water – Controlled Activities on Waterfront Land

[What is a controlled activity? | Water \(nsw.gov.au\)](#)

Legislation website

<https://www.legislation.nsw.gov.au>

LEP/DCP

<https://www.byron.nsw.gov.au/Services/Building-development/Plans-maps-and-guidelines>

Development Design and Construction Manual

<https://www.byron.nsw.gov.au/Services/Building-development/Plans-maps-and-guidelines/Development-Design-Manuals>

Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW

<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Aboriginal-cultural-heritage/due-diligence-code-of-practice-aboriginal-objects-protection-100798.pdf>

Byron Biodiversity Conservation Strategy

<https://www.byron.nsw.gov.au/Services/Environment/Natural-environment>

Guidelines for Ecological Assessment in Byron Shire

E201819547-FINAL-Guidelines-for-Ecological-Assessment.pdf

<https://www.google.com/search?q=guidelines+for+ecological+assessment+in+byron+shire&oq=guidelines+for+ecological+assessment+in+byron+shire&aqs=chrome..69i57j69i60.7308j0j15&sourceid=chrome&ie=UTF-8>

Vegetation and tree removal in Byron Shire

<https://www.byron.nsw.gov.au/Services/Building-development/Do-I-need-approval/Vegetation-and-tree-removal?BestBetMatch=tree%20removal|d13b95b2-5146-4b00-9e3e-a80c73739a64|4f05f368-ecaa-4a93-b749-7ad6c4867c1f|en-AU>