

BALLINA SHIRE COUNCIL – MEMORANDUM

MEMO TO: John Turman
COPY: Rob Conn, Brett Dyki, Fred Moss
CM REF:
MEMO FROM: Natasha Matthews
DATE: 19/03/2024
SUBJECT: Rock Revetment Stabilisation Laydown Area

This memorandum is in relation to the Review of Environmental Factors for the Revetment Embankment Stabilization at Kingsford Smith Reserve and Regatta Park, CM 23/82876. Ballina Shire Council (BSC) proposes to reconstruct sections of flood damaged embankment along North Creek and the Richmond River, Ballina.

The activity was determined on 6/03/2024, however due to the awarded contractor's methodology, the proposed laydown area for the works at Location 1 and method of rock transportation has been adjusted.

Location 1 is located within Unallocated State Land - USL for land above and below HWM within the Richmond River, adjacent to the Ballina Memorial Pool and the Richmond River Sailing and Rowing Club, located on Lot 1 DP 1051004 (Figure 1 and 2).

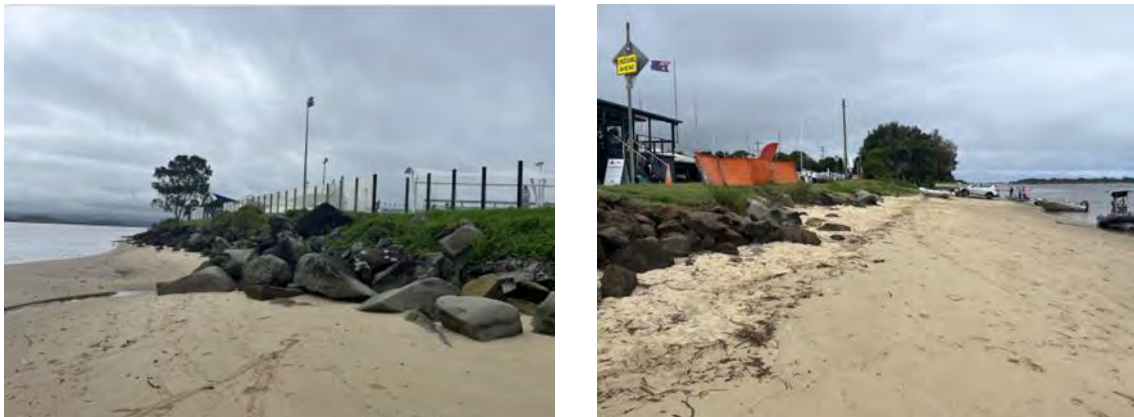


Figure 1: View of Location 1 looking west along the Richmond River and adjacent to the Ballina Memorial Pool (left) and view looking east towards the Richmond River Sailing and Rowing Club (right).

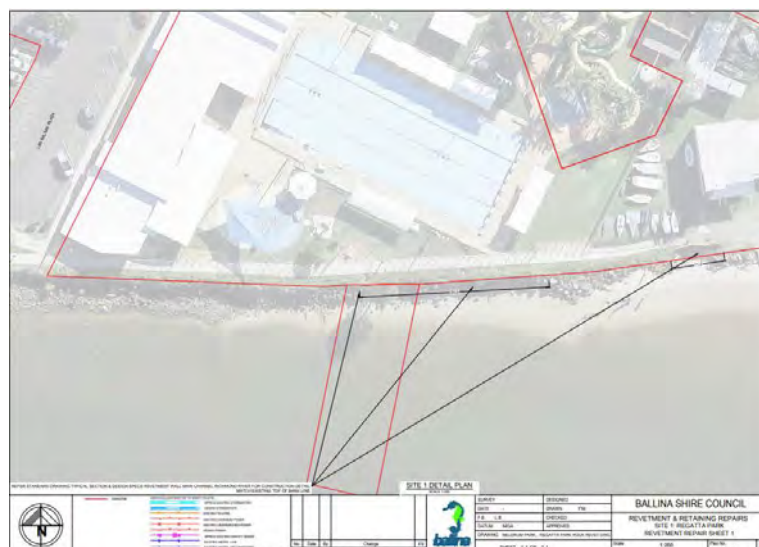


Figure 2: Site 1 detail plan.

Council will no longer require access to the laydown area off Boat Harbour Road, Ballina for the temporary storage or rock material that was to be transported via barge up to the rock revetment repairs outside Ballina Memorial Pool (Figure 3). The proposed change alleviates the requirements for the following:

- Consent from TfNSW – MIDO as crown land manager of Lot 1 DP 791628.
- Compliance with conditions from TfNSW Navigation Advice North (Maritime) for works within navigable waterway.
- Non-objection consent received from the Aboriginal Land Council.



Figure 3: Boat Harbour Rd laydown area.

Due to the awarded contractor's methodology, the repair works outside Ballina Memorial Pool will now be undertaken from land. The carpark area adjacent to the Richmond River Sailing and Rowing Club will be used as a temporary laydown area for rock material within Lot 1 DP 1051004 (Figure 4). The land is Council Managed, Crown Land. As Crown land manager, Council can use the carpark to undertake the temporary works. No vegetation is proposed to be removed.

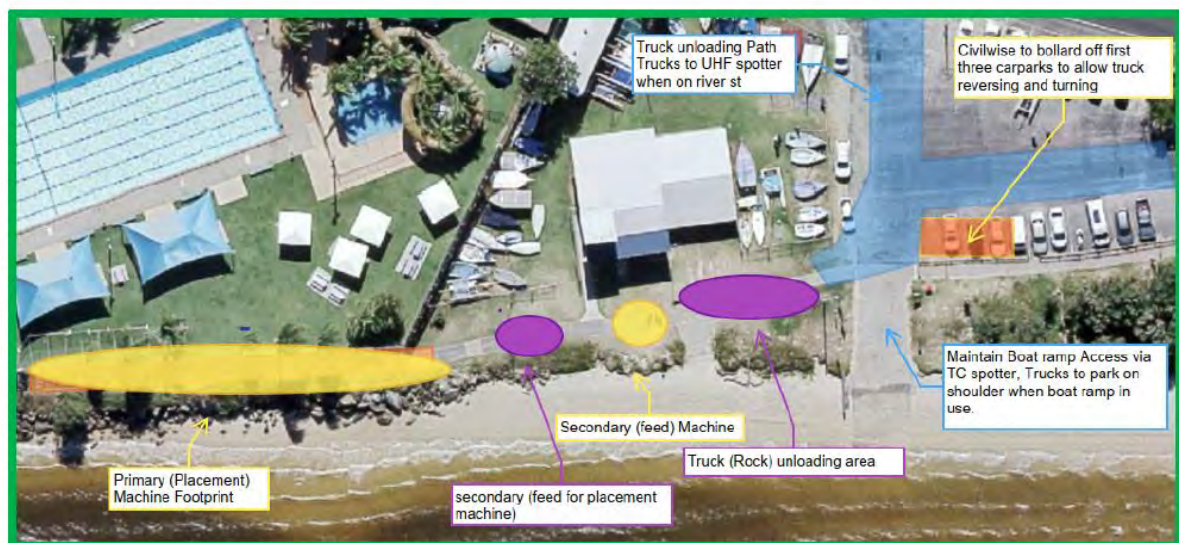


Figure 4: Proposed laydown area within carpark between 1 River St, Ballina and the Richmond River Sailing and Rowing Club.

The environmental safeguards and mitigation measures listed within the Table of Section 1.3 of the REF still apply, particularly in relation to:

- Traffic, Transport and Parking;

- Erosion and Sediment Control;
- Waterways;
- Visual Amenity; and,
- Socio-economic impacts.

The changes to the laydown area location do not alter the planning pathway and the works are still subject to the determined REF conditions.

In accordance with Ballina Shire Councils Division 5.1 Projects Procedure, changes to a determined REF need to be documented by the project manager and then referred through both the quality review process and determination process.

Kind Regards,

Natasha Matthews
Project Manager

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Fred Moss
Design Engineer
Quality assurance

John Truman
Director – Civil Services
Determining Officer

Review of Environmental Factors



Revetment Embankment Stabilization at Meldrum Park, Commemoration Park, North Creek and Richmond River

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 EPA Act 1979.

Instruction to users of this template:

Where requested to [Click here to enter text](#) and no response is required, please enter 'NA'.

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APPENDICES

Introduction

Project name:

Revetment Embankment Stabilization at Meldrum Park and Commemoration Park, North Creek and Richmond River

Project number:

Project budget:

Work order number:

Project manager:

Rob Conn

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	29/02/2024	4.00pm
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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)	The location of each activity has been defined within Appendix E. Site 1: Richmond River, Ballina Site 2: Meldrum Park and Commemoration Park and North Creek, Ballina		
Street address (if applicable)	No:	Enter number.	Street name:
	Location 1: 2-4 River Street, Richmond River, Ballina. Laydown Area: Boat Harbour Road, West Ballina Location 2: Norton St, North Creek, (Meldrum Park) and Bentinck St, North Creek, Ballina (Commemoration Park) Laydown Area: Commemoration Park, Bentinck St, Ballina		
	Town, village or locality:		Ballina and West Ballina

<p>Title reference</p>	<p><i>Lot and deposited plan (or strata plan):</i></p>		<p>Location 1: Unallocated State Land (USL) Richmond River Laydown Area: Lot 1 DP 791628</p> <p>Location 2: 2.1) USL North Creek (end of Norton St) Meldrum Park Lot 1 DP 58047 and USL North Creek USL North Creek 2.2) USL North Creek 2.3) Lot 7036 DP 1068936 (Namatjira Place Foreshore Reserve) 2.4) Lot 7036 DP 1068936, USL North Creek, and Commemoration Park Lot 7006 DP 1068885 2.5) USL North Creek and Commemoration Park Lot 7006 DP 1068885</p> <p>Laydown Area: Commemoration Park Lot 7006 DP 1068885</p>
<p>Site reference</p>	<p><i>Easting: (6 digits)</i></p> <p>Location 1: 555370 Location 2: 555907</p>	<p><i>Northing: (7 digits)</i></p> <p>Location 1: 6805904 Location 2: 6806447</p>	
	<p><i>Nearest cross street or streets:</i></p> <p>Location 1: Las Balsas Plaza and River Steet, Ballina Laydown Area: Boat Harbour Road, West Ballina</p> <p>Location 2: Norton St and Fox St, Ballina Bentinck Street and Kingsford Smith Drive, Ballina</p> <p>Laydown Area: Bentinck Street and Kingsford Smith Drive, Ballina</p>		

	<p>Location 1:</p> <p>USL – Unallocated State Land for land above and below HWM, between Lot 1 DP 1051004 and the Richmond River.</p> <p>Laydown Area: Lot 1 DP 791628, Crown Land managed by Maritime.</p> <p>Location 2:</p> <p>2.1)</p> <p>a) USL – Unallocated State Land for land above and below HWM, between the end of Norton St and North Creek.</p> <p>b) Meldrum Park Lot 1 DP 758047, Crown Land managed by BSC; and USL for land above and below HWM, between Lot 1 DP 758047 and North Creek.</p> <p>c) USL for land above and below HWM, between Lot 1 DP 781534 and North Creek.</p> <p>2.2) USL for land above and below HWM, between Lot 1 DP 781534 and North Creek.</p> <p>2.3) Lot 7036 DP 1068936, Crown Land managed by BSC (Namatjira Place Foreshore Reserve).</p> <p>2.4) Lot 7036 DP 1068936, Crown Land managed by BSC (Namatjira Place Foreshore Reserve).</p> <p>USL for land above and below HWM, between Lot 7036 DP 1068936, Lot 7006 DP 1068885 (Commemoration Park), and North Creek.</p> <p>Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC.</p> <p>2.5) USL for land above and below HWM, between Commemoration Park Lot 7006 DP 1068885, and North Creek.</p> <p>Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC.</p>
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Site owner and tenure:

	<p>Laydown Area: Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC.</p>
	<p>Location 1: USL Richmond River.</p> <p>Laydown Area: Crown Land managed by Maritime.</p> <p>Location 2: USL North Creek. Meldrum Park Public Reserve. Commemoration Park Public Reserve. Crown Land managed by BSC.</p> <p>Laydown Area: Commemoration Park Public Reserve.</p> <p><i>Land classification (Community or Operational, if applicable):</i></p>

Site map or aerial image



Figure 1: The rock revetment embankment stabilisation works will be undertaken at two sites. Site 1 located on USL within the Richmond River. Site 2 located on USL within North Creek and Meldrum Park, Commemoration Park and Crown Land managed by BSC.

1.3 Description of the proposed activity

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

Ballina Shire Council (BSC) proposes to reconstruct sections of flood damaged embankment along North Creek and the Richmond River, Ballina.

The existing rock revetment has failed, and erosion has occurred through the remaining embankment structure. The shoreline erosion has presented as deep sinkholes along the grassed edge. The area between the edge of the shared path and the embankment has been closed i.e., barriered off, to prevent pedestrian access.

The older style construction of the revetment may have contributed to the failure, where the lack of barrier material to contain fine and medium embankment material has been more susceptible to erosion through water forces and weakened the structure.

Location 1

Location 1 is located within USL for land above and below HWM within the Richmond River and adjacent to the Ballina Memorial Pool and the Richmond River Sailing and Rowing Club located on Lot 1 DP 1051004 (Figure 2 and 3).



Figure 2: View of Location 1 looking west along the Richmond River and adjacent to the Ballina Memorial Pool (left) and view looking east towards the Richmond River sailing and rowing club (right).

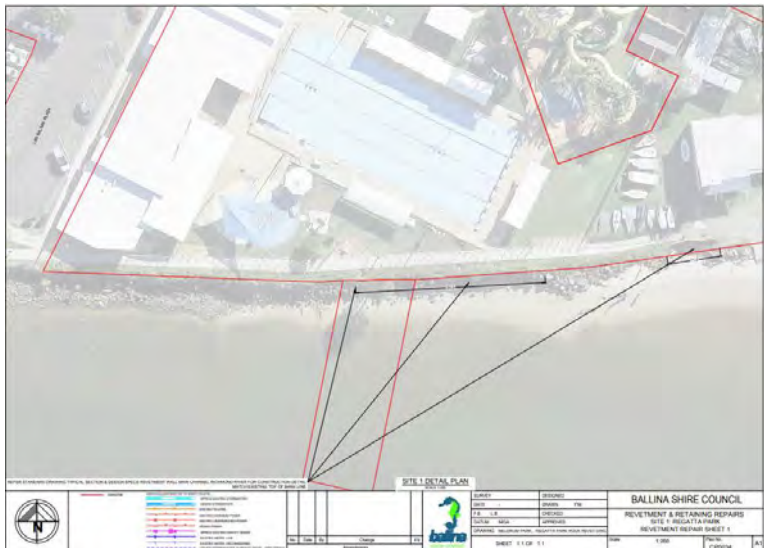


Figure 3: Site 1 detail plan.

The reconstruction will require the existing revetment material (loose material, debris and organic matter), and a suitable depth and width of shoreline to be removed by excavator so that the embankment can be stabilised and rebuilt.

The revetment will be reconstructed with a geotextile material base and clean rock armour (sizes 300-800mm dia.) placed at a maximum 3-to-1 slope to improve stability and longevity of the wall. Rocks will be placed into position using a rock grab and rocks forming the wall toe will be keyed into the bed through a process of pushing from above (as opposed to excavation of a trench). The geotextile material will be folded back into the revetment at the top and bottom to prevent embankment and road base material from coming loose and washing into the waterway.

The top of the embankment will be reconstructed using road base compacted to a 1% grade towards the river. This will be topped with soil and seeded with grass. A typical cross section of revetment construction is located in Appendix A (Drawings CP0034).

The works will be completed from the Richmond River via an excavator and plant on barge. A temporary laydown area will be created within Lot 1 DP 791628 (Crown Land managed by Maritime) at Boatharbour Road (Figure 4). Geotextile will be placed under all stockpile materials to ensure reinstatement of the land to its original state. The rock will be loaded onto the barge and floated up to Location 1 at intervals (approx. 10 to 20) over a three (3) week period. It is not anticipated that any vegetation will be removed.



Figure 4: Temporary stockpile and laydown area within Lot 1 DP 791628 (Crown Land managed by Maritime) at Boatharbour Road, West Ballina (left) and view looking west towards the Richmond River (right).

Location 2 (Sites 2.1 - 2.5)

The revetment will be reconstructed along North Creek at sites referred to as 2.1 to 2.5.

Site 2.1

Site 2.1 comprises of three (3) sections: a, b, c. Refer to Figure 5 and Appendix A.



Figure 5: Site 2 (2.1a, b, c) detail plan.

Site 2.1a is located within USL within North Creek at the end of Norton Street and will be constructed similar to Location 1, in accordance with the standard drawing typical section and design specs revetment wall main channel (refer Appendix A). Works will be undertaken from land and will occur within the vicinity of a several mangroves (Figure 6). Rock will be carefully placed to avoid interference with marine plants.





Figure 6: Site 2.1a located at the end of Norton Street, Ballina and within USL. View looking northwest (top left image), view from the end of Norton Street looking northeast (top right image) and view towards Meldrum Park looking southeast (bottom image).

Site 2.1b is located directly adjacent to site 2.1a. The repair works will be undertaken using the methodology in accordance with retaining wall repair detail 1 (refer Appendix A). Sandy material 0.75m wide will be excavated from behind the existing revetment wall and geofabric material is to be positioned beneath the concrete capping, line the existing rock wall and base of a 0.75m trench to prevent embankment and subbase material from coming loose and washing into the waterway. The trench will be backfilled with 40mm subbase material and topped with soil and seeded with grass.

Site 2.1b is located at Meldrum Park (Lot 1 DP 758047) being Crown Land managed by BSC, and within USL for land above and below HWM, between Lot 1 DP 758047 and North Creek. A site inspection on 29th February 2024 confirmed vegetation within the vicinity of the works being two (2) Tuckeroos, one (1) large Eucalypt, one (1) Melaleuca, several mangrove saplings, a small palm, lomandra grasses and landscape plants (Figure 7). It is not anticipated that any vegetation will require removal.



Site 2.4

Site 2.4 is located on Lot 7036 DP 1068936, Crown Land managed by BSC (Namatjira Place Foreshore Reserve); USL within North Creek for land above and below HWM; and, Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC (Figure 12 and 13). The revetment reconstruction will be undertaken similar to Site 2.3 with a trench being excavated behind the wall to a width of 3m and depth of 2.0m; in accordance with the retaining wall repair detail 5 drawing (refer Appendix A).

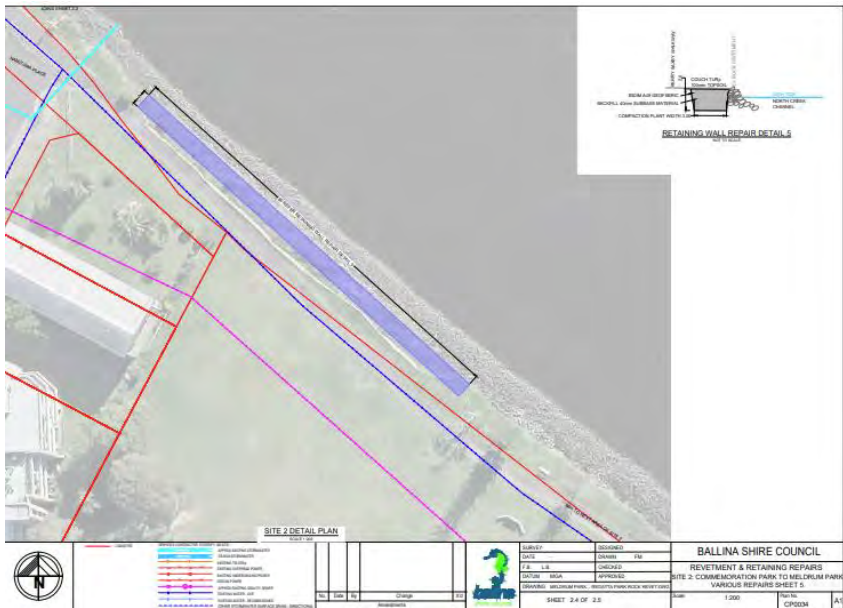


Figure 12: Site 2.4 detail plan.



Figure 13: View looking northwest at Site 2.4 located within Lot 7036 DP 1068936, Crown Land managed by BSC (Namatjira Place Foreshore Reserve); USL within North Creek for land above and below HWM; and, Commemoration Park Lot 7006 DP 1068885.

Site 2.5

Site 2.5 is located on USL for land above and below HWM, between Commemoration Park Lot 7006 DP 1068885, and North Creek and within Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC (Figure 14 and 15). The revetment reconstruction will be undertaken similar to Site 2.3 and 2.4 with a trench being excavated behind the wall to a width of 3m and depth of 2.0m; in accordance with the retaining wall repair detail 6 drawing (refer Appendix).

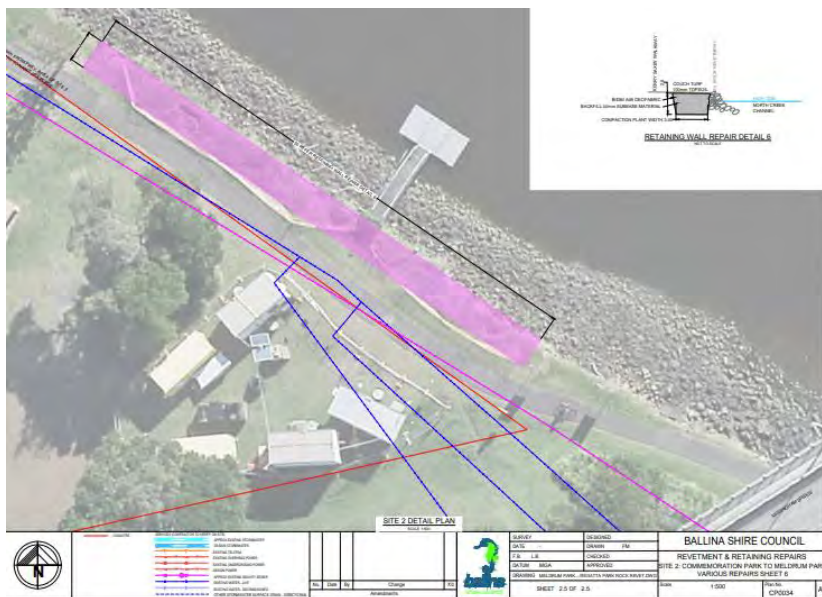


Figure 14: Site 2.5 detail plan.



Figure 15: View looking northwest at Site 2.5 located on USL and within Commemoration Park.

A temporary laydown area for the Location Two works will be created within Commemoration Park (Figure 16). Geotextile material will be placed under all stockpile materials to minimise disturbance and ensure reinstatement of the land to its original state.



Figure 16: Temporary laydown area for Location Two works.

The completed works will have no impact on flood or tidal regimes but will be impacted by future storm and flooding events. The events will very gradually displace the rock revetment armouring which will require ongoing maintenance i.e., replacing with new rock, and monitoring the integrity of the geotextile material. The rock retaining wall will need monitoring and minor repairs to reinstall dislodged rock.

Pre-construction:

- Pre-construction will involve setting up a works site on the subject land.
- Access to and through all footpaths, Meldrum and Commemoration Park during the entire project will be limited with barriers for public safety.
- Erosion and sediment controls will be installed around the edges of the worksites.
- Underground services are present in the works area and need to be located and protected prior to works commencing.
- Closure of small section of Commemoration Park to the north and a small section of land off Boat Harbour Road to accommodate laydown areas.

Construction:

- Removal of excavated material.
- Undertake rock repair works in accordance with design.
- Installation of turfed areas.
- Installation and planting of trees.

Post-construction:

Once work is completed, the site will be cleaned up, temporary fencing removed and public access restored. Sediment and erosion controls will be maintained until the site is stabilised. Plantings will be regularly maintained.

Size of the proposed activity footprint

3000m² approx.

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

Advertising and notifying adjoining owners (including Crown Lands) and residents/community.

Proposed construction methods, materials and equipment

Methodology:

Erect signage and barriers to traffic and pedestrians for footpath and roads areas.

Establish accessible temporary footpath diversions.

Undertake notification to residents along North Creek and TfNSW (Maritime) for boats moored adjacent to Boat Harbour Access Road.

Establish laydown areas. Geotextile to be placed under all stockpile material to ensure reinstatement of the land to its original state.

Establish sediment and erosion controls in and around the site, at laydown areas, with particular focus on the Richmond River and North Creek.

Identify and protect services, as required.

Remove weeds and ornamental hedges along North Creek.

Undertaken rock revetment works.

Appropriately dispose of excavated material (loose material, debris and organic matter).

Install turf, and plant appropriately spaced shade trees (along North Creek).

Rehabilitate laydown areas.

Remove warning signage and temporary fencing, and reopen footpath, streets and parks.

Remove erosion controls when the site is stable.

Materials to be used:

Clean fill,

Geotextile material.

Compacted road base and subbase material as per design.

Base rocks as per design.

Signage and temporary footpath diversion material.

Turf and shade trees.

Equipment:

Barge, excavator, and plant.

Sediment fencing

Work utes, heavy rigid transport trucks, dump trucks.

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

Onsite management of materials compound will be established for both Location 1 and 2. Construction vehicle parking will also be available in the vicinity of the proposed site. Appropriate erosion and sediment controls will be in place around the stockpile locations.

Excavated material and waste will be removed directly into trucks and transported off-site daily, and materials required for the rock revetment will also be transported in quantities sufficient for the days task.

Location 1

A secure site will be fenced off in a cleared area adjacent to the Richmond River and within Lot 1 DP 791628, Crown Land managed by Maritime (off Boat Harbour Road).

Location 2

A secure site will be fenced off within Commemoration Park, Lot 7006 DP 1068885, Crown Land managed by BSC.

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

General earthworks:

Location 1 will involve rocks strategically placed in accordance with Typical Section: Revetment and as per design. No additional earthworks will be undertaken.

Location 2 will predominately require excavation of material from behind the rock wall with the appropriate disposal of excavated material (loose material, debris and organic matter). The trench will be backfilled with 40mm subbase material and topped with soil and seeded with grass.

The excavation will occur in areas mapped on Council’s GIS as ASS Classes 1 and 2– see ASS section below. Soil testing will be undertaken prior to works to determine appropriate disposal of waste at a licensed facility.

Vegetation assessment:

Location 1: The existing rock revetment wall is largely vegetation free apart from one (1) large Casuarina that has grown into the rock wall over time. The new rocks will be strategically placed to avoid impacted the tree. No aquatic vegetation is visible or documented to occur within the area. Given the extent of erosion that as occurred it is highly unlikely works will impact aquatic vegetation.

Location 2:

Site 2.1a will occur within the proximity of marine vegetation/mangroves. The placement of rock within this section of works will be undertaken cautiously to avoid disturbance to the

mangroves. All works are to be undertaken in accordance with the Fisheries Maintenance Permit PM23/97 (refer Appendix F).

Site 2.2b will occur within the proximity of two (2) Tuckeroos, one (1) large Eucalypt, one (1) Melaleuca, several mangrove saplings, a small palm, lomandra grasses and landscape plants. It is anticipated that no vegetation will be impacted within this section of works and in accordance with AS4970 Protection of Trees on Development Sites.

Site 2.3 will require the removal of several maintained ornamental hedges. These ornamental plants are maintained by the adjacent property. Notification will be provided to the property owners prior to the removal of plants. It is recommended to re plant strategically placed shade trees.

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

Materials will be sourced from approved licenced supplies, and from local sources wherever practical.

Environmental safeguards and mitigation measures

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Erosion and sediment control	To prevent the pollution of waterways and the nearby mapped Coastal Management SEPP, sediment and erosion control measures will be installed prior to the commencement of works. These are to be maintained during construction of the project until the site has been stabilised by permanent vegetation cover or a hard surface. This should include drain entrance-based sediment traps.	Click here to enter text.
Waterways	<p>Emergency spill procedures, including the provision of an on-site spill kit, will be implemented during construction.</p> <p>Erosion and sediment mitigation devices are to be erected in a manner consistent with the currently accepted Best Management Practice to prevent the entry of sediment into the waterway, or mobilization of sediment within the waterway, prior to any earthworks being undertaken.</p> <p>These erosion and sediment devices are to be maintained in good working order for the whole duration of the works and subsequently until the worksite has been stabilized and the risk of erosion and sediment movement from the site is minimal.</p> <p>Works to be in accordance with DPI Fisheries maintenance permit.</p>	Click here to enter text.

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
<p>Noise and vibration</p>	<p>Minimize plant and tool noise by providing regular maintenance and by turning machinery off when not in use.</p> <p>Use reverse alarms that meet Australian Standards on all machinery.</p> <p>Notify neighbors of project dates and likely noise impacts.</p> <p>Excavation and construction work will comply with AS 2436:2010 'Guide to Noise Control on Construction, Maintenance and Demolition Sites' and 'NSW Interim Construction Noise Guidelines (DECC 2009).</p> <p>Record noise complaints in the complaints register.</p> <p>Record suitable identification/ description of the noise source (e.g. continual/impulsive) and general location of the complaint. Noise complaints will be investigated, and remedial action taken.</p> <p>Operating hours and times will be restricted as prescribed in Section 1.3 of the REF.</p>	<p>Click here to enter text.</p>
<p>Air quality</p>	<p>All plant will be serviced and appropriate controls in place to limit plant fumes and emissions.</p> <p>Manage dust as follows: water suppression, re-establishment of vegetation cover, stockpile management, covering loads, preventing spoil tracking onto roads and halting works on site in extreme wind events.</p> <p>Only operate clean, well-maintained equipment and vehicles, with equipment being cleaned before being brought to the site.</p> <p>Inspect dust controls daily and ensure they are adequately maintained.</p> <p>Construction works must cease during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.</p>	<p>Click here to enter text.</p>
<p>Non-Aboriginal heritage</p>	<p>In the event that a heritage item or relic is found during the works, work will stop and the relic will remain in place as found. The area around the item(s) will be protected and archaeological advice and if required, an excavation permit will be sought.</p>	<p>Click here to enter text.</p>

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Aboriginal heritage	In the event a heritage object is found during the works, work will stop, and the item will remain in place as found. The area around the item(s) will be protected, and then archaeological advice and an Aboriginal Heritage Impact Permit (AHIP) will be sought.	Click here to enter text.
Biodiversity	No aquatic or riparian vegetation is to be removed or interfered with.	
Trees and vegetation	<p>Compliance with Australian Standard AS 4970-2009 Protection of trees on development sites.</p> <p>Best practice weed management practices should be in place to prevent transfer of weed seeds and pests and vegetative materials, including sourcing of fill from weed and pest free areas, washdown of vehicles entering or leaving the worksite.</p>	Click here to enter text.
Traffic, transport and parking	<p>Install suitable traffic control measures for the works site in accordance with the RMS "Traffic Control at Worksites" manual, current version.</p> <p>Ensure construction access and compound areas are managed to minimize risks to the local environment and adjacent land use.</p> <p>Prepare a Traffic Control Plan to manage all vehicle movements to and from the site, including consideration of vehicles, pedestrians and cyclists in the vicinity.</p> <p>Erect appropriate signage; details to be confirmed by appropriate BSC personnel responsible for site safety during the works.</p> <p>Barriers and signage will be used to prevent access to the parks and warn of dangers.</p> <p>Before vehicles leave the premises:</p> <ul style="list-style-type: none"> • Cover all vehicle/trailer loads of waste or excavation spoil to prevent spillage or escape of dust, waste or spoil. • Remove mud, splatter, dust and other material likely to fall or be cast off from the wheels, underside or body of vehicles, trailers or motorized plant. 	Click here to enter text.

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Socio-economic	<p>Notify affected neighboring landowners and occupiers regarding timing and progress of works, traffic control measures, construction access requirements and hazards, and project officer contact details.</p> <p>Advertise pending works through local media or on-site message boards to raise awareness of any traffic control measures.</p> <p>Prior to the commencement of works, the site area shall be demarcated using signage, fencing and temporary barriers.</p> <p>Pedestrian access to the works site will be limited during the project for public safety. Keep any full closures to a minimum and outside of high use times and holiday periods.</p> <p>All works to comply with the NSW Government's Interim Construction Noise Guideline.</p>	<p>Click here to enter text.</p>
Waste	<p>All excess concrete, hardstand, topsoil, etc. from the demolition/construction works must be stockpiled and/or removed from the site. Stockpiles must be subject to sediment controls to prevent stormwater pollution. Material unsuitable for reuse on site must be disposed of at a suitably licensed waste management facility and/or managed in accordance with NSW Resource Recovery Orders and Exemptions.</p>	<p>Click here to enter text.</p>
Visual amenity	<p>The site will be maintained, kept free of rubbish and cleaned up at the end of each working day.</p> <p>Areas impacted by the works will be restored to an acceptable visual state upon completion of the works.</p>	<p>Click here to enter text.</p>
Land contamination	<p>Remove all waste material from site once the works are completed.</p> <p>Notify BSC's Public and Environmental Health Section immediately if new information becomes known during demolition or construction that has the potential to alter previous conclusions about site contamination.</p> <p>Notify the EPA immediately in response to incidents causing or threatening actual or potential harm to the environment in accordance with section 148 of the POEO Act (via EPA Environment Line on 131 555).</p>	<p>Click here to enter text.</p>

Potential area of impact	Safeguards or mitigation measures	Comments (if applicable)
Soils and geotech	Any fill material sourced from elsewhere must be certified as either virgin excavated natural material (VENM) or in compliance with a NSW EPA Resource Recovery Order or Exemption and in compliance with NSW Biosecurity Orders.	Click here to enter text.
Miscellaneous	A CEMP shall be prepared by the contractor prior to commencement of any works. The CEMP is to incorporate standard mitigation measures applicable to the works being undertaken, including all measures outlined in this REF (and associated reports and permits/licences).	Click here to enter text.

Construction timetable and staging hours of operation

Works are to be undertaken during low flows in the Richmond River and North Creek (i.e. non-flood flows) and when Bureau of Meteorology forecast for the Northern Rivers district forecast region (available at: www.bom.gov.au/nsw/forecasts/map.shtml) indicates several days of clear, dry weather.

Works in tidal areas should be undertaken during neap tides as this facilitates the most effective use of silt curtains, and during low tides in intertidal areas so that works can be undertaken outside of the water.

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

- 1 Between 07:00am and 6:00pm – Monday to Friday, inclusive.
- 2 Saturdays 08:00am to 1:00 pm Saturdays.
- 3 No work on Sundays or public holidays.

Works will be undertaken during standard construction working hours in accordance with Interim Construction Noise Guidelines (DECC 2009).

Estimated commencement date: **1 May 2024**

Estimated completion date: **To be determined**

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)

The flood damaged rock revetment areas are in heavily utilized, scenic public areas along the Richmond River and North Creek in Ballina. The pathways adjacent to the works are used intensively by pedestrians, cyclists, people in wheelchairs and motorised mobility scooters etc. The damage poses a safety risk to the public that needs to be rectified. There are a large number of sinkholes (some with significant depth) that require repair in order to minimise risk to the public

Alternatives

Type 'Option 1:' then press <Tab> key and enter text. Press <Enter> and repeat process for Option 2 through to penultimate option. Option 1: Undertake revetment works to reinstate and stabilise the embankment. This is the preferred option.

Option 2: Do nothing. The consequence of not maintaining the revetment wall as a result of flood damage and age will increase the risk of public safety and greater financial costs associated with future replacement and maintenance works.

Justification for preferred option

The rock embankment is a significant feature of the Ballina coastal landscape. The original rock embankment works have provided the community with increased amenity and support recreational activities and tourism within the area itself. This infrastructure was damaged during the 2022 flood event and there is strong desire from the community to have the repair works completed as quickly as possible.

1.5 Relationship with other projects, programs and plans

The Ballina Major Regional Centre Strategy 2015-2035 Plan is in place in accordance with the NSW Government's Far North Coast Regional Strategy. The proposed works align with the agenda of improving healthy living, infrastructure, recreation opportunities, open space, and environmental management (including climate change and flooding).

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 Jali Local Aboriginal Land Council? Any response to be included as an appendix.

NSW Crown Lands have been consulted February 2024 and have been advised of the works. A crown lands licence will be obtained for works within USL.

Council to consult with relevant utility asset owners and neighbouring property owners as required.

Council to consult with park users and pedestrians.

NSW Aboriginal Land Council has been consulted regarding the laydown area adjacent to Boat Harbour Road. A non-objection consent has been received (refer Appendix B).

Consultation with TfNSW Navigation Advice North (Maritime) for works within navigable waterway and consent is required for the use of laydown area off Boat Harbour Road.

Notification/signage for hedge removal will occur with a letter box drop for residents who maintain the ornamental hedges along the foreshore. The hedges are to be replaced with strategically placed shade trees after project completion.

Ballina Shire Council Open Space are to be notified of upcoming works within Meldrum Park and Commemoration Park.

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 EPA Act 1979.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP) aims to facilitate the effective delivery and maintenance of infrastructure across the State.

Activities for Revetment Embankment Stabilisation involve:

- Bank management and stabilisation of the revetment wall*

Division 25 permits development for the purpose of waterway or foreshore management activities.

Waterway or foreshore management is defined in Section 2.164 Definitions as bank management and bank stabilisation:

2.164 Definitions

In this Division—

waterway or foreshore management activities means—

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

The proposed embankment stabilization works are consistent with the definition of waterway or foreshore management activities.

Section 2.165 (1) states that waterway or foreshore management activities can be undertaken by a public authority on any land without development consent. Embankment stabilizations works are subject to Part 5 of the EP&A Act 1979 as development without consent and are supported by an REF.

2.165 Development permitted without consent

- (1) Development for the purpose of waterway or foreshore management activities may be carried out by or on behalf of a public authority without consent on any land.*

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 EPA 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.

The SEPP (Resilience and Hazards) 2021 applies to land that is mapped within one or more of the four coastal management areas identified by the *Coastal Management Act 2016*, which are:

- Coastal wetland and littoral rainforests areas, and lands in proximity to coastal wetland and littoral rainforests;
- Coastal vulnerability areas;
- Coastal environment areas; and
- Coastal use areas.

Based on BSC interactive mapping, works will occur within the following areas (Figure 17):

- Coastal Use Area
- Coastal Environmental Area
- Coastal Zone Combined Footprint

The SEPP (Resilience and Hazards) 2021 specifies requirements for development consent to be granted on land identified as 'Coastal Environment Area' and 'Coastal Use Area'. As the works do not require consent under Part 4 of the EP&A Act, these Sections do not strictly apply; however, they should be considered as a best practice measures.

Works will not occur within Coastal Wetlands or Littoral Rainforest areas or associated proximity zone.

SEPP (Vegetation in Non-Rural Areas) 2017

The State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 regulates the clearing of native vegetation in non-rural zones across the state, where clearing does not otherwise require development consent under the Environmental Planning and Assessment Act. The worksite is within an area covered by SEPP Vegetation in Non-Rural Areas 2017. It is not anticipated that any vegetation will be removed apart from small ornamental hedges (refer section 4.7).

Minor temporary impacts on the visual amenity and scenic quality of the coastal area are expected during construction due to the presence of construction machinery, equipment, and stockpiling. However, the construction works will be short term and temporary. Post construction, the area will be rehabilitated with appropriate vegetation, improving visual amenity of the reserve.

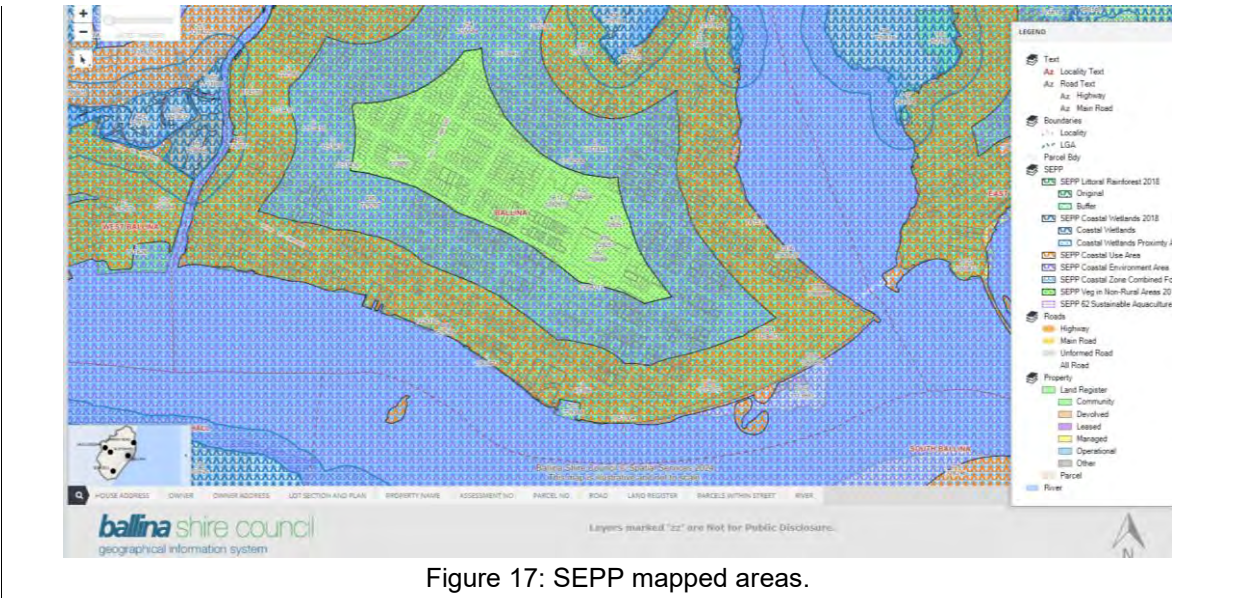


Figure 17: SEPP mapped areas.

3.1.2 Ballina Local Environmental Plan 2012 (and/or Ballina LEP 1987)

Zoning

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

Works are contained within the Ballina Local Environmental Plan (LEP) 2012, the zoning is (Figure 18):

- RE1 – Public Recreation
- E4 - General Industrial
- W2 – Recreational Waterways
- W1 – Natural Waterways

The proposed works are consistent with the objectives on the zone.

Section 5.12(1) of the Ballina LEP states that the LEP does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development, by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development, under State Environmental Planning Policy (Transport & Infrastructure) 2021, Chapter 2.



Figure 18: Ballina Local Environmental Plan (LEP) 2012 land zoning.

Local provisions

Do clauses 7.1 to 7.13 apply?

Is the site Community or Operational land (LEP Schedule 4)? Check Ballina 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)?

Is the site affected by LEP Schedule 5 Environmental Heritage – Part 3 (Archaeological sites)?

Acid Sulfate Soils

The works are located within a Class 1 and 2 Acid Sulfate Soil area (Figure 19). Under the LEP, consent is required for any works below the natural ground surface and/or works by which the water table is likely to be lowered. It is noted that the works do not require development consent and therefore these provisions do not strictly apply.

The works at Location One (1) require no earthworks/excavation and is unlikely to disturb, expose or drain acid sulfate soils and cause environmental damage.

Location Two (2) requires a large quantity of material to be excavated behind the existing rock wall. During works, attention must be given to the excavation sites as well as the location where the excavated material is placed or used. Soil testing is to be undertaken prior to excavation. If acid sulfate soils are identified, it should be noted that there is potential for compounding effects through acid leachate mobilising heavy metals that may be present in the contaminated material, and this should be addressed within a site-specific management plan. A copy of the plan shall be kept on-site.

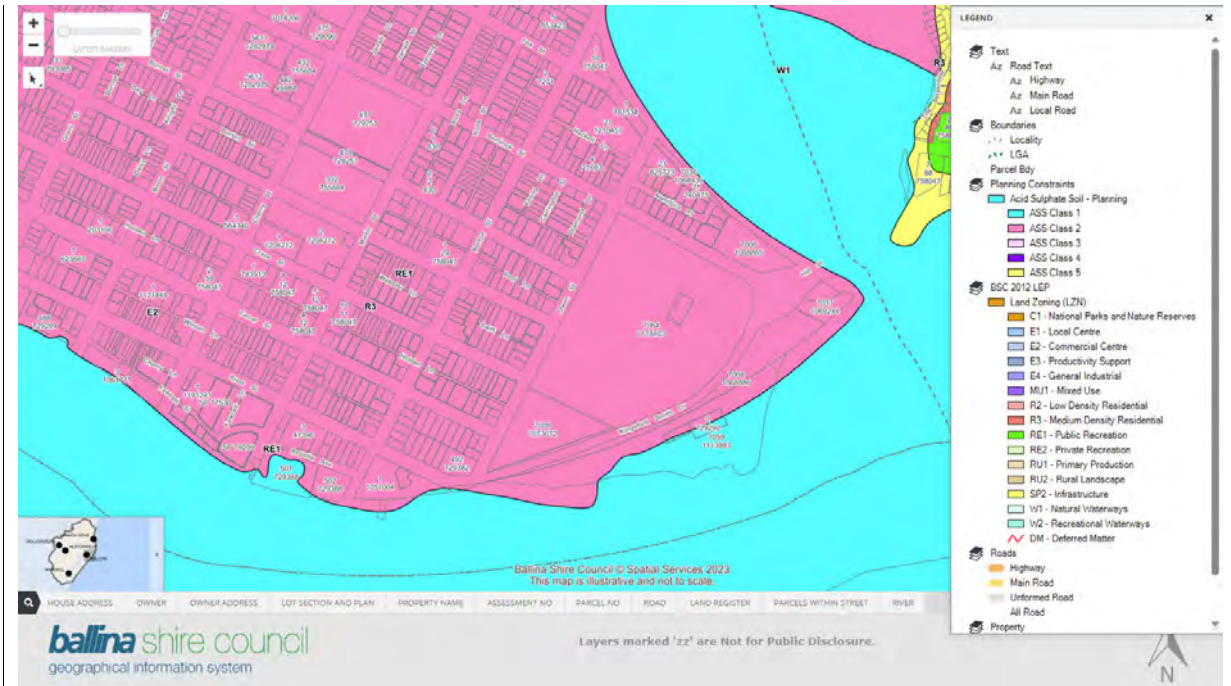


Figure 19: LEP Acid Sulfate Soils areas.

Flooding Hazard

Locations One (1) and Two (2) are in an extreme flood hazard category according to the DCP Flood Hazard Mapping (Figure 20). However, the proposal is for the reconstruction and stabilization of the existing revetment wall to assist with coastal processes and management to reduce the risk of flooding. The works will not affect flood waters in any way. Therefore, the proposed works are not anticipated to adversely impact the existing flood conditions or flood behaviour at the site.

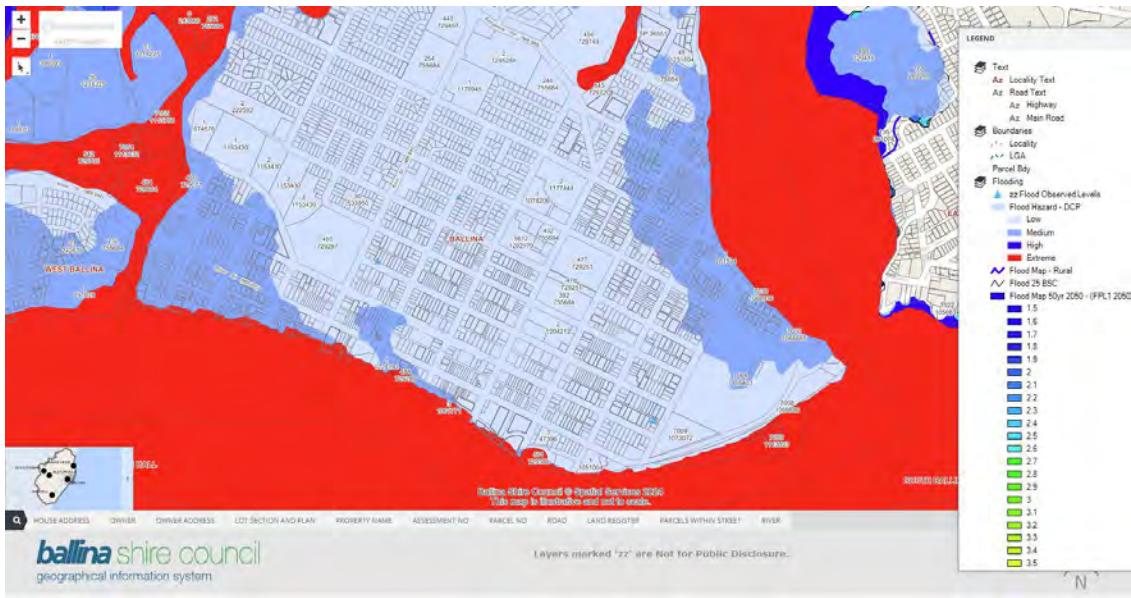


Figure 20: DCP Flood Hazard Areas.

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

The works will be undertaken within Crown Reserves, managed by Council, and are subject to a Generic Plan of Management.

Commemoration Park

Crown Reserve - R82164: Commemoration Park (GNS 13469), reserve purpose is Public Recreation for Park at Bentinck St, Ballina: Lot 7006 DP 106885, land register # 2004501 (Figure 21). The authorised occupation and use of the land by an incorporated body is as appointed by Council. The authorised use of land is for markets in accordance with Council's adopted policies.

There are a number of Lions Club memorial plaques within the grassed area of Commemoration Park (Figure 22). Care should be taken during works to avoid impacting these areas. No-go zones are to be clearly marked surrounding the plaques.



Figure 21: Commemoration Park and Namatjira Crown Reserves.



Figure 22: Lions Club memorial plaques within Commemoration Park, Ballina

Namatjira Place Foreshore Reserve

Crown Reserve - Namatjira Place Foreshore Reserve, reserve purpose is Public Recreation for Park at Namatjira Place, Ballina: Lot 7063 DP1068936, land register # 2003001 and 2003002 (Figure 21).

Meldrum Park

Crown Reserve - R49211: Meldrum Park, reserve purpose is Public Recreation for Park at 79 Norton Street, Ballina: Lot 1 Sec 50 DP 758047, land register # 2004401 (Figure 23).



Figure 23: Meldrum Park Crown Reserve.

Consultation is required with BSC Open Space to ensure works align with the authorised uses of the land i.e. markets.

NOTE: Many Council activities can be considered under Part 5 of the EPA 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

The works are located within Crown Land and within USL within North Creek and the Richmond River. The existing environment in which the works will take place is coastal reserve and urban setting, most of which has been modified due to the previous construction of the revetment wall, footpath/park features and local roads.

4.2 Topography

The topography is characterised by low level to gently undulating beach ridge plains, with some dune/swale systems and swamp areas aligned parallel to the river. Slopes range from 0–2%, are simple and are generally moderately broad (100–200 m). Relief is <1 m. These tidal flats are regularly inundated by brackish tidal waters.

The river is characterised with tidal natural features and some deep channels where Richmond and North Creek join. The topography has been affected by urban development and features such as the existing revetment wall and concrete footpath and park features. A number of local roads adjacent to the works are on a layer of imported road base material.

4.3 Surrounding land uses

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

Location One (1) is intensively used by pedestrians, cyclists, people in wheelchairs and motorised mobility scooters etc. This location is bordering the Ballina Memorial Swimming Pool, the Richmond River Sailing and Rowing Club and a public boat ramp. This pathway is the main connection pathway between East Ballina, Ballina and West Ballina and is heavily used by runners and cyclists, and people heading into and out of the Ballina CBD. It is in close proximity to tourist accommodation, preschool, marina and the Naval Museum. Recreational fishers fish off the top of these walls at high tide, and on the sandy beach area below at low tide. At low tide, the sandy beach area below this wall forms connects with "The Spit", which is an off leash dog beach which is very popular for swimming in the Richmond River, picnics etc. The laydown area for Location One (1) is adjacent to moored boats within the Richmond River and the Boat Harbor Marina. Recreational fishers and commercial business operate from this area.

Location Two (2) is bordering aged care facilities and the residents frequently use these paths and grassed areas. This pathway connects to the Missingham Park skatepark, and is used by youth and others making their way to the skatepark. Given the scenic location, the area is used daily for recreational fishing, picnics, family gatherings etc. Commemoration Park bordering North Creek is the usual location for the Ballina Farmers Market every Sunday. Locals and tourists visiting the markets use the grassed area next to the revetment wall areas to sit out and have food and drinks from the market.

4.4 Geology/Geomorphology

Is the site slip-prone or unstable?

The existing revetment wall has failed, and erosion has occurred through the remaining embankment structure. The shoreline erosion has presented as deep sinkholes along the grassed edge.

The area comprises of extremely low, level tidal flats (mudflats, mangroves and saltmarsh) on Quaternary marine and fluvial sediments. Relief <1 m, slopes <2%. Regularly inundated by tidal waters. Mangrove open scrub, saltmarsh, herbland and sedgeland and low closed casuarina forest.

4.5 Soil types and properties

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

The works will occur within disturbed terrain underlain by alluvial sand and mud associated with past flooding.

The following is observed from eSPADE:

- deep (>200 cm), waterlogged Siliceous Sands (Uc1.21) and Solonchaks (Uc1.21, Uf1.41) on mangrove flats;
- deep (>200 cm), very poorly drained Humic Gleys (Dg4.51, Dg4.11, Uf6.41) on forested and saltmarsh areas.
- Regular tidal flooding and waterlogging, high acid sulphate potential, saline soils, very low soil fertility, low wet bearing strength soils.

4.6 Waterways

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

Works will occur directly within the tidal Richmond River and North Creek.

Works will not occur within a drinking water catchment.

In accordance with the Fisheries Maintenance Permit PN23/97; for dredging and reclamation works and harm marine vegetation associated with minor, low impact maintenance works within the Ballina Shire Council LGA, Council are permitted to undertake maintenance repairs to foreshores and estuary embankments involving topping up of revetment rock consistent with best management practice.

To satisfy the maintenance permit conditions, a Commence Works Notification Form is to be completed for the maintenance activities undertaken under this permit.

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.

A search of the threatened species database on November 1st 2023 identified four (4) listed threatened ecological communities within a 1km radius of the site. A site inspection has confirmed that no Commonwealth endangered flora will be directly affected as a result of the works.

Taking into consideration the extremely small area and modified nature of the affected vegetation within the locality, the works would be unlikely to threaten the viability of any threatened species population occupying or potentially occurring at the site and unlikely to exacerbate habitat fragmentation. The works are not expected to significantly adversely impact on biodiversity values.

Location One (1): The existing rock revetment wall is largely vegetation free apart from one (1) large Casuarina that has grown into the rock wall over time and will be retained as part of the works. No aquatic vegetation is visible or documented to occur within the area. Given the extent of erosion that has occurred it is highly unlikely works will impact aquatic vegetation.

Location Two (2):

Site 2.1a will occur within the proximity of marine vegetation/mangroves. The placement of rock within this section of works will be undertaken cautiously to avoid disturbance to the mangroves. All works are to be undertaken in accordance with the Fisheries Maintenance Permit PM23/97 (refer Appendix F).

Site 2.2b will occur within the proximity of two (2) tuckeroos, one (1) large eucalypt, one (1) Melaleuca, several mangrove saplings, a small palm, lomandra grasses and landscape plants. It is anticipated that no vegetation will be impacted within this section of works. AS4970 Protection of trees on development sites is to be followed.

Site 2.3 will require the removal of several maintained ornamental hedges. These ornamental plants are maintained by the adjacent property. Notification will be provided to the property owners prior to the removal of plants. It is recommended to re plant strategically placed shade trees.

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.

The subject land has minimal habitat value given its suburban location and history of disturbance. It would provide some habitat for birds such as noisy mynas and rainbow lorikeets, pelicans etc. Common reptiles would also potentially use the rock walls as habitat. The tidal areas would be used by small marine species.

A search of the threatened species database on November 1st 2023 identified ninety two (92) listed threatened species and seventy eight (78) listed migratory species within a 1km radius of the site. It is unlikely that aquatic/ riparian fauna will be disturbed.

Disturbance from construction noise and activity will result in a minor short term localised increase in disturbance.

4.9 Biodiversity values mapping

Check State Government mapping online.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC)

Under the EPBC a referral is required to the Australian Government for proposed actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land’.

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) protected matters search tool was used to identify Matters of National Environmental Significance.

Areas of national environmental significance, such as a RAMSAR Wetlands, World, Commonwealth or National Heritage Places are not identified within the Ballina LGA.

Biodiversity Conservation Act 2016 (BCA), Local Land Services Act 2013 (LLS) and Biodiversity Conservation Regulations (BCR)

The *Biodiversity Conservation Act 2016 (BC Act)*, *Local Land Services Act 2013 (LLS)* and associated Regulations aims to protect biodiversity, regulate a range of development activities on land, and manage the activities’ impact on the natural environment including a biodiversity offsetting scheme. The Acts apply in relation to animals and plants and not (unless otherwise provided) in relation to fish and marine vegetation. The *Fisheries Management Act 1994* contains provisions in relation to fish and marine vegetation.

The following map (produced from the NSW DPIE Biodiversity Values Map and Threshold Tool under the BC Act) outlines areas identified as having high biodiversity values (in purple) (Figure 24).

The proposed works are occurring in an area of outstanding biodiversity value and are mapped as containing Threatened species or communities with potential for serious and irreversible impacts.

It is not anticipated that any significant vegetation will be removed. A biodiversity conservation licence is not required. Further biodiversity assessment is not warranted. Provisions are to be put in place during works to minimise disturbance to the land surrounding the riparian areas.

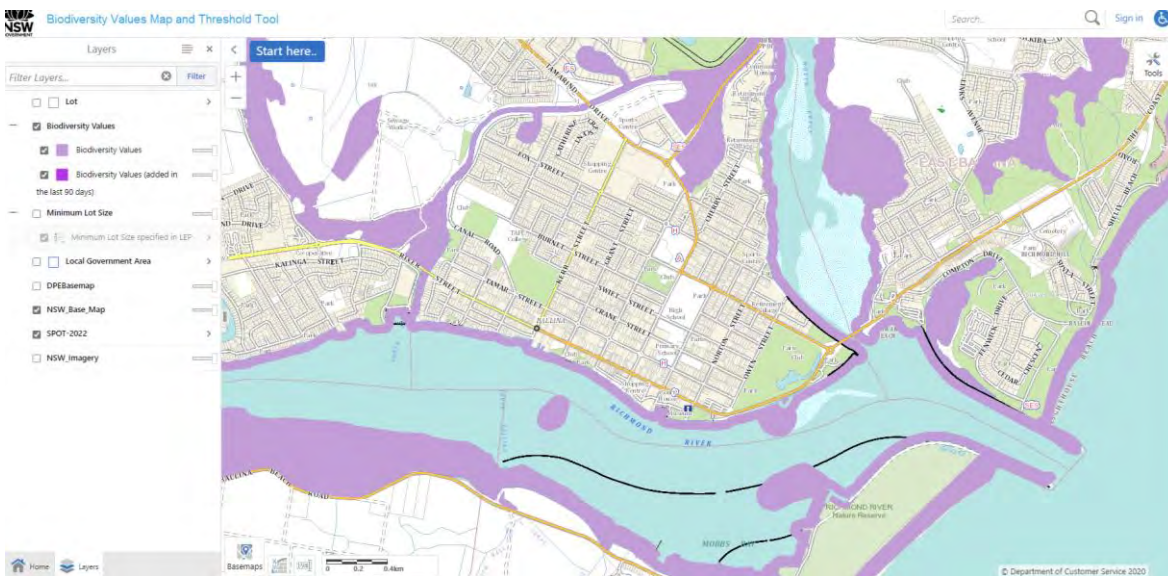


Figure 24: NSW DPIE Biodiversity Values Map.

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
<p>(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,</p>	<p>Unlikely to have an adverse effect.</p>
<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>Unlikely to have an adverse effect.</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>	<p>No impact to habitat of threatened species or community.</p>

Matter	Comment
(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),	Unlikely to have an adverse effect.
(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.	The works are not part of a key threatening process.

The proposed works are unlikely to significantly affect threatened species, endangered ecological communities or their habitats.

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.

A AHIMS search was undertaken on 27th September 2023 and 8th February 2024 (Figure 25). recorded aboriginal sites have been identified within the proximity of the works. An extensive search was undertaken on 1st November 2023 listing the following sites recorded with



No Aboriginal Objects or Places were identified within the project area. The works will occur within a previously disturbed area containing the existing rock revetment wall and footpath and is unlikely to contain physical aboriginal cultural heritage. No culturally modified trees occur near to the area.

The project area is adjacent to several places listed as being of local heritage significance. However, the project itself would appear unlikely to have any impact on the significance of these places.

In the event a heritage object is found during the works, work will stop, and the item will remain in place as found. The area around the item(s) will be protected, and then archaeological advice and an Aboriginal Heritage Impact Permit (AHIP) will be sought.

Due diligence process step	Comment
1 Will the activity disturb the ground surface or any culturally modified trees?	Yes, ground disturbance will occur within the existing revetment wall footprint. The site has been previously disturbed.
2(a) Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?	Yes,
2(b) Are there any other sources of information of which a person is already aware?	Yes, North Creek and Richmond River present significant natural landscape features for the aboriginal community.
2(c) Are there any landscape features that are likely to indicate the presence of Aboriginal objects?	Yes, Richmond River and North Creek.
<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?	No items listed on AHIMS will be affected by the works. No natural landscape features will be modified.
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?	A desktop assessment and site inspection on 29/02/2024 did not identify any aboriginal objects.
5 Is further investigation and impact assessment warranted?	No.

4.12 Native Title and Crown land management

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

Crown Land

Works will be contained within Crown Land Managed by Council and TfNSW (Maritime) and USL (Figure 26).

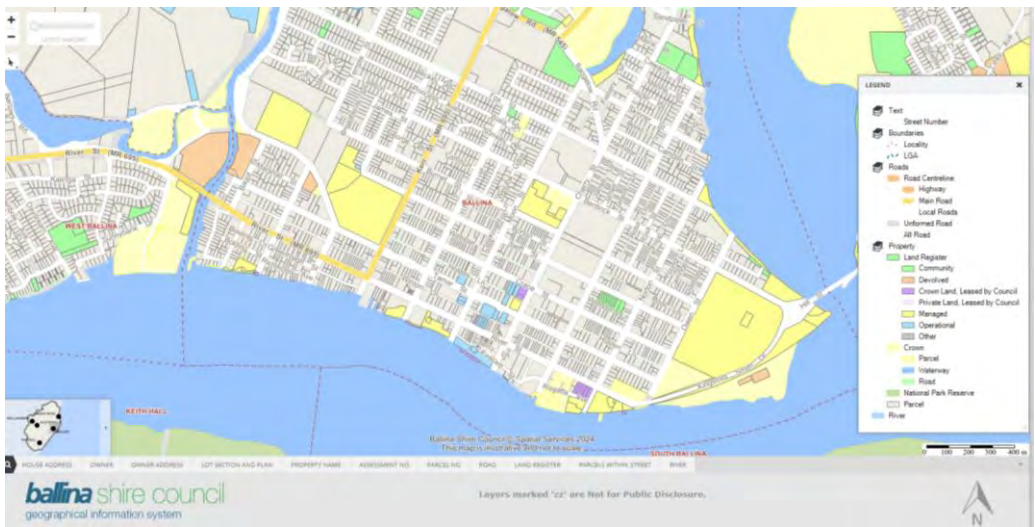


Figure 26: BSC Crown Land mapping.

The *Crown Lands Act 1989* (CL Act) and the *Crown Lands Management Act 2016* (CLM Act) provide for the administration and management of Crown Land in NSW. Council manages the crown land in accordance with s48 of the Local Government Act.

48 Responsibility for certain public reserves

(1) Except as provided by section 2.22 of the *Crown Land Management Act 2016*, a council has the control of—

- (a) public reserves that are not under the control of or vested in any other body or persons and are not held by a person under lease from the Crown, and
- (b) public reserves that the Governor, by proclamation, places under the control of the council.

(2) If any doubt arises as to whether any land comes within the operation of this section, or as to the boundaries of a public reserve, the Governor may, by proclamation, determine the matter.

Council has maintained the revetment wall within the works location. No formal easements have been obtained for the infrastructure.

Meldrum Park: Lot 1 DP 758047: Commemoration Park: Lot 7006 DP 1068885; and Namatjira Place Foreshore Reserve Lot 7063 DP1068936, are Crown Land managed by BSC. As crown land manager Council can undertake the revetment repair works.

The majority of the works will occur within USL. Advice has been sought from Crown Lands and a short-term environmental licence is required for work within USL.

Native Title

Future act validation under the Native Title Act 1993 (Cth) through Native Title notification will be undertaken by Crown Lands.

Aboriginal Land Claim

Temporary works will involve a laydown area on Lot 1 DP 791628, Crown Land managed by TfNSW (Maritime) adjacent to Boat Harbour Road, West Ballina. The land is subject to an undetermined Aboriginal Land Claim

Council has obtained concurrence in the form of a non-objection from NSW Aboriginal Land Council for the commencement of temporary works (refer Appendix B).

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

Check LEP and State Government heritage register.

An assessment of potential heritage items or sites was undertaken using BSC interactive mapping and the BLEP Schedule 5 Environmental Heritage and the NSW State Heritage Inventory (Figure 27).

The NSW State Heritage Inventory interactive mapping has identified Location One (1) as occurring near to Local Heritage Places, being Richmond Pilot Boat (movable heritage item) and MV Florrie Passenger Vessel and Tug (moveable heritage item).

Heritage Name: MV Florrie Passenger Vessel and Tug (moveable heritage item)

LGA: BALLINA

LALC: JALI

Listing No: 142

Gazette Date: 01/25/2013

The proposed works will occur outside the local heritage places. Care should be taken to avoid any potential disturbance to the areas.

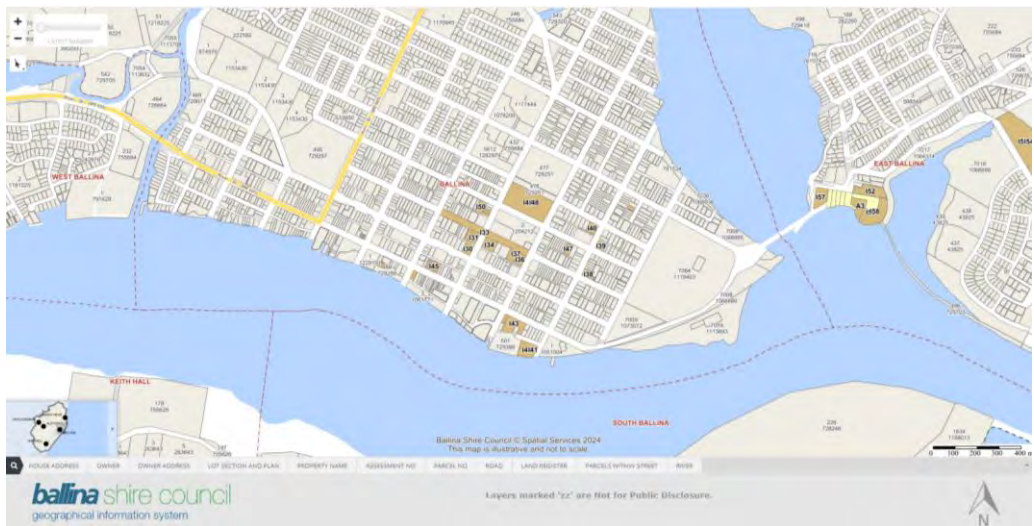


Figure 27: BSC mapping showing potential heritage places.

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

External stakeholders include Crown Land, NSW Aboriginal Land Council, TfNSW, neighbouring landowners, and a wide range of residents. Extensive consultation is required to ensure that the interests of stakeholders have been considered in planning for this project. Where applicable, recreation users will be made aware of the works through traffic control measures in place on site.

4.15 Hazards mapping

Is the site affected by bushfire hazard?

Is the land subject to contamination?

Is the site flood prone?

Other

Bushfire Hazard

Clause 63 of Rural Fires Act 1997 requires public authorities to prevent the occurrence of bush fires and minimise the danger of bush fires spreading on land under its control and management including roads, streets, land, or thoroughfare. The proposed works will not adversely impact bush fire risks. The site is not mapped as bushfire prone land.

Contaminated Land

A search of the list of NSW Environment Protection Authority (EPA) Contaminated Sites Notified to the EPA on 2nd November 2023 identified that no potentially contaminated sites have been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997* (CLM Act). In addition, BSC has developed and maintains their own Contaminated Land Register in accordance with the requirements of Council's Contaminated Land Policy. A review of former land uses and sources of potential contamination indicate the following:

There is low risk of the works encountering contamination.

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>	<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>	<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>	<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

Item	Locations that may trigger an external approval, licence or permit	Check one	
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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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 checked="" type="checkbox"/> Yes	<input 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 Ballina 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>Ballina Shire Council</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5.15	Working within a ‘heritage conservation area’ identified in Ballina LEP Schedule 5 Environmental Heritage – Part 2 – <i>Ballina 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

Item	Locations that may trigger an external approval, licence or permit	Check one	
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>Jali Local Aboriginal Land Council</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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> |
| B | Marine Park Permit | <input type="checkbox"/> |
| C | Other: Enter permit name. | <input checked="" type="checkbox"/> |

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

Fisheries Maintenance Permit will be complied with for rock revetment repair work.

Consent from TfNSW - Maritime for works within a navigable waterway and for use of laydown area off Boat Harbour Road, West Ballina.

Crown Land short term environmental licence required for works within Crown Managed land and Unallocated State Land.

Aboriginal Land Council consent in the form of a non-objection for temporary laydown area containing and Undetermined Aboriginal Land Claim.

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
<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
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6.1	AIR	<p>Construction: Dust generation (excavating, disturbing soil, stockpiling, trenching, erosion-prone sites, clearing of vegetation, transporting soil, etc).</p> <p>Fumes, odours and other air pollution from vehicles, equipment, machinery or other activities.</p>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Dust generated from construction activities.</p> <p>Fumes generated from construction equipment and transport vehicles.</p> <p>Stockpiling of rock and spoil material.</p> <p>Transporting soil.</p>	<p>Manage dust as follows: water suppression, re-establishment of vegetation cover, stockpile management, covering loads, preventing spoil tracking onto roads and halting works on site in extreme wind events.</p> <p>Only operate clean, well-maintained equipment and vehicles, with equipment being cleaned before being brought to the site.</p> <p>Inspect dust controls daily and ensure they are adequately maintained.</p> <p>Construction works must cease during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.</p> <p>Vehicles/barge transporting waste or other materials that may produce odours or dust must be covered during transportation.</p> <p>All stockpiles and building materials should be located behind the sediment controls. Stockpiles should be protected from run-on water by placing diversion banks up-slope and with sediment control structures</p>	2	1	2	4
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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
					placed immediately down-slope.				
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>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Ensure that sediment generated by the exposure of soil is not transported into the main water body.</p> <p>Minimise risk of water pollution from oil or petroleum products and minimise disturbance to the streambed substrate.</p> <p>Avoid fines, clay and other sediment un-necessarily entering the waterway and potentially impacting on aquatic habitats.</p> <p>Reduce the potential for the bank to continue to erode behind the rock armouring.</p> <p>Time the works to reduce delays and minimise impacts on the aquatic environments.</p> <p>Ensure that impacts on marine vegetation, aquatic habitats and the riparian zone are minimised.</p> <p>Excavations and their dewatering may expose ASS and will require an ASS management plan.</p>	<p>Erosion and sediment mitigation devices are to be erected in a manner consistent with the currently accepted Best Management Practice (i.e. Landcom [2004], Managing Urban Stormwater: Soils and Construction [4th Edition]) to prevent the entry of sediment into the waterway, or mobilisation of sediment within the waterway, prior to any earthworks being undertaken.</p> <p>These erosion and sediment devices are to be maintained in good working order for the whole duration of the works and subsequently until the worksite has been stabilised and the risk of erosion and sediment movement from the site is minimal.</p> <p>Stockpiles should be appropriately controlled by sediment fencing or other materials prescribed in the "Blue Book" (i.e. Landcom 2004, Managing Urban Stormwater: Soils and Construction [4th Edition]) to ensure sediments do not enter the waterway.</p>	2	2	2	8
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					<p>Machinery is not to enter or work from the waterway unless in accordance with works proposed in the DPI Fisheries permit. Erosion and sediment mitigation devices are to be erected in a manner consistent with the currently accepted Best Management Practice (i.e. Landcom [2004], Managing Urban Stormwater: Soils and Construction [4th Edition]) to prevent the entry of sediment into the waterway, or mobilisation of sediment within the waterway, prior to any earthworks being undertaken.</p> <p>These erosion and sediment devices are to be maintained in good working order for the whole duration of the works and subsequently until the worksite has been stabilised and the risk of erosion and sediment movement from the site is minimal.</p> <p>Stockpiles should be appropriately controlled by sediment fencing or other materials prescribed in the "Blue Book" (i.e. Landcom 2004, Managing Urban Stormwater: Soils and</p>				
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					<p>Construction [4th Edition]) to ensure sediments do not enter the waterway.</p> <p>Machinery is not to enter or work from the waterway unless in accordance with works proposed in the DPI Fisheries permit.</p> <p>Only clean rock is to be used in construction.</p> <p>Geotextile fabric is to be used to underlay the rock used to armour the bank.</p> <p>Works are to be undertaken during low flows in the Richmond River (i.e. non-flood flows) and when Bureau of Meteorology forecast for the Northern Rivers district forecast region (available at: www.bom.gov.au/nsw/forecasts/map.shtml) indicates several days of clear, dry weather.</p> <p>Harm to marine vegetation is not permitted. If harm is caused to marine vegetation work is to stop. The harm is to be documented and reported to the contact officer who may direct that the removed, harmed or damaged marine vegetation on water land be restored.</p>				
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				<p>When working near marine vegetation (seagrass, mangroves and saltmarsh) and aquatic vegetation (phragmites and other aquatic vegetation) on water land, these areas are to be identified and appropriately delineated as “No Go” areas (with the aim of avoiding harm to these areas). Harm to aquatic or marine vegetation including removing or moving vegetation on water land outside the permit area approved under the authority of the Fisheries permit is not permitted. Such removal, harm or movement caused to aquatic and marine vegetation is to be documented and reported to the DPI contact officer who may direct that the removed, harmed or damaged aquatic vegetation on water land be restored.</p>				
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>	<p><input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Click here to enter text.</p>	<p>Click here to enter text.</p>	<p>Enter score</p>	<p>Enter score</p>	<p>Enter score</p>	<p>Multiply scores in columns 7,8,9</p>

6.5	NOISE & VIBRATION	<p>Construction: Noise/vibration (eg rock breakers, concrete cutters, jackhammers, chainsaws, compressors, excavators, backhoes, trucks, vehicles, cranes, steel plate movements, generators, etc).</p>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Short-term impacts during construction involving operation of equipment and tools including trucks, excavators, agitators, etc.</p>	<p>Notify neighbours of project dates and likely noise impacts.</p> <p>Minimise plant and tool noise by providing regular maintenance.</p> <p>Minimise construction noise by turning machinery off when not in use.</p> <p>Use reverse alarms that meet Australian Standards on all machinery.</p> <p>Demolition, excavation and construction work will comply with AS 2436:2010 'Guide to Noise Control on Construction, Maintenance and Demolition Sites' and 'NSW Interim Construction Noise Guidelines (DECC 2009).</p> <p>Record noise complaints in the complaints register. Record suitable identification/ description of the noise source (e.g. continual/impulsive) and general location of the complaint. Noise complaints will be investigated and remedial action taken.</p> <p>Operating hours and times will be restricted as prescribed in Section 1.3 of the REF.</p>	2	1	2	4
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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
6.6		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

6.7	CONTAMINATION & WASTE	<p>Construction: Disturbing contaminated soil (eg known contamination, ASS, old industrial site, previous landfill, etc).</p> <p>Disturbing old sand mining area or stockpile (radioactivity).</p> <p>Contaminating or polluting land (eg storing, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids).</p> <p>Excavating public road material for reuse in the road reserve.</p> <p>Environmental problems caused by generating, storing, handling, transporting or disposing of waste (eg soils, building materials, oils, solvents, toilets, etc).</p> <p>Restricting current and potential activities associated with the land (eg amenity, buildings, parking).</p>	<p><input type="checkbox"/> No impact</p> <p><i>If checked, go to next issue</i></p>	<p>To reduce the threat of an unintended pollution incident impacting upon the aquatic environment.</p> <p>Materials not reused on site will be classified as waste and subject to waste management regulations.</p> <p>Acid Sulfate Soils likely onsite.</p>	<p>Keep work areas free of rubbish and clean-up work areas at the end of each day.</p> <p>Remove all waste material from site once the works are completed.</p> <p>Notify BSC's Public and Environmental Health Section immediately if new information becomes known during demolition or construction that has the potential to alter previous conclusions about site contamination.</p> <p>Notify the EPA immediately in response to incidents causing or threatening actual or potential harm to the environment in accordance with section 148 of the POEO Act (via EPA Environment Line on 131 555).</p> <p>Waste must be disposed of at a licenced waste or recycling facility or in accordance with NSW EPA Resource Recovery Orders and Exemptions as appropriate.</p> <p>Export/import of waste (including fill or soil) to the</p>	1	1	1	1
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					<p>site must be in accordance with:</p> <ul style="list-style-type: none"> • Protection of the Environment Operations(POEO) Act 1997, POEO (Waste) Regulation 2014 and NSW EPA 'Waste Classification Guidelines', which may require laboratory testing in accordance with NSW EPA requirements; or • Current NSW EPA Resource Recovery Orders and Exemptions. Any material subject to a resource recovery exemption received at the site must be accompanied by documentation demonstrating compliance with the exemption conditions. This documentation must kept and made available to BSC's Planning and Environmental Health Division upon request. <p>Acid Sulfate Soils should be addressed within a site specific management plan. A copy of the plan shall be kept on-site.</p>				
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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	
					It is an offence to transport waste to a place that cannot lawfully be used as a waste facility.				
6.8		<p>Operation: Contaminating or polluting land (eg storing, handling or disposing of oils, fuels, pesticides, chemicals, pit/trench water or other liquids).</p> <p>Environmental problems caused by generating, storing, handling, transporting or disposing of waste (eg soils, building materials, oils, solvents, etc).</p> <p>Restricting current and potential activities associated with the land (eg amenity, buildings, parking).</p>	<p><input checked="" type="checkbox"/> No impact</p> <p><i>If checked, go to next issue</i></p>	Click here to enter text.	Click here to enter text.	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

6.9	TRANSPORT	<p>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).</p>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Construction works and associated vehicle and barge movements can significantly impact the safety of road users, pedestrians and the navigable waterway.</p>	<p>Prepare a Traffic Control Plan to manage all vehicle movements to and from the site, including consideration of vehicles, pedestrians and cyclists in the vicinity.</p> <p>Comply with TfNSW Maritime requirements for working within a navigable waterway.</p> <p>Erect appropriate signage; details to be confirmed by appropriate BSC personnel responsible for site safety during the works.</p> <p>Before vehicles leave the premises:</p> <ul style="list-style-type: none"> • Cover all vehicle/trailer loads of waste or excavation spoil to prevent spillage or escape of dust, waste or spoil. • Remove mud, splatter, dust and other material likely to fall or be cast off from the wheels, underside or body of vehicles, trailers or motorised plant. 	1	1	1	1
6.10		<p>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).</p>	<p><input checked="" type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>Click here to enter text.</p>	<p>Click here to enter text.</p>	Enter score	Enter score	Enter score	Multiply scores in columns 7,8,9

6.11	FLORA & FAUNA	<p>Construction: Clearing or modifying native vegetation (including trees, shrubs, grasses, roots, herbs or aquatic species). Clearing or modifying critical habitat. Clearing in a Biodiversity Value mapped area. 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. Introducing or spreading weeds (including noxious) or vermin. Introducing bushfire risk factors. 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). Displacing, disturbing or damaging terrestrial or aquatic fauna (eg creating a barrier to fauna movement, clearing remnant vegetation or wildlife corridors, collisions, etc). Any other environmental impact on the ecosystems of the locality.</p>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>No marine vegetation to be harmed. Short-term displacement of terrestrial and aquatic fauna during rock revetment repair works. DPI Fisheries needs to be aware of fish kills so that it can assess the cause and mitigate further incidents in consultation with relevant authorities.</p>	<p>Observations of dead or distressed fish are to be immediately reported to the DPI Contact Officer by the Permit Holder. In such a case all works are to cease until the issue is rectified and approval is given to proceed. Material storage and stockpiling is not to be undertaken on water land, marine vegetation (saltmarsh, mangrove, and seagrass) riparian or aquatic vegetation. Stockpiling must be undertaken in a manner to avoid harm to these types of vegetation or water land. Stockpiles should also be located away from adjacent water land. No snags outside of the works area described in the permit application are to be removed, realigned or relocated without first obtaining the authority of the Senior Fisheries Manager, Coastal Systems. Care must be taken when operating machinery in close proximity to all trees. Mechanical wounding to the</p>	2	1	2	4
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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
				trunks and limbs of the trees should be avoided.				
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>	<p><input checked="" type="checkbox"/> No impact</p> <p><i>If checked, go to next issue</i></p>	Click here to enter text.				

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	
6.13	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>	Minor nuisance associated with construction noise.	<p>Contractors/workers must be mindful of the needs of the local community.</p> <p>Notify/consult with potential impacted parties/landholders prior to construction aimed at minimising/eliminating any adverse impacts.</p> <p>Public assets must be restored to pre-construction status.</p> <p>Works will only be undertaken during specified hours.</p>	2	1	2	4
6.14		<p>Operation: Creating a nuisance to the community (eg impact on amenity through noise, perceived risk of fires, explosions, property value devaluation, etc).</p> <p>Creating quantifiable financial loss to members of the community (eg restricting access to commercial premises, changing land use, etc).</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

6.15	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>	<p><input type="checkbox"/> No impact <i>If checked, go to next issue</i></p>	<p>There are a number of Lions Club memorial plaques within the grassed area of Commemoration Park.</p> <p>The worksite is highly disturbed however unexpected Aboriginal artefacts could be uncovered during excavations below natural ground level.</p>	<p>Care should be taken during works to avoid impacting the Lions Club memorial plaques. No-go zones are to be clearly marked surrounding the plaques.</p> <p>Excavations are to cease if suspected human remains are encountered. If suspected human remains are uncovered during test excavations, the area of these suspected remains must be secured, and the NSW Police notified. If these remains are deemed to required archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW, and all Registered Aboriginal Parties must be notified.</p> <p>Works in the vicinity of the find would not re-commence until clearance has been received from BSC Project Manager and NSW OEH.</p> <p>A Stop Work Procedure (SWP) must be implemented in recognition of the potential, albeit low potential for discovery of unexpected or incidental finds.</p>	1	1	2	2
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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	
				Note that any works that may reveal or disturb cultural heritage objects or sites will require an Aboriginal Heritage Impact Permit (AHIP) from OEH in order for the find(s) to be mitigated (if avoidance is not an option).					
6.16		<p>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.</p> <p>Affecting any Aboriginal heritage (eg engravings, middens, carved trees, grinding grooves, paintings, burial sites, etc).</p> <p>Affecting land claimed by traditional owners.</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	
				<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	
6.17	VISUAL & OTHER ENVIRONMENTAL ISSUES	<p>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.</p> <p>Changing the visual or scenic landscape (eg impacting or restricting views).</p> <p>Transforming a locality (eg significant earthworks).</p>	<input type="checkbox"/> No impact <i>If checked, go to next issue</i>	<p>To ensure that habitats are restored as quickly as possible, public safety is not compromised, aesthetic values are not degraded and sediment inputs into the waterway are reduced.</p>	<p>On completion of the works, the worksite is to be rehabilitated and stabilised including:</p> <ul style="list-style-type: none"> Removal of surplus construction materials and temporary structures (other than silt fences and other erosion and sediment control devices) installed during the course of the works. Appropriate maintenance of erosion and sediment control devices until the site has stabilised. 	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		<p>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).</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
6.19	OTHER	Click here to enter text.	<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
TOTAL ENVIRONMENTAL SCORE:									30

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 EPA Regulation 2021

Environmental factor	IMPACTS		Minor	Medium	Major
(a) Any environmental impact on the community? Construction works will have short-term impacts on the community, such as noise, dust, etc. A CEMP will be developed to minimise those impacts.	<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
(b) Any transformation of the locality? Improvements to the area including asset and environmental protection.	<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 type="checkbox"/> Long-term	<input type="checkbox"/> Short-term <input type="checkbox"/> Medium-term <input checked="" 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>(c) Any environmental impact on the ecosystems of the locality? Environmental safeguards will be applied during construction to manage the risk to flora and fauna.</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 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>(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality? The proposed works will restore the aesthetic and recreational value of the site. The revetment works will reduce future risk of flood damage to the riverbank.</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 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>(e) The effect on any locality, place or building that has— (i) aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or (ii) other special value for present or future generations. 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
(f) Any impact on the habitat of protected animals, within the meaning of the <i>Biodiversity Conservation Act 2016</i> ? Environmental safeguards will be applied during construction to manage the risk to flora and fauna.	<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	
(g) Any endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air? Environmental safeguards will be applied during construction to manage the risk to flora and fauna.	<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	
(h) Any long-term effects on the environment? The works are likely to result in positive long-term outcomes for the site.	<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 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>(i) Any degradation of the quality of the environment?</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>(j) Any risk to the safety of the environment?</p> <p>The revetment wall is currently unsafe and public access is restricted. The repair works will improve the long-term safety of the facility.</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 checked="" 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>(k) Any reduction in the range of beneficial uses of the environment?</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
<p>(l) Any pollution of the environment? Environmental safeguards will be applied during and post construction to manage the risk of pollution.</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 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>(m) Any environmental problems associated with the disposal of waste? All waste from the revetment repair works will be tested and disposed at an appropriately licenced facility.</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>(n) Any increased demand on natural or other resources that are, or are likely to become, in short supply? 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
(o) Any cumulative environmental effect with other existing or likely future activities? 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
(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The works will improve flood damaged rock revetment.	<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 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
(q) Any applicable local strategic planning statements, regional strategic plans or district strategic plans? The works promote the Ballina Major Regional Centre Strategy 2015-2035 Plan.	<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 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
<p>(a) Any impact on a World Heritage property?</p> <p><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></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>(b) Any impact on a National Heritage place?</p> <p><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></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

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
<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>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
<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>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"/> 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

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
<p>(a) Any impact on a World Heritage property?</p> <p><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></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>(b) Any impact on a National Heritage place?</p> <p><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></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

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
<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>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
<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>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"/> 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

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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input 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:

- I have completed this REF, and
- The assessment meets the requirements of sections 1.7, 5.5 and 5.7 of the EPA Act, clause 171(2) of the EPA 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
 LOW **MODERATE** **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:	14/02/2024
Name (<i>print</i>):	Natasha Matthews		
Position:	Project Manager		

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:	6/03/2024
Name <i>(print)</i> :	Fred Moss		
Position:	Design Engineer		

Section 11. Determination and Decision Statement

11.1 Determining officer – person who determines this REF

- I certify that on behalf of Ballina 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 clause 170 of 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 not** be carried out in a declared area of outstanding biodiversity value and is/is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a SIS and/or BDAR is/is not required
- Mitigation measures **are not** 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 the REF **is** required to be published on the Council website or NSW Planning Portal.

Signature:		Date:	6/03/2024
Name <i>(print)</i> :	John Truman		
Position:	Director – Civil Services		
Site inspected:	Not Required	Date:	Click here to enter date.

APPENDIX A

Design Plans

CP0034 - REVETMENT & RETAINING REPAIRS

VARIOUS SITES, BALLINA ISLAND

ISSUE A JANUARY 2024

TENDER DRAWINGS

DRAWING	SHEET	ISSUE	DATE	TITLE
Meldrum ... Regatta ... Rock Revet... .dwg	COVER	A	JAN 2024	COVER SHEET (THIS SHEET)
	1			SITE 1: REGATTA PARK REVETMENT REPAIR SHEET 1
	2.1			SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 2
	2.2			SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 3
	2.3			SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 4
	2.4			SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 5
	2.5			SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 6



LOCALITY PLAN

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND BASED ON DBYD THEIR EXACT POSITION MUST BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION SITE KNOWN TO CONTAIN:

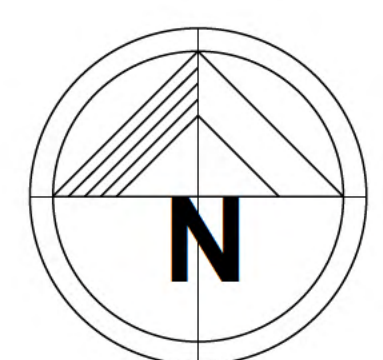
- BALLINA SHIRE COUNCIL WATER
- BALLINA SHIRE COUNCIL STORMWATER
- STATE SURVEY & CADASTRE MARKS

REFERENCE DRAWING	ISSUE	DATE
TYPICAL SECTION & DESIGN SPECS REVTMENT WALL MAIN CHANNEL RICHMOND RIVER (PLAN SHEET 7)	-	30/06/2020



REFER STANDARD DRAWING TYPICAL SECTION & DESIGN SPECS REVETMENT WALL MAIN CHANNEL RICHMOND RIVER FOR CONSTRUCTION DETAIL
MATCH EXISTING TOP OF BANK LINE

SITE 1 DETAIL PLAN
SCALE 1:200



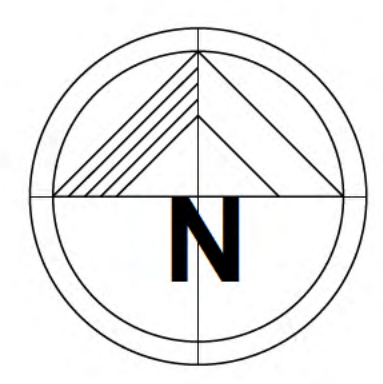
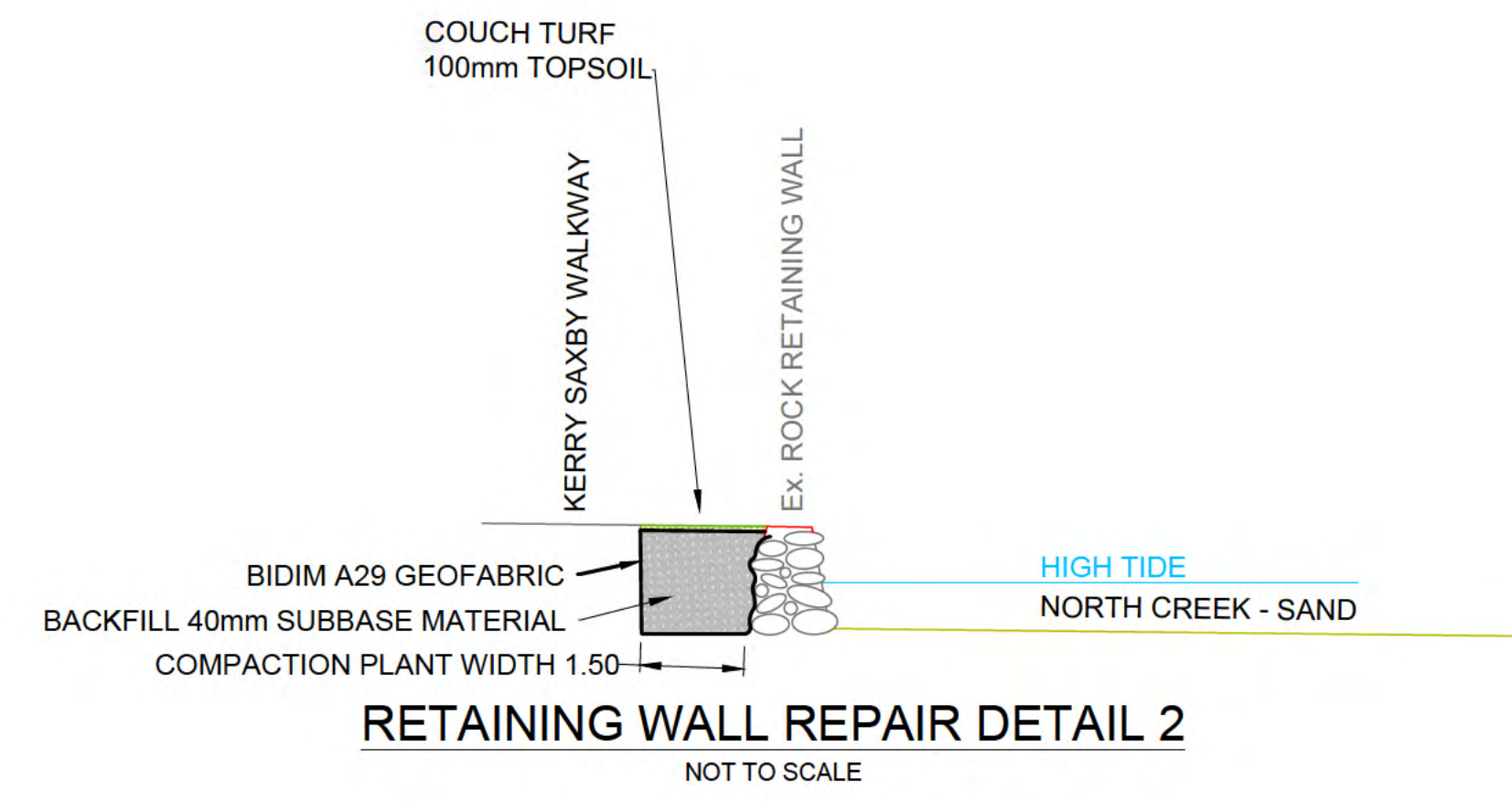
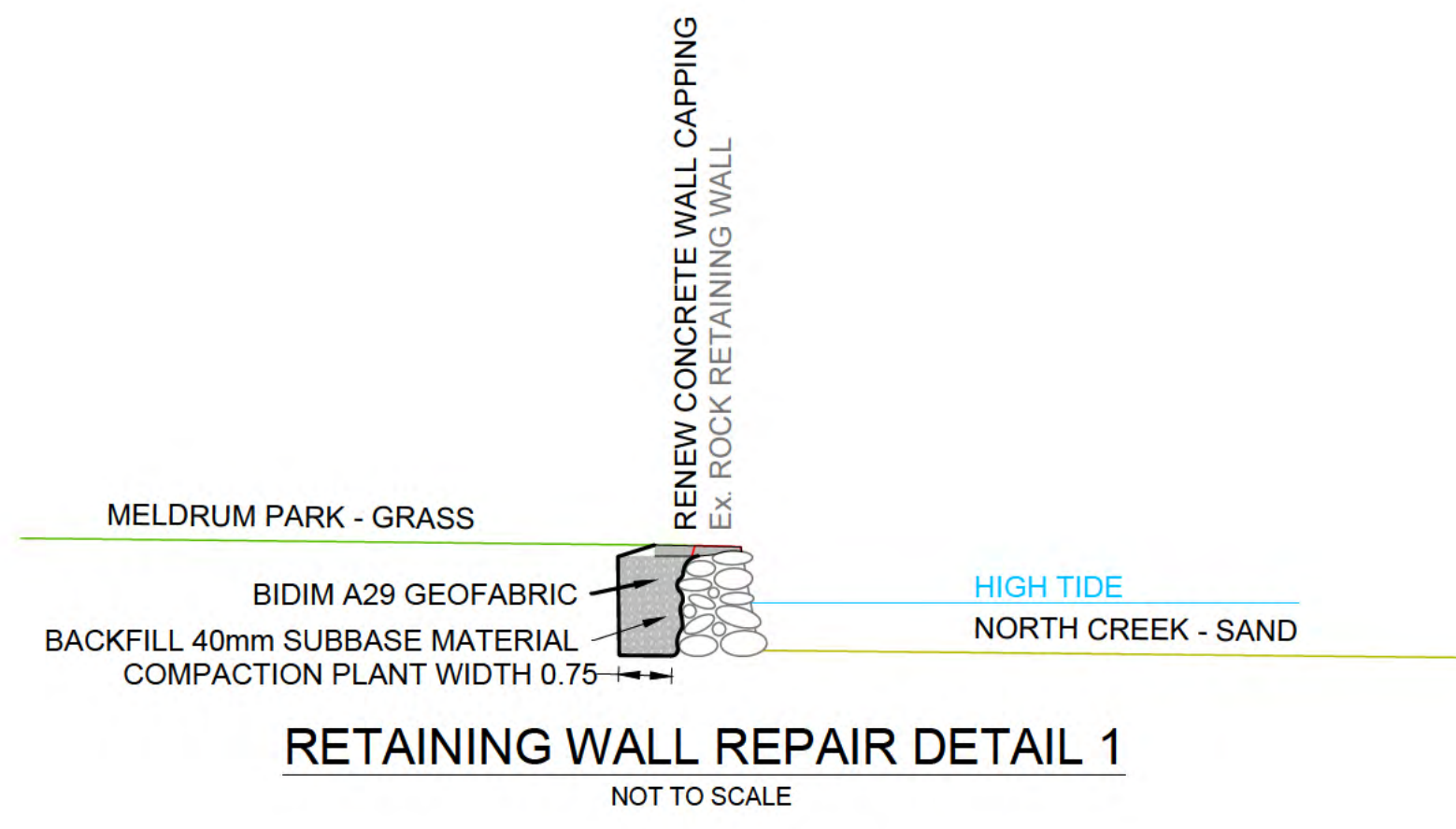
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SERVICES (CONTRACTOR TO VERIFY ON SITE)	
—	APPROX EXISTING STORMWATER
—	DESIGN STORMWATER
—	EXISTING TELSTRA
—	EXISTING OVERHEAD POWER
—	EXISTING UNDERGROUND POWER
—	DESIGN POWER
—	APPROX EXISTING GRAVITY SEWER
—	EXISTING WATER - LIVE
—	EXISTING WATER - DECOMMISSIONED
—	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				



SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 1.1 OF 1.1	

BALLINA SHIRE COUNCIL			
REVETMENT & RETAINING REPAIRS			
SITE 1: REGATTA PARK			
REVETMENT REPAIR SHEET 1			
Scale	1:200	Plan No.	CP0034
			A1



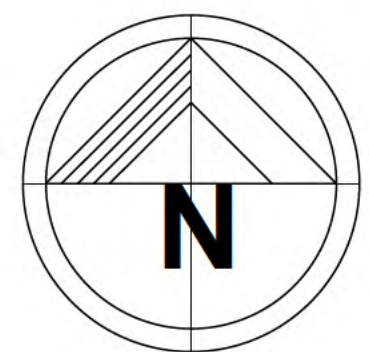
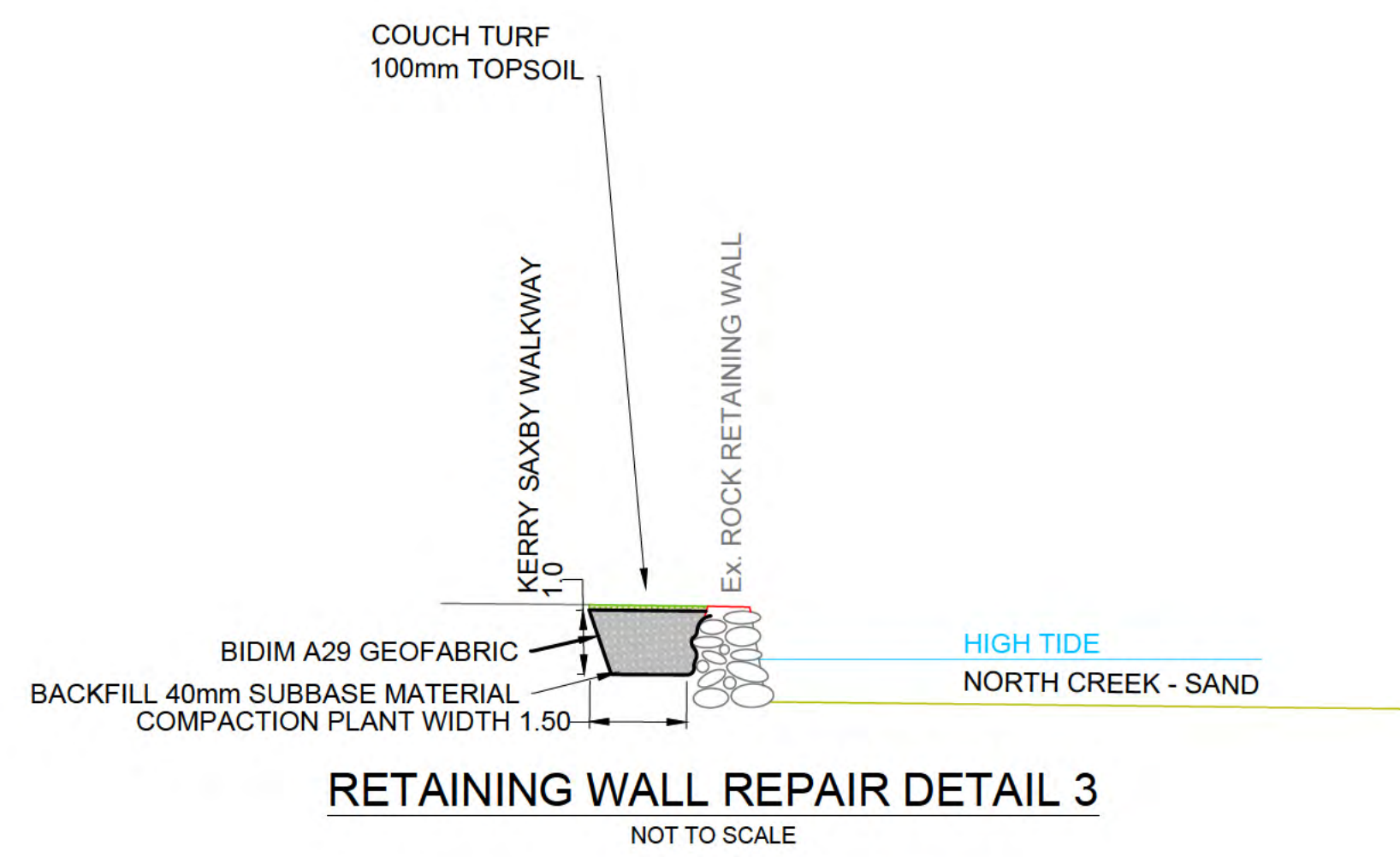
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—	SERVICES (CONTRACTOR TO VERIFY ON SITE)
—	APPROX EXISTING STORMWATER
—	DESIGN STORMWATER
—	EXISTING TELSTRA
—	EXISTING OVERHEAD POWER
—	EXISTING UNDERGROUND POWER
—	DESIGN POWER
—	APPROX EXISTING GRAVITY SEWER
—	EXISTING WATER - LIVE
—	EXISTING WATER - DECOMMISSIONED
—	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				



SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 2.1 OF 2.5	

BALLINA SHIRE COUNCIL		
REVETMENT & RETAINING REPAIRS		
SITE 2: COMMEMORATION PARK TO MELDRUM PARK		
VARIOUS REPAIRS SHEET 2		
Scale	1:500	Plan No. CP0034
		A1



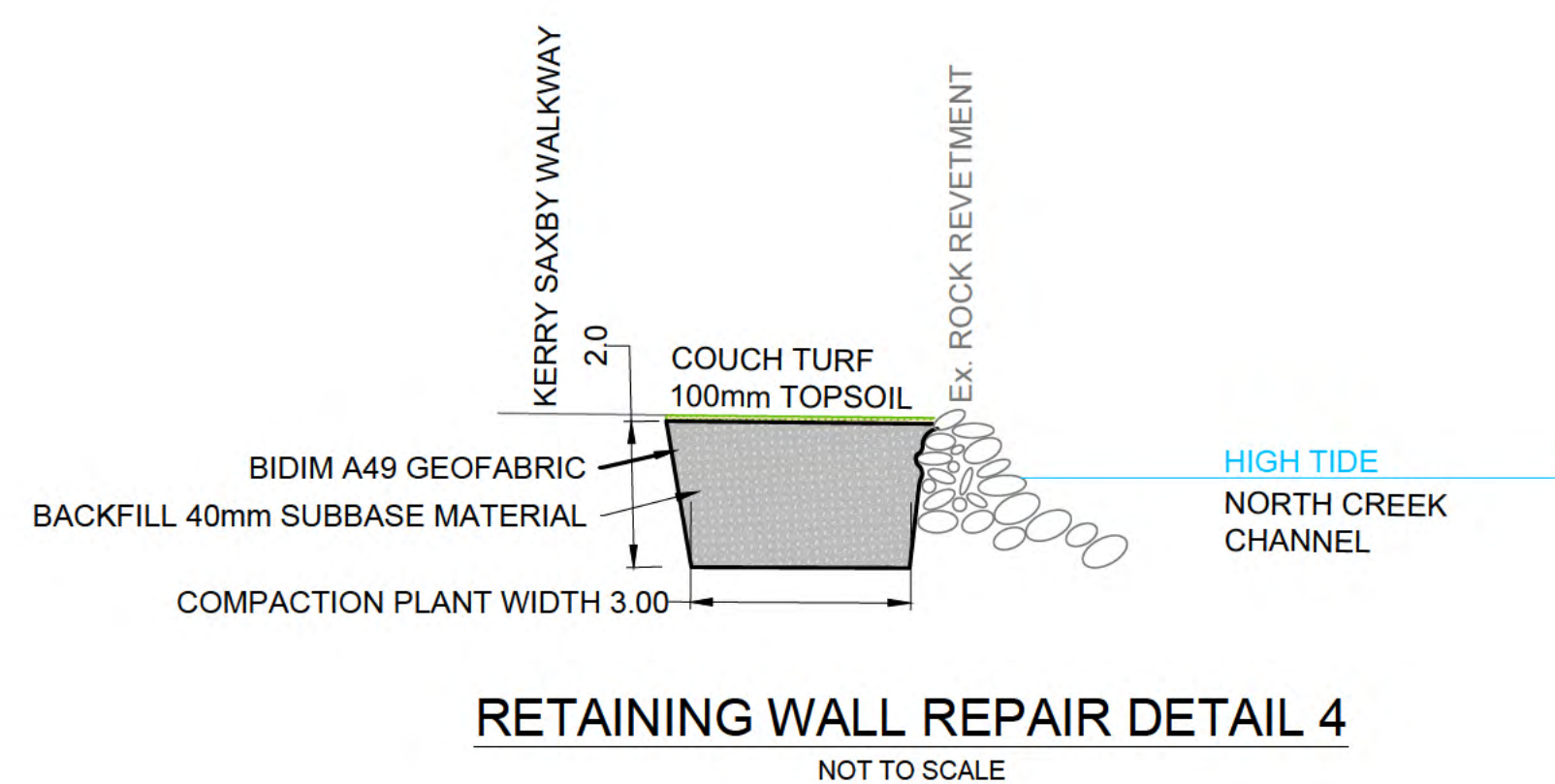
—	CADASTRE
—	SERVICES (CONTRACTOR TO VERIFY ON SITE)
—	APPROX EXISTING STORMWATER
—	DESIGN STORMWATER
—	EXISTING TELSTRA
—	EXISTING OVERHEAD POWER
—	EXISTING UNDERGROUND POWER
—	DESIGN POWER
—	APPROX EXISTING GRAVITY SEWER
—	EXISTING WATER - LIVE
—	EXISTING WATER - DECOMMISSIONED
—	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				

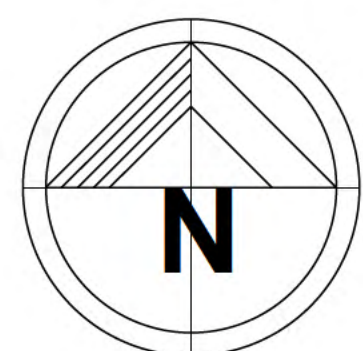


SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 2.2 OF 2.5	

BALLINA SHIRE COUNCIL		
REVTMENT & RETAINING REPAIRS		
SITE 2: COMMEMORATION PARK TO MELDRUM PARK		
VARIOUS REPAIRS SHEET 3		
Scale	1:200	Plan No. CP0034
		A1



SITE 2 DETAIL PLAN
SCALE 1:500



—	CADASTRE
—	SERVICES (CONTRACTOR TO VERIFY ON SITE)
—	APPROX EXISTING STORMWATER
—	DESIGN STORMWATER
—	EXISTING TELSTRA
—	EXISTING OVERHEAD POWER
—	EXISTING UNDERGROUND POWER
—	DESIGN POWER
—	APPROX EXISTING GRAVITY SEWER
—	EXISTING WATER - LIVE
—	EXISTING WATER - DECOMMISSIONED
—	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				



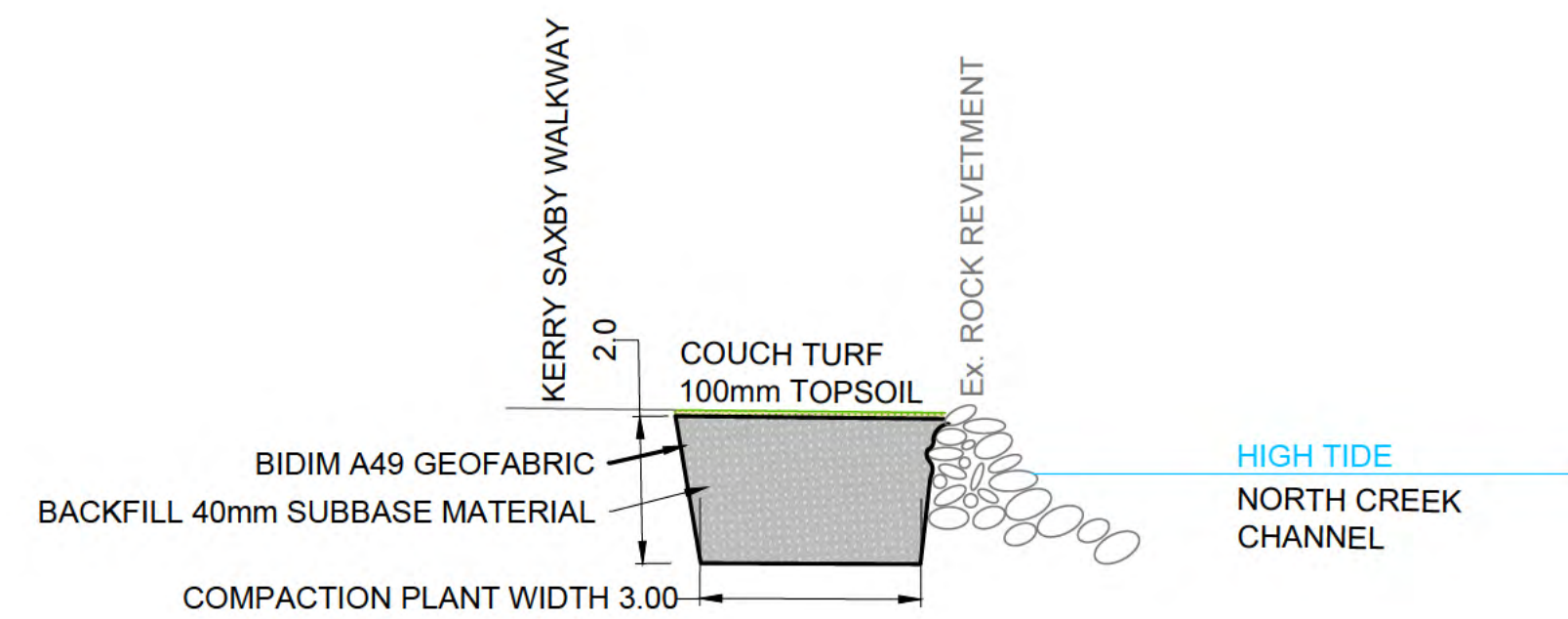
SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 2.3 OF 2.5	

BALLINA SHIRE COUNCIL		
REVETMENT & RETAINING REPAIRS		
SITE 2: COMMEMORATION PARK TO MELDRUM PARK		
VARIOUS REPAIRS SHEET 4		
Scale	1:500	Plan No.
		CP0034
		A1

JOINS SHEET 2.4

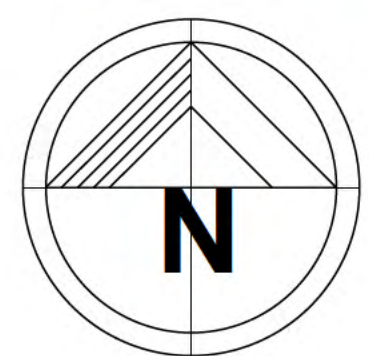
JOINS SHEET 2.3

NAMITJIRA PLACE



RETAINING WALL REPAIR DETAIL 5
NOT TO SCALE

SITE 2 DETAIL PLAN
SCALE 1:200



CADASTRE

SERVICES (CONTRACTOR TO VERIFY ON SITE)	
	APPROX EXISTING STORMWATER
	DESIGN STORMWATER
	EXISTING TELSTRA
	EXISTING OVERHEAD POWER
	EXISTING UNDERGROUND POWER
	DESIGN POWER
	APPROX EXISTING GRAVITY SEWER
	EXISTING WATER - LIVE
	EXISTING WATER - DECOMMISSIONED
	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				

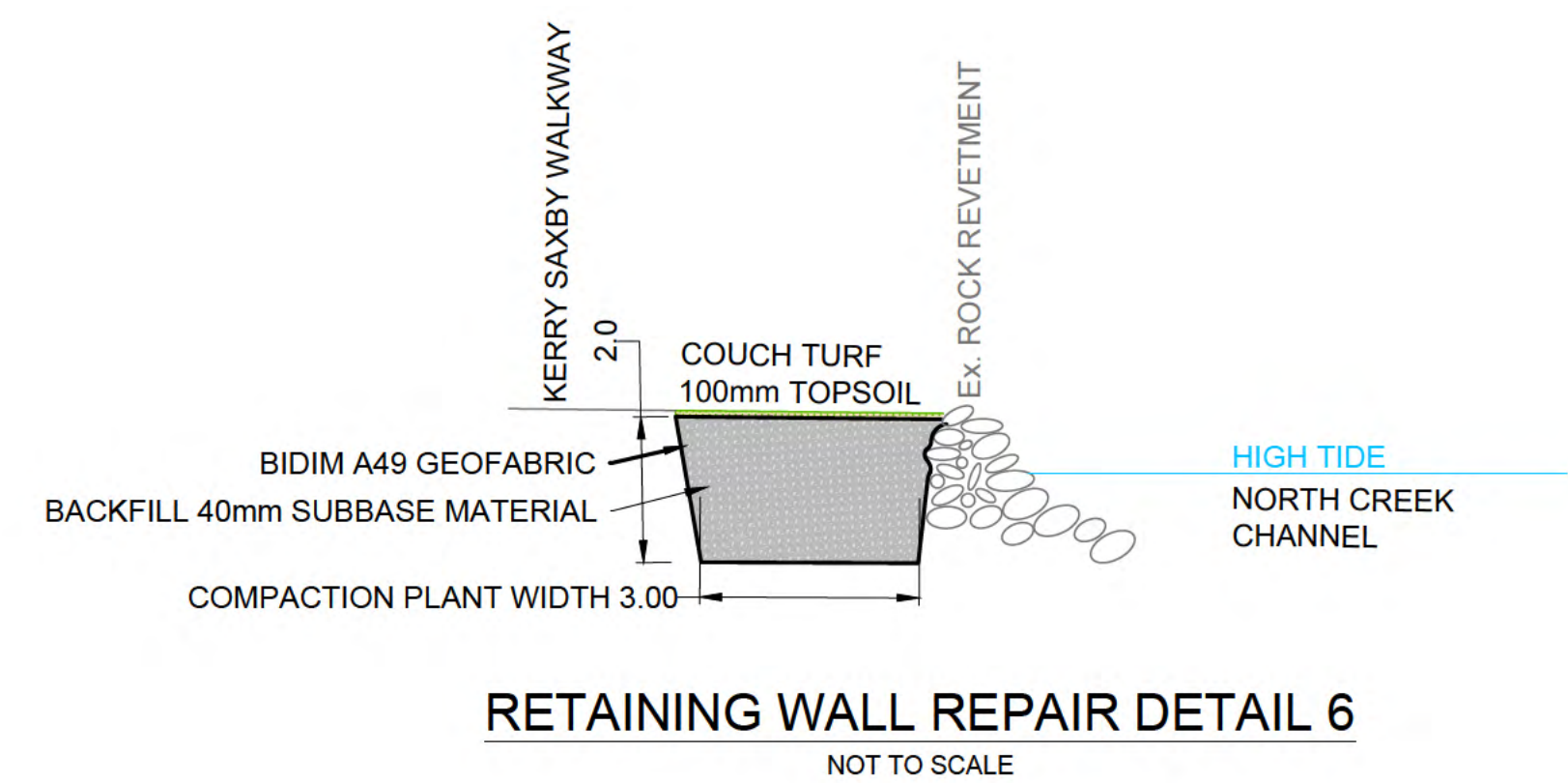


SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 2.4 OF 2.5	

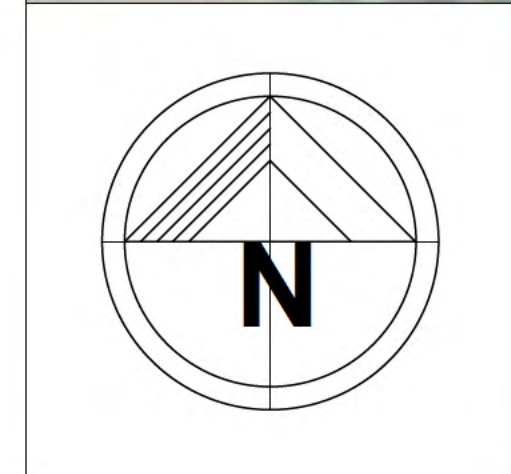
BALLINA SHIRE COUNCIL

REVTMENT & RETAINING REPAIRS
SITE 2: COMMEMORATION PARK TO MELDRUM PARK
VARIOUS REPAIRS SHEET 5

Scale	1:200	Plan No.	CP0034	A1
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SITE 2 DETAIL PLAN
SCALE 1:500



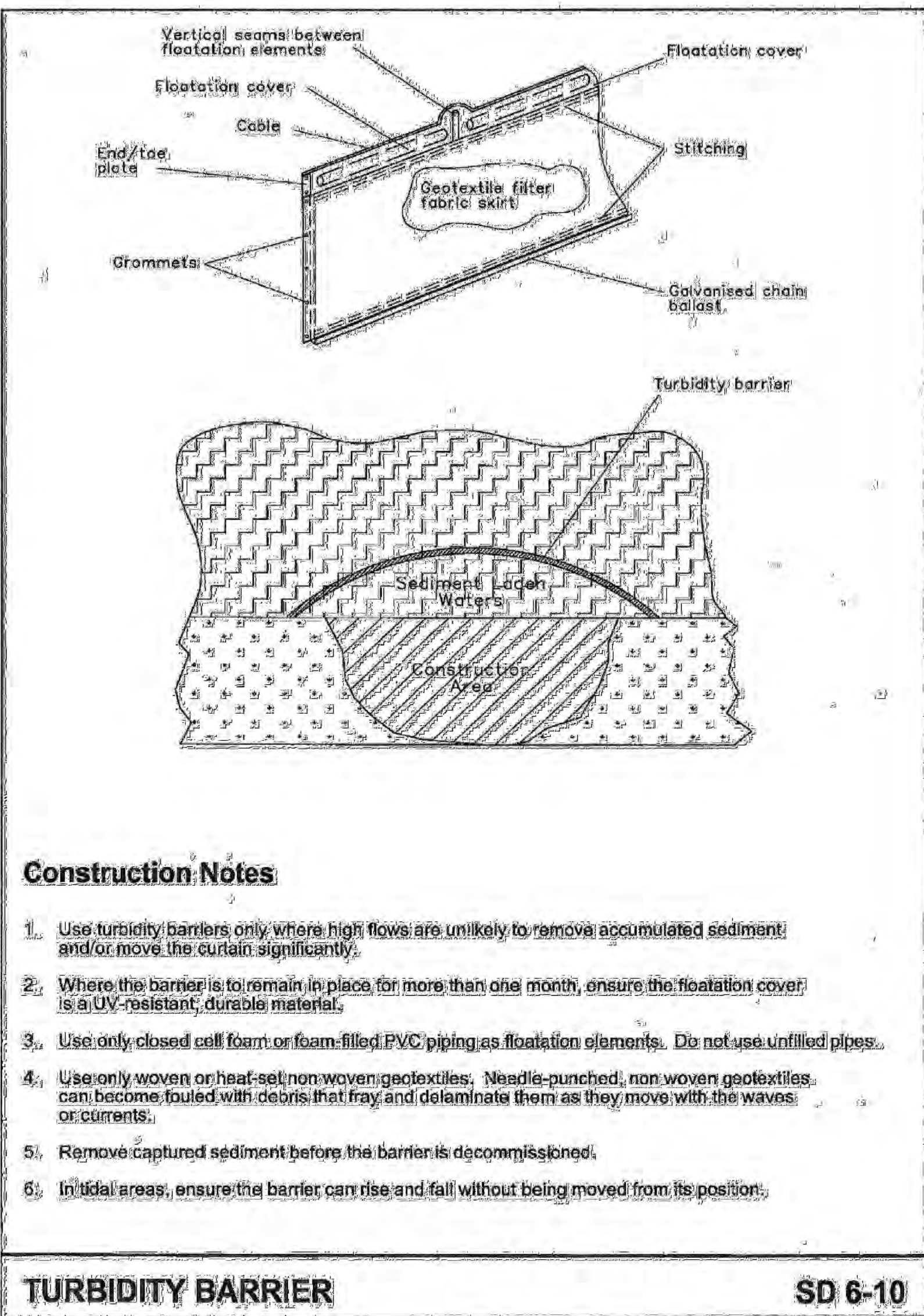
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SERVICES (CONTRACTOR TO VERIFY ON SITE)	
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—	DESIGN STORMWATER
—	EXISTING TELSTRA
—	EXISTING OVERHEAD POWER
—	EXISTING UNDERGROUND POWER
—	DESIGN POWER
—	APPROX EXISTING GRAVITY SEWER
—	EXISTING WATER - LIVE
—	EXISTING WATER - DECOMMISSIONED
—	OTHER STORMWATER SURFACE DRAIN - DIRECTIONAL

No.	Date	By	Change	X'd
Amendments				



SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 2.5 OF 2.5	

BALLINA SHIRE COUNCIL		
REVTMENT & RETAINING REPAIRS		
SITE 2: COMMEMORATION PARK TO MELDRUM PARK		
VARIOUS REPAIRS SHEET 6		
Scale	1:500	Plan No. CP0034
		A1



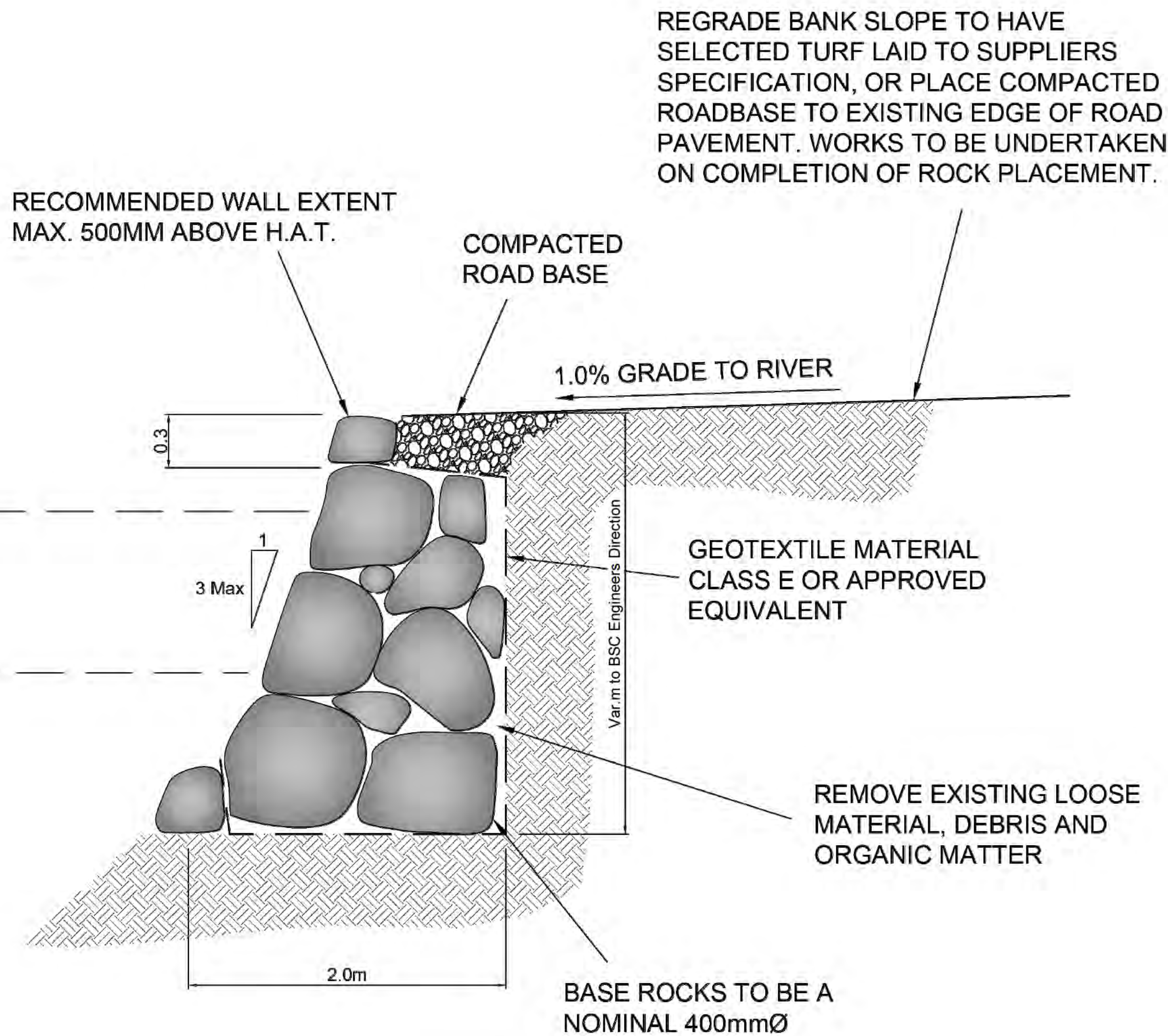
ARMOURING NOTES:
 NOM DIA. D=400mm
 NOM MASS W=200kg
 THE ROCK SHALL LIE WITHIN THE FOLLOWING LIMITES.
 RANGE: D = 300 - 800mm WITH:
 50% > D = 400mm
 AND IN ADDITION AT LEAST 50% BY NUMBER SHALL BE MORE THAN THE SPECIFIED NOMINAL MASS.

HIGHEST ASTRONOMICAL TIDE (H.A.T. KING TIDE)

MEAN HIGH WATER

NOTE:
 FINAL ALIGNMENT AND DESIGN OF ROCK REVETMENT TO BE DETERMINED ONSITE BY SITE OVERSEER

NOTE:
 HIGHEST ASTRONOMICAL TIDE (H.A.T.) AT BALLINA IS 0.9M AHD

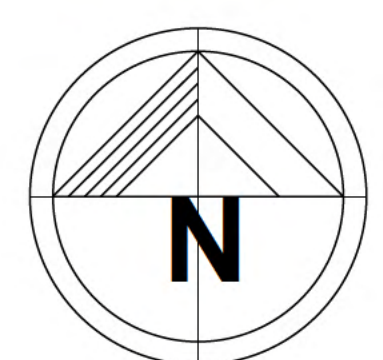


TYPICAL SECTION: REVETMENT
 NOT TO SCALE

						SURVEY _____ DESIGNED _____ DATE 30/06/2020 DRAWN MNF F.B. L.B. CHECKED _____ DATUM AHD APPROVED _____ DRAWING Revetment Wall Richmond River.dwg		BALLINA SHIRE COUNCIL		
						TYPICAL SECTION & DESIGN SPECS REVETMENT WALL MAIN CHANNEL RICHMOND RIVER				
						SHEET _____ OF _____		Scale HORIZONTAL: NOT TO SCALE VERTICAL: _____	Plan No. STD DWG	A1
No.	Date	By	Change	X'd						
Amendments										



MARINA SITE PLAN
SCALE 1:500



Also Refer:
 Fisheries Maintenance Permit - PN23/97
 Crown Lands short-term Environmental Licence for remaining project scope
 Crown Ref: 24/01001, Licence #: RN 644839
 Review of Environmental Factors - Council Ref: 23/82876

No.	Date	By	Change	X'd
-	MAR24	FM	ORIGINAL ISSUE FOR MARITIME	
Amendments				



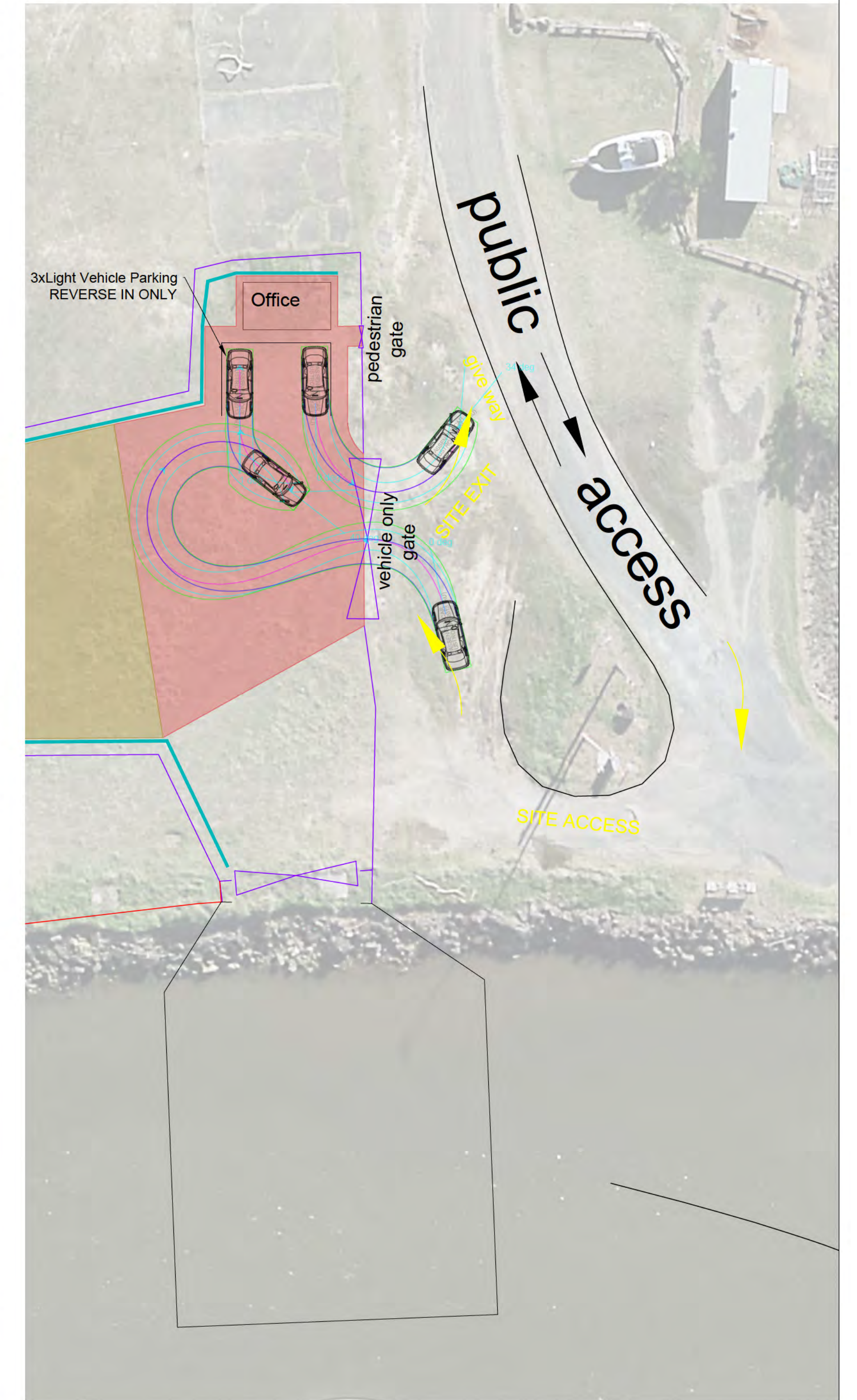
SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 1 OF 2	Project PM23/30071

BALLINA SHIRE COUNCIL		
REVETMENT & RETAINING REPAIRS SITE 1: REGATTA PARK Marina Site Compound and Barge Plan		
Scale	1:500	Plan No. CP0034
		A1



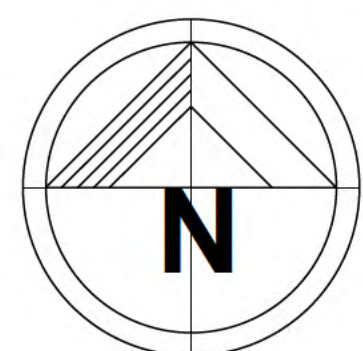
SITE DETAIL & TRUCK ACCESS PLAN

SCALE 1:250



LIGHT VEHICLE ACCESS PLAN

SCALE 1:250



Also Refer:

Fisheries Maintenance Permit - PN23/97

Crown Lands short-term Environmental Licence for remaining project scope
Crown Ref: 24/01001, Licence #: RN 644839

Review of Environmental Factors - Council Ref: 23/82876

SITE ENTRY SIGNAGE AND WARNING & SAFETY SIGNAGE ON FENCE BETWEEN VEHICLE AND PEDESTRIAN GATES

Reinstate all compound areas with council approved couch blend grass seed and water maintenance MIN. twice weekly or daily > 28°C for 1mo. period with water cart.

-	MAR24	FM	ORIGINAL ISSUE FOR MARITIME	
No.	Date	By	Change	X'd
Amendments				



SURVEY	DESIGNED
DATE -	DRAWN FM
F.B. L.B.	CHECKED
DATUM MGA	APPROVED
DRAWING MELDRUM PARK... REGATTA PARK ROCK REVET.DWG	
SHEET 1 OF 2	Project PM23/30071

BALLINA SHIRE COUNCIL

REVTMENT & RETAINING REPAIRS
SITE 1: REGATTA PARK
Marina Site Compound and Barge Plan

Scale	1:250	Plan No.	CP0034	A1
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APPENDIX B

Community/Agency Consultation Responses

From:

Sent:

Friday, 23 February 2024 7:56 AM

To:

Subject:

NSWALC Ref: CAPD 1252 - Temporary laydown area within Lot 1 DP 791628

Dear

The Land Strategy team (LST) has considered the request from Ballina Shire Council (**BSC**) for consent in the form of 'non-objection' for the proposed temporary use for a stockpile area (approximately 3 weeks) within **Lot 1 DP 791628 (Lot 1)** to allow for urgent repairs to flood damaged sections of rock wall along the Richmond River, our Ref: CAPD 1252.

The LST note that this request is for a temporary laydown area which will be created with Geotextile placed under all stockpile materials to ensure the reinstatement of the land to its original state and that this laydown area is to allow for urgent repair works to the flood damaged sections of rock wall along the Richmond River. The BSC also advised consent from the Crown Land Manager (**CLM**) being Transport for NSW (**TfNSW**) and any appropriate Crown Land licence will be obtained.

As such, the LST offers 'non-objection' consent to the temporary laydown stockpile area for approximately 3 weeks and any necessary Crown Land licence or Landowners Consent within **Lot 1 DP 791628**.

We advise that the proponent accepts any 'risk' associated with the works to the extent that were the Minister to determine the land claim in favour of the claimant, any changes to the condition of the land such as the placement of infrastructure, would transfer to the claimant. i.e. if for example the facts provided with this proposal have not been presented accurately and were the claim to be granted (in whole or in part), the 'improved' asset would possibly transfer to the

We further advise that this 'non-objection' is not to be taken to satisfy any of the proponent's due diligence requirements under any legislation addressing Aboriginal culture and heritage protection. As you would be aware, in NSW proponents have an obligation to exercise due diligence to ensure that any works will not harm Aboriginal places, sites, or objects, in accordance with the National Parks & Wildlife Act 1974 (NSW) (NPW Act). In this regard, our 'consent' is also conditional upon the proponent's compliance with relevant legislation for the protection of items and places of possible significance to Aboriginal culture and heritage (C&H) and refer SMRC to s.52(4) of the ALRA which highlights the LALCs role for protection of C&H within their boundaries, and as such any matters of C&H should be communicated directly to the

In summary, the LST offers BSC 'non-objection' consent to the proposed temporary laydown stockpile area for approximately 3 weeks and any necessary Crown Land licence or Landowners Consent within **Lot 1 DP 791628**.

The LST have copied in the _____ for their records and will now close this matter.

Regards,



This message which includes any attachments is intended only for the addressee and may contain privileged or confidential information. If you are not the intended recipient you must not use, disclose, copy or distribute this communication. If you have received this message in error please delete the email and any attachments and notify the sender as soon as possible. There is no warranty that this email is error or virus free. If this is a private communication it does not represent the views of the NSW Aboriginal Land Council.

From:
Sent: Tuesday, February 13, 2024 8:33 AM
To:
Cc:
Subject: NSWALC Ref: CAPD 1252 - Temporary laydown area within Lot 1 DP 791628

Hi

The NSWALC LST acknowledges receipt of the request from Ballina Shire Council (BSC) for 'non-objection' consent for a temporary laydown area within **Lot 1 DP 791628**. Accordingly, the LST has recorded this matter on our register of compulsory acquisitions and proposed dealings as ref. **CAPD 1252**. It would be appreciated if this ref is used in the Subject line of future emails, and all responses emailed to

The LST have referenced this to Jali LALC with the intention of NSWALC to offer 'non-objection' consent to BSC for the proposed temporary laydown area.

Regards,



This message which includes any attachments is intended only for the addressee and may contain privileged or confidential information. If you are not the intended recipient you must not use, disclose, copy or distribute this communication. If you have received this message in error please delete the email and any attachments and notify the sender as soon as possible. There is no warranty that this email is error or virus free. If this is a private communication it does not represent the views of the NSW Aboriginal Land Council.

From:
Sent: Monday, February 12, 2024 11:25 AM
To:
Subject: Temporary laydown area

Hi

Would it be possible to advise if Ballina Shire Council requires a letter of consent in the form of a non-objection for a temporary laydown area on land containing an undetermined lodged over the land on 18/09/23.

Council plan to undertake rock revetment repair works for flood damaged sections of rock wall along the Richmond River. A temporary laydown area will be created within Lot 1 DP 791628 (Crown Land managed by TfNSW) at Boatharbour Road, West Ballina. Geotextile will be placed under all stockpile materials to ensure reinstatement of the land to its original state. The rock will be loaded onto a barge and floated up to the sites at intervals (10-20) over a three (3) week period. It is not anticipated that any vegetation will be removed.



Temporary stockpile and laydown area within Lot 1 DP 791628 (Crown Land managed by TfNSW) at Boatharbour Road, West Ballina (left) and view looking west towards the Richmond River (right).

As the works are temporary, does Council need consent from the aboriginal land claimants? Consent will be obtained from TfNSW as crown land manager.

Kind regards,



APPENDIX C

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



Ballina Shire Council
PO Box 450
ballina New South Wales 2478

Date: 27 September 2023

Attention:

Email:

Dear Sir or Madam:

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

	Aboriginal sites are recorded in or near the above location.
	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



Ballina Shire Council
PO Box 450
ballina New South Wales 2478

Date: 08 February 2024

Attention:

Email:

Dear Sir or Madam:

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

	Aboriginal sites are recorded in or near the above location.
	Aboriginal places have been declared in or near the above location. *

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Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

APPENDIX D

Specialist Reports



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 01-Nov-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	92
Listed Migratory Species:	78

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	109
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	5
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

[\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area	In feature area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area	In feature area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area	In feature area

Listed Threatened Species

[\[Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
null			
Mordacia praecox Non-parasitic Lamprey, Precocious Lamprey [81530]	Endangered	Species or species habitat likely to occur within area	In feature area
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In feature area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In buffer area only
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area	In feature area
FISH			
Epinephelus daemeli Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hippocampus whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat likely to occur within area	In feature area
Seriolella brama Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
FROG			
Litoria olongburensis Wallum Sedge Frog [1821]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area	In feature area
INSECT			
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area	In feature area
Phyllodes imperialis smithersi Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
Potorous tridactylus tridactylus Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In feature area
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area	In feature area
PLANT			
Acronychia littoralis Scented Acronychia [8582]	Endangered	Species or species habitat known to occur within area	In feature area
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Baloghia marmorata Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area	In feature area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area	In feature area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat known to occur within area	In feature area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area	In feature area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat may occur within area	In feature area
Davidsonia johnsonii Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum [67178]	Endangered	Species or species habitat may occur within area	In feature area
Diploglottis campbellii Small-leaved Tamarind [21484]	Endangered	Species or species habitat may occur within area	In feature area
Endiandra floydii Floyd's Walnut, Crystal Creek Walnut [52955]	Endangered	Species or species habitat likely to occur within area	In feature area
Endiandra hayesii Rusty Rose Walnut, Velvet Laurel [13866]	Vulnerable	Species or species habitat may occur within area	In feature area
Gossia fragrantissima Sweet Myrtle, Small-leaved Myrtle [78867]	Endangered	Species or species habitat known to occur within area	In feature area
Leichhardtia longiloba listed as Marsdenia longiloba Clear Milkvine [91911]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat may occur within area	In feature area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Ochrosia moorei Southern Ochrosia [11350]	Endangered	Species or species habitat may occur within area	In buffer area only
Owenia cepiodora Onionwood, Bog Onion, Onion Cedar [11344]	Vulnerable	Species or species habitat may occur within area	In feature area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat known to occur within area	In feature area
Rhodamnia maideniana Smooth Scrub Turpentine [20665]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Syzygium hodgkinsoniae Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat known to occur within area	In feature area
Syzygium moorei Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple [12284]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum woollsii listed as Tylophora woollsii [40080]	Endangered	Species or species habitat may occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding known to occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharias taurus (east coast population) Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

SNAIL

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thersites mitchellae Mitchell's Rainforest Snail [66774]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species [[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
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Migratory Marine Birds

Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
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Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
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Ardena carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
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Ardena grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area	In feature area
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Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In feature area
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Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In feature area
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Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
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Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In feature area
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Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In feature area
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Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In feature area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Marine Species			
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding known to occur within area	In feature area
Dugong dugon Dugong [28]		Species or species habitat may occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In feature area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
Calidris alba Sanderling [875]		Roosting known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area	In feature area
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area	In feature area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Roosting known to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In feature area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area	In feature area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area	In feature area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area	In feature area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In feature area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area	In feature area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands

[\[Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Communications, Information Technology and the Arts - Telstra Corporation Limited		

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Telstra Corporation Limited [11292]	NSW	In feature area

Defence - Defence Housing Authority	State	Buffer Status
Commonwealth Land - Director of War Service Homes [11294]	NSW	In buffer area only

Listed Marine Species	[Resource Information]		
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Scientific Name	Threatened Category	Presence Text	Buffer Status
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Bird	Threatened Category	Presence Text	Buffer Status
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Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
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Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
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Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
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Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
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Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat likely to occur within area	In feature area
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Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area	In feature area
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Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
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Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
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Calidris alba Sanderling [875]		Roosting known to occur within area	In feature area
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Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In feature area
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area overfly marine area	In feature area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In feature area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Roosting known to occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In feature area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In feature area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In feature area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting known to occur within area overfly marine area	In feature area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In feature area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area	In feature area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Species or species habitat may occur within area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In feature area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area	In feature area
Tringa incana as Heteroscelus incanus Wandering Tattler [831]		Roosting known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In feature area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area	In feature area
Fish			
Acentronura tentaculata Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area	In buffer area only
Campichthys tryoni Tryon's Pipefish [66193]		Species or species habitat may occur within area	In buffer area only
Corythoichthys amplexus Fijian Banded Pipefish, Brown-banded Pipefish [66199]		Species or species habitat may occur within area	In buffer area only
Corythoichthys ocellatus Orange-spotted Pipefish, Ocellated Pipefish [66203]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Festucalex cinctus Girdled Pipefish [66214]		Species or species habitat may occur within area	In buffer area only
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area	In buffer area only
Hippichthys cyanospilos Blue-speckled Pipefish, Blue-spotted Pipefish [66228]		Species or species habitat may occur within area	In buffer area only
Hippichthys heptagonus Madura Pipefish, Reticulated Freshwater Pipefish [66229]		Species or species habitat may occur within area	In buffer area only
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area	In buffer area only
Hippocampus kelloggi Kellogg's Seahorse, Great Seahorse [66723]		Species or species habitat may occur within area	In buffer area only
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area	In buffer area only
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In buffer area only
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In buffer area only
Hippocampus whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
Micrognathus andersonii Anderson's Pipefish, Shortnose Pipefish [66253]		Species or species habitat may occur within area	In buffer area only
Micrognathus brevis thorntail Pipefish, Thorn-tailed Pipefish [66254]		Species or species habitat may occur within area	In buffer area only
Microphis manadensis Manado Pipefish, Manado River Pipefish [66258]		Species or species habitat may occur within area	In buffer area only
Solegnathus dunckeri Duncker's Pipehorse [66271]		Species or species habitat may occur within area	In buffer area only
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area	In buffer area only
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In buffer area only
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only
Solenostomus paradoxus Ornate Ghostpipefish, Harlequin Ghost Pipefish, Ornate Ghost Pipefish [66184]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Mammal			
Dugong dugon Dugong [28]		Species or species habitat may occur within area	In feature area
Reptile			
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding known to occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area	In buffer area only

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Sousa sahalensis Australian Humpback Dolphin [87942]		Species or species habitat may occur within area	In feature area
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Protected Area Name	Reserve Type	State	Buffer Status
Richmond River	Nature Reserve	NSW	In feature area

Regional Forest Agreements [\[Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Referral decision	Reference	Referral Decision	Assessment Status	Buffer Status
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Dolphins			

Scientific Name	Behaviour	Presence	Buffer Status
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Known to occur	In feature area
Marine Turtles			
Caretta caretta Loggerhead Turtle [1763]	Internesting	Likely to occur	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Nesting	Known to occur	In feature area
Sharks			
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur	In buffer area only
Whales			
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact us](#) page.

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Department of Climate Change, Energy, the Environment and Water

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APPENDIX E

Cadastral Correction using NSW DCDB

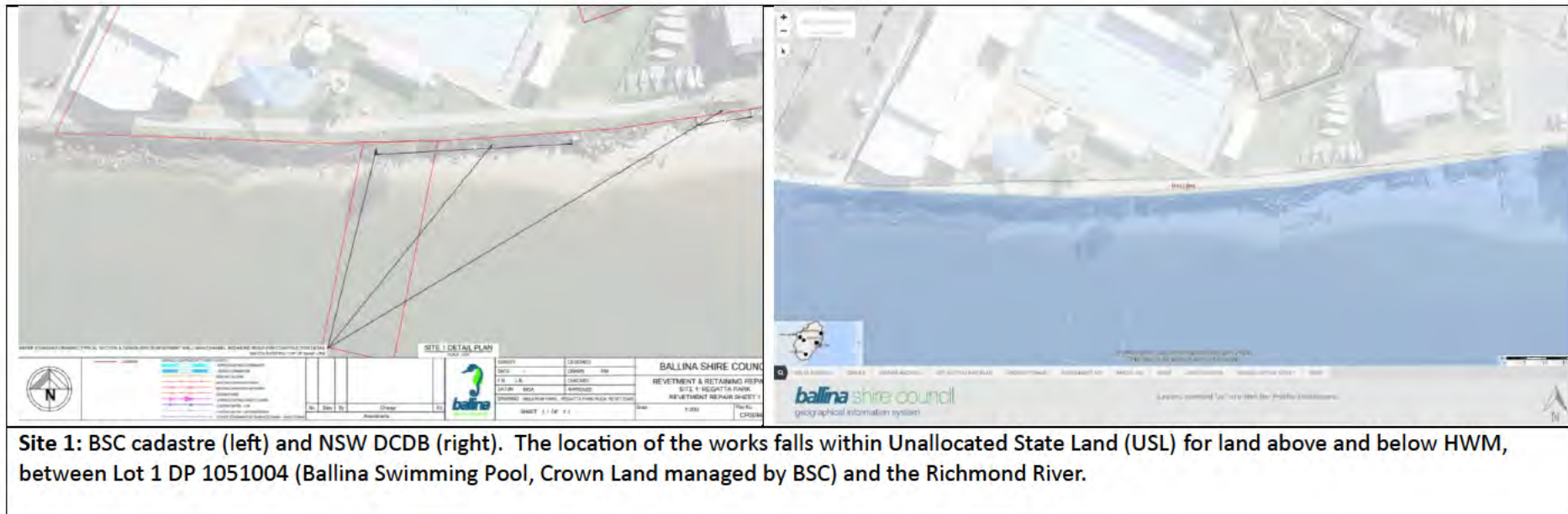
Rock Revetment Location with Cadastre Correction and Photos

Assumptions have been made based on the location of the works and the cadastre: using both CP0034 drawings and the New South Wales (NSW) Digital Cadastral Database (DCDB) cadastre.

The drawings CP0034 – Revetment & Retaining Repairs Various Sites, Ballina Island, Issue A January 2024 represents the works against Ballina Shire Council's latest cadastre and imagery provided on Intramaps.

Images have also been prepared using the NSW DCDB cadastre as this appears to better reflect the property boundaries against BSC latest imagery on Intramaps.

The NSW DCDB will be used to determine the location of the activity and associated tenure.





Photos: View of site 1 looking west along the Richmond River and adjacent to the Ballina Memorial Pool (left) and view looking east towards the Richmond River sailing and rowing club (right).

Laydown area

Temporary stockpile and laydown area within Lot 1 DP 791628 (Crown Land managed by Maritime TfNSW) at Boatharbour Road, West Ballina (left) and view looking west towards the Richmond River (right).



Aboriginal Land Claim

The temporary laydown area is subject to an undetermined Aboriginal Land Claim (ALC 55362) lodged over the land on 18/09/23.



		BALLINA SHIRE COUNCIL REVENUE & RETAINING REPAIRS SITE 2: COMMEMORATION PARK TO MELDRUM PARK VARIOUS REPAIRS SHEET 2	
SURVEY DESIGNED DATE - DRAWN FM F.B. L.B. CHECKED DATUM MGA APPROVED DRAWING MELDRUM PARK - REGATTA PARK ROCK REVET DWG		SHEET 2.1 OF 2.5 Scale 1:500 Plan No. CP0034 A1	

Site 2.1 (includes 3 locations): BSC cadastre (left) and NSW DCDB (right).
 The location of the works falls within:

- USL for land above and below HWM, between the end of Norton St and North Creek.
- Meldrum Park Lot 1 DP 758047, Crown Land managed by BSC; and USL for land above and below HWM, between Lot 1 DP 758047 and North Creek.
- USL for land above and below HWM, between Lot 1 DP 781534 and North Creek.



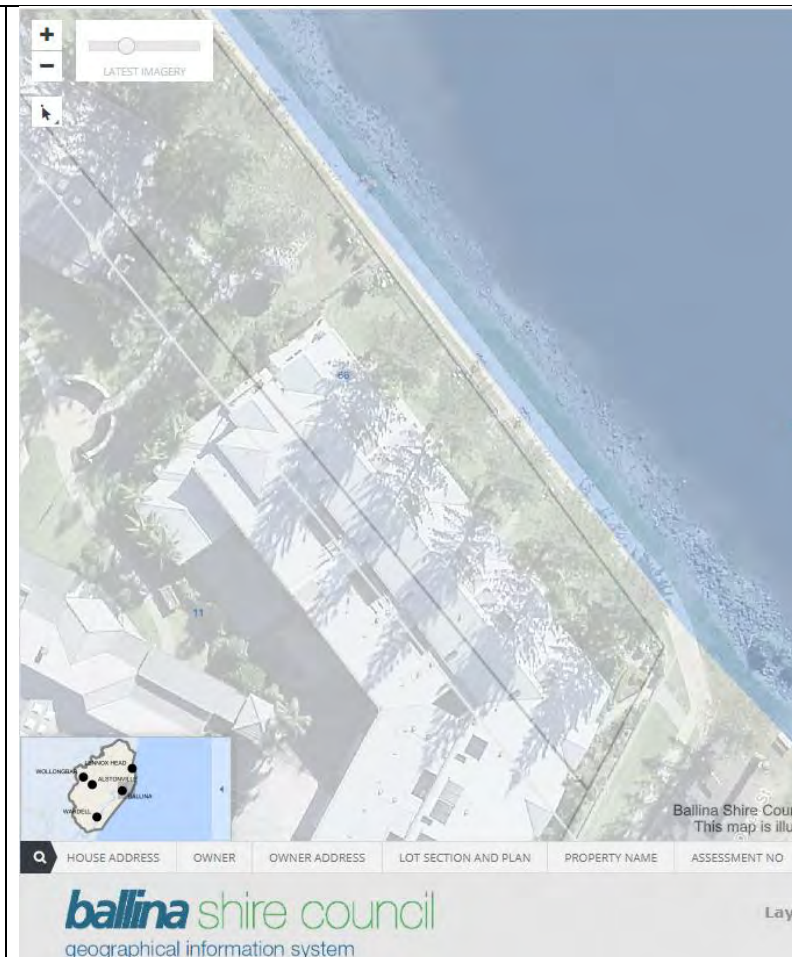
Site 2.1a located at the end of Norton Street, Ballina and within USL. View looking northwest (top left image), view from the end of Norton Street looking north east (top right image) and view towards Meldrum Park looking south east (bottom image).



Site 2.1b is located within Meldrum Park, Ballina and within USL. View looking northeast (top left and top right image), view looking east at access ramp (bottom left image), view looking north west (bottom right image).



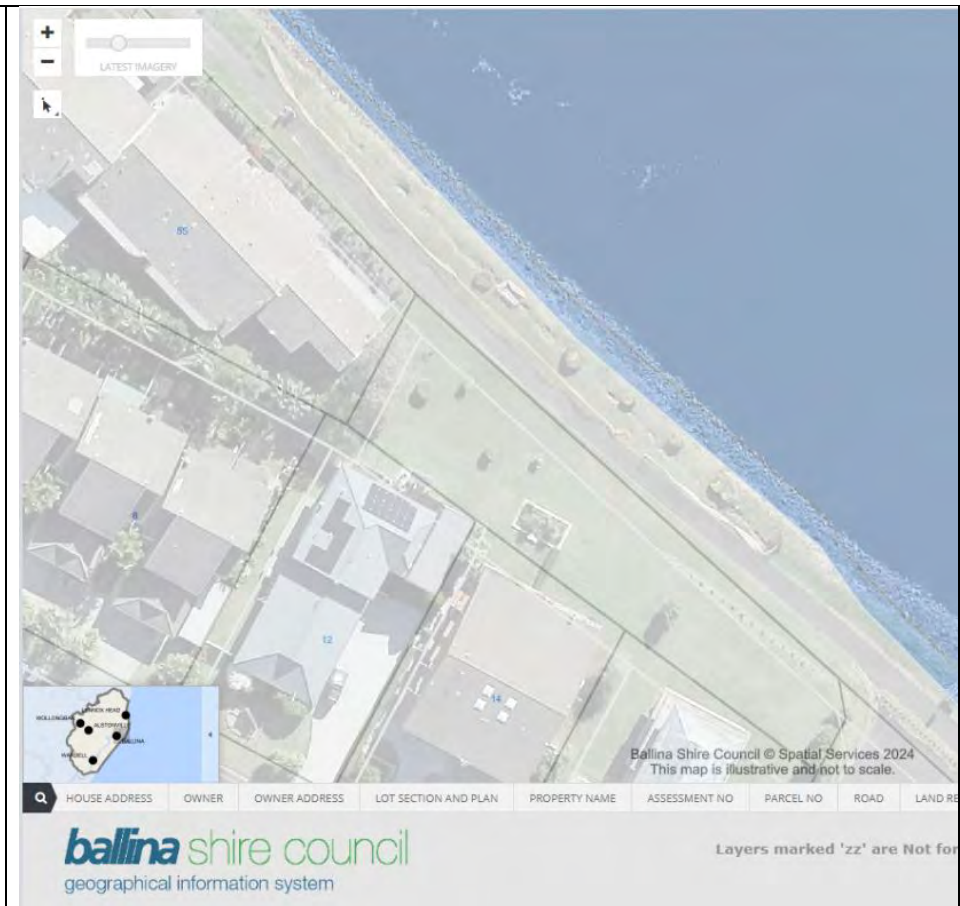
Site 2.1c: View looking northeast at Site 2.1c located within USL and adjacent to the Kerry Saxby Walkway.



Site 2.2: BSC cadastre (left) and NSW DCDB (right). The location of the works falls within USL for land above and below HWM, between Lot 1 DP 781534 and North Creek.



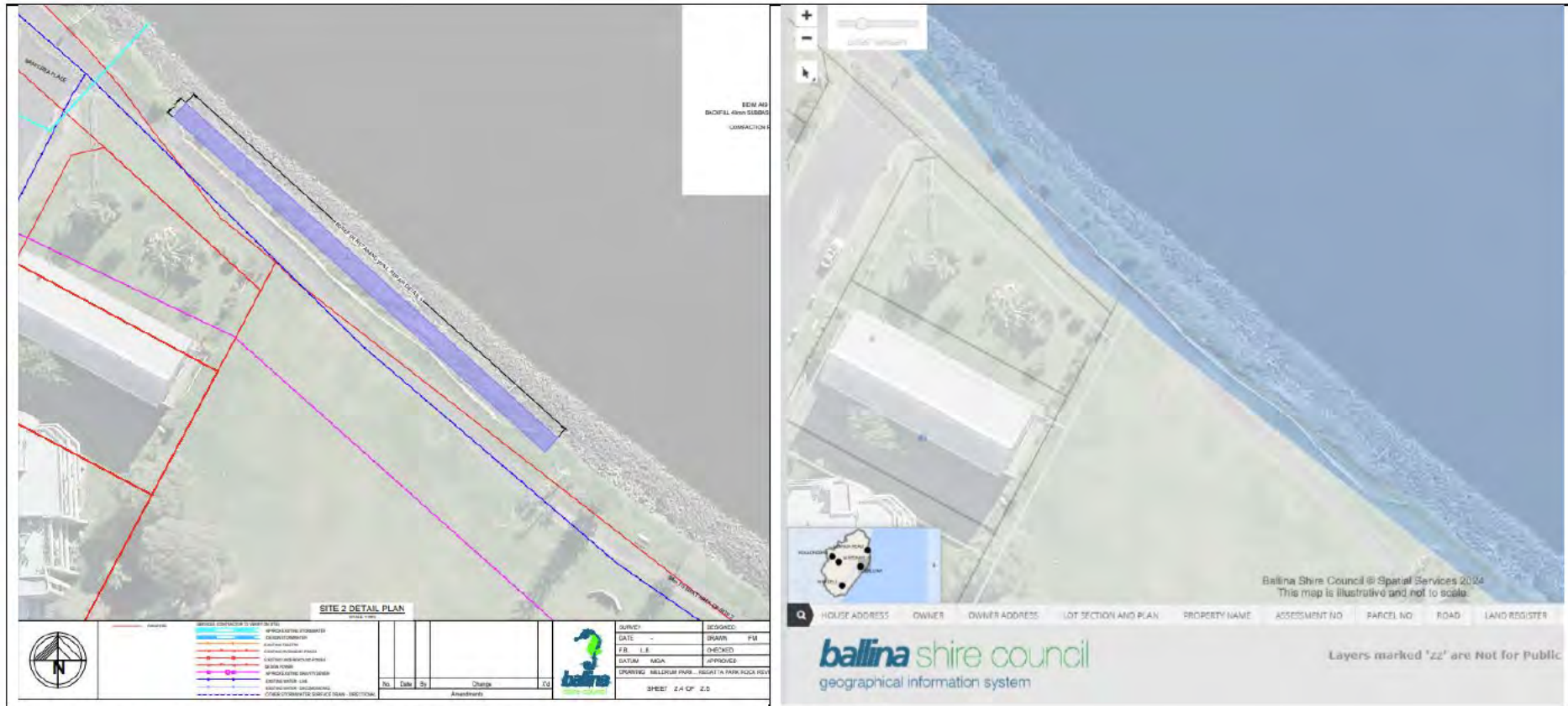
Site 2.2: View looking northeast at Site 2.2 located within USL and adjacent to the Kerry Saxby Walkway.



Site 2.3: BSC cadastre (left) and NSW DCDB (right). The location of the works falls within Lot 7036 DP 1068936, Crown Land managed by BSC.



Site 2.3 is located within Lot 7036 DP 1068936, Crown Land managed by BSC. View looing northeast (top left, top right, bottom left) and view looking north west (bottom right).

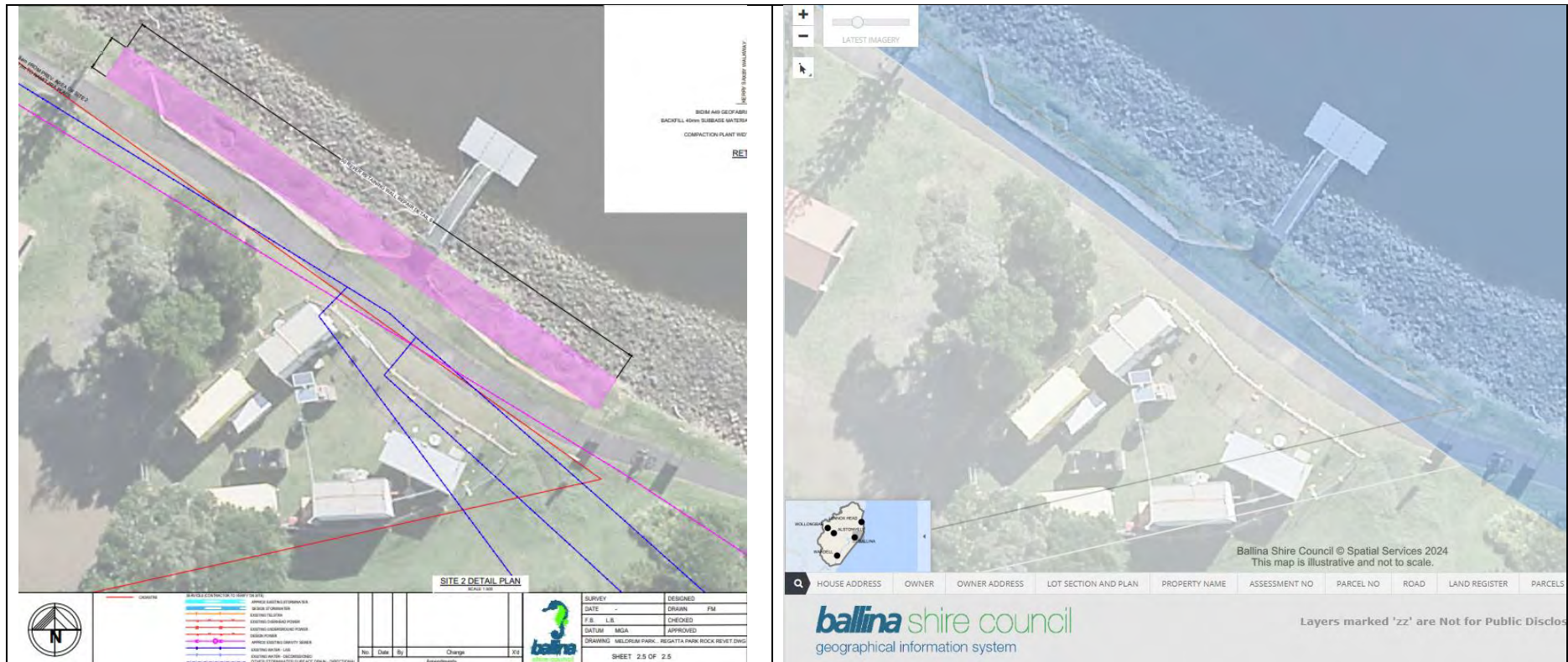


Site 2.4: BSC cadastre (left) and NSW DCDB (right). The location of the works falls within:

- Lot 7036 DP 1068936, Crown Land managed by BSC.
- USL for land above and below HWM, between Lot 7036 DP 1068936; Lot 7006 DP 1068885 (Commemoration Park), and North Creek.
- Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC.



Site 2.4: View looking northwest at Site 2.4 located within Lot 7036 DP 1068936, Crown Land managed by BSC; USL within North Creek for land above and below HWM; and, Commemoration Park Lot 7006 DP 1068885.



Site 2.5: BSC cadastre (left) and NSW DCDB (right). The location of the works falls within:

- USL for land above and below HWM, between Commemoration Park Lot 7006 DP 1068885, and North Creek.
- Commemoration Park Lot 7006 DP 1068885, Crown Land managed by BSC.



Site 2.5: View looking northwest at Site 2.5 located on USL and within Commemoration Park (left). Laydown area within Commemoration Park (right).

Aboriginal Heritage

No Aboriginal Objects or Places were identified within the project area. The works will occur within a previously disturbed area containing the existing rock revetment wall and footpath and is unlikely to contain physical aboriginal cultural heritage. No culturally modified trees occur near to the area.

The project area is adjacent to several places listed as being of local heritage significance. However, the project itself would appear unlikely to have any impact on the significance of these places.

In the event a heritage object is found during the works, work will stop, and the item will remain in place as found. The area around the item(s) will be protected, and then archaeological advice and an Aboriginal Heritage Impact Permit (AHIP) will be sought.

APPENDIX F

Fisheries Maintenance Permit PN23/97

OUR REF: PN23/97 (V2) (Maintenance Permit)

14 February 2024

The General Manager
Ballina Shire Council
PO Box 450
BALLINA NSW 2478
Via email:

Attention:

Dear

Re: Permit # PN23/97 (V2) (Maintenance Permit) for dredging and reclamation works and harm marine vegetation associated with minor, low impact maintenance works within the Ballina Shire Council LGA

I refer to your application dated 23 September 2022 and additional information provided on 1 February 2023 and 22 January 2024 for a permit under Part 7 of the *Fisheries Management Act 1994* (FM Act) for the purpose of undertaking maintenance works to existing infrastructure within the Ballina Shire Council LGA and discussions regarding the wording with respect to drainage works.

DPI Fisheries, a division within the Department of Primary Industries, assesses applications for dredging and reclamation works, harm marine vegetation and obstruction of fish passage in accordance with Part 7 of the *Fisheries Management Act 1994* (FM Act) and the *Policy and Guidelines for Fish Habitat Conservation and Management (2013 Update)* (DPI Fisheries P&G).

It is appreciated that Council is required to undertake minor, low risk but ongoing maintenance works that trigger Part 7 of the FM Act. The use of a 'Maintenance Permit' streamlines the approval process for these minor maintenance works providing administrative efficiencies for both Council and DPI Fisheries.

Please find enclosed a revised maintenance permit under Part 7 of the FM Act for dredging and reclamation works and harm marine vegetation associated with minor, low impact maintenance works within the Ballina Shire Council LGA.

DPI Fisheries has considered the test of significance provided by Council for the proposed works. The Department has determined that the proposed works are not likely to significantly affect threatened species, populations or ecological communities listed under Federal and State legislation (EPBC Act, BC Act, and FM Act) or their habitats, and consequently the proposed works do not require a referral to the Commonwealth or a licence to harm.

OTHER LEGISLATIVE REQUIREMENTS

The attached permit providing authorisation under the FM Act to undertake dredging and /or reclamation (s200) and harm marine vegetation (s205) does not provide authorisation under any other Act or planning instrument. It is Council's responsibility to ensure they possess all appropriate approvals and land owner consents before works occur. This may include, but is not restricted to, development consent under the *Environmental Planning & Assessment Act 1979*, land owners consent and/or a licences under the *Crown Land Management Act 2016*, and controlled activity approvals under the *Water Management Act 2000*.

PERMIT CONDITIONS

Please carefully read and note the conditions included in the permit. **If you agree that all the conditions are reasonable, appropriate and achievable, you must sign and date the attached *Acceptance of Conditions* form and return it via email to ahp.central@dpi.nsw.gov.au as soon as possible. If you believe that you cannot comply with all the permit conditions then you must not commence work. Instead, you should contact the Contact Officer listed on the first page of the permit so that your concerns can be considered.**

Please also note Administrative Condition 2 which requires the completion of the *Commence Works Notification Form* (located at the rear of this document) prior to each maintenance activity undertaken under this permit.

SPECIFIED ACTIVITIES

The extent of work is to be restricted to that specified within the attached schedule. If for any reason other works are required, or the works need to be extended to other areas, you must seek specific approval beforehand. DPI Fisheries will require justification for these variations and may charge additional assessment fees as outlined in the permit application.

Additional minor maintenance works that trigger the FM Act and occur in Key Fish Habitats can be added to the schedules attached to PN23/97 (V2) (Maintenance Permit) subject to the endorsement of the Senior Fisheries Manager, Coastal Systems (North Coast).

Please provide a photo (preferably a marked up aerial image showing the location and extent of works) and a short description of the works (including specific details such as length, width, depth of excavation; approximate volumes of material; and area/extent of harm to marine vegetation and species), the REF if required by the Transport and Infrastructure SEPP, or other relevant assessment documentation that has been prepared for the proposal to enable DPI Fisheries to assess whether the works can be attached to the relevant schedule of the Maintenance Permit. Significant maintenance works and new works will necessitate completion of a DPI Fisheries standard Part 7 permit application form and submission of the appropriate fee. This will enable appropriate environmental assessment of the proposal prior to, if appropriate, subsequent inclusion within the Maintenance Permit schedule.

To apply for additional maintenance works to be added to this permit, please provide the relevant details, as stipulated above, to ahp.central@dpi.nsw.gov.au. If DPI Fisheries consider the works appropriate for inclusion in the Maintenance Permit, Council will receive a cover letter that includes an update to the relevant schedule(s).

WORK UNDERTAKEN BY OTHERS

Please provide a copy of this permit to relevant staff within Council. If you intend to have the work undertaken by a contractor, please ensure that the contractor receives a full copy of the permit and understands the importance of abiding by the conditions. As the permit holder and proponent of the works, Council is responsible for ensuring that all conditions are fully adhered to. Breaching a condition of a permit can incur an on-the-spot fine of up to \$500 or up to \$11,000 through the local court pursuant to clause 225 of the *Fisheries Management (General) Regulation 2019*.

MINIMISING ENVIRONMENTAL IMPACTS

DPI Fisheries places particular importance upon the need to minimise harm to the natural environment both at the work site and within downstream/adjacent waters. We expect implementation of best management practice with respect to erosion and sediment control and marine and aquatic vegetation management. This includes:

- Work scheduling (e.g. installation of protective measures before earthworks commence, suspension of works during rain etc.);
- Deployment of protective measures (e.g. silt curtains, site drainage, separation of “clean” and “dirty” water, silt-stop fencing, check dams, sediment traps, etc.);
- Constant maintenance of protective measures (e.g. replacing torn silt-stop fencing, replacing silt-stop fencing which has fallen down or been knocked over, removing accumulated sediment etc.);
- Consideration of the publication Landcom (2004), *Managing Urban Stormwater: Soils and Construction* (4th Edition), commonly referred to as “The Blue Book”

(<http://www.environment.nsw.gov.au/resources/water/BlueBookVol1.pdf>) for guidance on erosion and sediment control;

- Removal of mangroves using hand held tools only;
- Mulching and depositing trimmed/removed mangrove trees or trimmed branches appropriately on land; and
- Minimising mangrove trimming conducted for public safety and access reasons to the minimum extent necessary.

Council may also find useful the Office of Environment and Heritage document titled *A Resource Guide for Local Councils: Erosion and Sediment Control* (<http://www.environment.nsw.gov.au/resources/stormwater/erosionsediment0642.pdf>). The purpose of this guide is to assist councils to develop, adopt and maintain a consistent and rigorous approach to erosion and sediment control across their areas of operations. DPI Fisheries highlight that the Infrastructure SEPP requires that exempt developments, complying developments and emergency works are carried out in accordance with all applicable requirements of The Blue Book.

If you have any queries, please contact me on 02 6626 1375 or jonathan.yantsch@dpi.nsw.gov.au.

Yours sincerely

Senior Fisheries Manager, Coastal Systems (North Coast)
Authorised delegate of the Minister for Primary Industries

Cc: Fisheries.compliance@dpi.nsw.gov.au

Permit under Part 7 of the

FISHERIES MANAGEMENT ACT 1994

Permit Number:	PN23/97 (V2) (Maintenance Permit)
Expiry Date:	Unless cancelled or suspended sooner, this permit shall remain in force until 31 October 2025.
Permit Holder:	Ballina Shire Council PO Box 450 BALLINA NSW 2478 Contact Officer: Phone: Email:
Permit Area and Activity:	Identified in Attachment 1: <i>Schedule of Harm Marine Vegetation Works covered by Permit PN23/97 (V2) (Maintenance Permit)</i> and Attachment 2: <i>Schedule of Dredging and Reclamation Works covered by PN23/97 (V2) (Maintenance Permit)</i>
Contact Officer:	Senior Fisheries Manager, Coastal Systems (North Coast) 1243 Bruxner Highway WOLLONGBAR NSW 2477 Ph: 02 6626 1375 Email:

This permit is subject to the following conditions:

ADMINISTRATIVE CONDITIONS

1. The attached **Acceptance of Conditions** form must be completed and returned to ahp.central@dpi.nsw.gov.au before any works authorised by this permit commence.
Reason - To remove any doubt that the Permit Holder understands and accepts the Conditions before work commences.
2. The attached **Works Notification** form must be completed and sent to ahp.central@dpi.nsw.gov.au and fisheries.compliance@dpi.nsw.gov.au at least one (1) day BEFORE the commencement of each works activity authorised by this permit.
Reason - To ensure that local DPI Fisheries staff are aware that works authorised by this permit are about to commence.

3. The permit holder must ensure that all works authorised by this permit are restricted to the permit area and are undertaken in a manner consistent with the descriptions listed in the attached Schedules. Other works which have not been described in the Schedules, excepting those activities required by this permit, are not to be undertaken.
Reason – This permit has been granted following an assessment of the potential impacts of the described works upon the aquatic and neighbouring environments. Other works, which were not described in the application have not been assessed and may have significant adverse impacts.
4. The holder of this permit is required to obtain and abide by any other relevant legislation or approval conditions associated with the works to be undertaken.
Reason - It is the proponent's responsibility to ensure compliance with all relevant legislation.
5. This permit (or a true copy), landowner's consent and other authorities associated with undertaking the works must be carried by the permit holder or sub-contractor operating on-site at all times during work activities being undertaken under this permit.
Reason – A DPI Fisheries Compliance Officer may wish to check compliance of works with imposed conditions.

SEDIMENT AND EROSION CONTROL

6. Erosion and sediment mitigation devices are to be erected in a manner consistent with currently accepted best management practice (i.e. Landcom [2004], *Managing Urban Stormwater: Soils and Construction* [4th Edition]) to prevent the entry of sediment into the waterway, or mobilisation of sediment within the waterway, prior to any earthworks being undertaken. These controls are to be maintained in good working order for the whole duration of the works and subsequently until the site has been stabilised and the risk of erosion and sediment movement from the site is minimal.
Reason – To ensure that sediment generated by the exposure of soil is not transported into the main water body.
7. At sites with potential for acid sulfate soils, excavated soil is to be managed in accordance with the *Managing Acid Sulfate Soil* (EPA, 1995), *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee 1998) and consistent with best management practice outlined in *Restoring The Balance: Guidelines for Managing Floodgates and Drainage Systems on Coastal Floodplains* available at: http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0007/167875/restoring-balance-guidelines.pdf.
Reason – Avoid oxidisation, and or appropriately treating potential acid sulfate soils to minimise impacts on aquatic ecosystems.

DEWATERING PLAN

8. Dewatering is to be undertaken consistent with accepted best management practice (i.e. Landcom [2004], *Managing Urban Stormwater: Soils and Construction* [4th Edition]). In addition, mitigation controls such as a sediment fence between the sump water release outlet and the waterway, and screening on the pump inlet to prevent the ingress of fish are to be employed.
Reason – Minimise turbidity impacts from the site on downstream waters and prevent harm to aquatic fauna.

WORK IN WATERS

9. Prior to use at the site, machinery is to be appropriately cleaned, degreased and serviced. Emergency Spill Kits appropriate for containing and cleaning up petroleum and solvent product spills within waterways are to be available on site at all times during works.
Reason – To reduce the threat of an unintended pollution incident impacting upon the aquatic environment.
10. A floating boom and attached silt curtain is to be used to isolate relevant work sites and to minimise the impacts of turbidity and mobilised sediment during construction. The floating boom and attached silt curtain are to be deployed consistent with currently accepted Best Management Practice (i.e. Landcom [2004], *Managing Urban Stormwater: Soils and Construction* [4th Edition]). The curtain is to be installed prior to commencement of any instream works and retained until after the completion of works that risk mobilising sediment. The curtain is to be maintained to ensure it operates effectively.
Reason – Minimise the impact of the works and maintain fish passage at the site.
11. Only clean rock is to be used in construction or maintenance works authorised by this permit.
Reason – To avoid fines, clay and other sediment un-necessarily entering the waterway and potentially impacting on aquatic habitats.
12. Geotextile fabric is to be used, where possible, to underlay the rock used for bank armouring works.
Reason – Consistent with best management practice and reduce the potential for the bank to continue to erode behind the rock armouring.
13. Rocks forming bank armouring are to be placed into position using a rock grab or excavator. Rocks forming the toe are to be keyed into the bed through a process of pushing from above as opposed to excavation of a trench.
Reason – To ensure rock armouring is constructed using Best Management Practice techniques.

TIMING OF WORKS FOR LOW FLOWS AND LOW TIDES

14. Works are to be undertaken during low flows in the relevant waterway and when Bureau of Metrological forecast for the Northern Rivers district forecast region (available at: www.bom.gov.au/nsw/forecasts/map.shtml) indicates several days of clear, dry weather.
Reason – Timing the works for appropriate conditions can reduce delays and minimise impacts on the aquatic environments.
15. Works in tidal areas should be undertaken during neap tides as this facilitates the most effective use of silt curtains, and during low tides in intertidal areas so that works can be undertaken outside of the water.
Reason – Timing the works for appropriate conditions can reduce delays and minimise impacts on the aquatic environments.

AVOIDING MOVING OR HARMING SNAGS, MARINE AND RIPARIAN AND AQUATIC VEGETATION

16. When working near marine vegetation¹ (seagrass, mangroves and saltmarsh) and aquatic vegetation² on water land³, these areas need to be identified and appropriately delineated as “No Go” areas (with the aim of avoiding harm to these areas). Harm⁴ to marine vegetation and removing, moving or harming aquatic vegetation on water land outside the work footprint approved under the authority of this permit is not permitted. Such removal, harm or movement caused to marine or aquatic vegetation is to be documented and reported to the contact officer who may direct that the removed, harmed or damaged vegetation on water land be restored.
Reason – To ensure that impacts on aquatic habitats and the riparian zone are minimised.
17. Material storage and stockpiling is not to be undertaken on water land, marine vegetation (saltmarsh, mangrove, and seagrass) or riparian and aquatic vegetation. Stockpiling must be undertaken in a manner that avoids harm to these types of vegetation or water land. Stockpiles should also be located away from adjacent water land. Stockpiles and/or dewatering areas should be appropriately controlled by sediment fencing or other materials in accordance with currently accepted as best management practice (i.e. Landcom [2004], *Managing Urban Stormwater: Soils and Construction* [4th Edition]) to ensure sediments do not enter the waterway.
Reason – To ensure that impacts on aquatic habitats and the riparian zone and threatened saltmarsh communities are minimised. “Degradation of native riparian vegetation along NSW water courses” is listed as a Key Threatening Process under the provisions of the FM Act.
18. Mangroves are to be removed by using hand held tools only. Where mangroves and other trees are required to be cut to ground level, the pneumatophores, root balls and other parts of the tree below ground level should not to be disturbed or be removed.
Reason – To ensure that impacts on aquatic habitats are minimised.
19. Mangrove trimming is to be minimised and conducted for the prescribed purposes and locations identified in the permit application and is to be undertaken to the minimum extent necessary to achieve the purpose.
Reason – To ensure that impacts on aquatic habitats and the riparian zone are minimised.

¹ “**Marine vegetation**” is defined in the *Fisheries Management Act 1994* as ‘any species of plant that at any time in its life must inhabit water (other than fresh water)’.

² “**Aquatic vegetation**” is a term used to describe native vegetation that inhabits freshwater but does not include noxious weeds within the meaning of the *Noxious Weeds Act 1993*

³ “**Water land**” means land submerged by water:

- a) whether permanently or intermittently, or
- b) whether forming an artificial or natural body of water,

and includes wetlands and any other land prescribed by the regulations.

Wetlands include marshes, mangroves, swamps, or other areas that form a shallow body of water when inundated intermittently or permanently with fresh, brackish or salt water, and where the inundation determines the type and productivity of the soils and the plant and animal communities.

⁴ “**harm**” in relation to marine vegetation, means gather, cut, pull up, destroy, poison, dig up, remove, injure, prevent light from reaching or otherwise harm the marine vegetation, or any part of it.

20. Removed mangroves and trimmed branches are to be taken away from areas of water land and marine vegetation is to be mulched and deposited appropriately on land.
Reason – To ensure that impacts on aquatic habitats and the riparian zone are minimised.
21. Mangrove trimming is to be undertaken consistent with arboriculture guidelines (Australian Standard AS4373) and involve pruning encroaching mangrove limbs back to a suitable junction.
Reason – To limit creating any ongoing impacts on mangrove trees.
22. No snags⁵ outside of the areas listed within the schedules of this permit are to be removed, realigned or relocated without first obtaining the authority of the Senior Fisheries Manager, Coastal Systems (North Coast).
Reason – “Removal of large woody debris from NSW rivers and streams” is listed as a Key Threatening Process under the provisions of the FM Act. This approval has been granted on the basis that snags are not to be removed.

NOTIFICATION AND CONSULTATION WITH KEY FISHERIES STAKEHOLDERS

23. Works located within 10 kilometres of an oyster aquaculture lease are to be designed, planned and undertaken in a manner that meets the intended outcomes of the *Healthy Estuaries for Healthy Oysters Guidelines* 2017 available on the DPI Fisheries website at:
https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/738972/Healthy-Estuaries-for-Healthy-Oysters-Guidelines.pdf.
Reason – To minimise the impacts on Priority Oyster Aquaculture Areas.
24. Oyster growers with leases within 2km of the work site (Priority Oyster Aquaculture Areas are identified in Attachment 3) are to be informed of any proposed dredging and reclamation works and works are to be timed to avoid impacting on oyster aquaculture activities such as, but not limited to, spat collection periods. The liaison for oyster growers in Ballina is Local Shellfish Program coordinator Mr Geoff Lawler (ph: 02 6686 3394; mob: 0412 919 032).
Reason – To minimise the impacts on Priority Oyster Aquaculture Areas.
25. For works and sites specified by DPI Fisheries, consultation is to be undertaken with Ballina Fishermen’s Cooperative. Where possible these works are to be timed to avoid impacting on licensed commercial fishing activities.
Reason – To minimise the impacts on licensed commercial fishing activities.

⁵ “**Snags**” is a term used to describe **large woody debris** from trees and shrubs, including whole fallen trees, broken branches and exposed roots that have fallen or washed into a waterway and are now wholly or partially submerged by water. Snags also includes submerged large rocks (of greater than 500 mm in two dimensions).

FISH KILL CONTINGENCY

26. A visual inspection of the waterway for dead or distressed fish (indicated by fish gasping at the water surface, fish crowding in pools or at the creek's banks) is to be undertaken twice daily during the works. **Observations of dead or distressed fish are to be immediately reported to the Contact Officer by the Permit Holder.** In such a case all works are to cease until the issue is rectified and approval is given to proceed. If requested, the Permit Holder is to commit resources to the satisfaction of the Contact Officer for an effective fish rescue, if in the view of that officer, a fish kill event is imminent and likely to occur within or adjacent to the works area due to conditions associated with weather, water quality and other parameters.
Reason - DPI Fisheries needs to be aware of fish kills so that it can assess the cause and mitigate further incidents in consultation with relevant authorities. They are also potentially contentious incidents from the public perspective. Work practices may need to be modified to reduce the impacts upon the aquatic environment.

IMPORTANT NOTE:

INCONSISTENCY BETWEEN DOCUMENTS

In the event of any inconsistency between the conditions of this approval and:

- the drawings / documents referred to above, the conditions of this approval prevail to the extent of the inconsistency;
- any Government publication referred in this permit, the most recent document, shall prevail to the extent of the inconsistency; and
- the proponent's mitigation measures outlined in the application, the conditions of this approval prevail to the extent of the inconsistency.

STOP WORK ORDERS

A Fisheries Officer or other appropriate delegate who has reasonable cause to suspect that the conditions of this permit have not been complied with, **may order the work to stop immediately.** The order may be given to the permit holder or any person who informs the officer that they are acting in any capacity on behalf of the permit holder. Any damage caused to the habitat outside the specified permit area, or the carrying out of works not in accordance with the conditions specified in this permit and/or the application and that were accepted by the permit holder, could result in a breach of the *Fisheries Management Act 1994* or *Regulations*, and penalties of up to \$220,000 may apply. Orders may also be made requiring work to rectify any damage caused by unauthorised works. Failure to abide by permit conditions may incur a \$500 on-the-spot fine per breach pursuant to clause 225 of the *Fisheries Management (General) Regulations 2019*.

Authorised:

Senior Fisheries Manager, Coastal Systems (North Coast)
Authorised delegate of the Minister for Primary Industries
14 February 2024

ATTACHMENT 1

SCHEDULE OF HARM MARINE VEGETATION WORKS COVERED BY PERMIT PN23/97 (V2) (Maintenance Permit)

Permit Area	Permit Activity	Detailed in application dated
Council owned and/or managed stormwater outlets - within the Ballina LGA; and - not within SEPP Coastal Wetlands or NPWS Reserves.	Removal of mangroves and pneumatophores and trimming of overhanging branches at the outlet of piped stormwater outlets within an area no greater than the width of the apron, or pipe width where there is no apron; by 5m in front of the apron, or pipe outlet where there is no apron, or into key fish habitat where the apron or pipe outlet is located landward of key fish habitat; and to a depth no deeper than the invert of the pipe and/or apron.	Refer to REF dated 20/09/2022
Council owned and/or managed flood gates and flood flaps - within the Ballina LGA; and - not within SEPP Coastal Wetlands or NPWS Reserves.	Removal of mangroves and pneumatophores and trimming of overhanging branches at the outlet of flood gates and flood flaps within an area no greater than the width of the apron, or gate/flap width where there is no apron, by 2m in front of the apron, or gate/flap where there is no apron, or into key fish habitat where the apron or pipe outlet is located landward of key fish habitat, and to a depth no deeper than the invert of the pipe and/or apron.	Refer to REF dated 20/09/2022
Council owned and/or managed bridges within the Ballina LGA.	Trimming of mangroves overhanging or within safe clearance distances, generally back to suitable trunk junctions and up to a maximum of 3m from the edge of the structure/pavement.	Refer to REF dated 20/09/2022
Existing council owned and/or managed pedestrian and bike paths within Ballina LGA (note: new or widened pathways must be assessed)	Pruning overhead mangrove limbs impeding safe and clear pedestrian/bike access along existing pathways back to suitable trunk junctions, generally providing a mangrove free envelope up to 3m (vertically) from the surface of the cycleway and a maximum of 0.5m either side of the deck or pavement with	Refer to REF dated 20/09/2022



Department of Primary Industries

Authorised:

14/02/2024

Permit Area	Permit Activity	Detailed in application dated
by DPI Fisheries before being added to this schedule).	side/total width clearances limited to the minimum extent necessary to maintain functionality of the path.	
Council owned and managed boat ramps within Ballina LGA.	Pruning overhanging mangrove limbs that impede safe and clear operation of boat ramps and removal of slime and algal growth by pressure cleaning.	Refer to REF dated 20/09/2022
Council owned and managed pontoons within Ballina LGA.	Pruning overhanging mangrove limbs that impede safe and clear operation and removal of slime and algal growth.	Refer to REF dated 20/09/2022
Shaws Bay (Attachment 4)	Removal of mangroves (<1m height) adjacent to the breakwall that separates the Bay from the Richmond River and mangroves growing in access areas identified in the Shaws Bay Coastal Zone Management Plan (note: this activity can only be undertaken within the during the currency period of the Shaws Bay Coastal Zone Management Plan).	10 Sept 2008 updated for 2016 new CZMP and 22 Aug 2018
Open drain nth side of Fripp Oval (75 metres)	Removal of mangroves	Refer to REF dated 20/09/2022
Ballina Sewerage Treatment Plant	Pruning mangrove limbs that are overhanging site buildings and removal of juvenile mangroves in contact with the north eastern side of the fitters shed.	22/1/2024 email to DPI Fisheries

ATTACHMENT 2

SCHEDULE OF DREDGING & RECLAMATION WORKS COVERED BY PERMIT PN23/97 (V2) (Maintenance Permit)

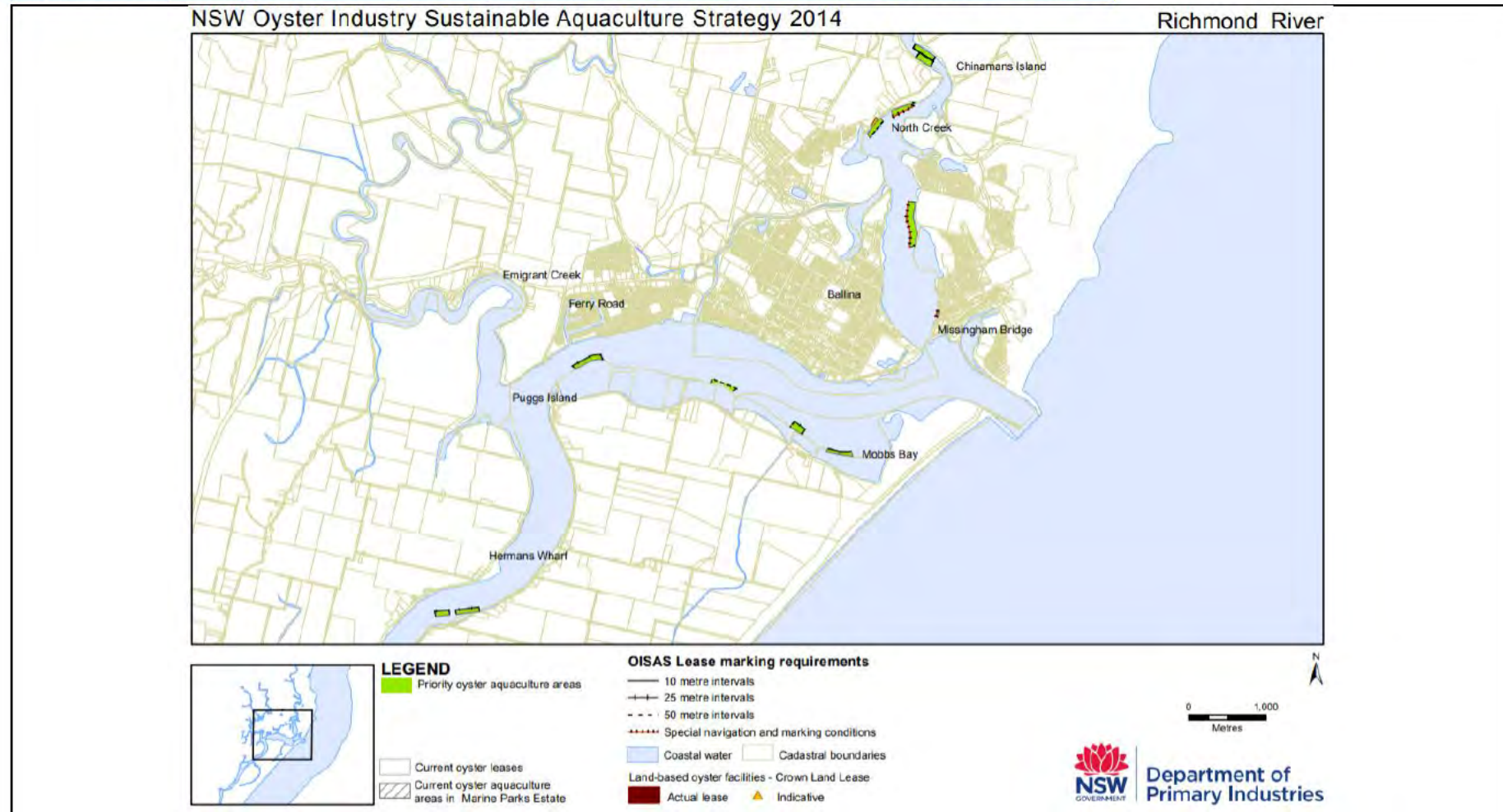
Permit Area	Permit Activity	Detailed in application dated
Council owned and/or managed stormwater outlets - within the Ballina LGA; and - not within SEPP Coastal Wetlands or NPWS Reserves.	Minor desilting works at the outlets within an area no greater than the width of the apron, or pipe width where there is no apron; by 5m in front of the apron, or pipe outlet where there is no apron, or into key fish habitat where the apron or pipe outlet is located landward of key fish habitat; and to a depth no deeper than the invert of the pipe and/or apron.	Refer to REF dated 20/09/2022
Council owned and/or managed flood gates and flood flaps - within the Ballina LGA; and - not within SEPP Coastal Wetlands or NPWS Reserves.	Minor desilting works in front of the flood gate or flood flap within an area no greater than the width of the apron, or gate/flap width where there is no apron; by 2m in front of the apron, or gate/flap where there is no apron, or into key fish habitat where the apron or pipe outlet is located landward of key fish habitat; and to a depth no deeper than the invert of the pipe and/or apron.	Refer to REF dated 20/09/2022
Council owned and/or managed bridges and culverts within the Ballina LGA	Realignment, and where that is not possible, cutting into segments and releasing downstream, and where that is not possible, removal of snags; and removal of instream debris (not including sediment) where bank works or instream works are not required to reach the snag and/or debris within 10 metres upstream, within/on top of, and up to 10m downstream of the structure.	Refer to REF dated 20/09/2022
Council owned and/or managed bed level crossings within the Ballina LGA	Material located on the driving surface in accordance with the following: - Appropriate disposal of all rubbish material; and - Relocation downstream or, where this is not possible, complete removal of all natural material.	Refer to REF dated 20/09/2022



Permit Area	Permit Activity	Detailed in application dated
Council owned and managed urban boat ramps within the Ballina LGA	<ul style="list-style-type: none">- Removal of sand, silt and algae from the ramp surface.- Removal of silt from the toe area of the ramp to prevent bogging.- Placement of rock material into minor scour holes at the toe and along the edges of the ramp to the minimum extent necessary to prevent undermining and erosion of the ramp.	Refer to REF dated 20/09/2022
Existing approved owned and/or managed rock revetment areas within the Ballina LGA	Maintenance repairs to foreshores and estuary embankments involving topping up of revetment rock consistent with best management practice.	Refer to REF dated 20/09/2022

ATTACHMENT 3: Priority Oyster Aquaculture Areas (source:

https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0008/638279/OISAS2014_Richmond-River.PDF)



ATTACHMENT 4: Modified excerpt from the Shaws Bay Coastal Zone Management Plan showing mangrove removal areas within Shaws Bay in yellow and as described within Attachment 1. The modification is the additional mangrove removal area outlined in white added on 21 November 2018.



ATTACHMENT 5: Key Fish Habitat definitions from DPI Fisheries Policy and Guidelines

Policy and guidelines for fish habitat conservation and management (2013 update)

**Table 1 – Key fish habitat and associated sensitivity classification scheme
(for assessing potential impacts of certain activities and developments on key fish habitat types)**

TYPE 1 - Highly sensitive key fish habitat:

- *Posidonia australis* (strapweed)
- *Zostera*, *Heterozostera*, *Halophila* and *Ruppia* species of seagrass beds >5m² in area
- Coastal saltmarsh >5m² in area
- Coral communities
- Coastal lakes and lagoons that have a natural opening and closing regime (i.e. are not permanently open or artificially opened or are subject to one off unauthorised openings)
- Marine park, an aquatic reserve or intertidal protected area
- SEPP 14 coastal wetlands, wetlands recognised under international agreements (e.g. Ramsar, JAMBA, CAMBA, ROKAMBA wetlands), wetlands listed in the Directory of Important Wetlands of Australia²
- Freshwater habitats that contain in-stream gravel beds, rocks greater than 500 mm in two dimensions, snags greater than 300 mm in diameter or 3 metres in length, or native aquatic plants
- Any known or expected protected or threatened species habitat or area of declared 'critical habitat' under the FM Act
- Mound springs

TYPE 2 – Moderately sensitive key fish habitat:

- *Zostera*, *Heterozostera*, *Halophila* and *Ruppia* species of seagrass beds <5m² in area
- Mangroves
- Coastal saltmarsh <5m² in area
- Marine macroalgae such as *Ecklonia* and *Sargassum* species
- Estuarine and marine rocky reefs
- Coastal lakes and lagoons that are permanently open or subject to artificial opening via agreed management arrangements (e.g. managed in line with an entrance management plan)
- Aquatic habitat within 100 m of a marine park, an aquatic reserve or intertidal protected area
- Stable intertidal sand/mud flats, coastal and estuarine sandy beaches with large populations of in-fauna
- Freshwater habitats and brackish wetlands, lakes and lagoons other than those defined in TYPE 1
- Weir pools and dams up to full supply level where the weir or dam is across a natural waterway

TYPE 3 – Minimally sensitive key fish habitat may include:

- Unstable or unvegetated sand or mud substrate, coastal and estuarine sandy beaches with minimal or no in-fauna
- Coastal and freshwater habitats not included in TYPES 1 or 2
- Ephemeral aquatic habitat not supporting native aquatic or wetland vegetation

Notes: For the purposes of these policy and guidelines the following are **not considered key fish habitat**⁵:

- First and second order streams on gaining streams (based on the Strahler method of stream ordering)
- Farm dams on first and second order streams or unmapped gullies
- Agricultural and urban drains
- Urban or other artificial ponds (e.g. evaporation basins, aquaculture ponds)
- Sections of stream that have been concrete-lined or piped (not including a waterway crossing)
- Canal estates

Example A: NSW DPI will generally not permit harm to *Posidonia australis* (TYPE 1 - highly sensitive fish habitat) because it is a key fish habitat that research has demonstrated rarely regenerates, or regenerates extremely slowly, after being damaged (see section 3.2.3).

Example B: NSW DPI is unlikely to approve dredging or reclamation without strict conditions in a TYPE 1 or 2 habitat that supports gravel beds, snags and other fish spawning areas (see Chapters 4 and 5 and sections 6.1 and 6.3).

⁵ Note that if any of these habitats are found to be habitat of a listed threatened species, population or ecological community or 'critical habitat', then they would be considered 'key fish habitat' for the purposes of Tables 1 and 2 and these policies and guidelines.

² Ramsar wetlands and Directory of Important Wetlands of Australia can be sourced at www.environment.gov.au/water/topics/wetlands/index.html



**Acceptance of Conditions specified in
Permit No. PN23/97 (V2) (Maintenance Permit) issued
under Part 7 of the *Fisheries Management Act 1994***

PLEASE COPY THIS PAGE AND RETURN TO DPI FISHERIES

In reference to Permit No. PN23/97 (V2) (Maintenance Permit) Ballina Shire Council
Maintenance Permit for dredging and reclamation works and harm marine vegetation
associated with minor, low impact maintenance works within the Ballina Shire Council
LGA:

I the undersigned, acknowledge that I have read and understood and agree to comply with
the conditions specified. I understand that penalties can be imposed for non-compliance
with conditions.

Permit Holder's name:

Permit Holder's signature:

Date:

Please COPY AND SIGN this page and email to:

ahp.central@dpi.nsw.gov.au



Permit under Part 7 of the Fisheries Management Act 1994

PLEASE COPY THIS PAGE AND RETURN TO DPI FISHERIES

In reference to Permit No. PN23/97 (V2) (Maintenance Permit) Ballina Shire Council Maintenance Permit for dredging and reclamation works and harm marine vegetation associated with minor, low impact maintenance works within the Ballina Shire Council LGA:

Commence Works Notification Form

(Note: to be completed and returned 1 day before commencement of works for each activity undertaken under this permit)

Permit Holder's Name: _____

Site Location: _____

Works _____

Commencement Date: _____

Comments:

Project Manager: _____ Date: _____

Please COPY AND SIGN this page and email to:

ahp.central@dpi.nsw.gov.au
fisheries.compliance@dpi.nsw.gov.au

APPENDIX G

Reference Documents

The National Acid Sulfate Soil Guidance: National acid sulfate soils identification and laboratory methods manual, June 2018

<https://www.waterquality.gov.au/sites/default/files/documents/identification-laboratory-methods.pdf>.

Erosion and Sediment Control info and Blue Book

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

rms.nsw.gov.au/documents/about/environment/code-practice-minor-work-nsw-waterways.pdf

Office of Water – Controlled Activities on Waterfront Land

industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities

Legislation website

legislation.nsw.gov.au

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

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